

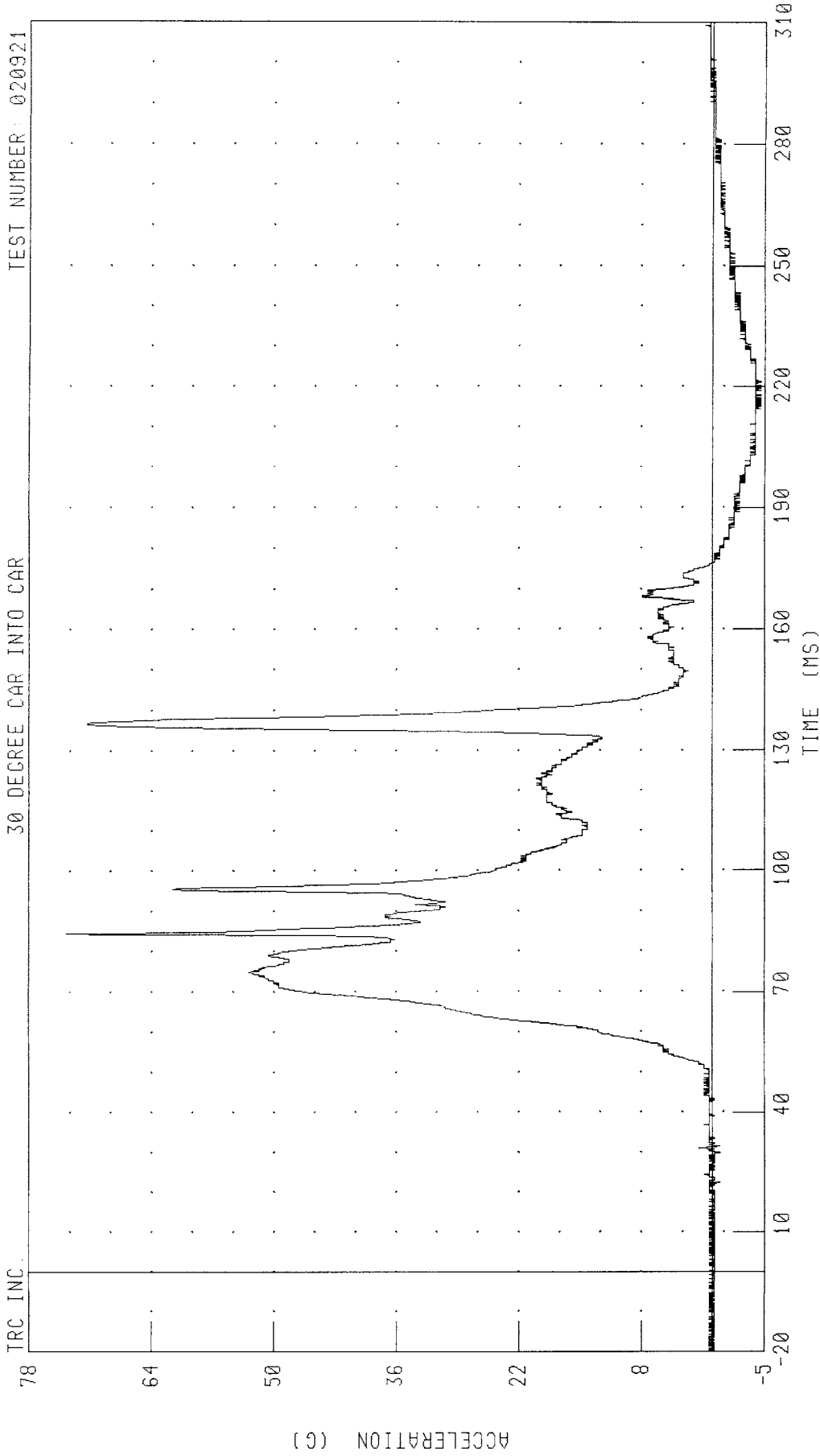
Appendix B

Data Plots

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD X-AXIS ACCELERATION

TRC INC.

TEST NUMBER: 020921



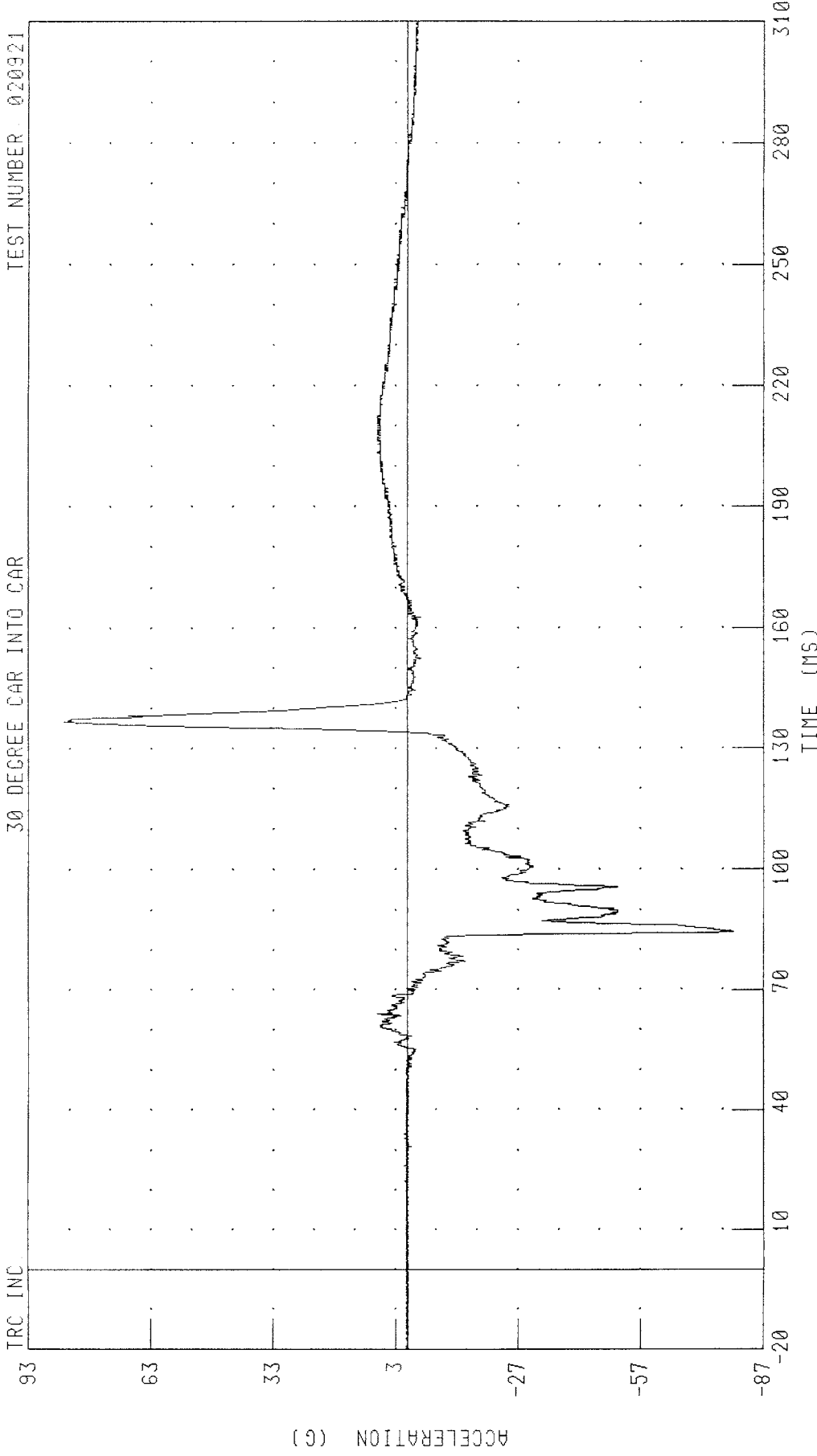
CHANNEL: HEDXG1 FILTER: CH. CLASS 1000

PEAK DATA: 73.82 G @ 84.56 MS; -5.39 G @ 214.40 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER HEAD Y-AXIS ACCELERATION

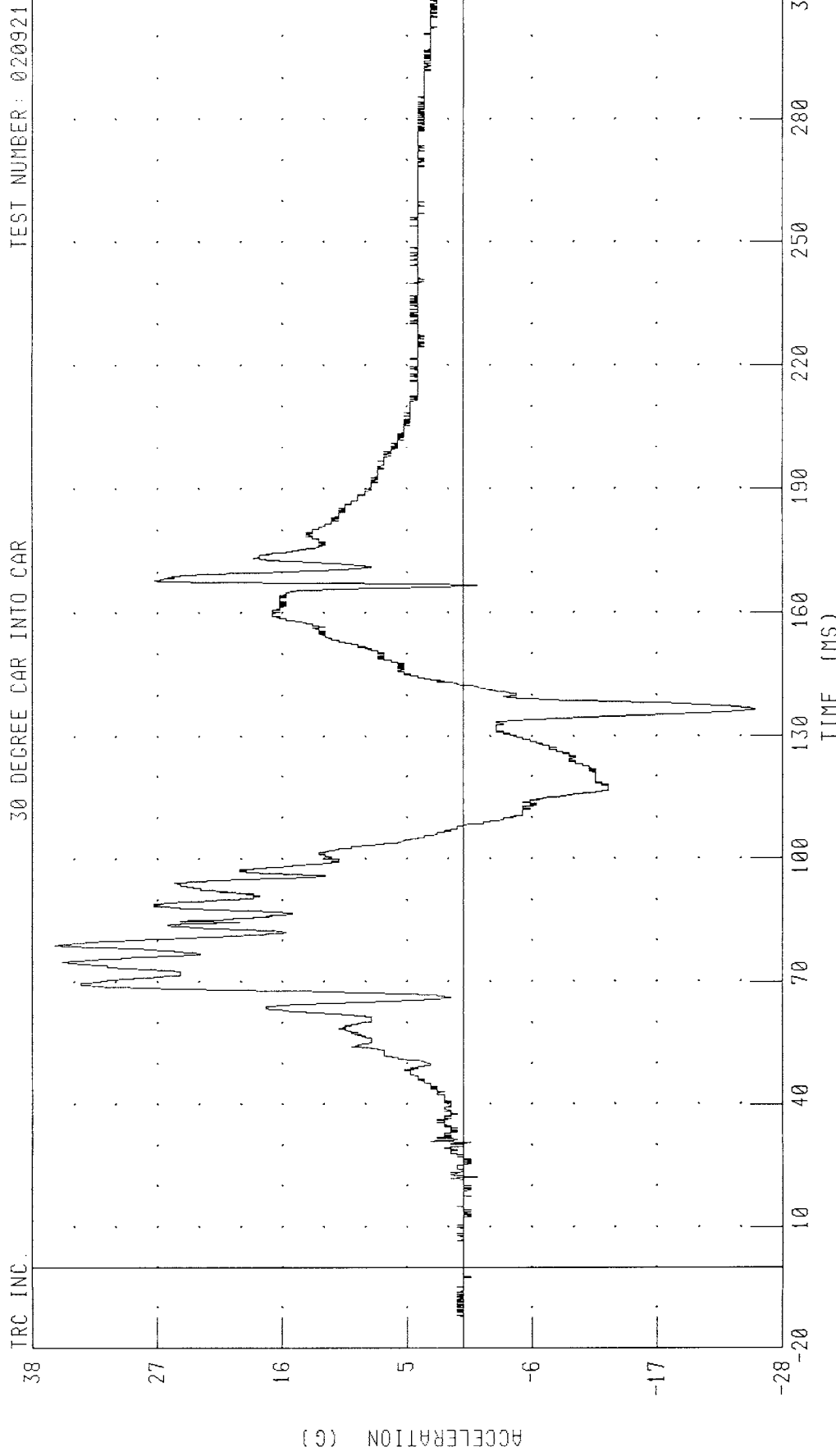
TRC INC 30 DEGREE CAR INTO CAR TEST NUMBER 020921



CHANNEL: HEDYG1 FILTER: CH. CLASS 1000

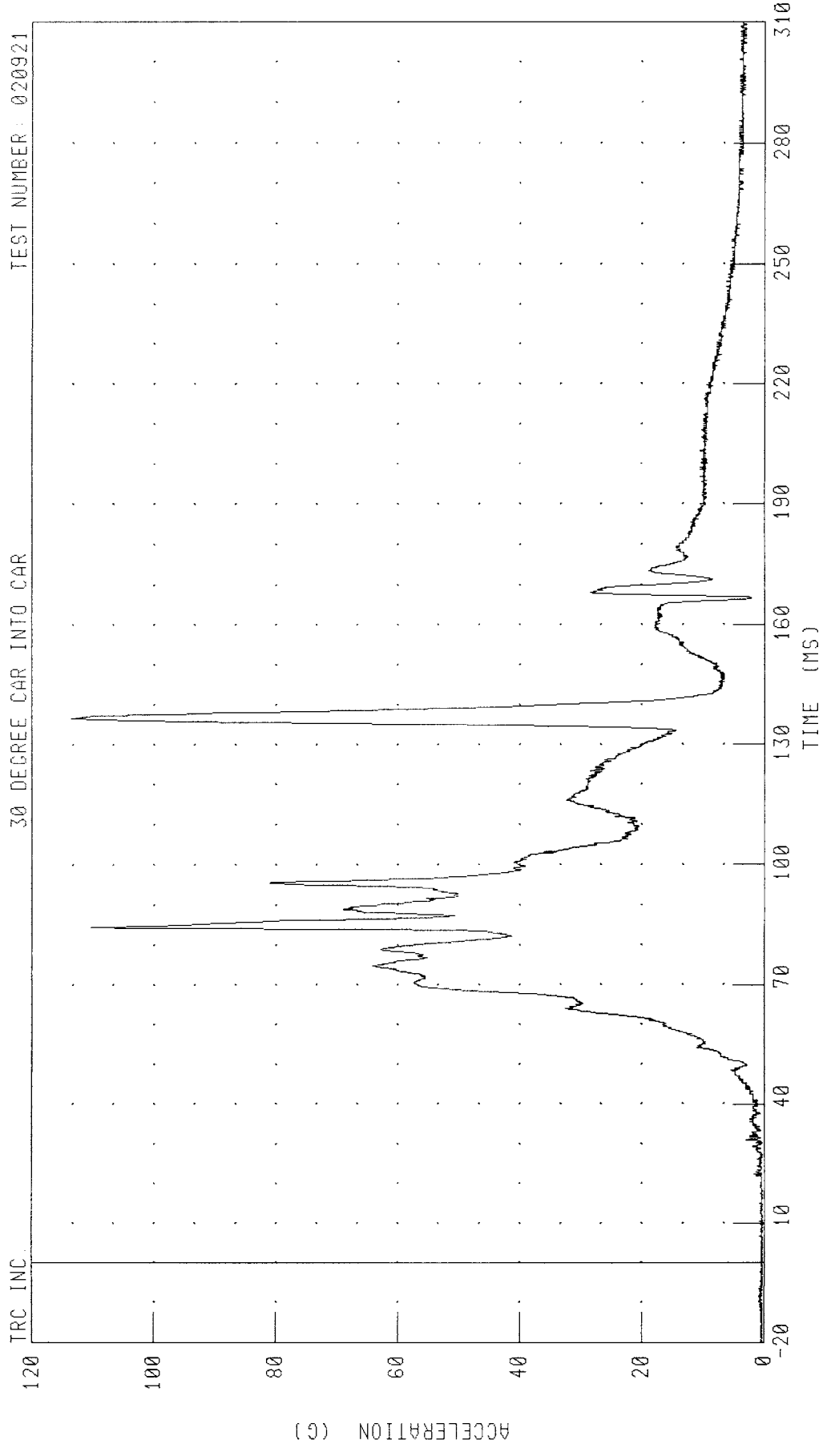
PEAK DATA: 84.41 G @ 136.72 MS; -79.58 G @ 84.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



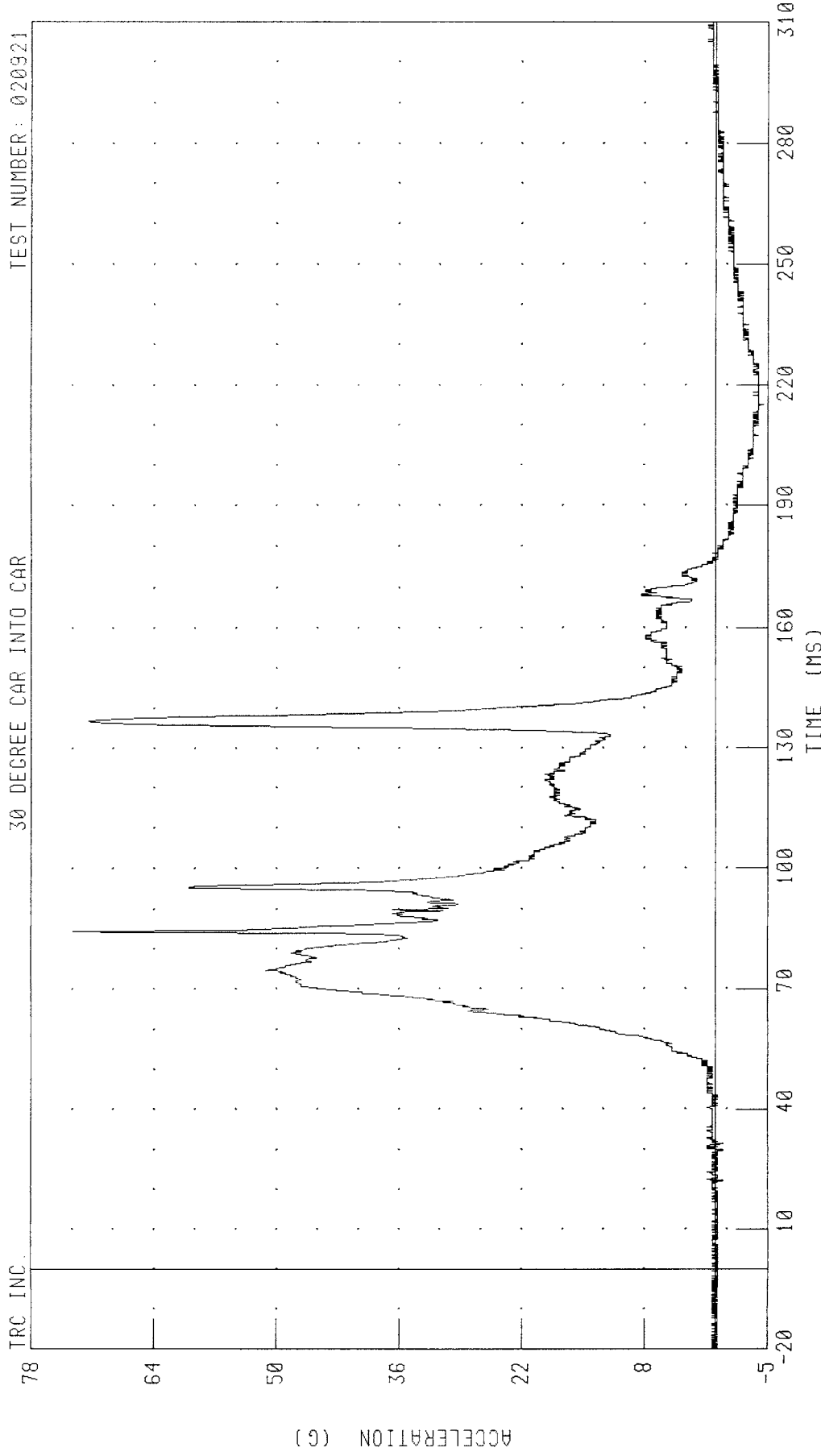
CHANNEL: HEDZG1 FILTER: CH. CLASS 1000 PEAK DATA: 36.02 G @ 78.12 MS; -25.56 G @ 136.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: HEDRG1 FILTER: CH. CLASS 1000 PEAK DATA: 113.54 G @ 136.72 MS; 0.28 G @ -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD X-AXIS ACCELERATION REDUNDANT



ACCELERATION (G)

78
64
50
36
22
8
-5

TIME (MS)

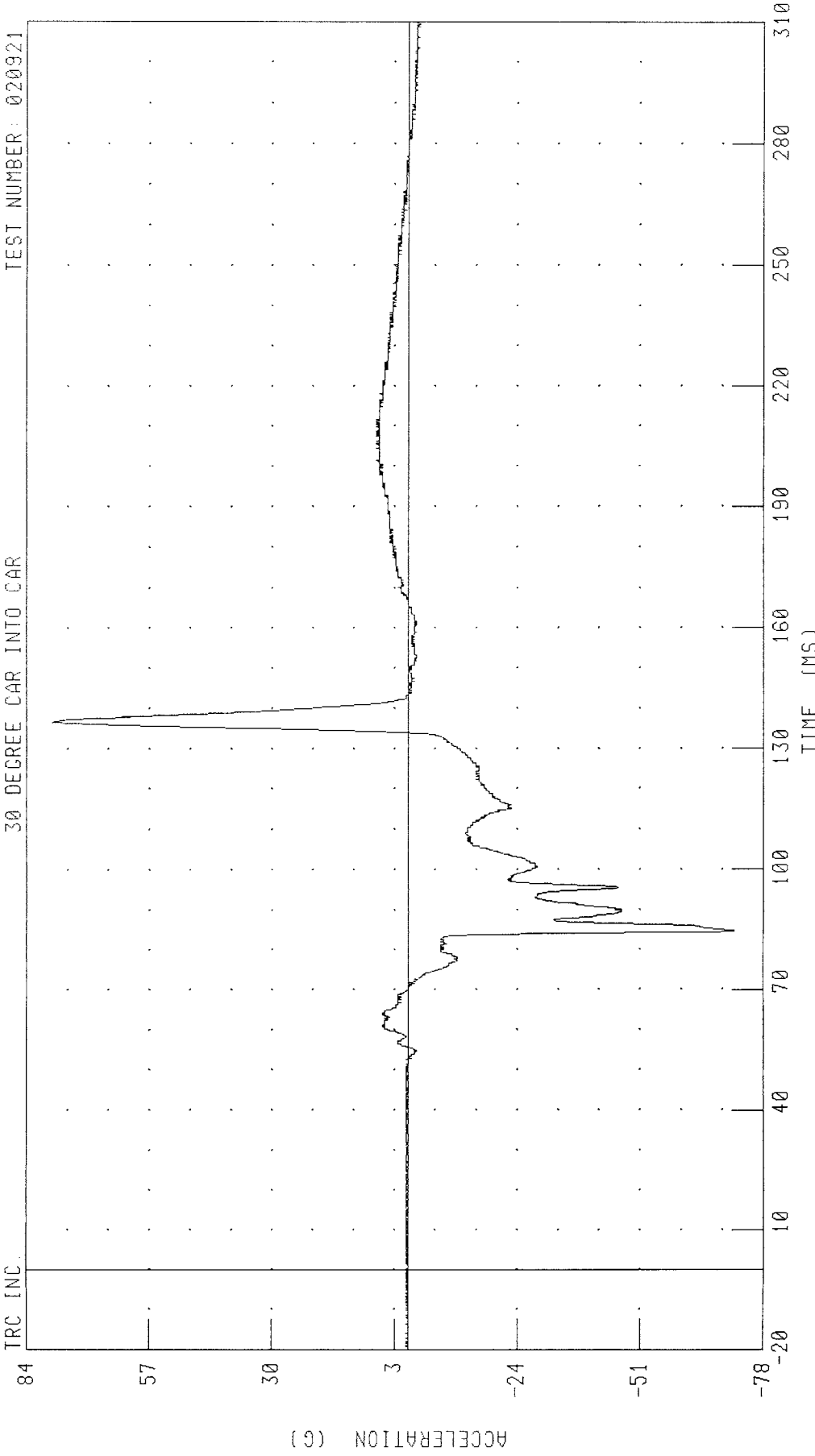
310
280
250
220
190
160
130
100
70
40
10

CHANNEL: HEDXR1 FILTER: CH. CLASS 1000

PEAK DATA: 73.40 G @ 84.56 MS; -5.43 G @ 215.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD Y-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



CHANNEL: HEDYR1 FILTER: CH. CLASS 1000 PEAK DATA: 78.42 G @ 136.72 MS, -71.66 G @ 84.56 MS

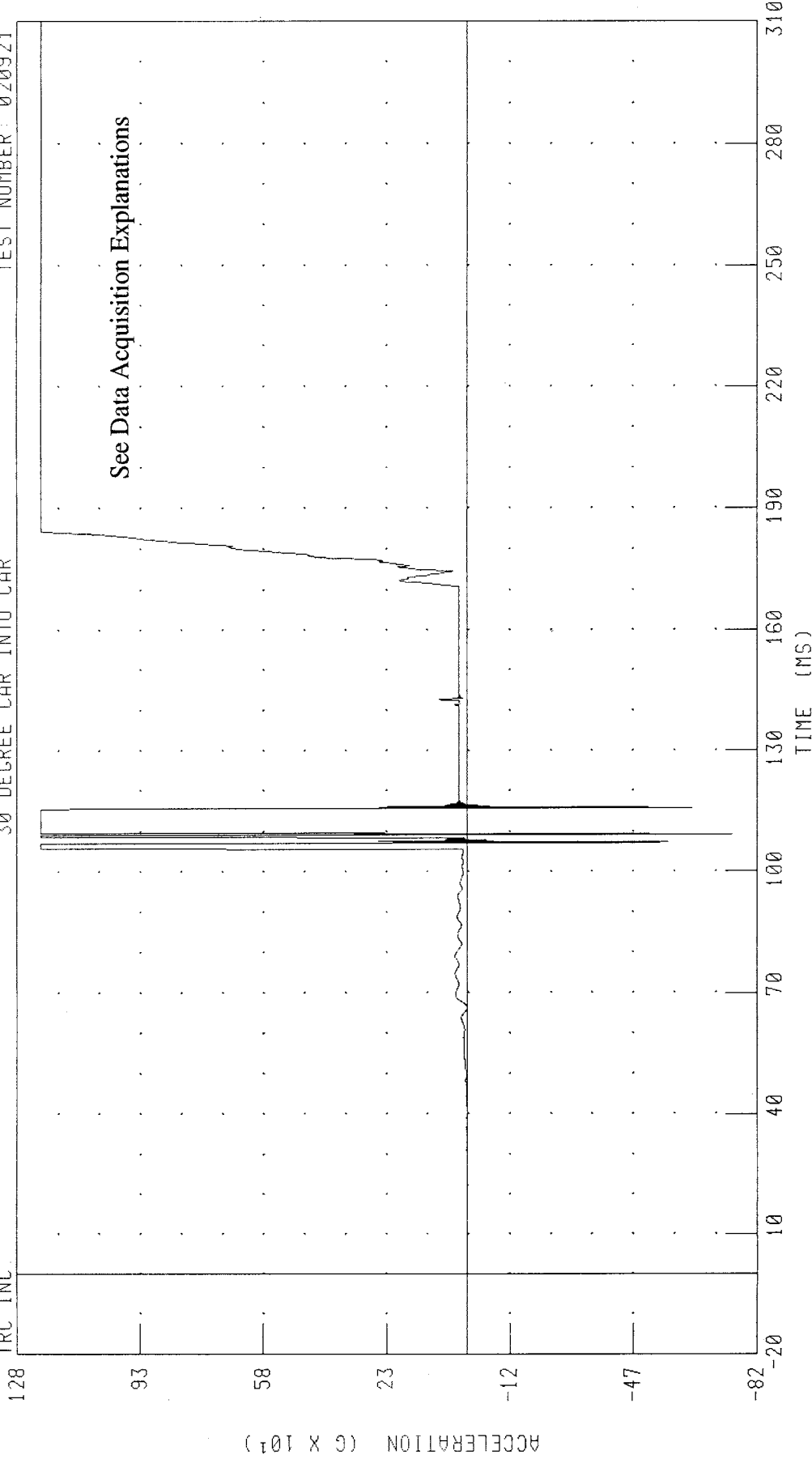
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER HEAD Z-AXIS ACCELERATION REDUNDANT

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

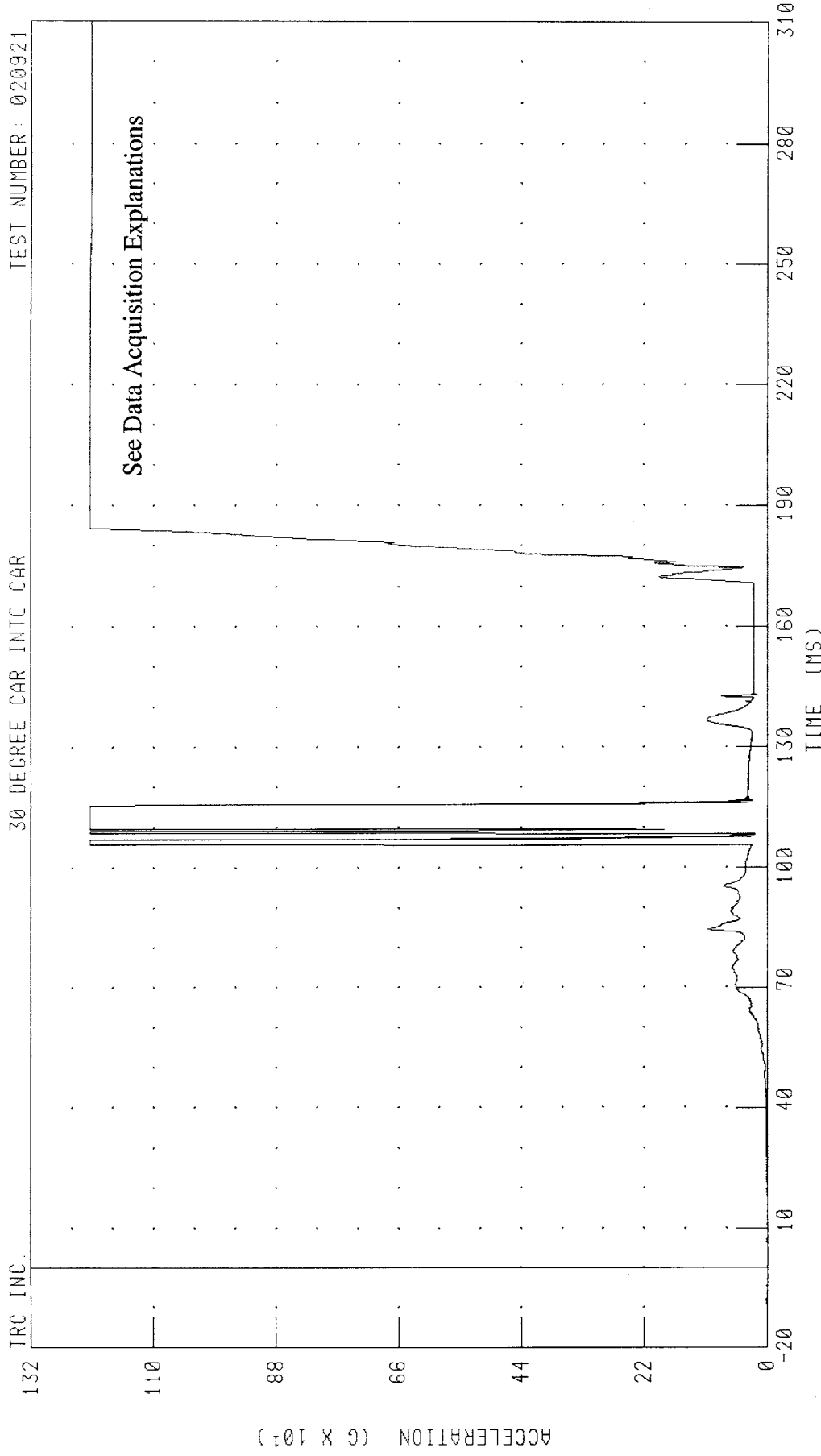
TRC INC.



CHANNEL: HEDZR1 FILTER: CH. CLASS 1000

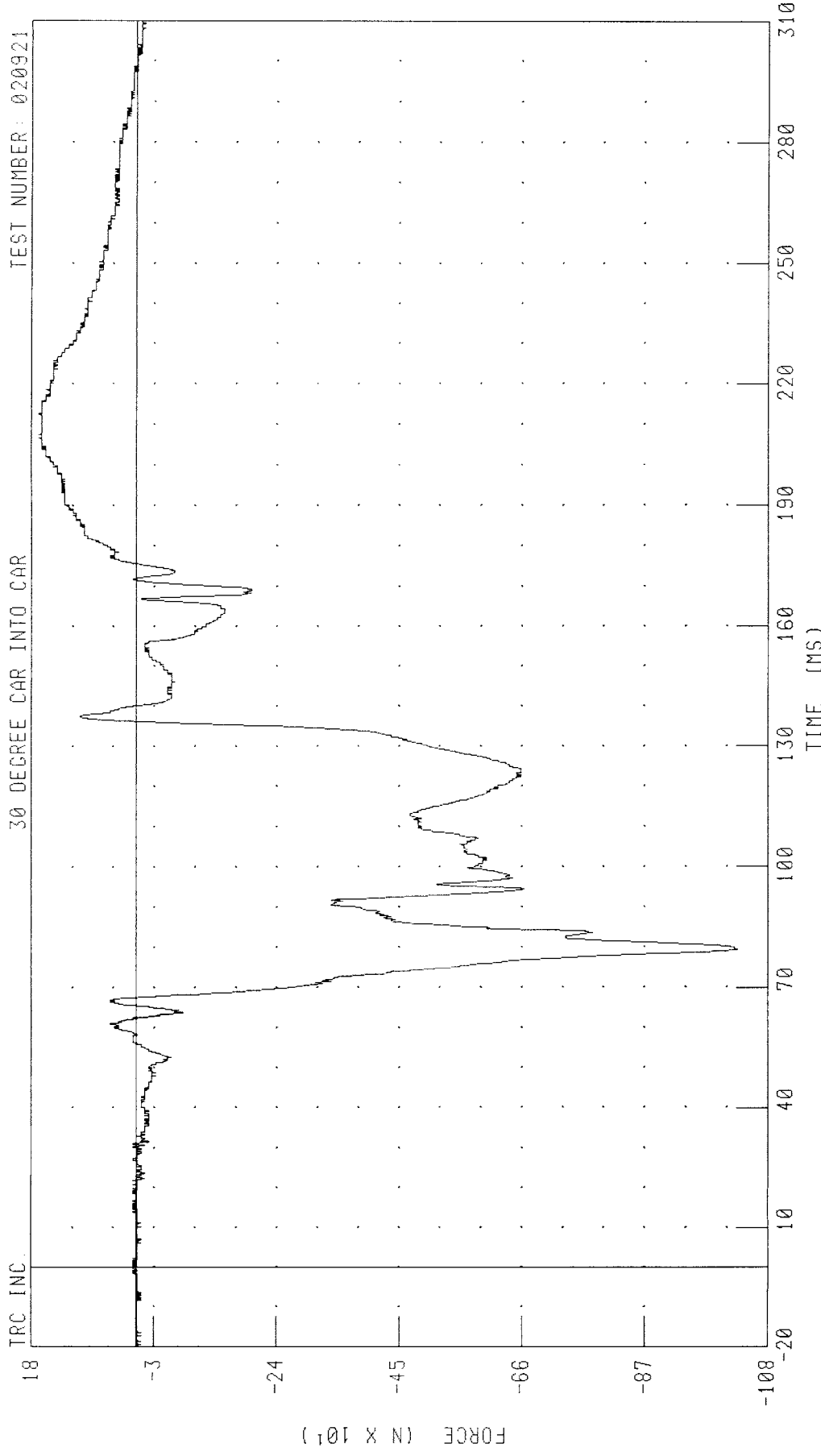
PEAK DATA: 1213.31 G @ 310.00 MS; -748.53 G @ 109.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER HEAD RESULTANT ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921



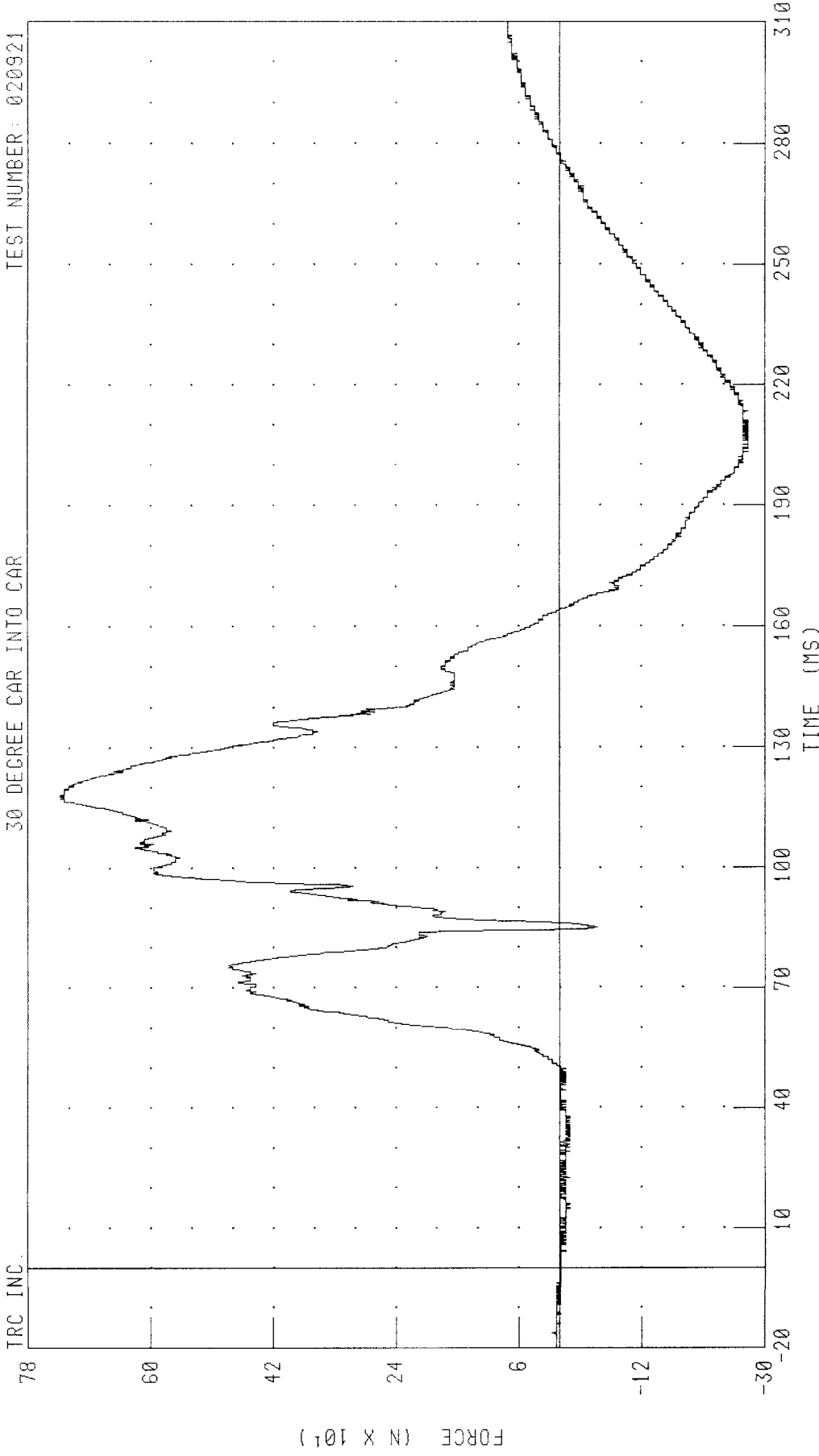
CHANNEL: HEDRR1 FILTER: CH. CLASS 1000 PEAK DATA: 1213.63 G @ 115.28 MS; 0.27 G @ -19.76 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK X-AXIS SHEAR FORCE
30 DEGREE CAR INTO CAR



CHANNEL: NEKXF1 FILTER: CH. CLASS 1000
PEAK DATA: 168.53 N @ 206.72 MS, -1029.02 N @ 79.36 MS

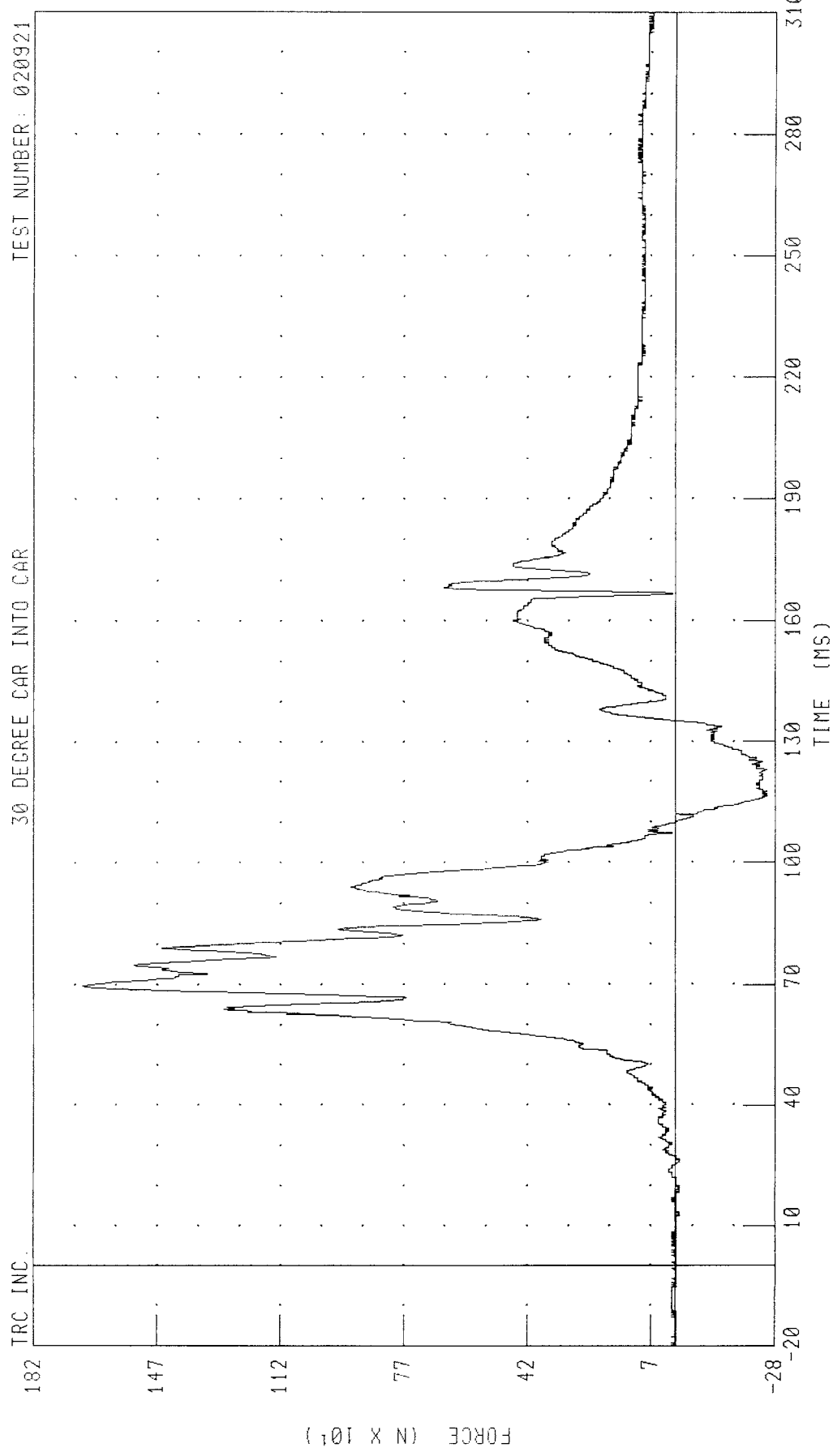
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK Y-AXIS SHEAR FORCE



CHANNEL: NEKYF1 FILTER: CH. CLASS 1000 PEAK DATA: 733.38 N @ 117.44 MS; -275.45 N @ 203.20 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK Z-AXIS AXIAL FORCE
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: NEKZF1 FILTER: CH. CLASS 1000 PEAK DATA: 1682.53 N @ 69.76 MS; -255.44 N @ 116.24 MS

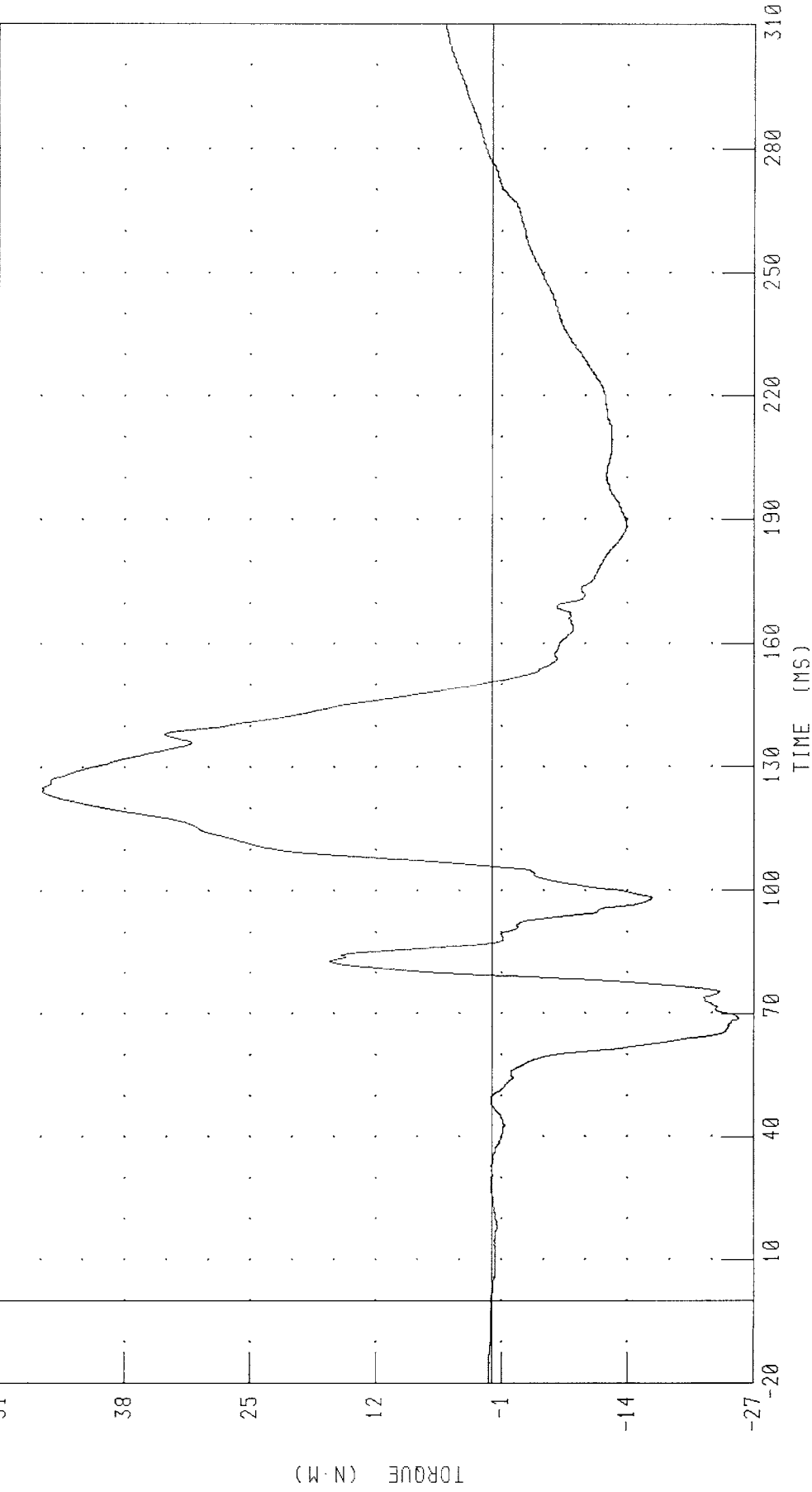
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER NECK MOMENT ABOUT X AXIS

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

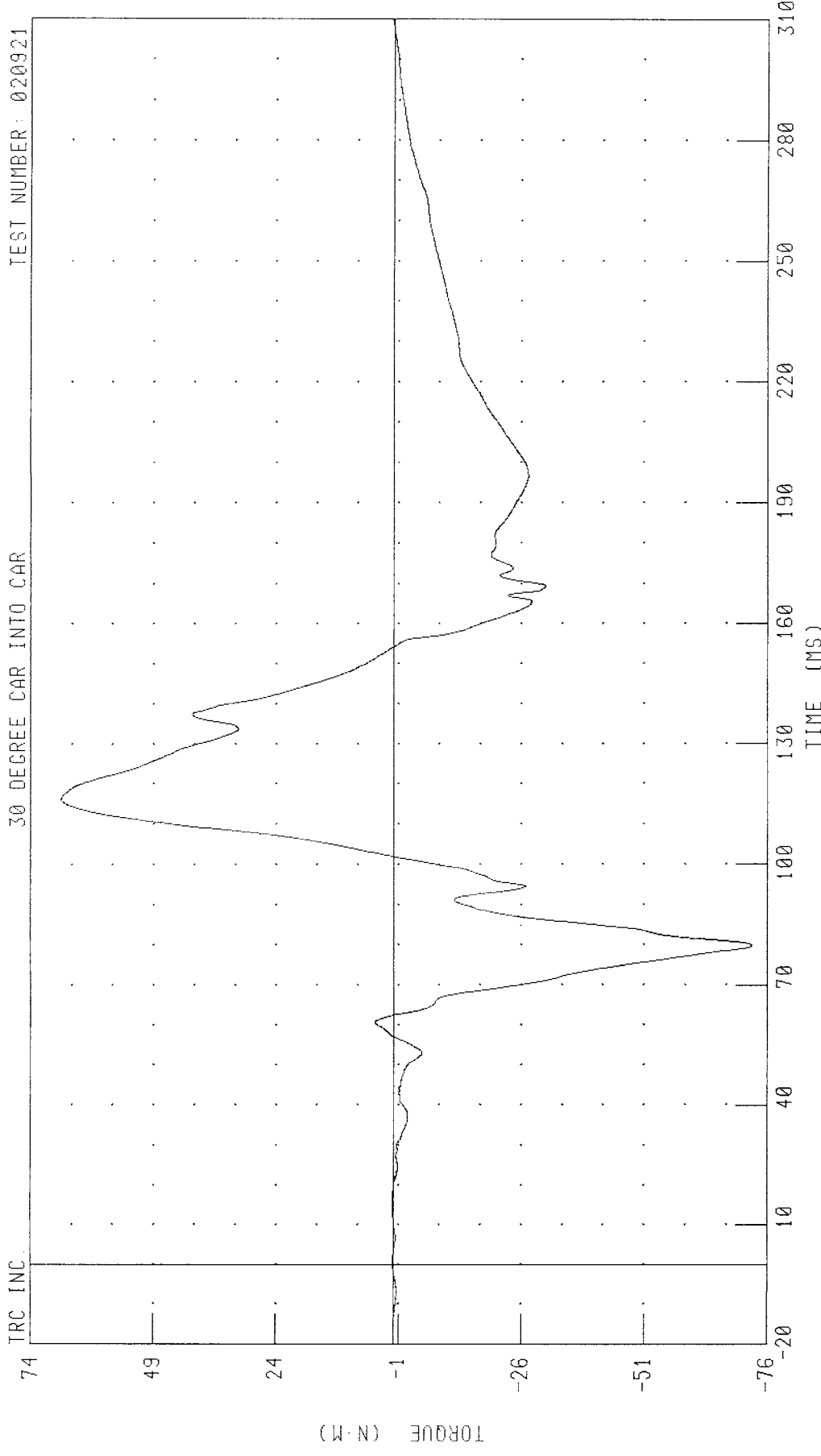
TRC INC



PEAK DATA: 46.48 N·M @ 124.32 MS; -25.44 N·M @ 68.80 MS

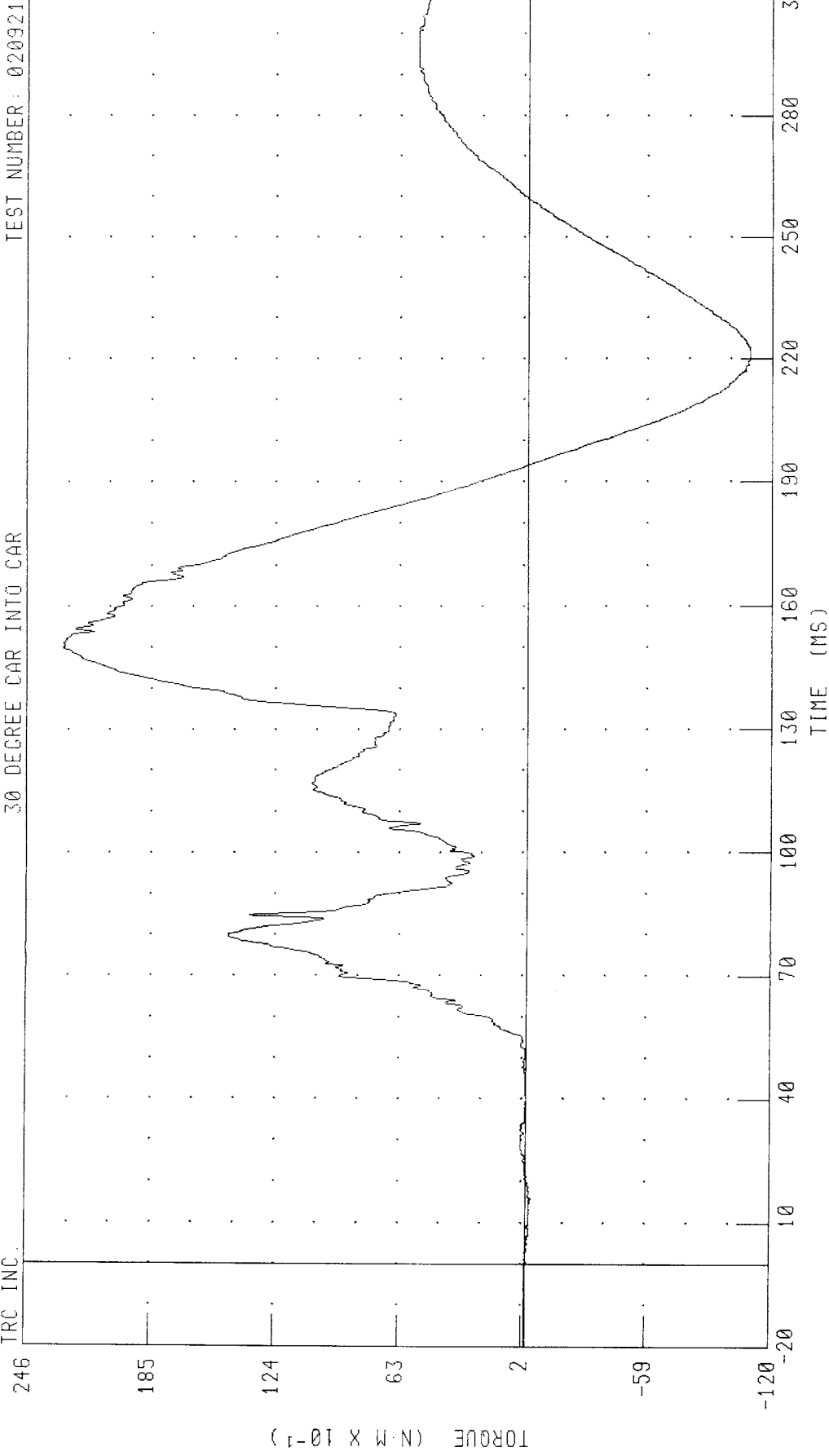
CHANNEL: NEKX1 FILTER: CH CLASS 600

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK MOMENT ABOUT Y AXIS



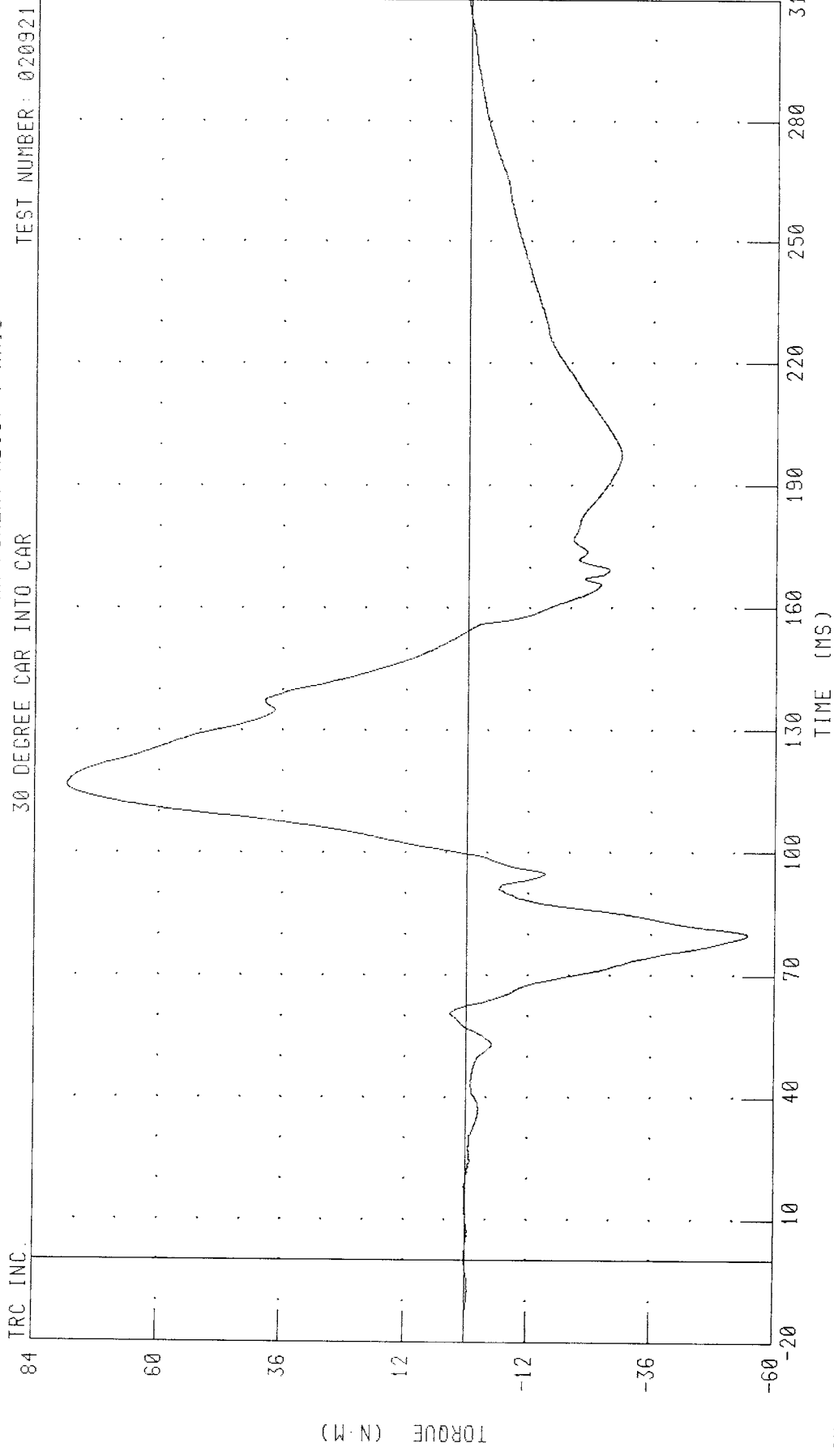
CHANNEL: NEKYM1 FILTER: CH CLASS 600
PEAK DATA: 67.84 N·M @ 116.16 MS, -72.94 N·M @ 79.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK MOMENT ABOUT Z AXIS
30 DEGREE CAR INTO CAR



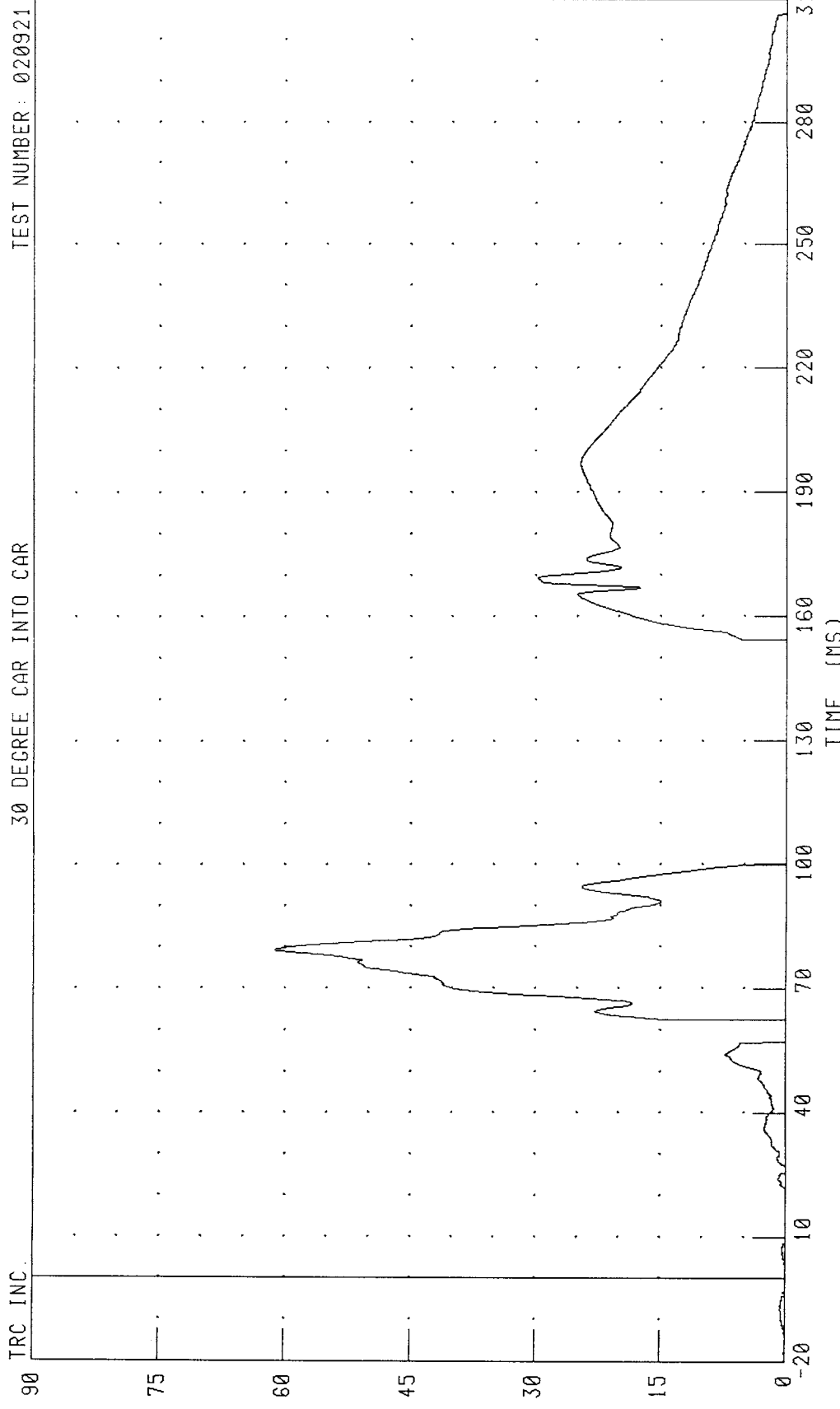
CHANNEL: NEKZM1 FILTER: CH. CLASS 600
PEAK DATA: 22.81 N·M @ 151.36 MS, -10.93 N·M @ 220.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS



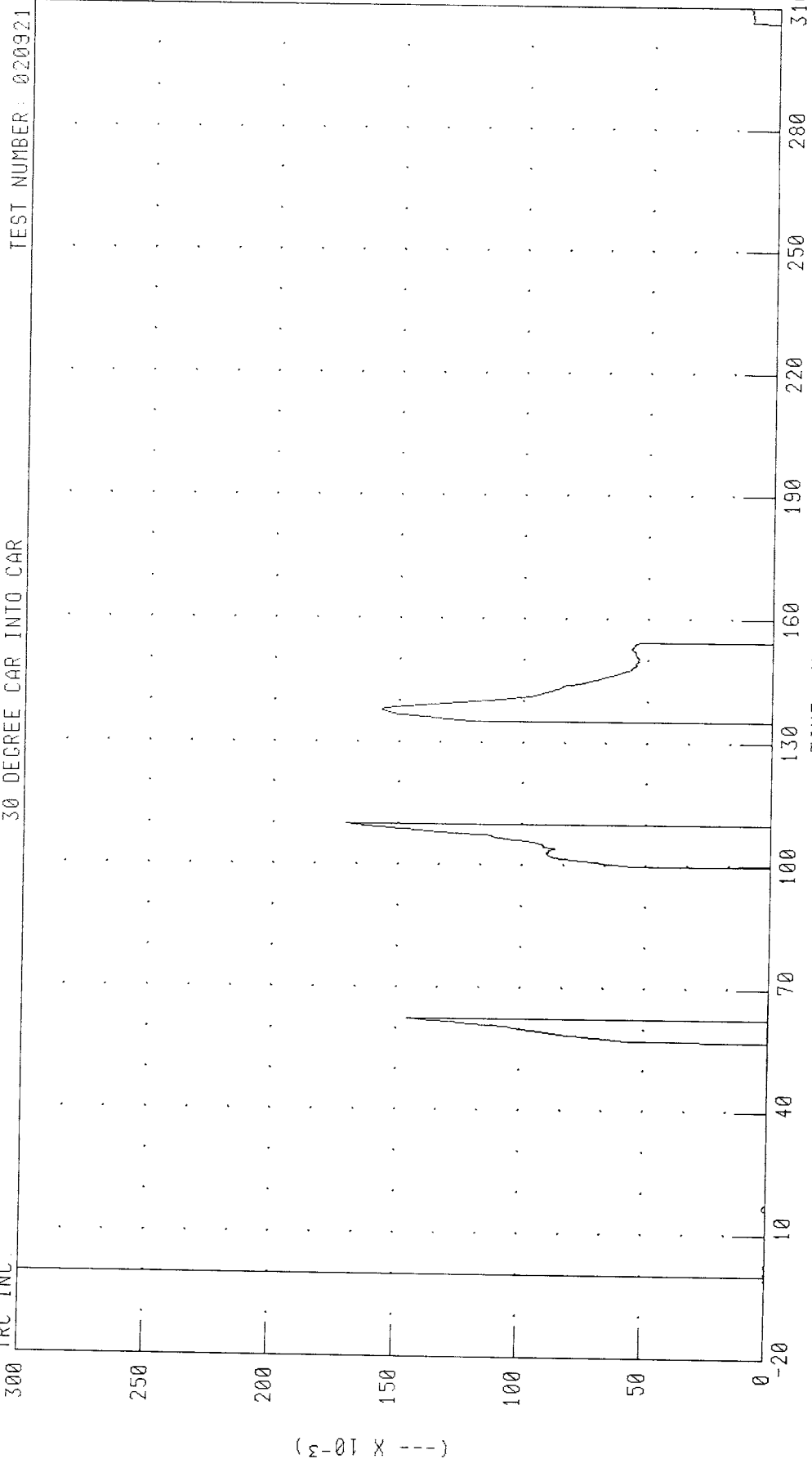
CHANNEL: NEKOM1 FILTER: CH. CLASS 600 PEAK DATA: 77.75 N-M @ 117.04 MS, -54.75 N-M @ 79.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NIJ TENSION/EXTENSION
30 DEGREE CAR INTO CAR



CHANNEL: NTE1 FILTER: CH. CLASS 600 PEAK DATA: 0.61 --- 0 79.28 MS; 0.00 --- 0 -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NIJ TENSION/FLEXION
30 DEGREE CAR INTO CAR



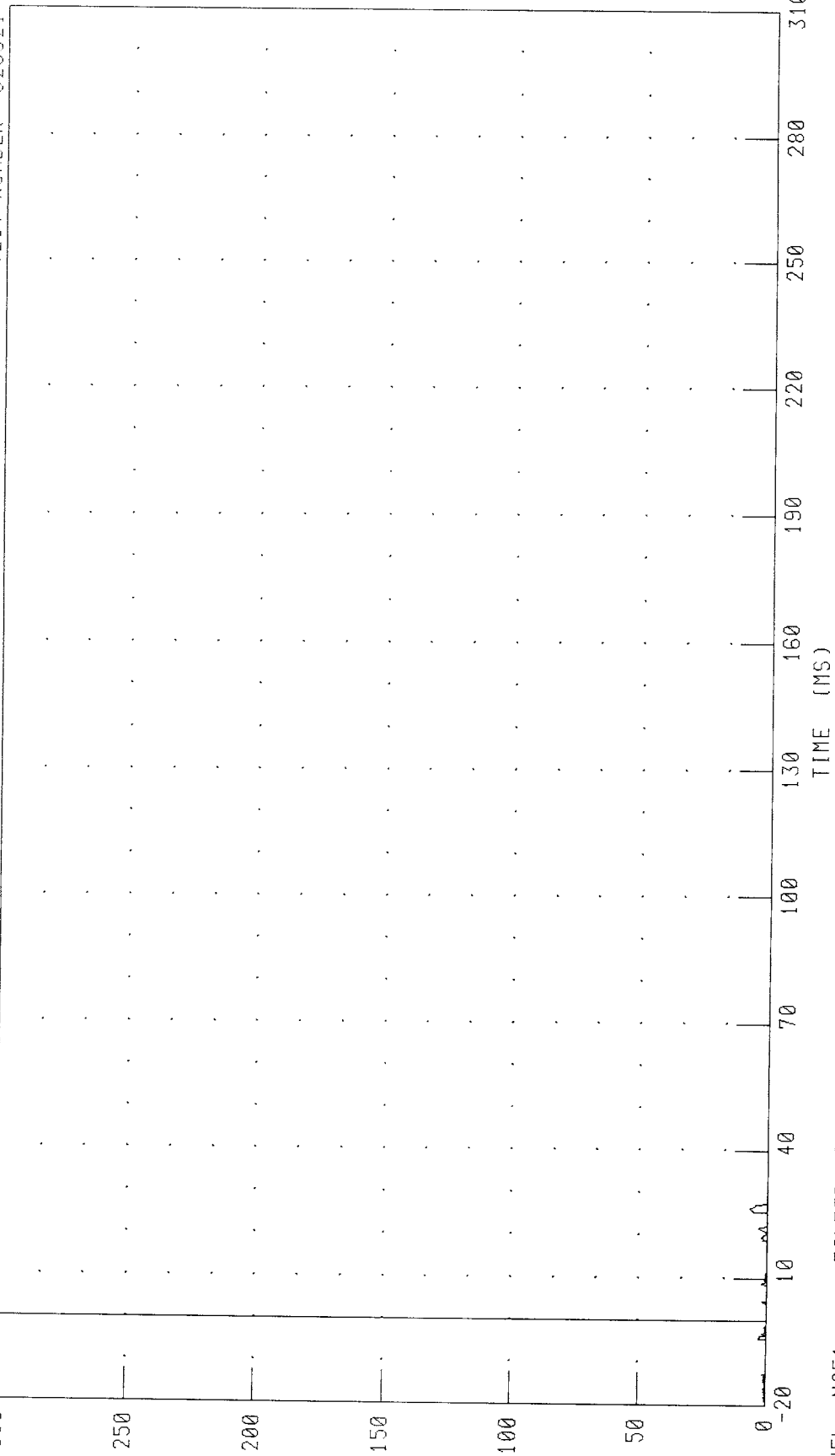
CHANNEL: NTF1 FILTER: CH. CLASS 600 PEAK DATA: 0.17 --- 0 110.00 MS; 0.00 --- 0 -19.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NIJ COMPRESSION/EXTENSION

TRC INC

30 DEGREE CAR INTO CAR

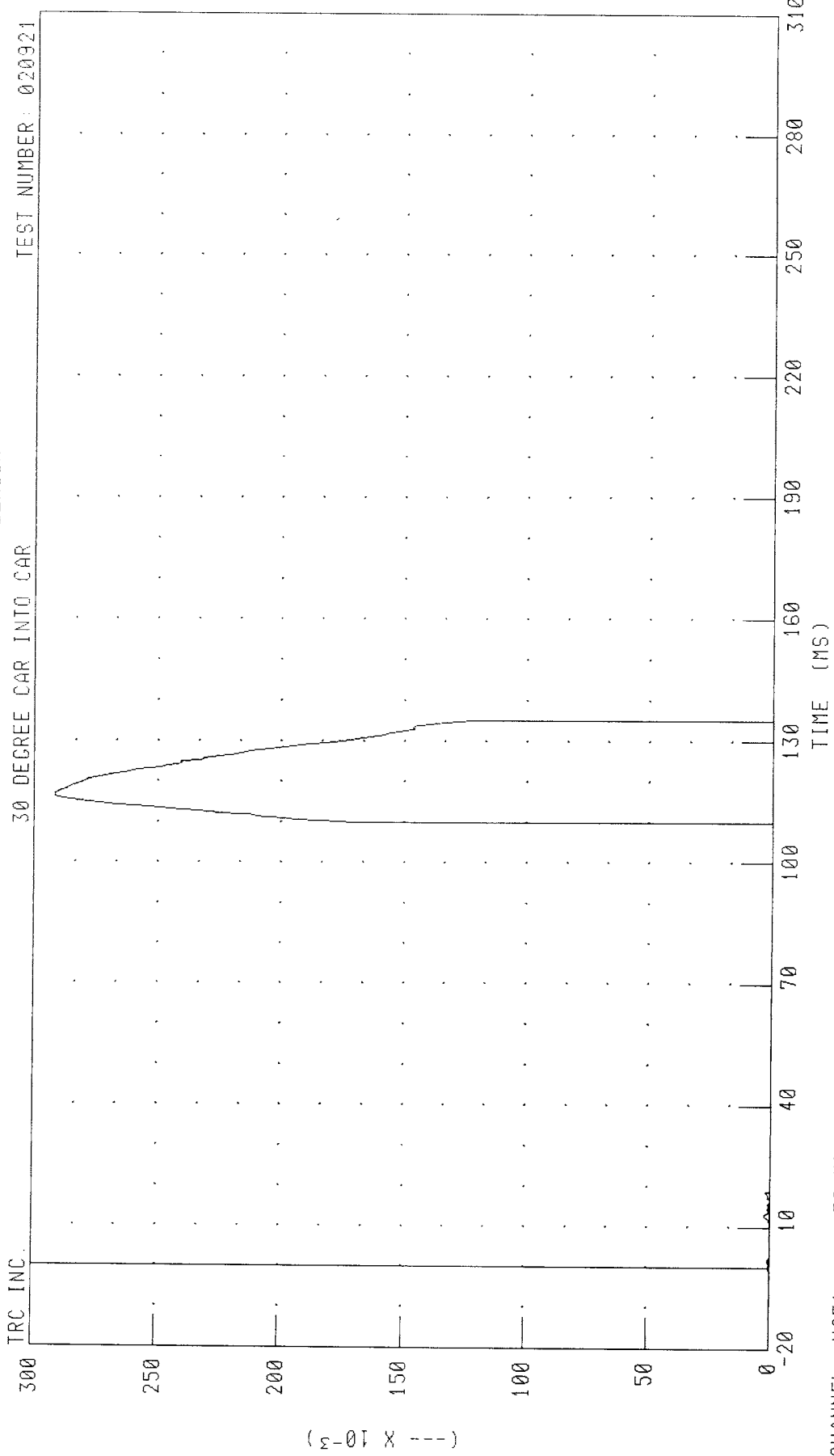
TEST NUMBER: 020921



(--- X 10⁻³)

CHANNEL: NCE1 FILTER: CH. CLASS 600
PEAK DATA: 0.01 --- 0 26.16 MS, 0.00 --- 0 -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NIJ COMPRESSION/FLEXION

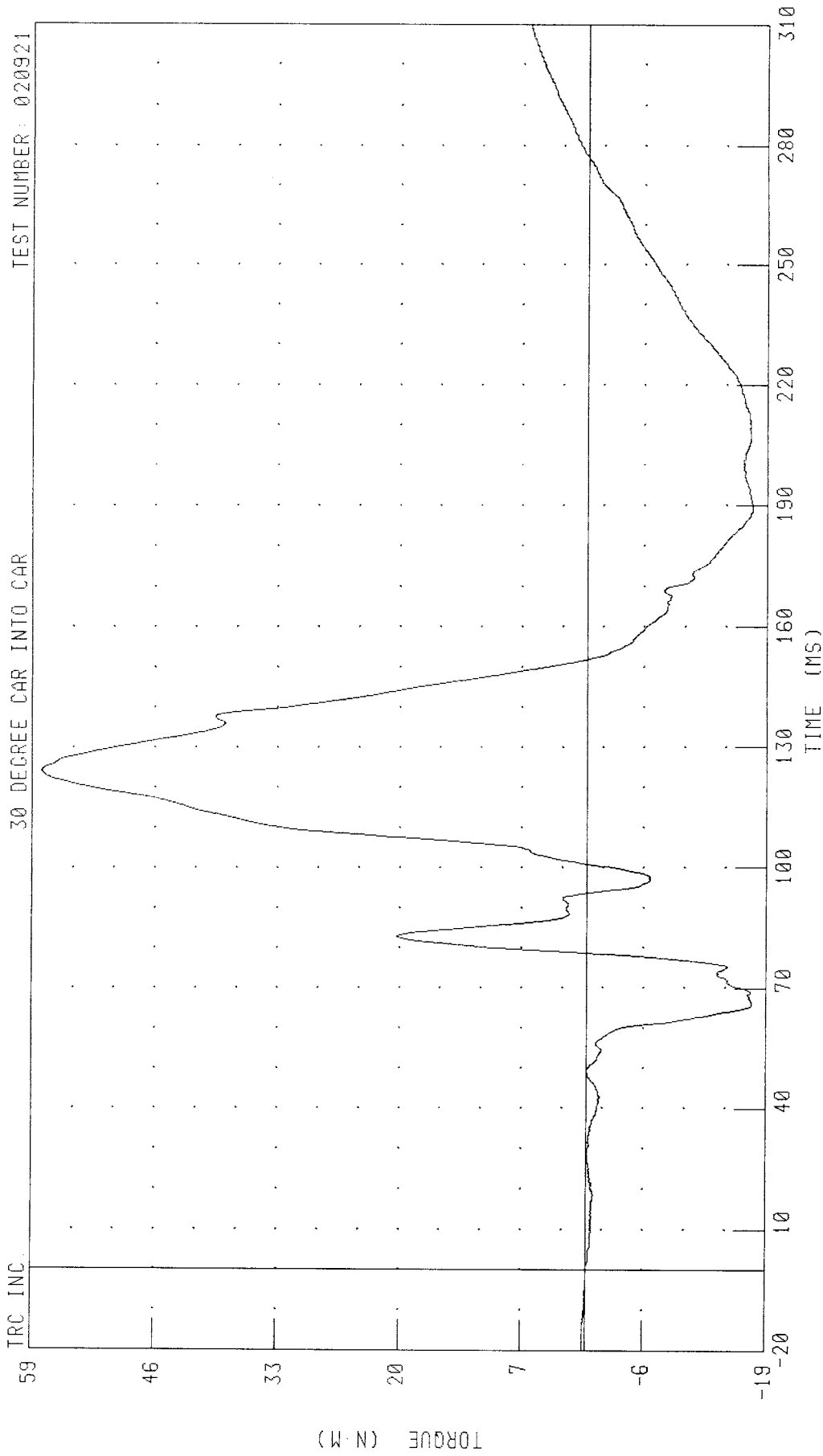


(--- X 10⁻³)

CHANNEL: NCF1 FILTER: CH. CLASS 600 PEAK DATA: 0.29 --- 0 116.56 MS, 0.00 --- 0 -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



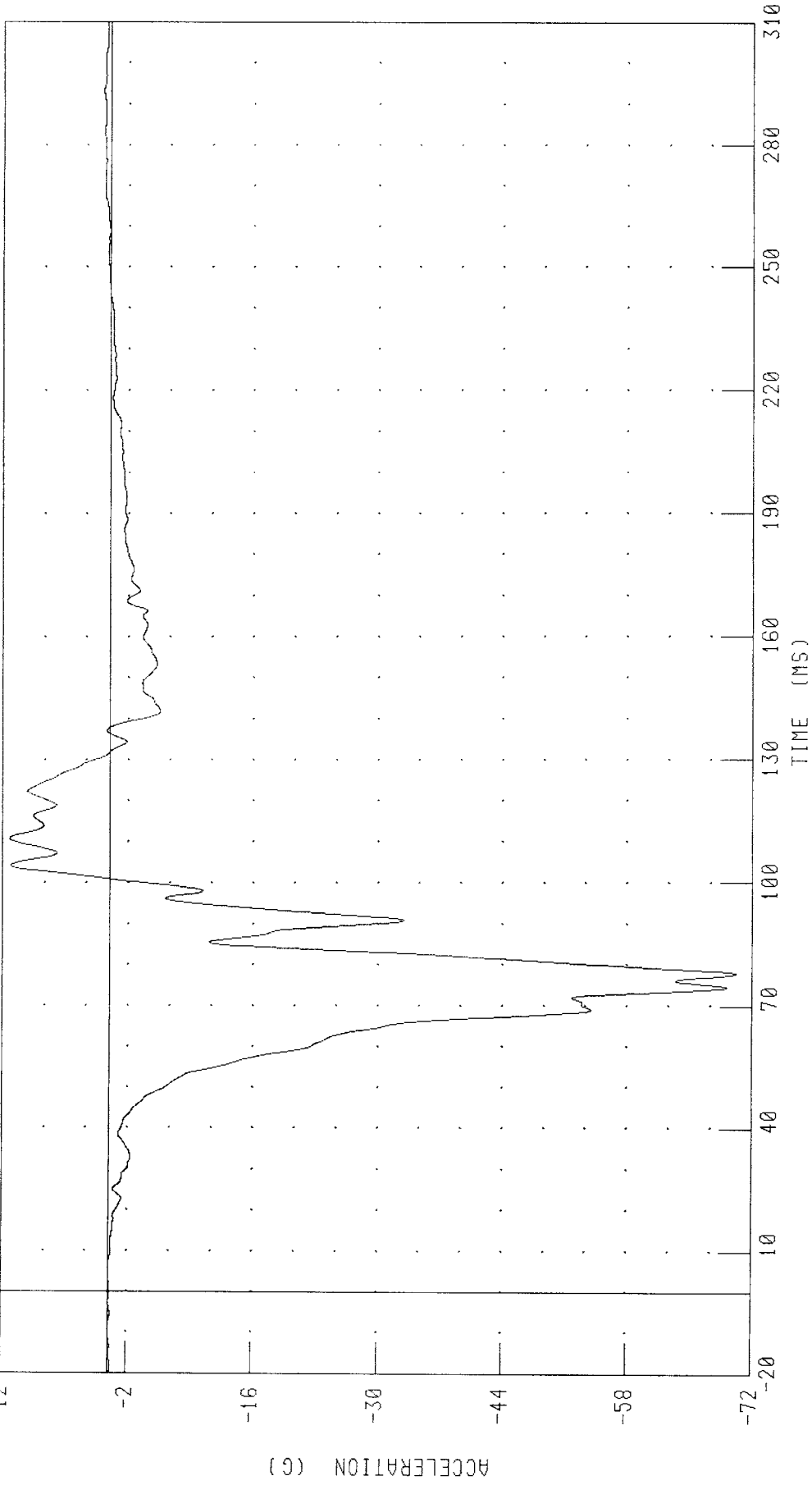
CHANNEL: NK0XM1 FILTER: CH. CLASS 600 PEAK DATA: 58.00 N·M @ 124.32 MS; -17.52 N·M @ 66.24 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST X-AXIS ACCELERATION

TRC INC.

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

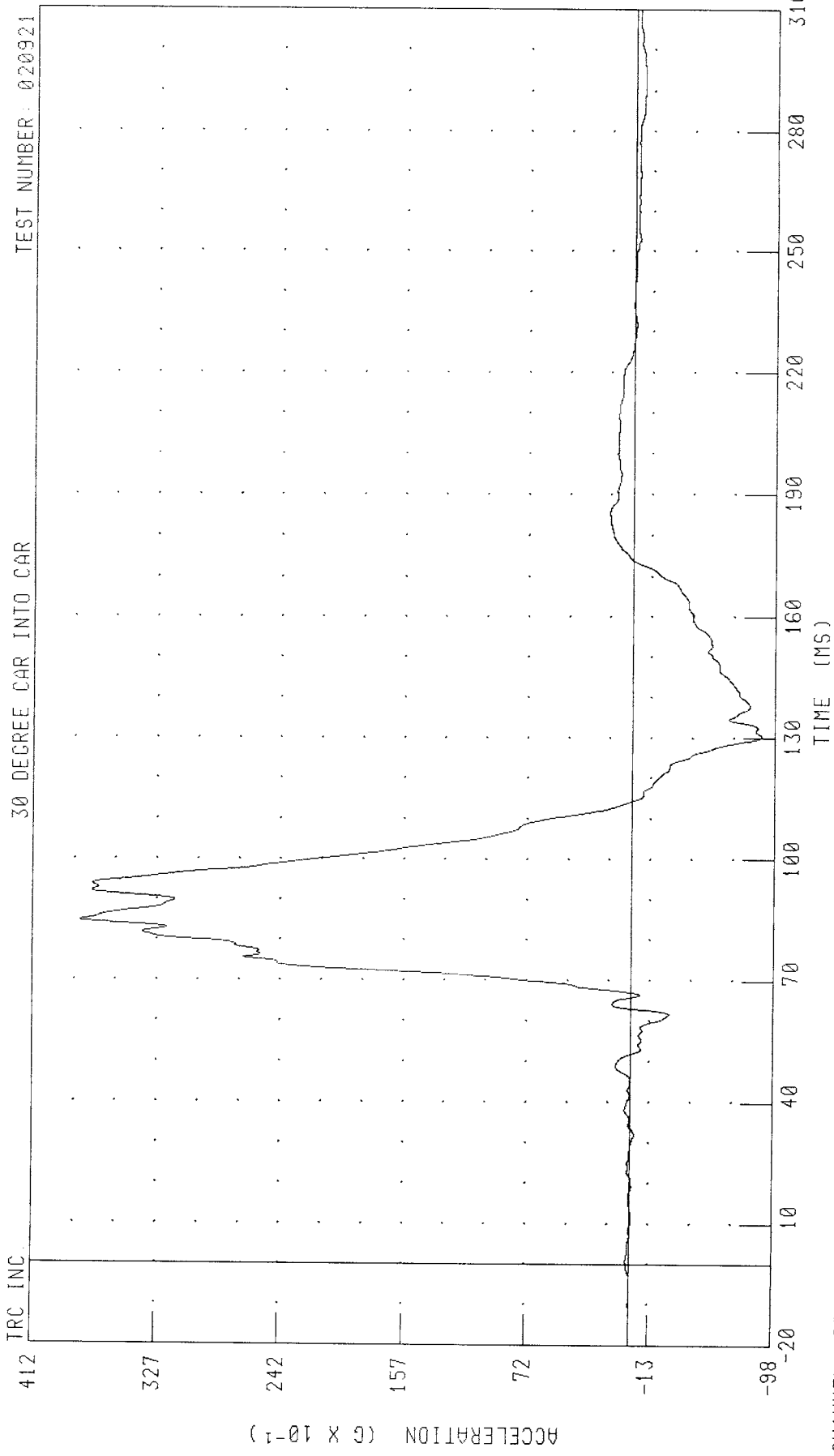


CHANNEL: CSTXG1

FILTER: CH. CLASS 180

PEAK DATA: 11.26 G @ 110.88 MS; -70.23 G @ 77.84 MS

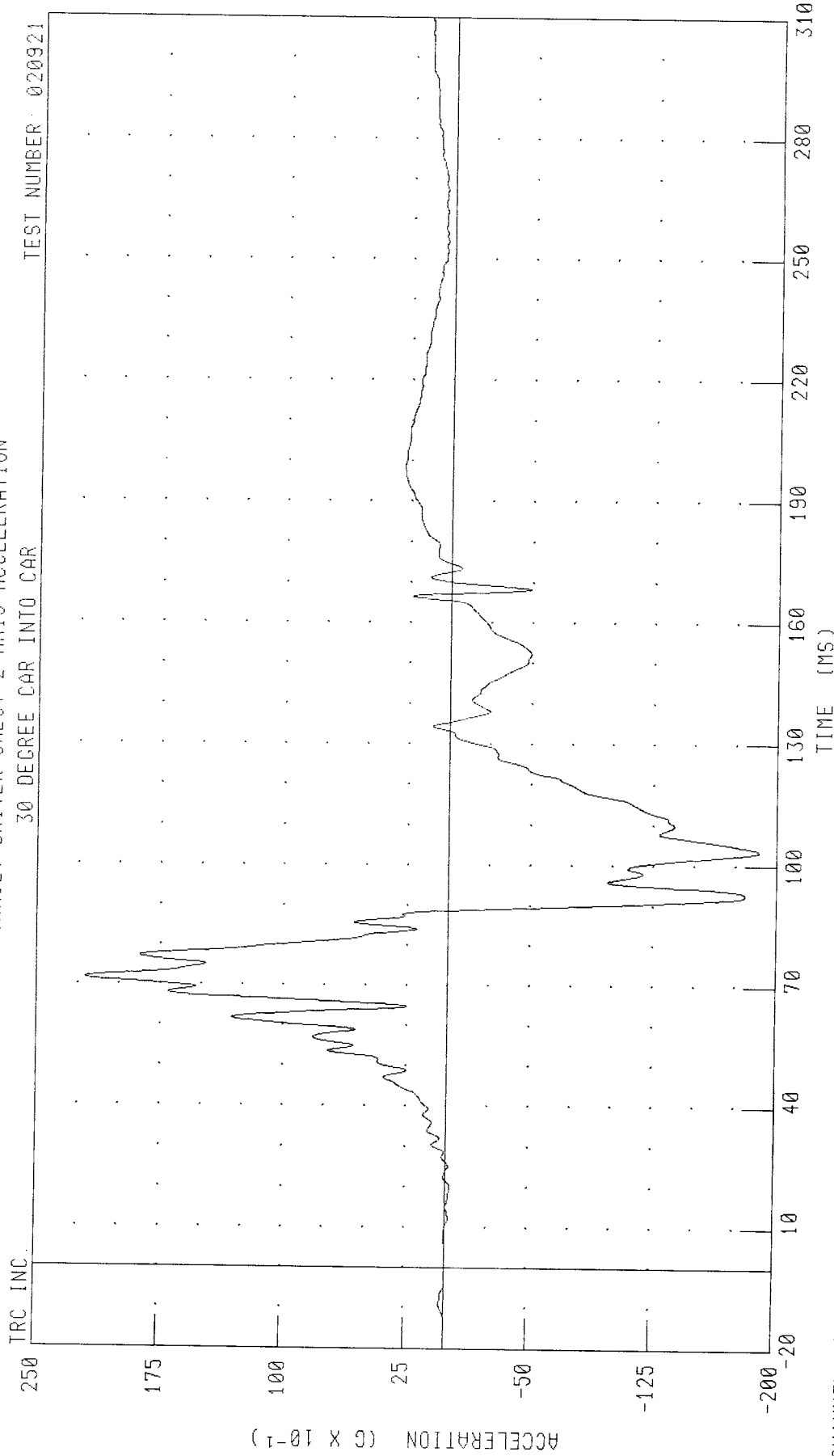
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: CSTYG1 FILTER: CH. CLASS 180 PEAK DATA: 37.99 G @ 84.88 MS; -8.91 G @ 130.32 MS

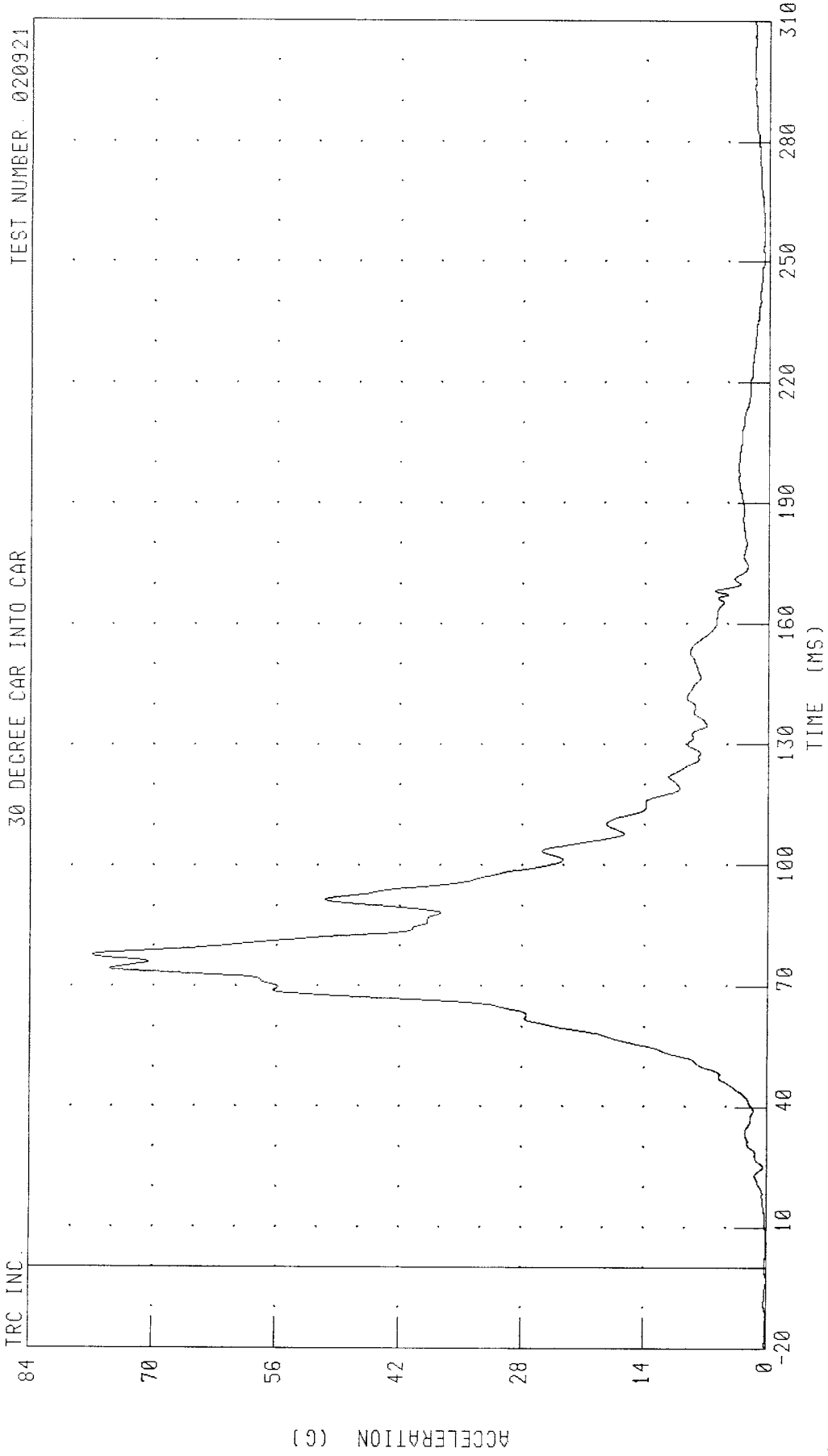
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



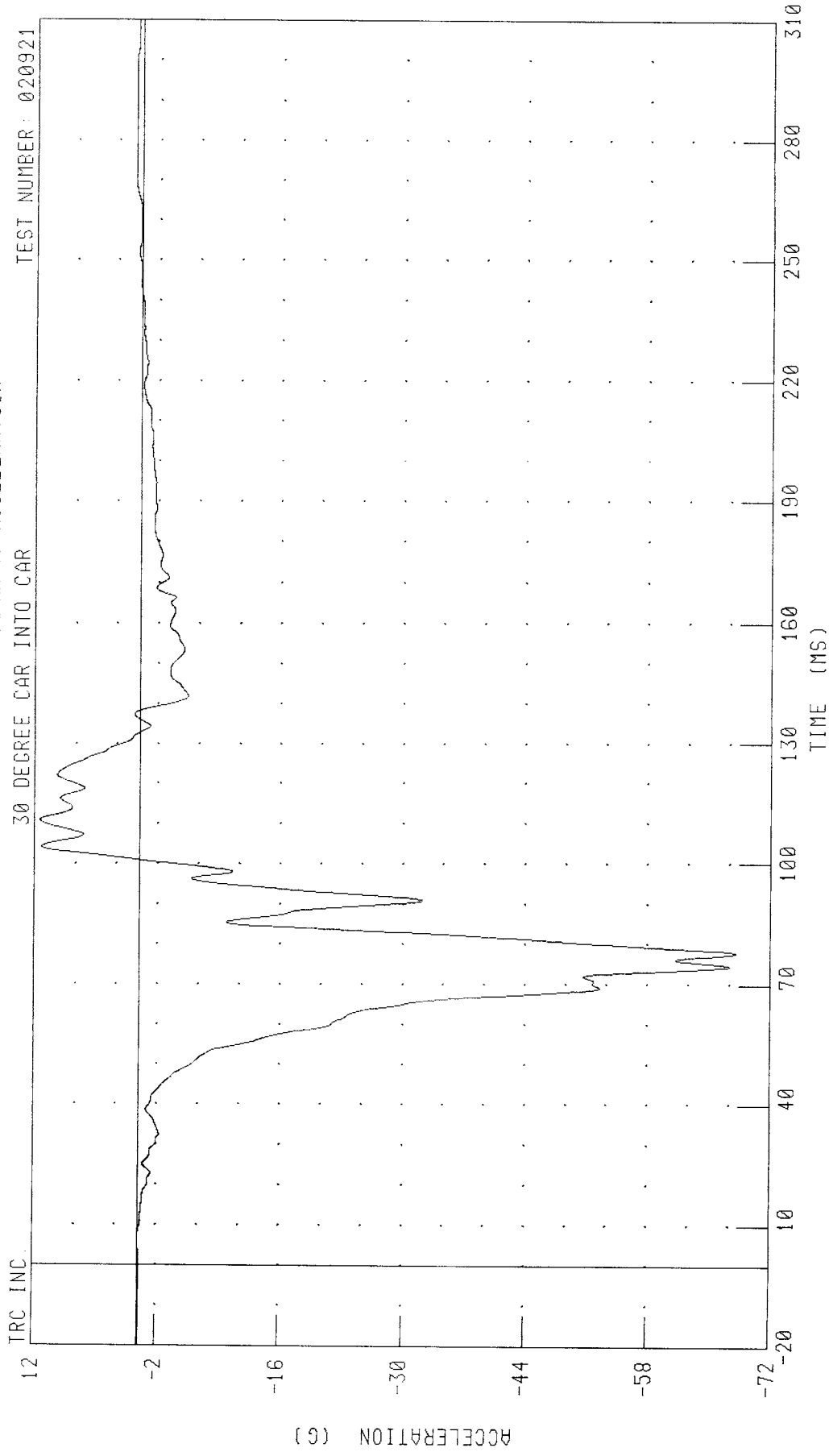
CHANNEL: CSTZG1 FILTER: CH. CLASS 180
PEAK DATA: 22.09 G @ 71.84 MS; -18.92 G @ 103.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST RESULTANT ACCELERATION



CHANNEL: CSTRG1 FILTER: CH. CLASS 180

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST X-AXIS REDUNDANT ACCELERATION



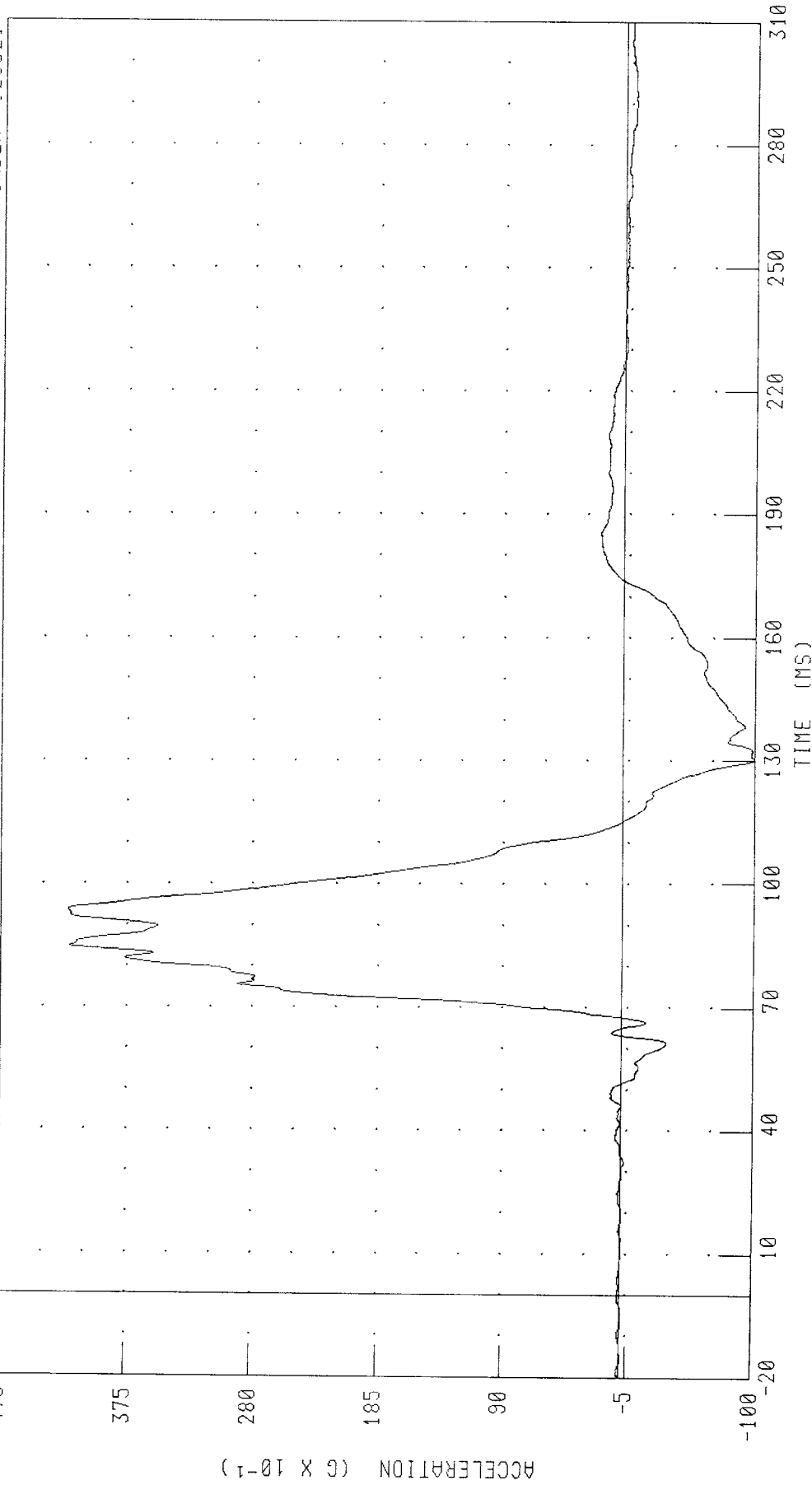
CHANNEL: CSTXR1 FILTER: CH. CLASS 180 PEAK DATA: 11.39 G @ 110.88 MS; -68.08 G @ 77.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST Y-AXIS REDUNDANT ACCELERATION

TRC INC.

30 DEGREE CAR INTO CAR

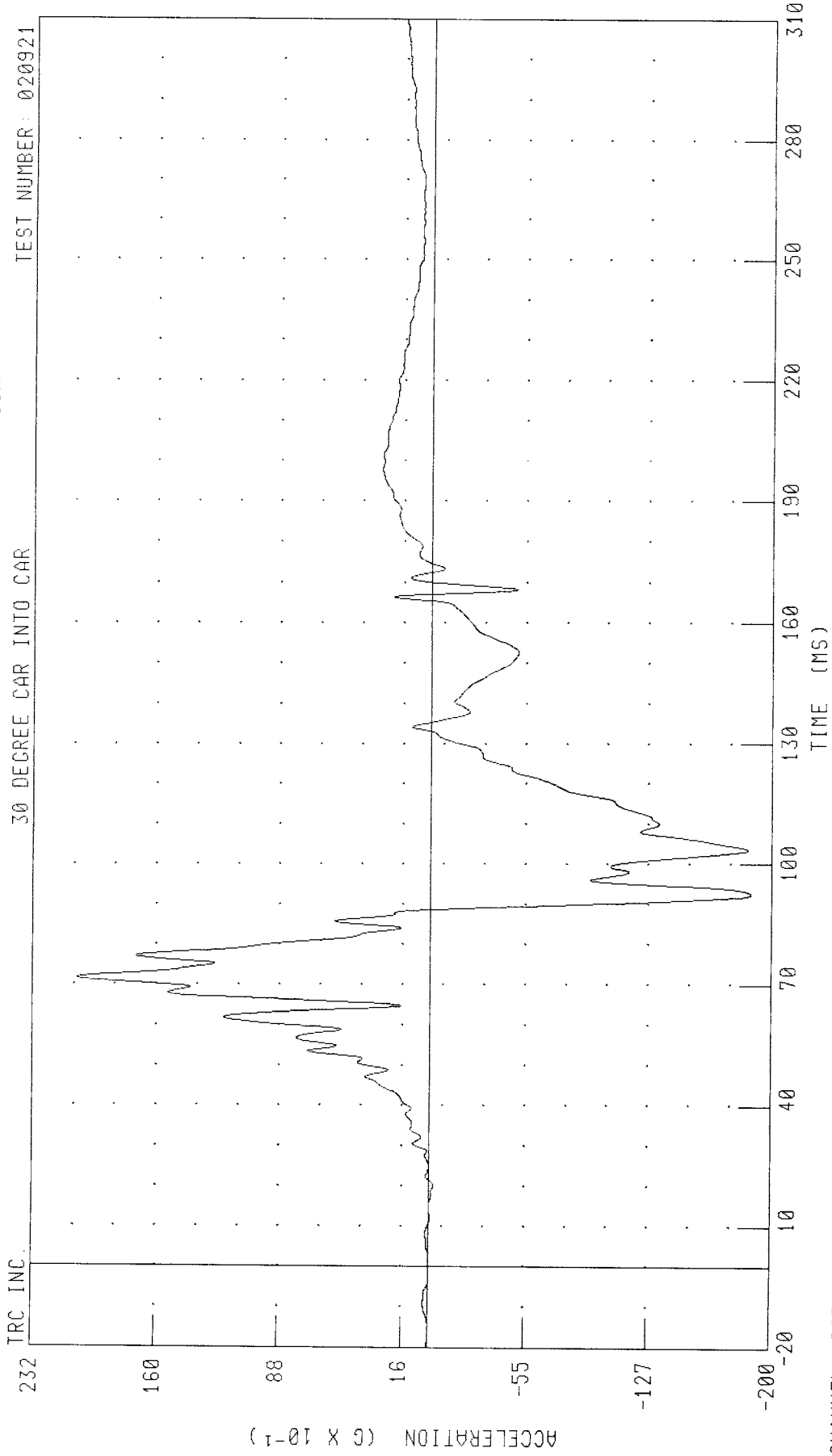
TEST NUMBER: 020921



PEAK DATA: 41.99 G @ 93.76 MS; -9.99 G @ 130.24 MS

CHANNEL: CSTYR1 FILTER: CH. CLASS 180

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST Z-AXIS REDUNDANT ACCELERATION

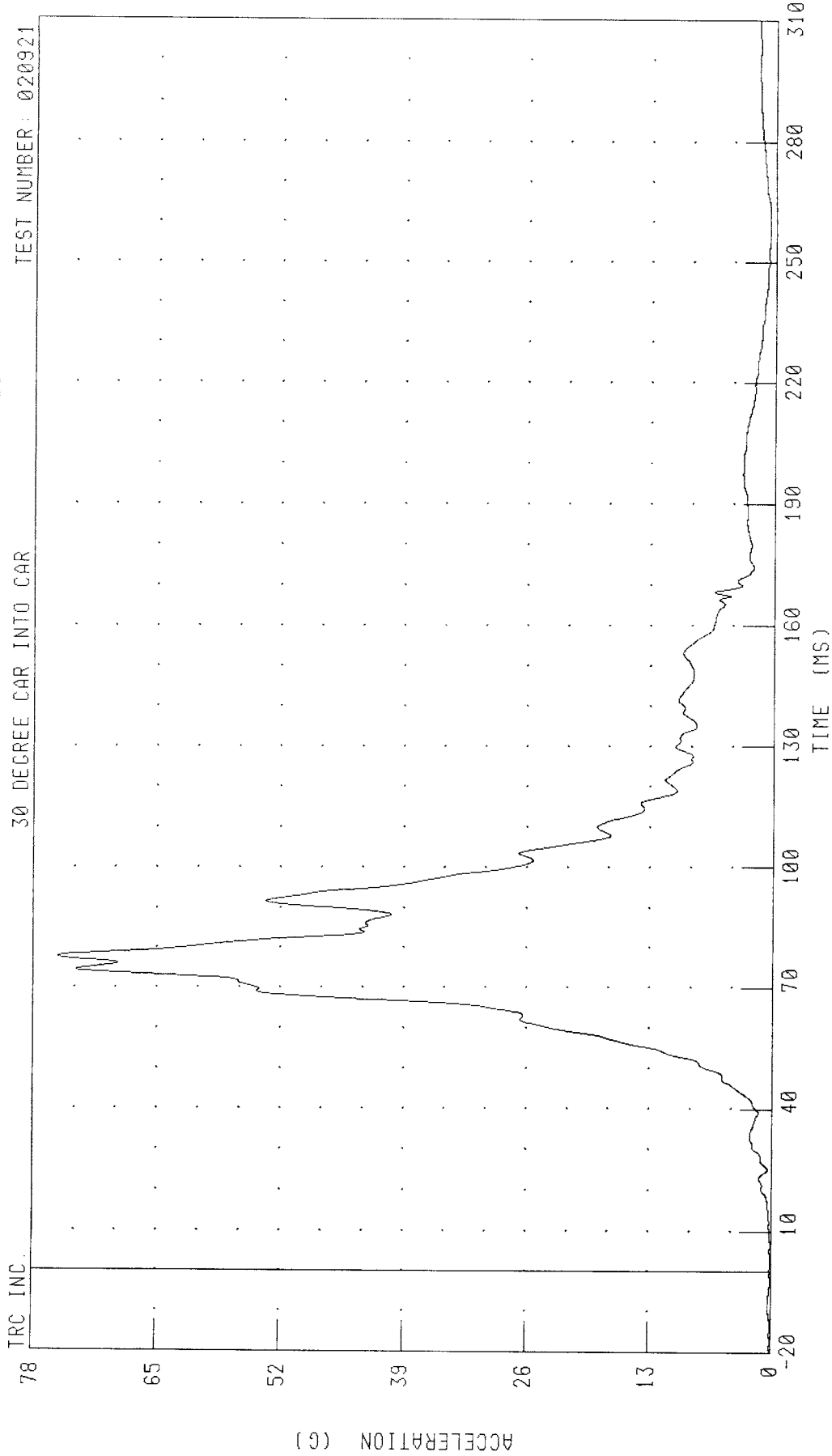


CHANNEL: CSTZR1 FILTER: CH. CLASS 180

PEAK DATA: 20.64 G @ 71.84 MS; -18.80 G @ 92.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST REDUNDANT RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR

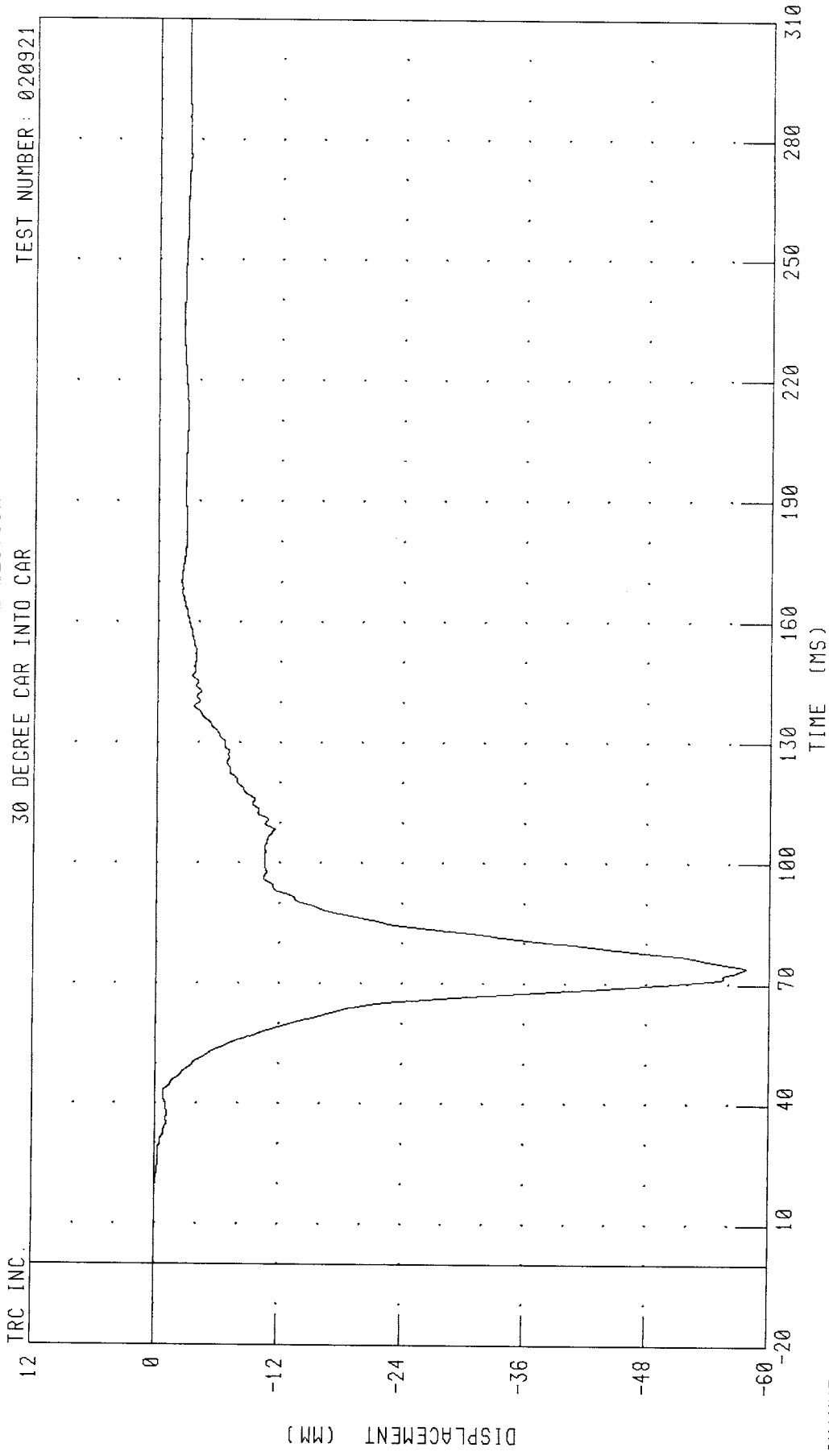
TEST NUMBER: 020921



CHANNEL: CSTRR1 FILTER: CH. CLASS 180 PEAK DATA: 75.37 G @ 77.92 MS; 0.01 G @ -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER CHEST DEFLECTION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921

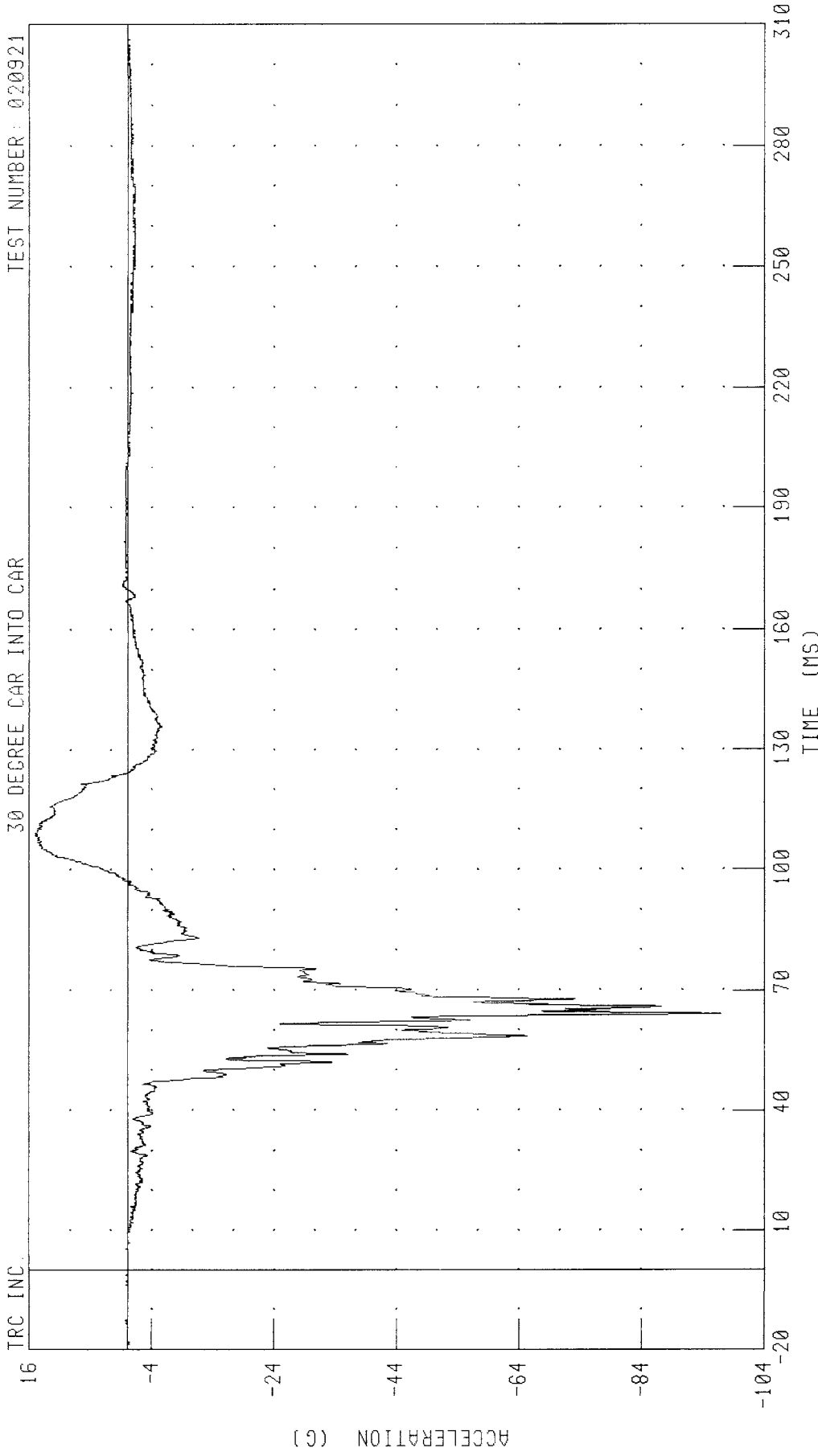


CHANNEL: CSTXD1 FILTER: CH. CLASS 600 PEAK DATA: 0.03 MM @ 0.16 MS; -57.73 MM @ 74.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER PELVIS X-AXIS ACCELERATION

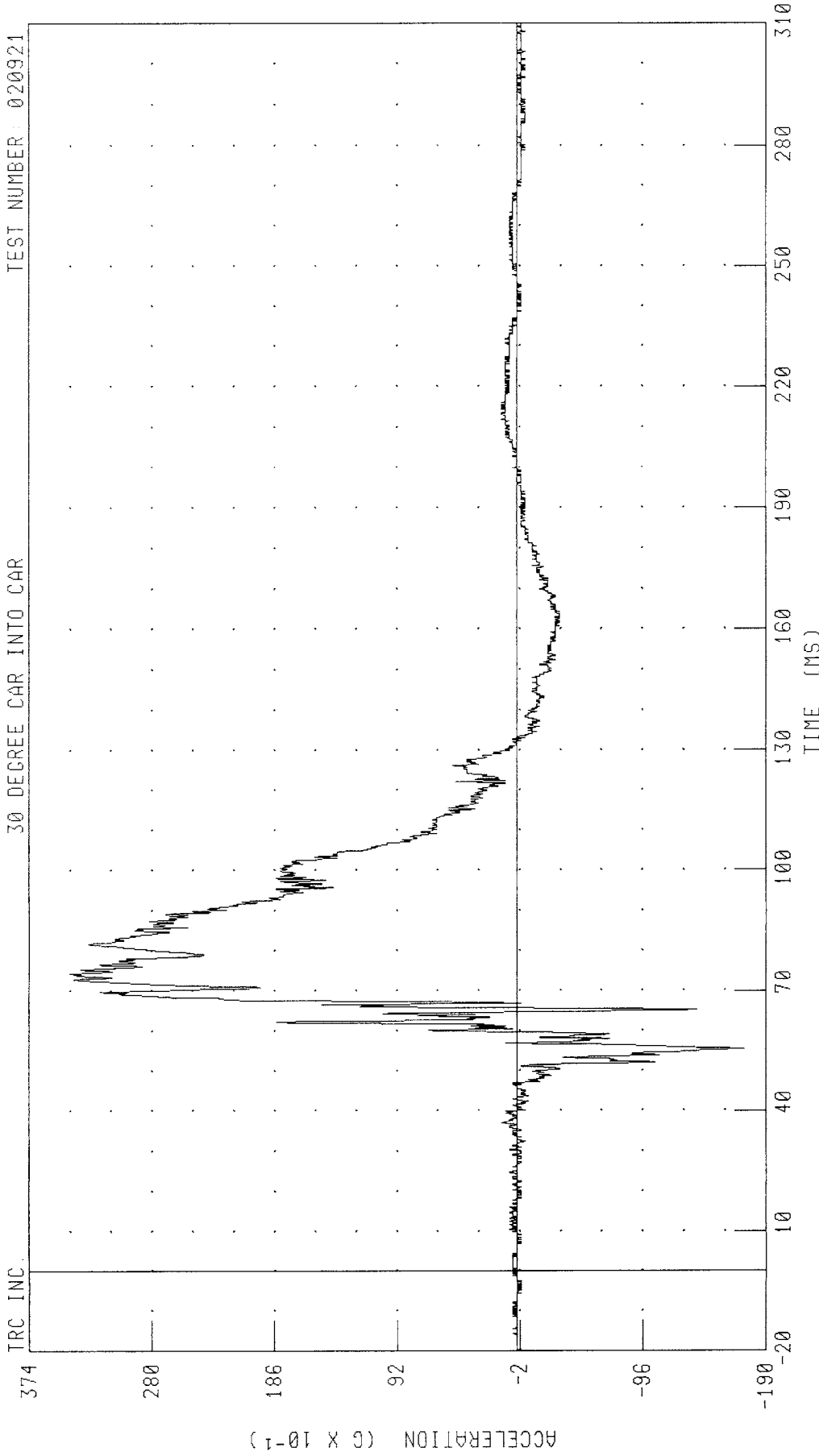
TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: PEVXG1 FILTER: CH. CLASS 1000

PEAK DATA: 14.97 G @ 108.48 MS; -96.91 G @ 64.08 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER PELVIS Y-AXIS ACCELERATION

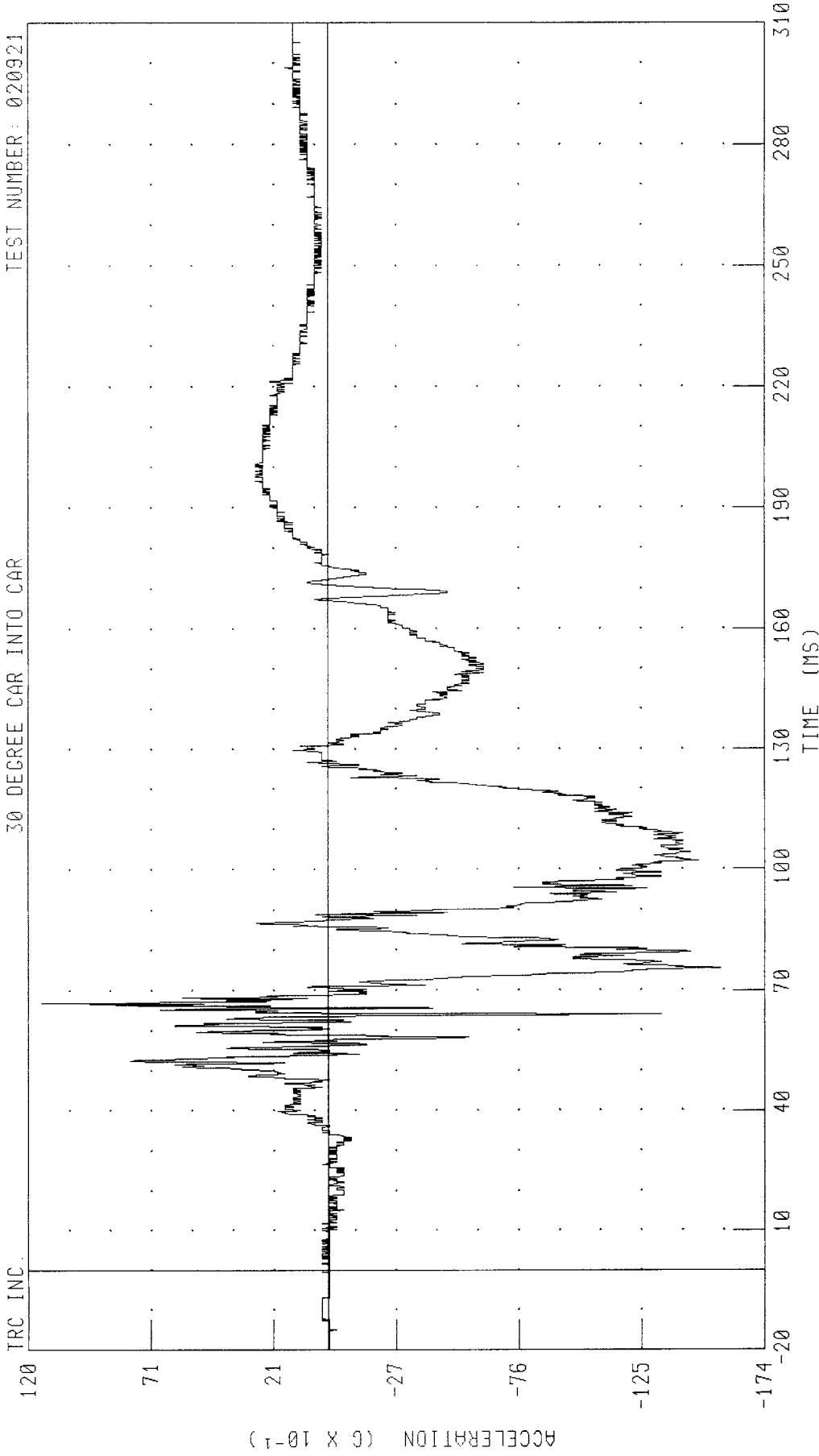


CHANNEL: PEVYG1 FILTER: CH. CLASS 1000 PEAK DATA: 34.32 G @ 74.40 MS; -17.30 G @ 55.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

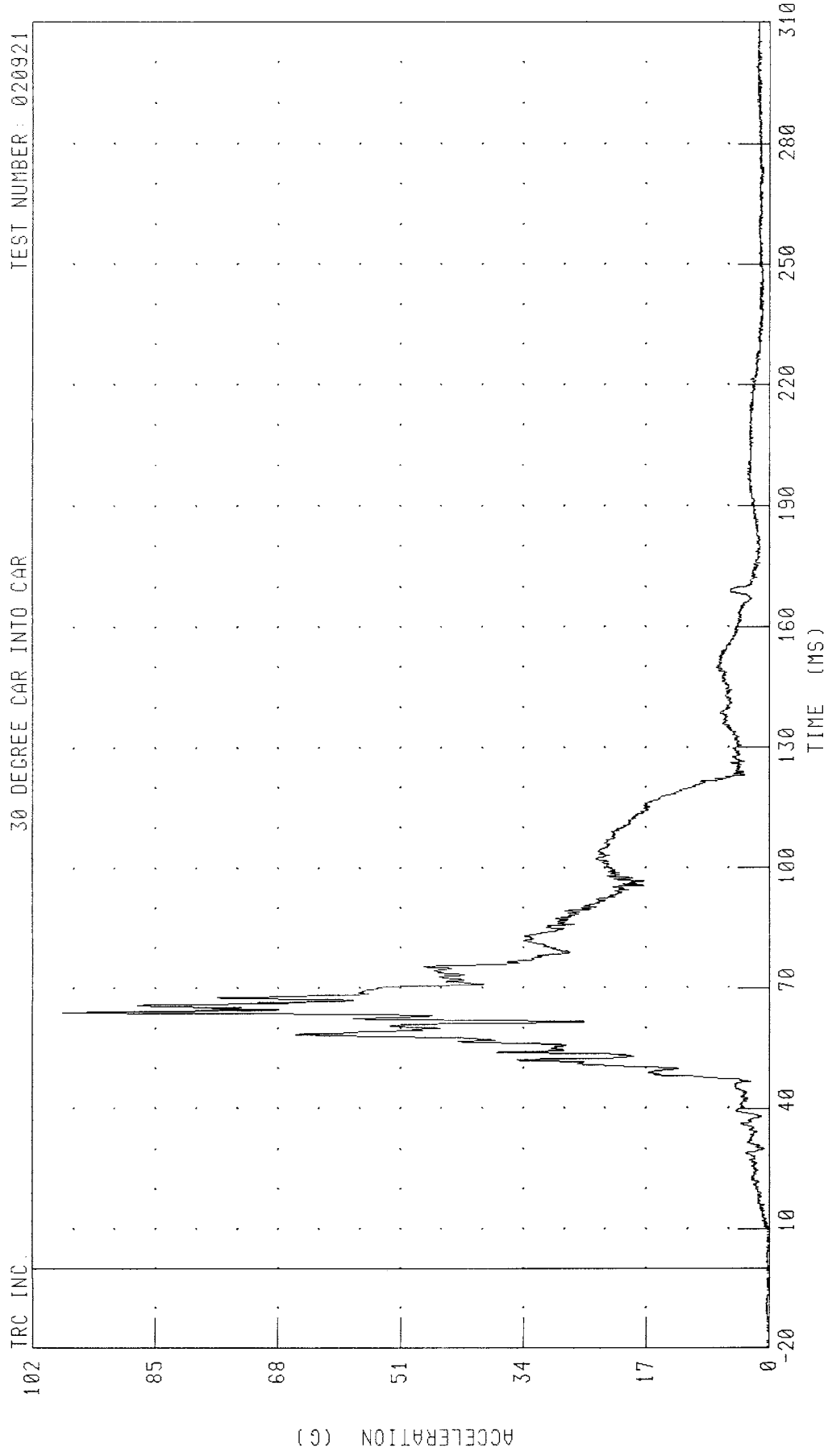
TARGET DRIVER PELVIS Z-AXIS ACCELERATION

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



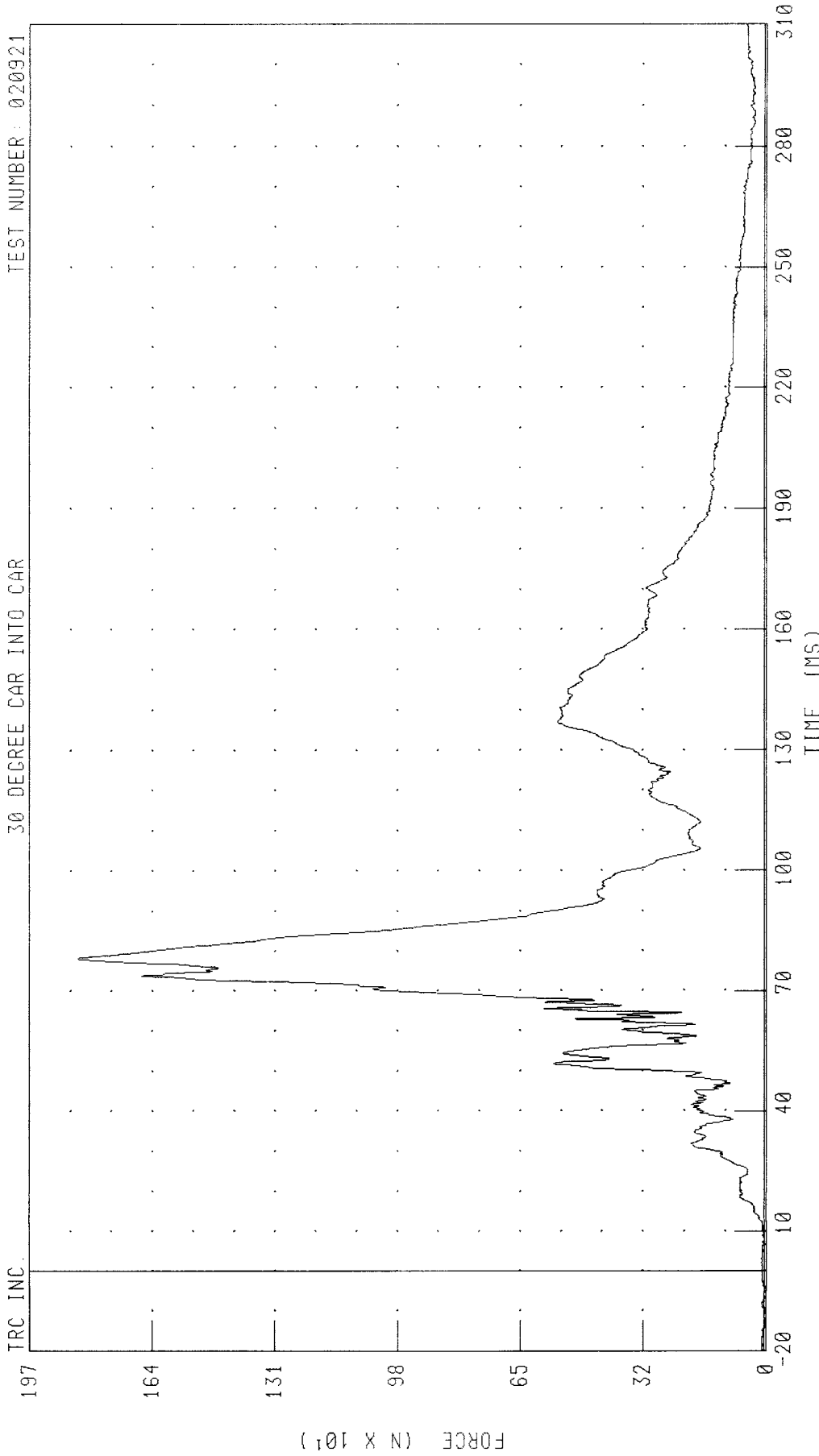
CHANNEL: PEVZG1 FILTER: CH. CLASS 1000 PEAK DATA: 11.48 G @ 67.04 MS; -15.66 G @ 75.52 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER PELVIS RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921



CHANNEL: PEVRG1 FILTER: CH. CLASS 1000 PEAK DATA: 97.82 G @ 64.08 MS; 0.03 G @ -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT FEMUR X-AXIS FORCE
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921

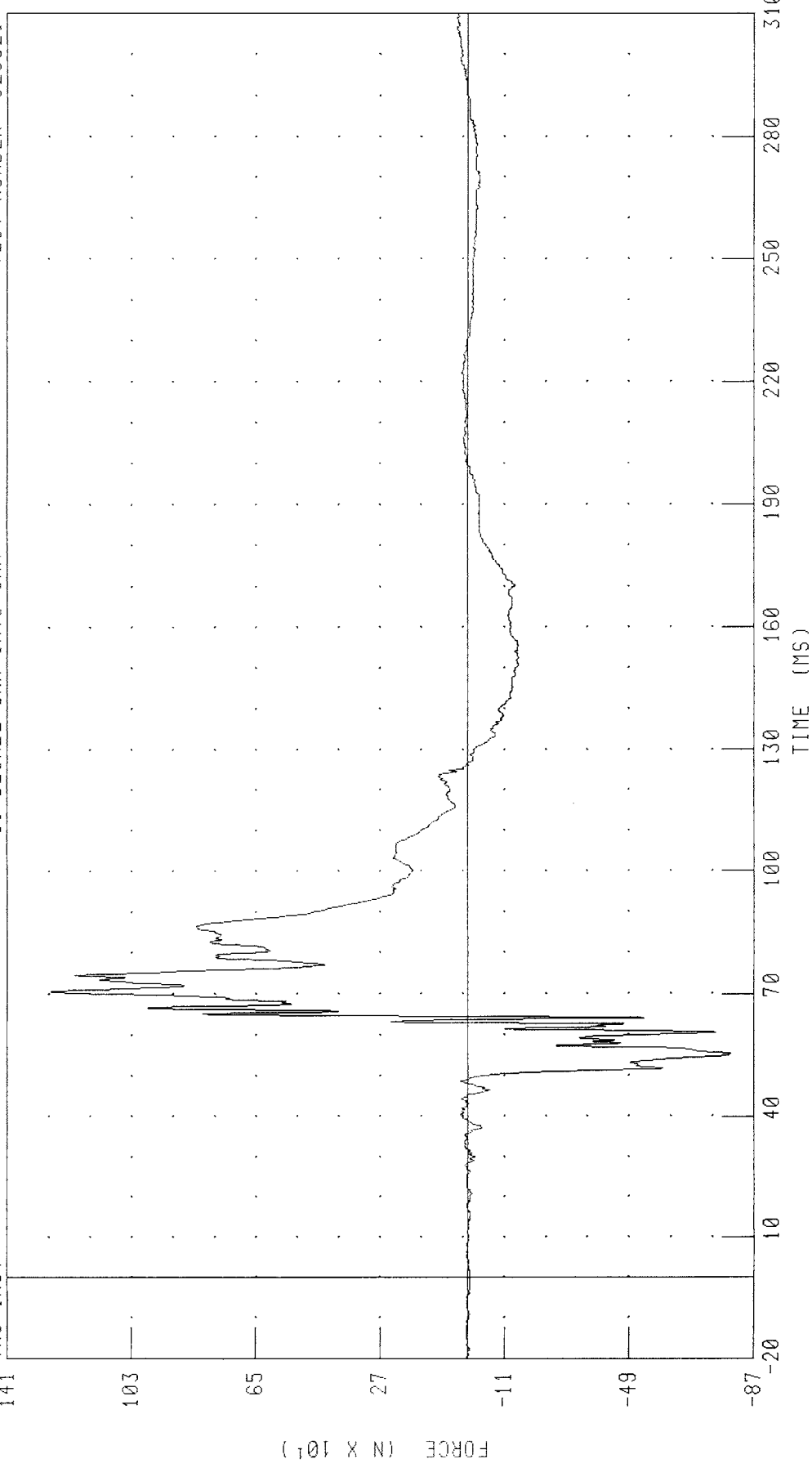


CHANNEL: LFMXF1 FILTER: CH. CLASS 600
PEAK DATA: 1843.98 N @ 78.24 MS; -5.75 N @ -9.76 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT FEMUR Y-AXIS FORCE
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

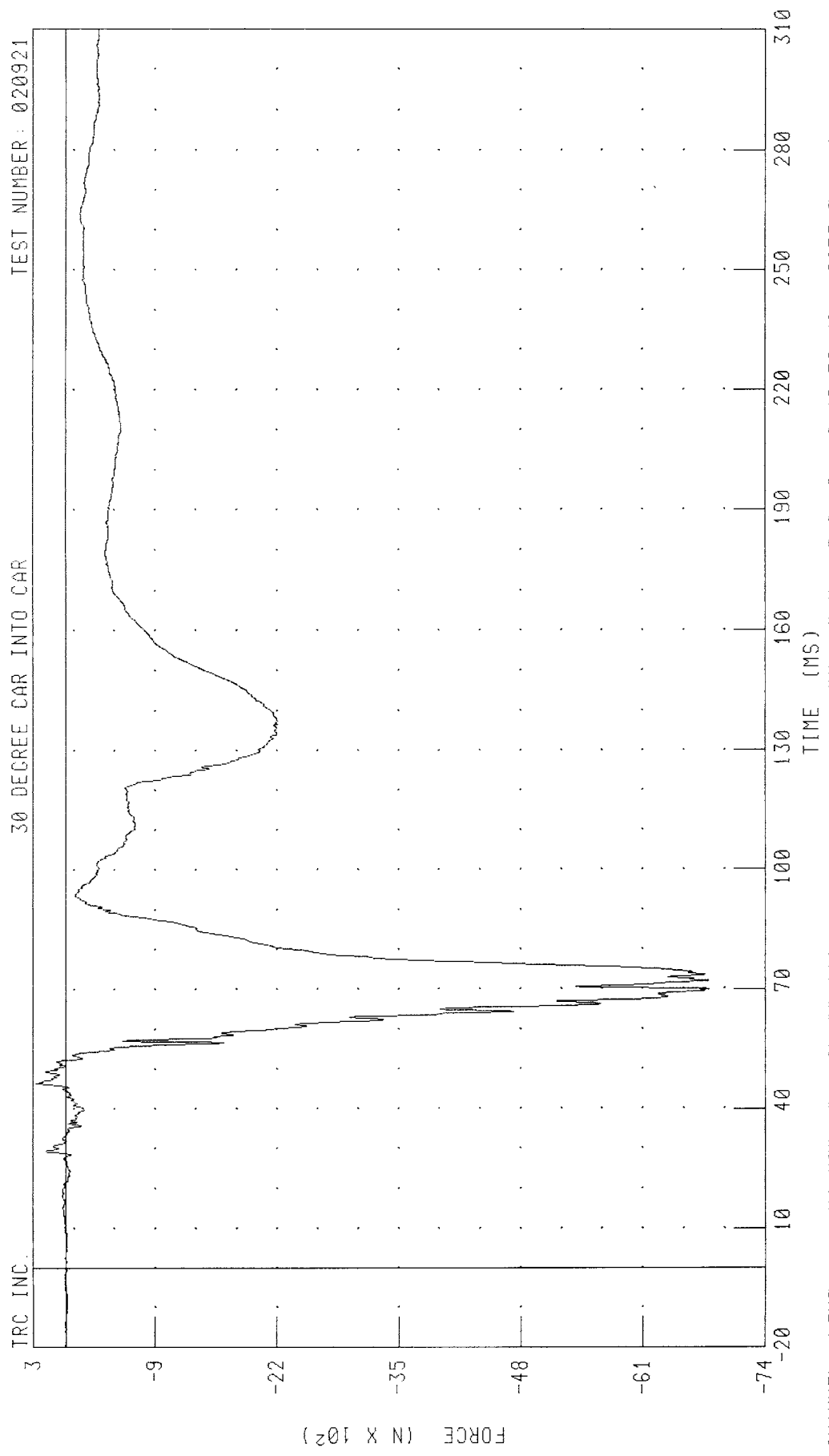
TRC INC. 141



CHANNEL: LFMYF1 FILTER: CH. CLASS 600 PEAK DATA: 1274.51 N @ 70.80 MS; -798.29 N @ 55.28 MS

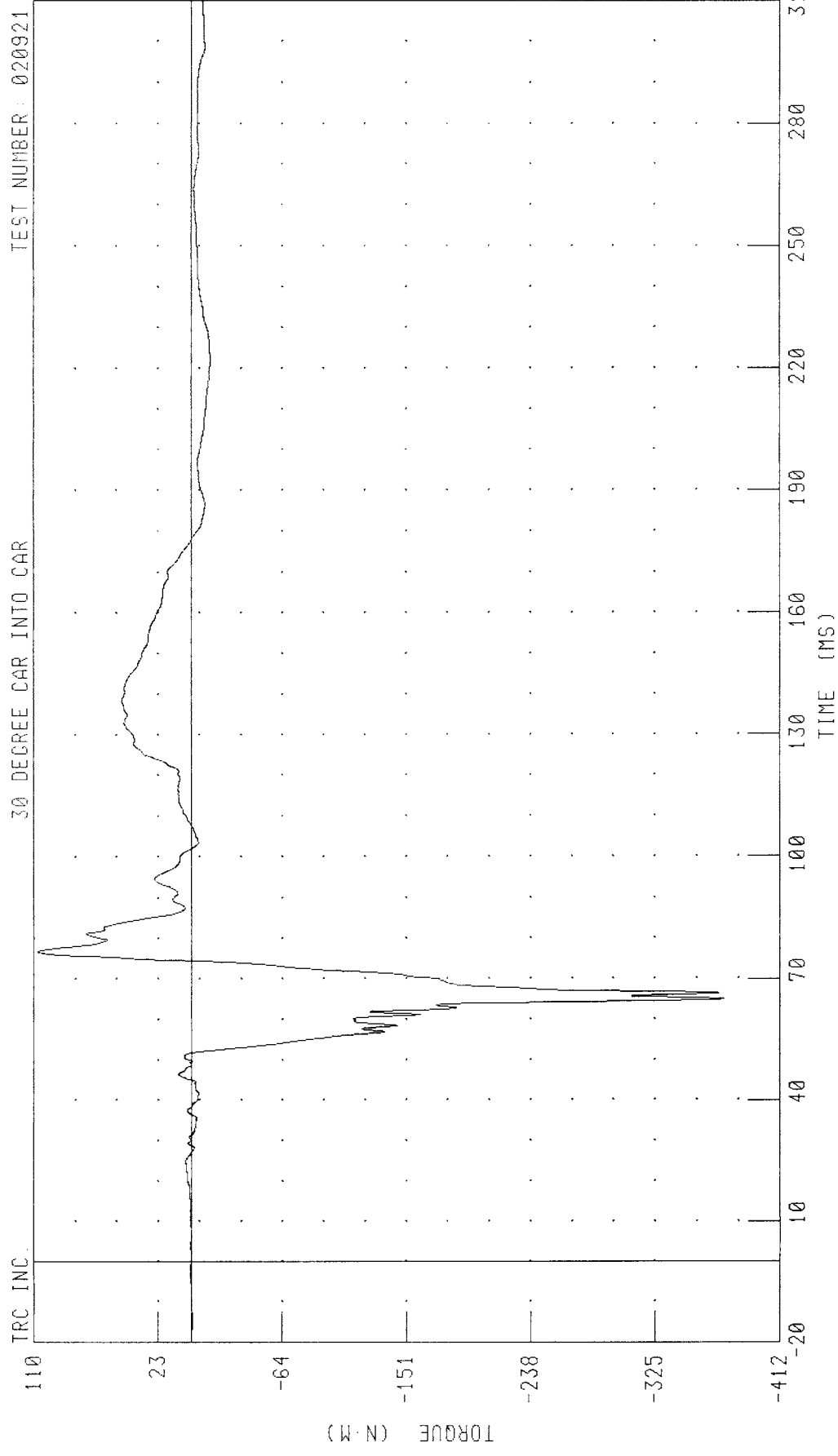
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT FEMUR Z-AXIS FORCE
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: LFMZF1 FILTER: CH. CLASS 600
PEAK DATA: 319.49 N @ 46.56 MS; -6853.31 N @ 70.00 MS

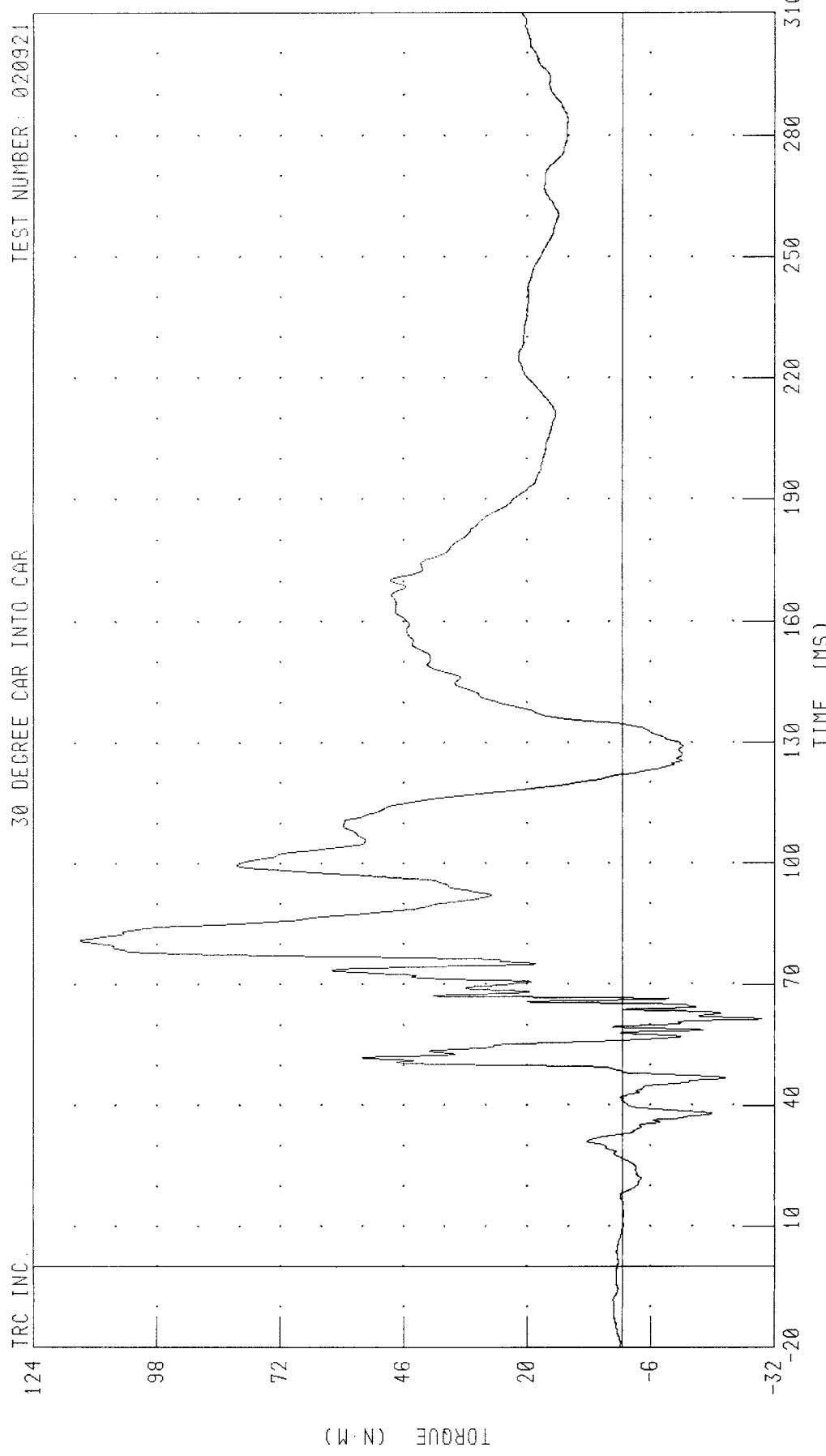
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT FEMUR MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR



CHANNEL: LFMX1 FILTER: CH. CLASS 600
PEAK DATA: 107.32 N·M @ 76.96 MS; -372.68 N·M @ 64.96 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT FEMUR MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



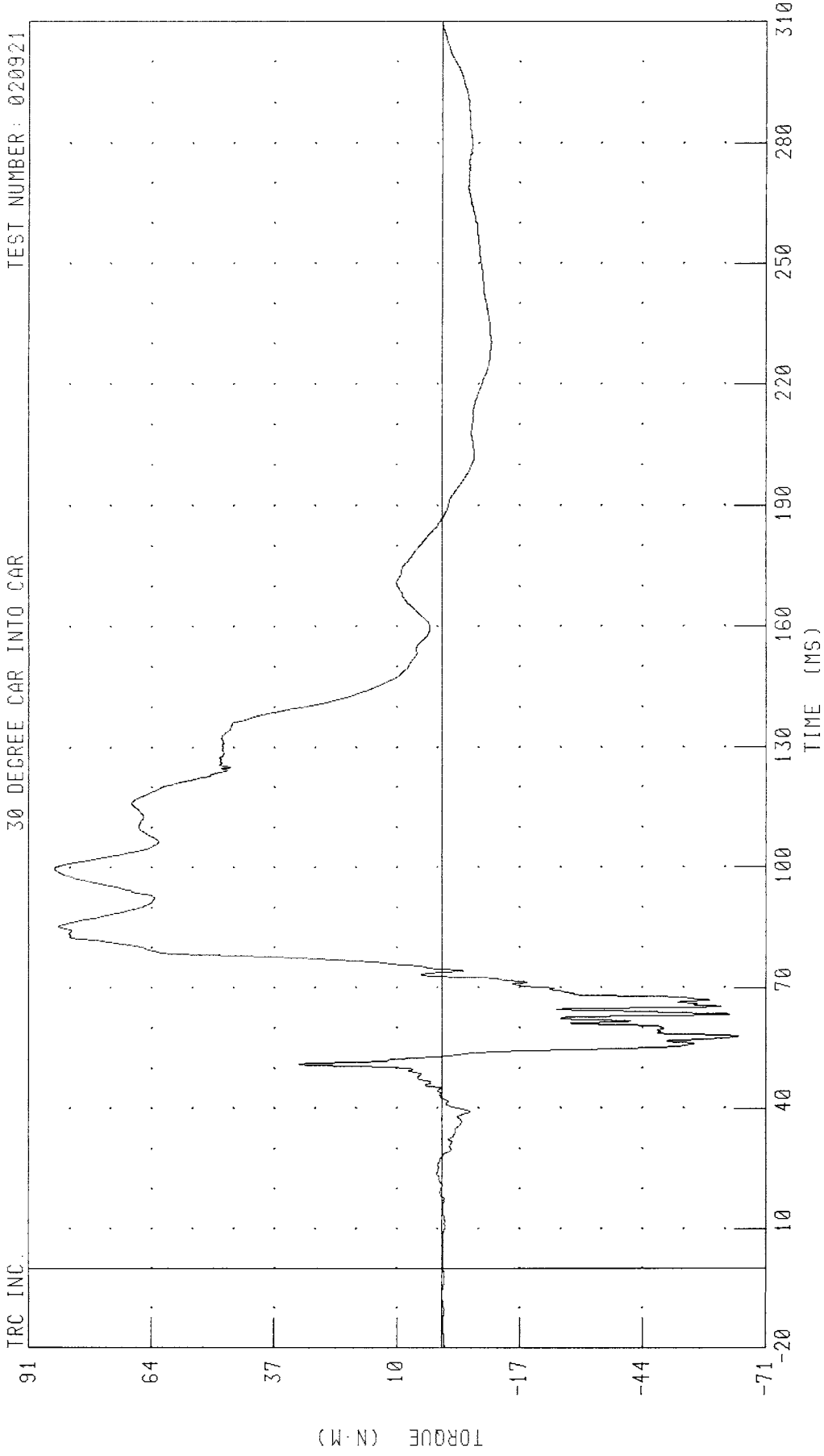
CHANNEL: LFM1 FILTER: CH CLASS 600 PEAK DATA: 114.25 N-M @ 81.12 MS; -29.39 N-M @ 61.52 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER LEFT FEMUR MOMENT ABOUT Z AXIS

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

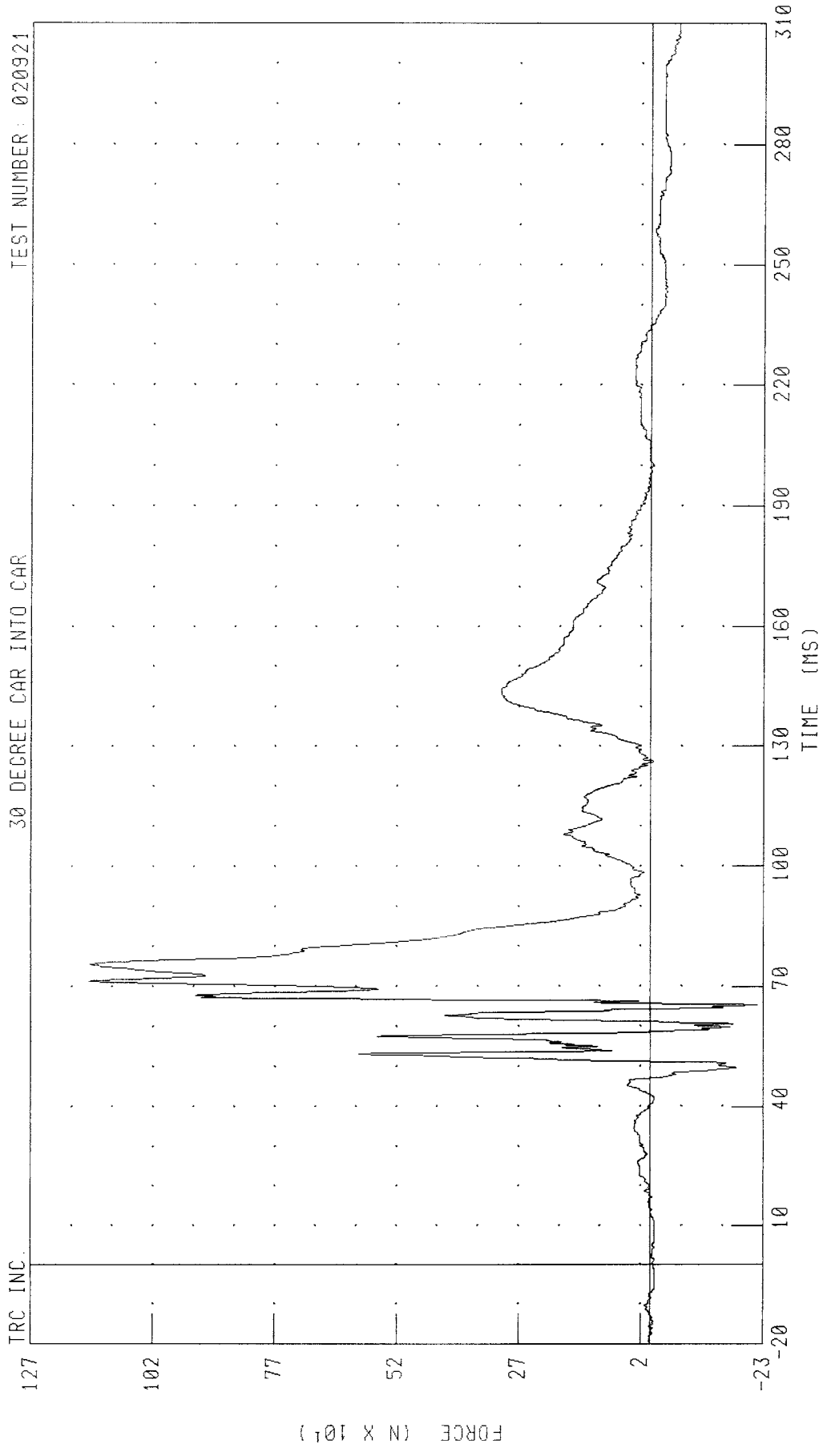


CHANNEL: LFMZM1

FILTER: CH. CLASS 600

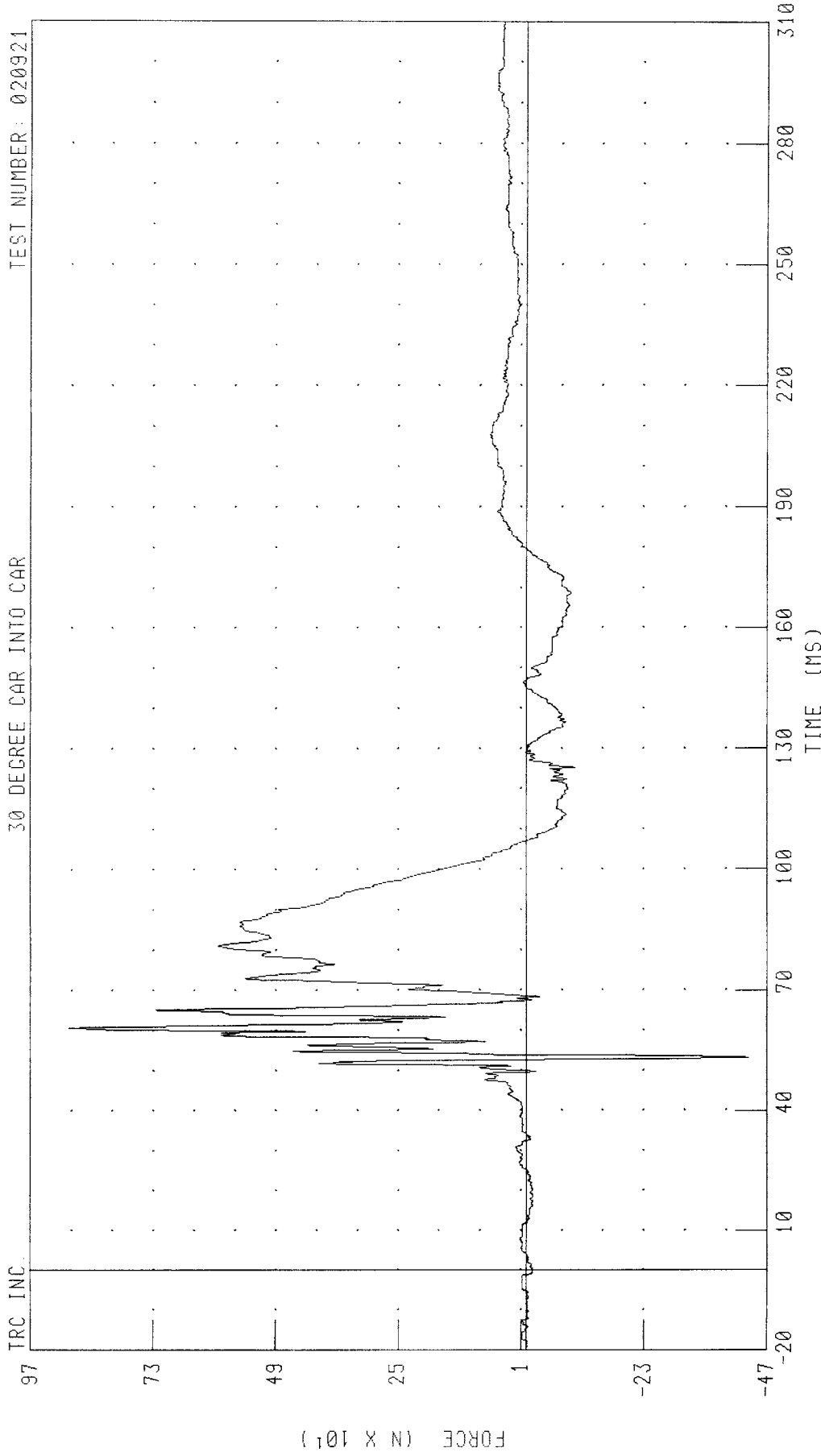
PEAK DATA: 85.43 N·M @ 99.84 MS; -65.10 N·M @ 57.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT FEMUR X-AXIS FORCE



CHANNEL: RFMXF1 FILTER: CH. CLASS 600 PEAK DATA: 1151.25 N @ 71.52 MS, -217.59 N @ 65.28 MS

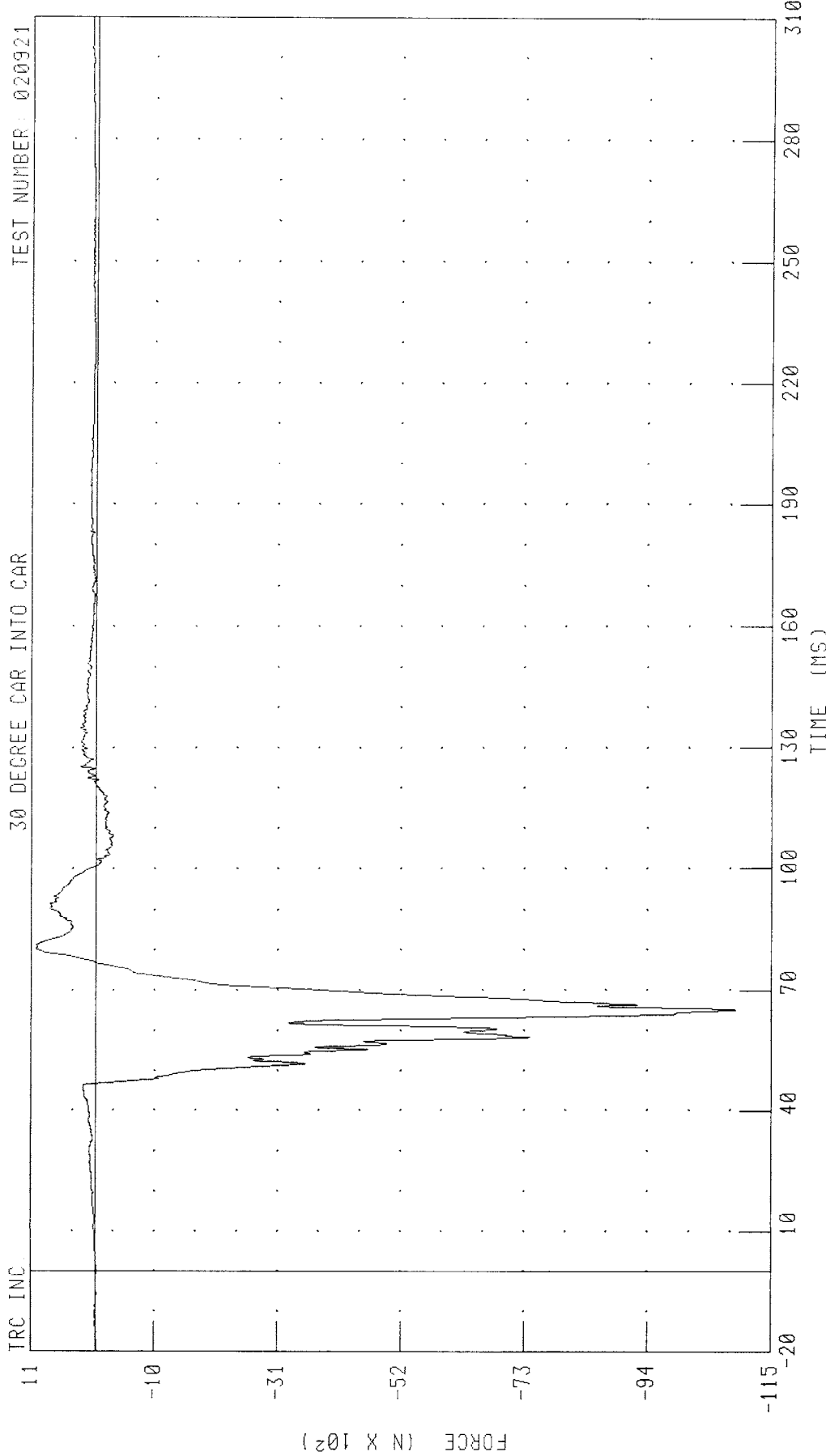
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT FEMUR Y-AXIS FORCE



CHANNEL: RFMYF1 FILTER: CH. CLASS 600 PEAK DATA: 895.52 N @ 60.72 MS; -434.11 N @ 53.20 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT FEMUR Z-AXIS FORCE
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



11 IRC INC

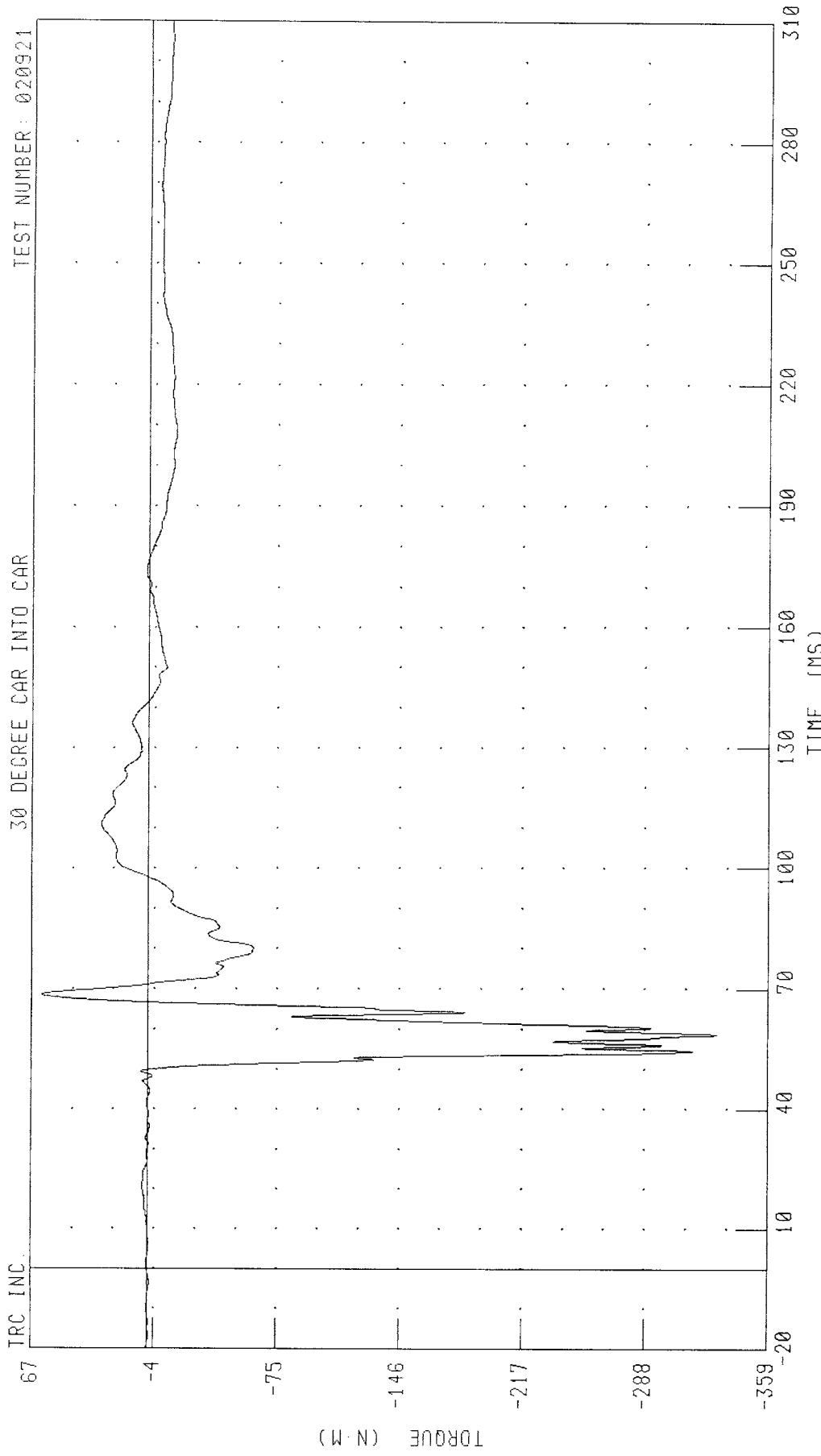
CHANNEL: RFMZF1 FILTER: CH. CLASS 600 PEAK DATA: 1022.16 N @ 80.56 MS; -10903.68 N @ 65.12 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER RIGHT FEMUR MOMENT ABOUT X AXIS

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



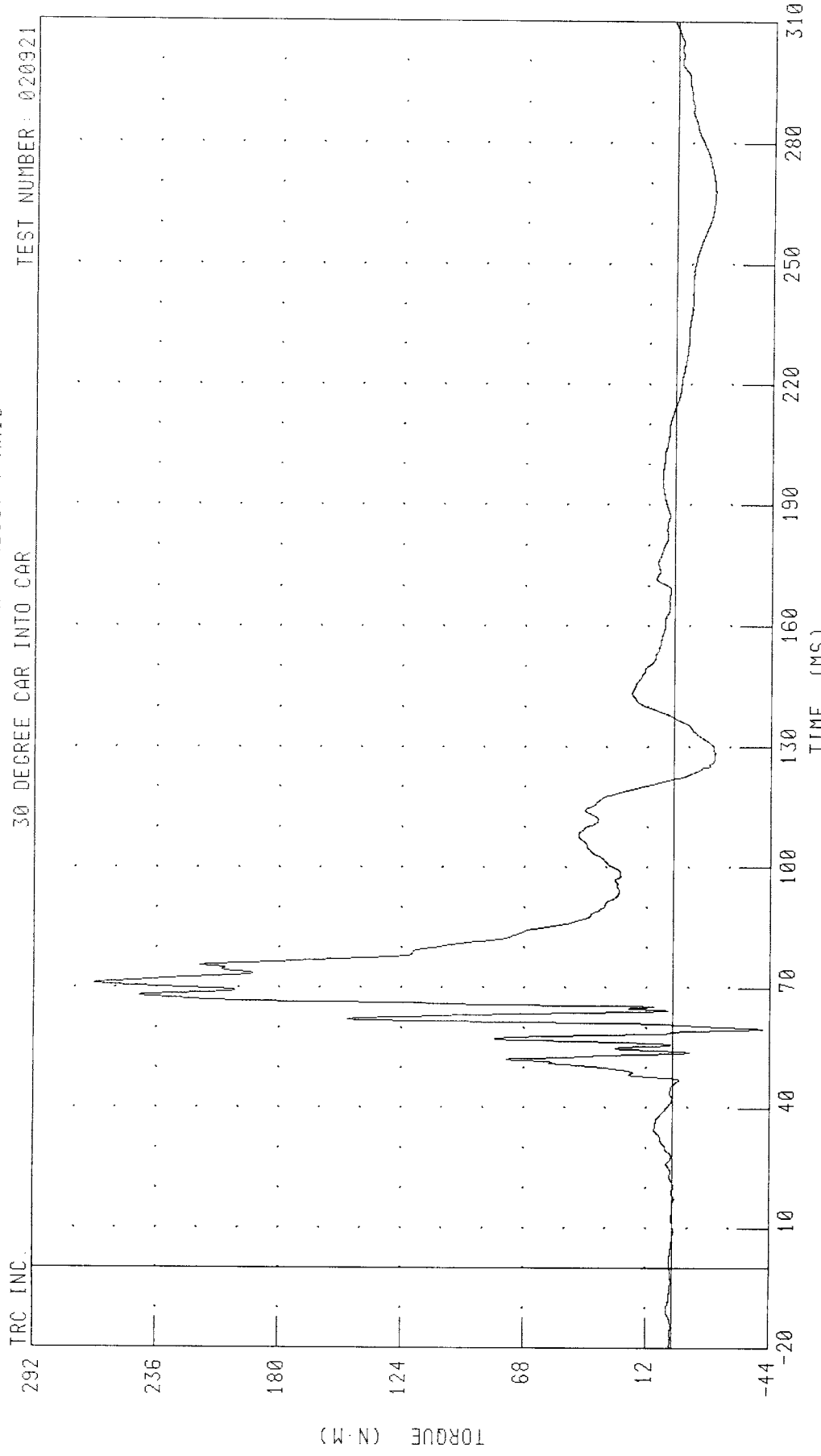
CHANNEL: RFXM1 FILTER: CH. CLASS 600 PEAK DATA: 61.27 N·M @ 68.72 MS, -329.64 N·M @ 58.72 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER RIGHT FEMUR MOMENT ABOUT Y AXIS

TRC INC.

TEST NUMBER: 020921



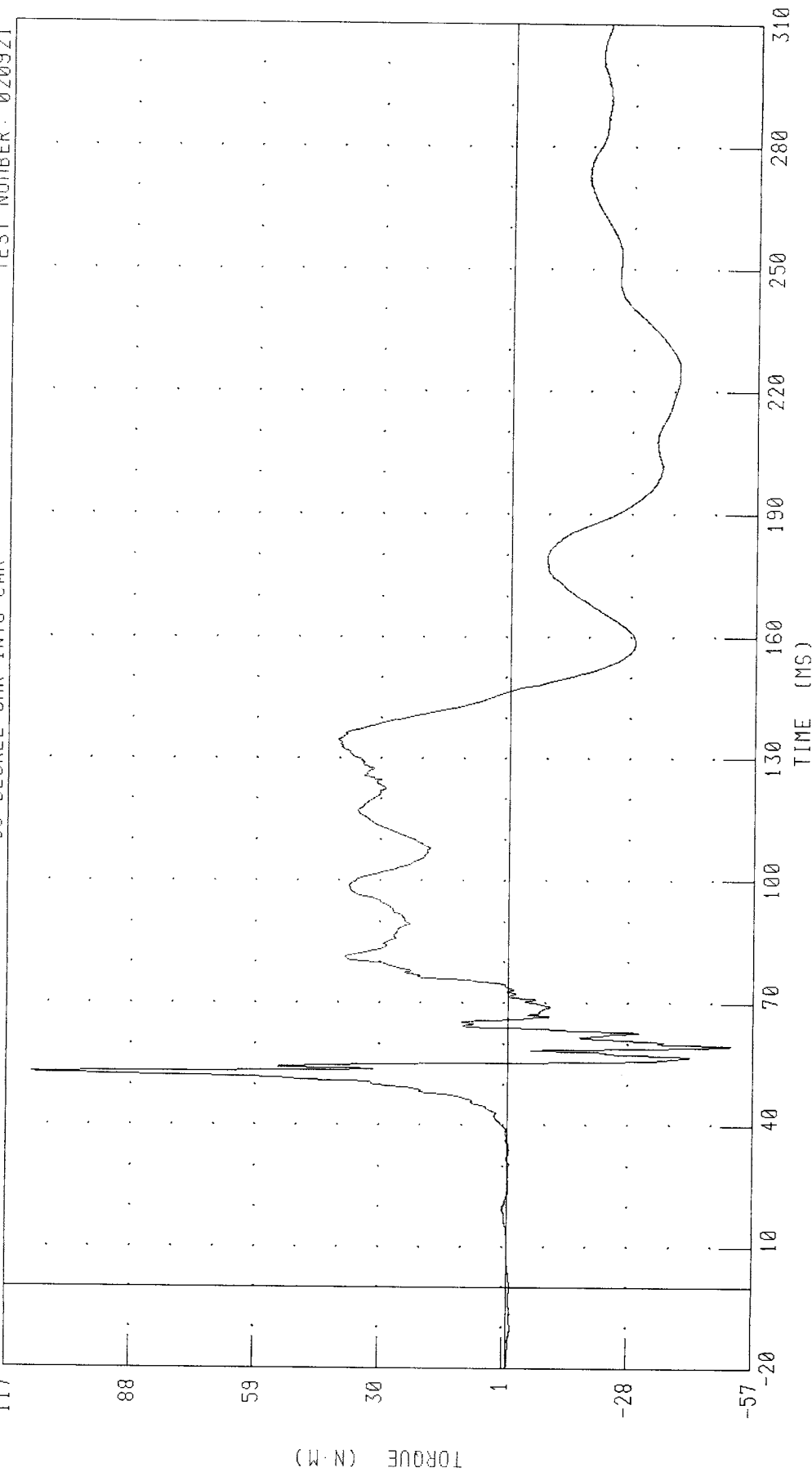
CHANNEL: RFMYM1 FILTER: CH. CLASS 600 PEAK DATA: 264.82 N·M @ 71.28 MS; -40.78 N·M @ 59.76 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER RIGHT FEMUR MOMENT ABOUT Z AXIS
30 DEGREE CAR INTO CAR

TRC INC.

TEST NUMBER: 020921



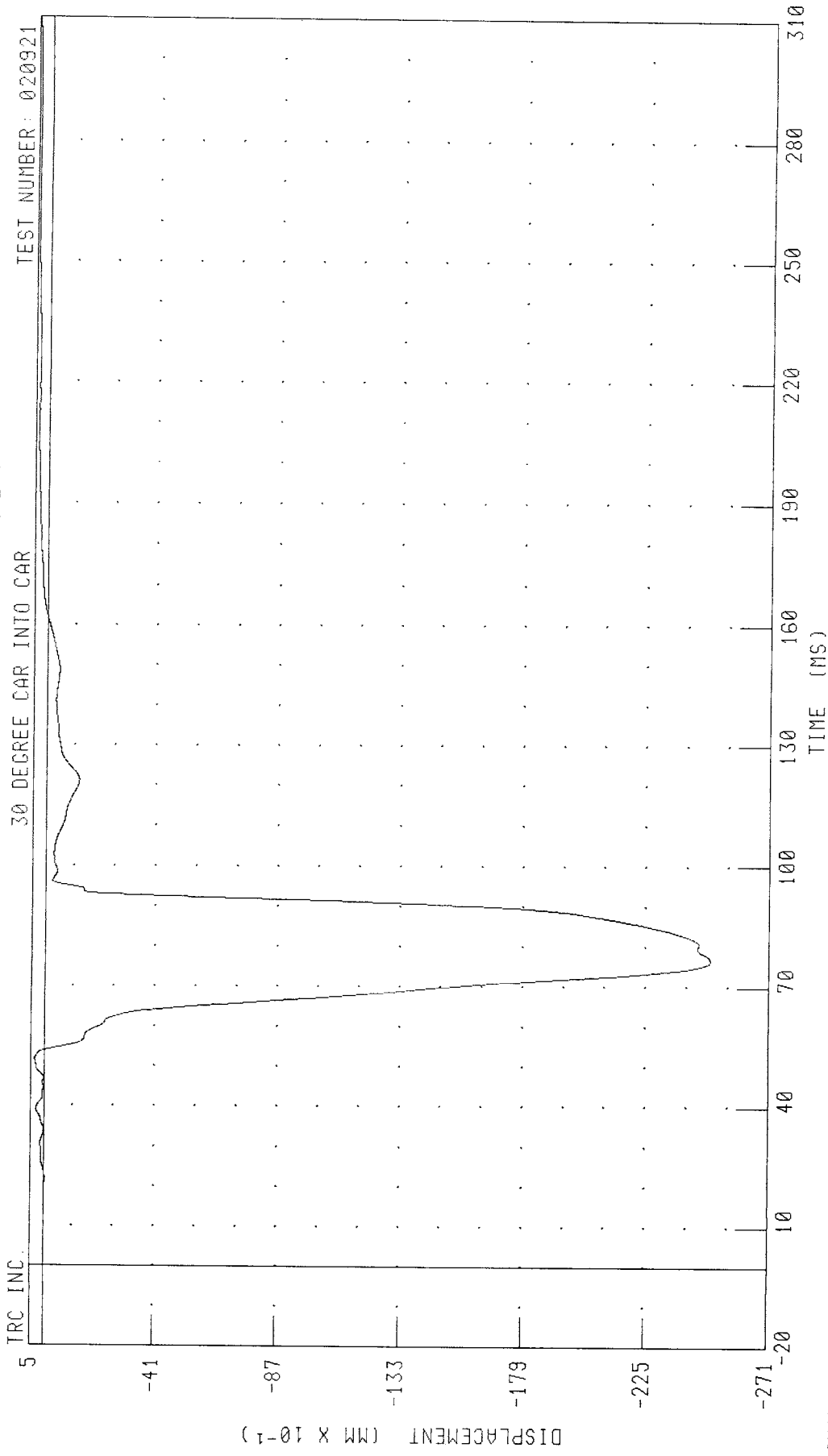
CHANNEL: RFMZM1

FILTER: CH. CLASS 600

TIME (MS)

PEAK DATA: 111.22 N·M @ 53.04 MS, -51.99 N·M @ 59.60 MS

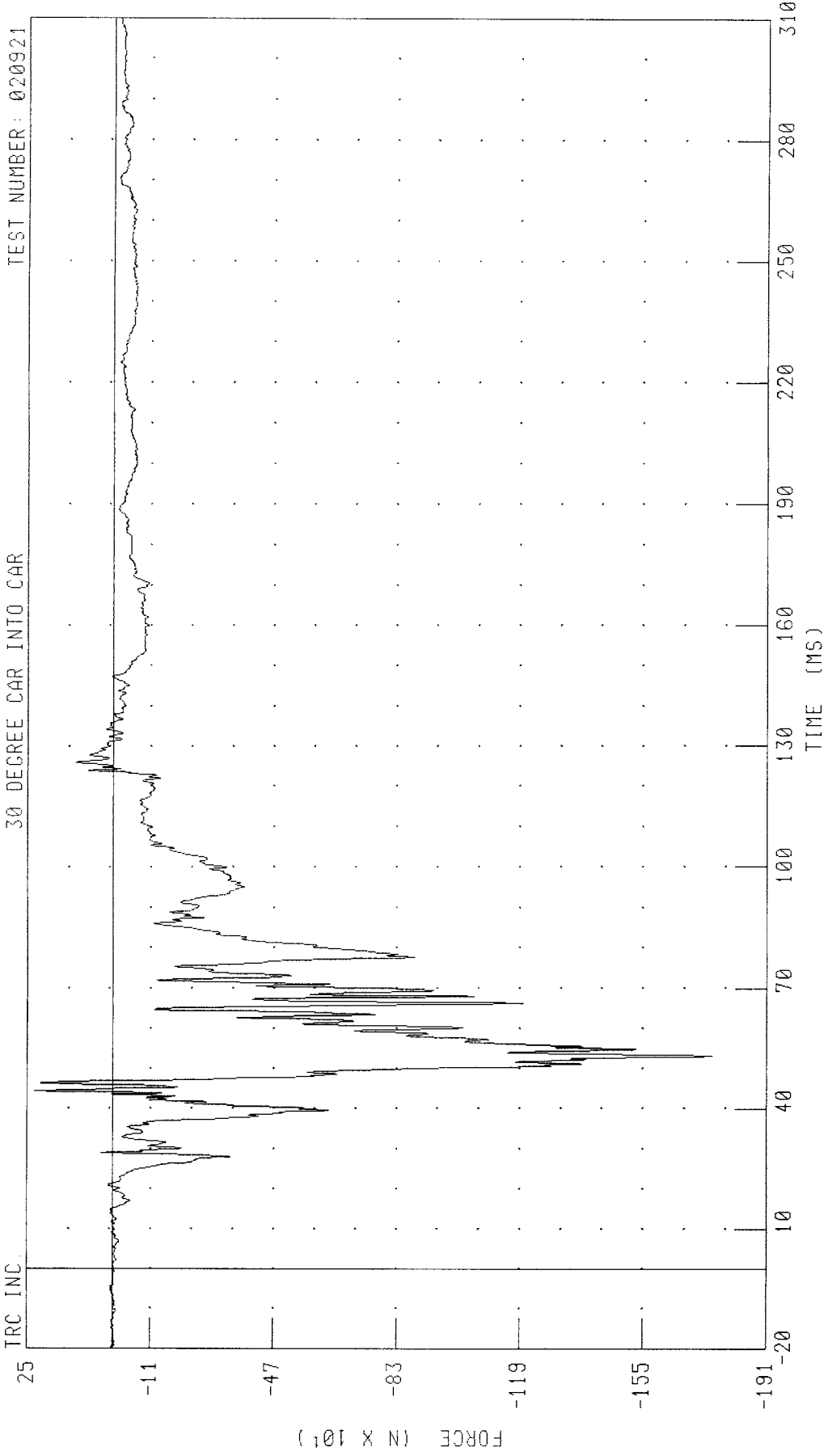
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT KNEE DISPLACEMENT
30 DEGREE CAR INTO CAR



CHANNEL: KNLXD1 FILTER: CH. CLASS 180
PEAK DATA: 0.46 MM @ 309.44 MS, -24.92 MM @ 76.72 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT UPPER TIBIA Z-AXIS FORCE
30 DEGREE CAR INTO CAR

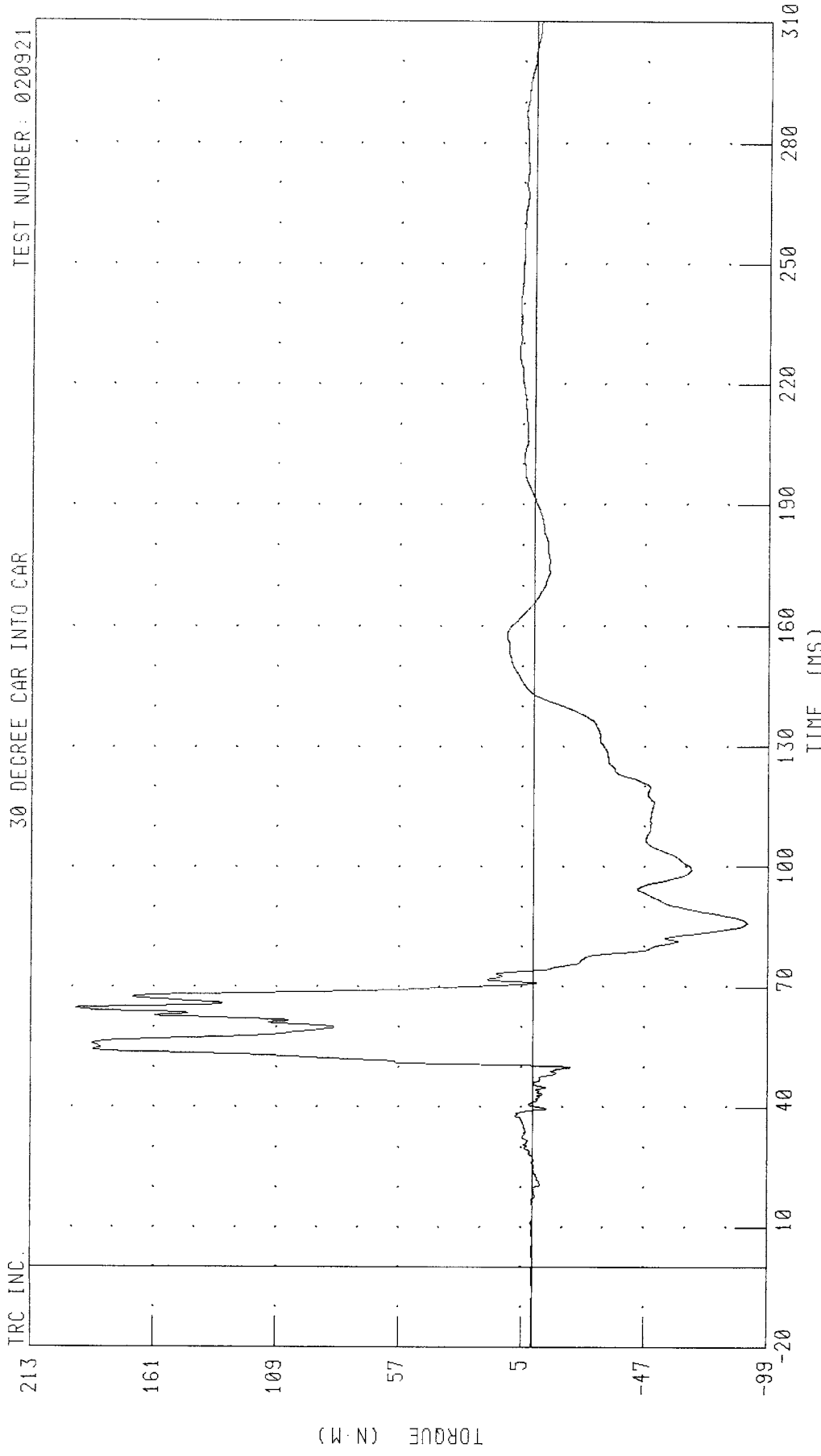
TRC INC. TEST NUMBER: 020921



CHANNEL: TBLZF1 FILTER: CH. CLASS 600 PEAK DATA: 229.75 N @ 44.48 MS, -1752.44 N @ 53.12 MS

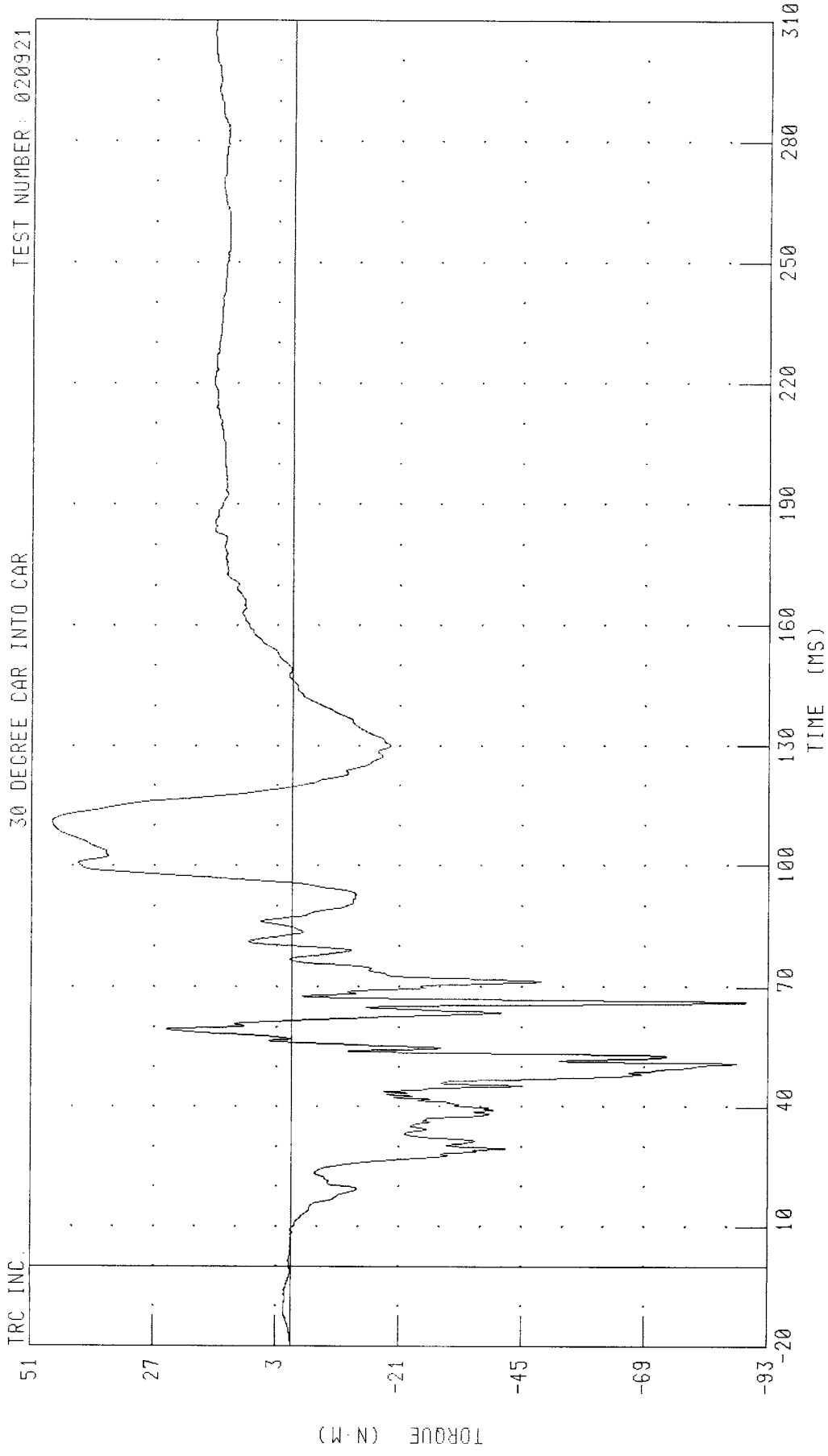
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT UPPER TIBIA MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



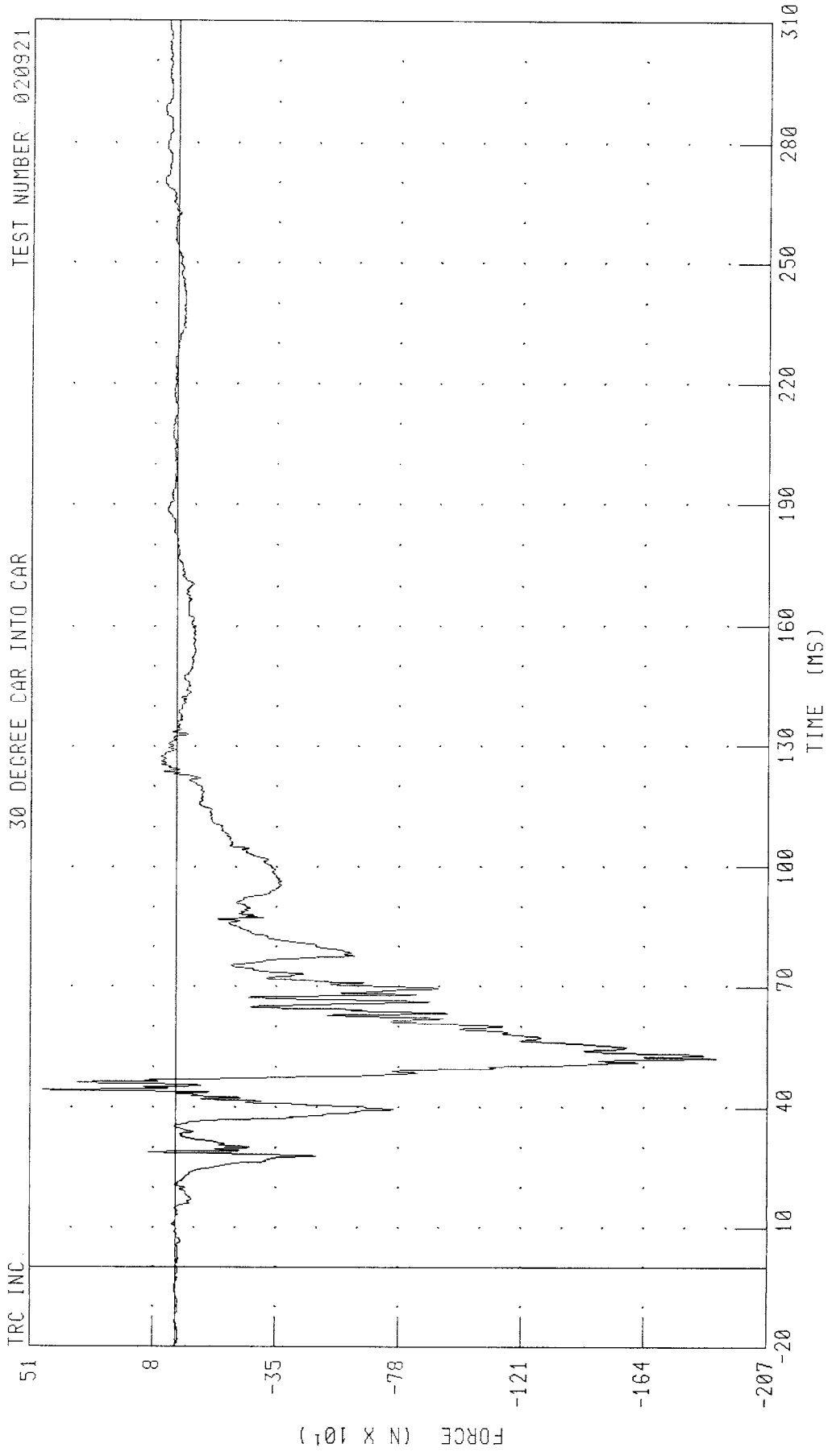
CHANNEL: TBLX1 FILTER: CH. CLASS 600
PEAK DATA: 194.09 N·M @ 64.88 MS; -90.48 N·M @ 85.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR



CHANNEL: TBL Y M1 FILTER: CH. CLASS 600
PEAK DATA: 47.07 N·M @ 111.12 MS, -88.79 N·M @ 66.24 MS

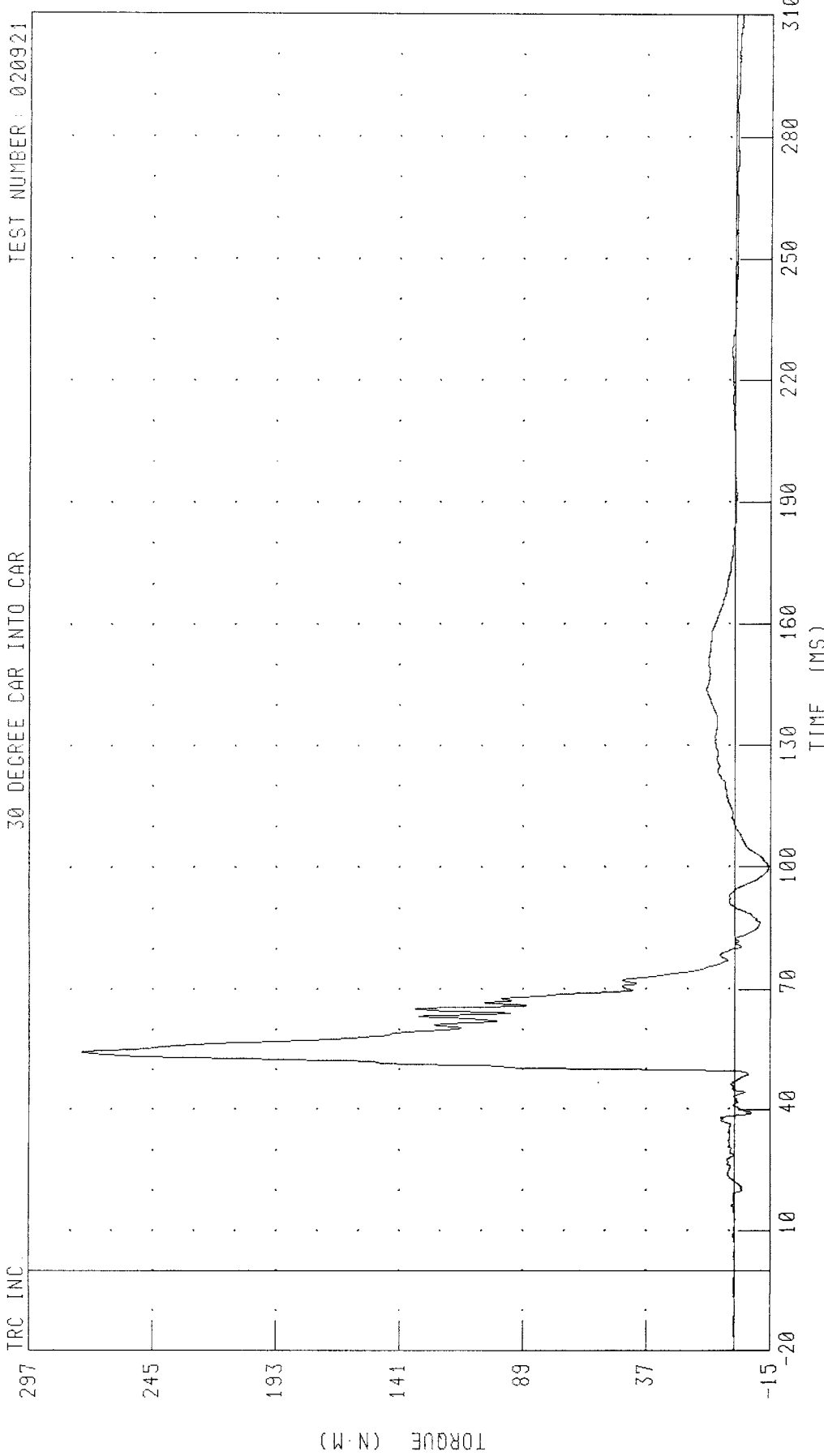
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT LOWER TIBIA Z-AXIS FORCE
30 DEGREE CAR INTO CAR



CHANNEL: ANLZF1 FILTER: CH. CLASS 600 PEAK DATA: 466.50 N @ 44.40 MS; -1890.38 N @ 52.16 MS

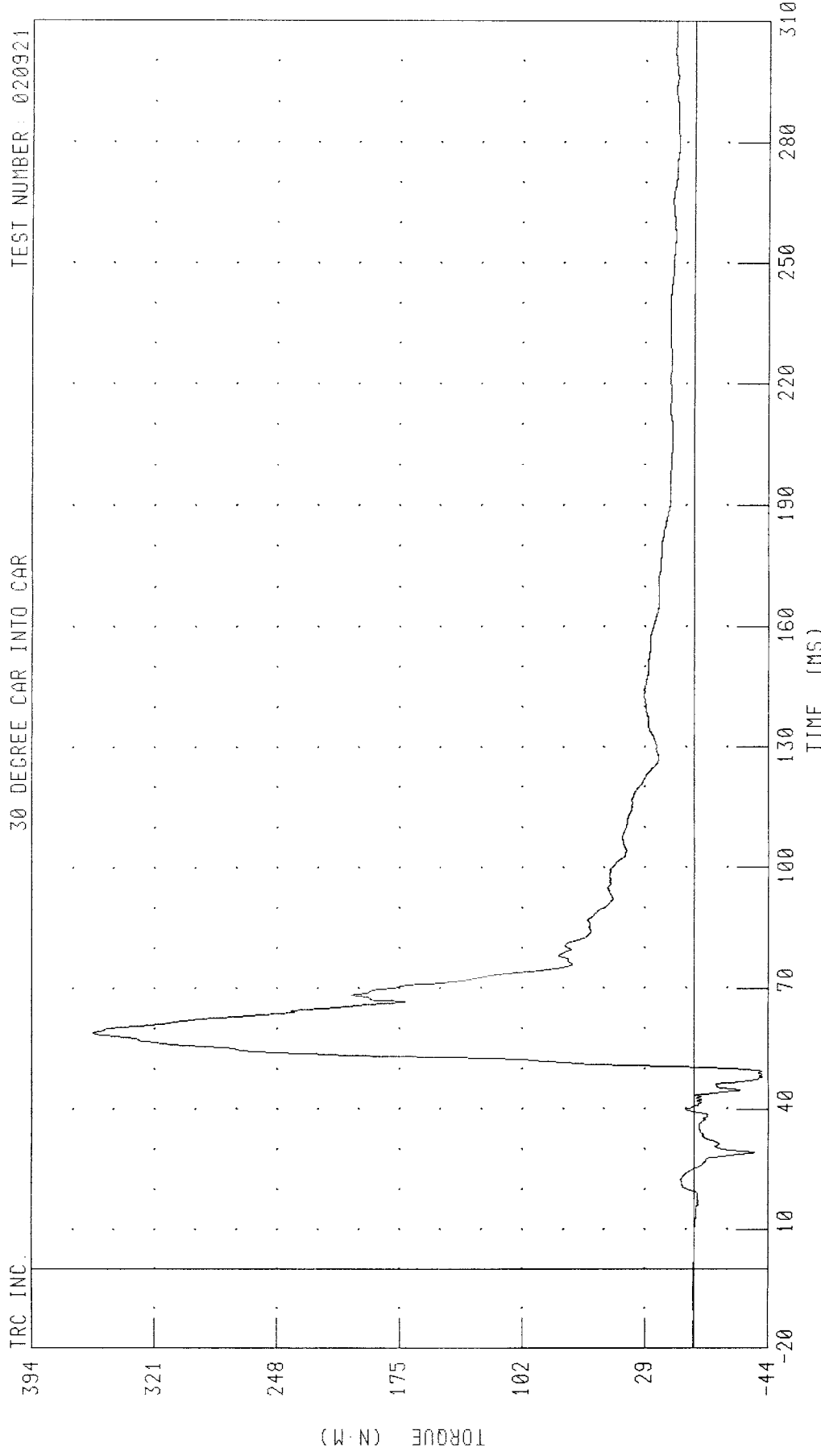
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT LOWER TIBIA MOMENT ABOUT X AXIS

TRC INC. TEST NUMBER: 020921



CHANNEL: ANLXM1 FILTER: CH. CLASS 600 PEAK DATA: 274.91 N·M @ 54.48 MS, -14.14 N·M @ 99.68 MS

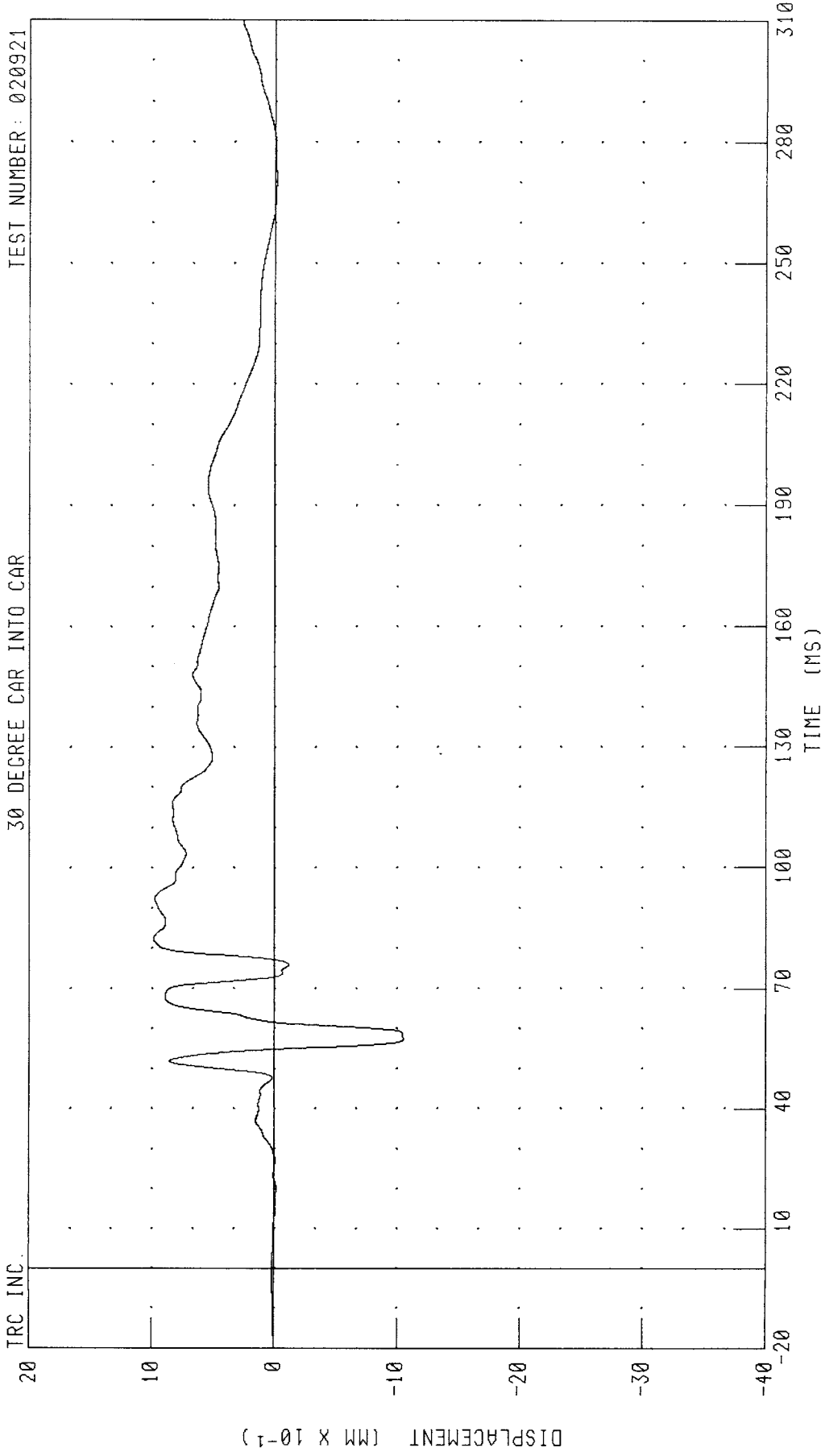
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS



CHANNEL: ANLYM1 FILTER: CH. CLASS 600
PEAK DATA: 357.78 N-M @ 59.04 MS, -40.65 N-M @ 48.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT KNEE DISPLACEMENT

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921

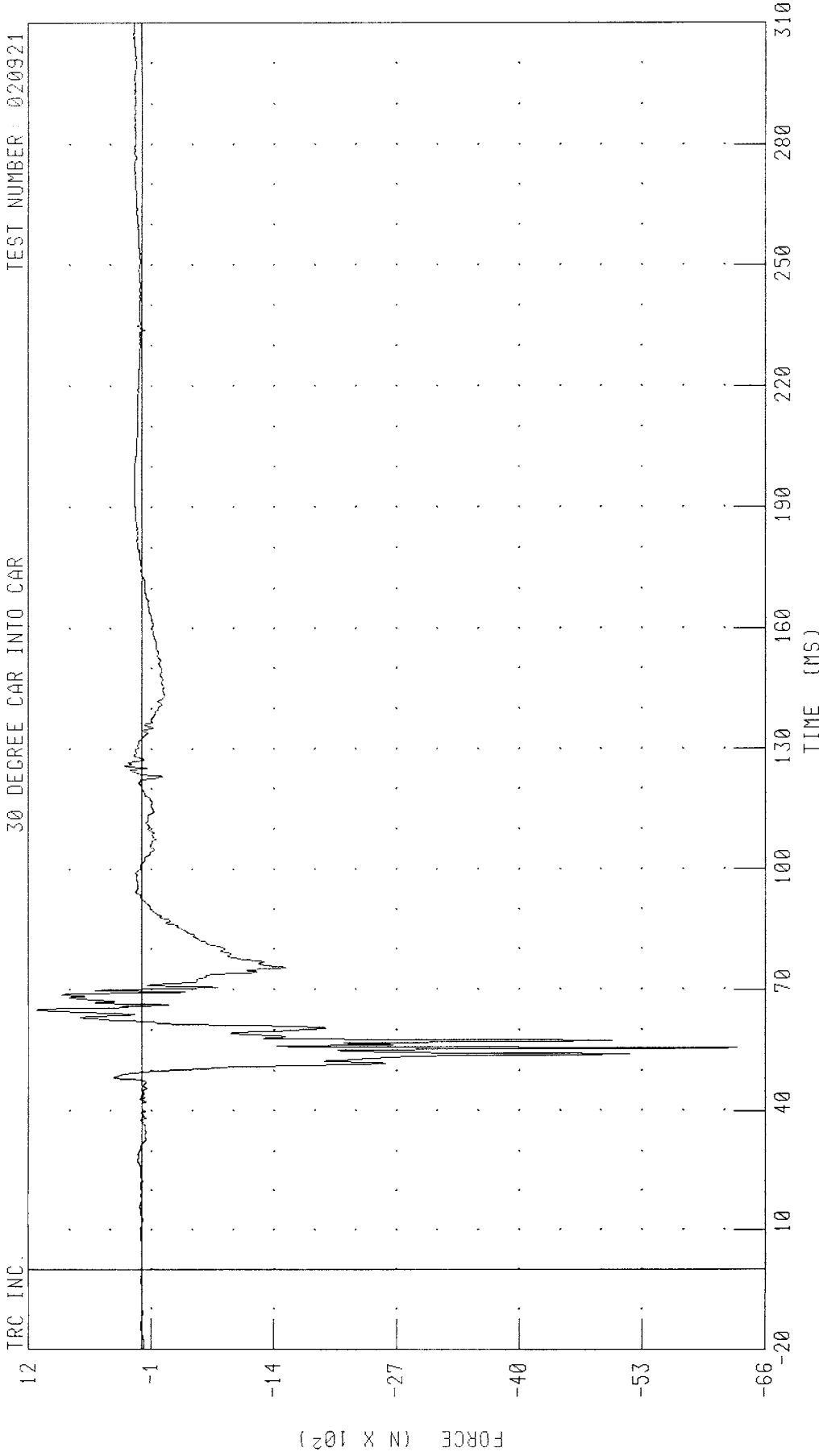


CHANNEL: KNRXD1 FILTER: CH. CLASS 180 PEAK DATA: 0.99 MM @ 82.40 MS, -1.06 MM @ 57.44 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER RIGHT UPPER TIBIA Z-AXIS FORCE

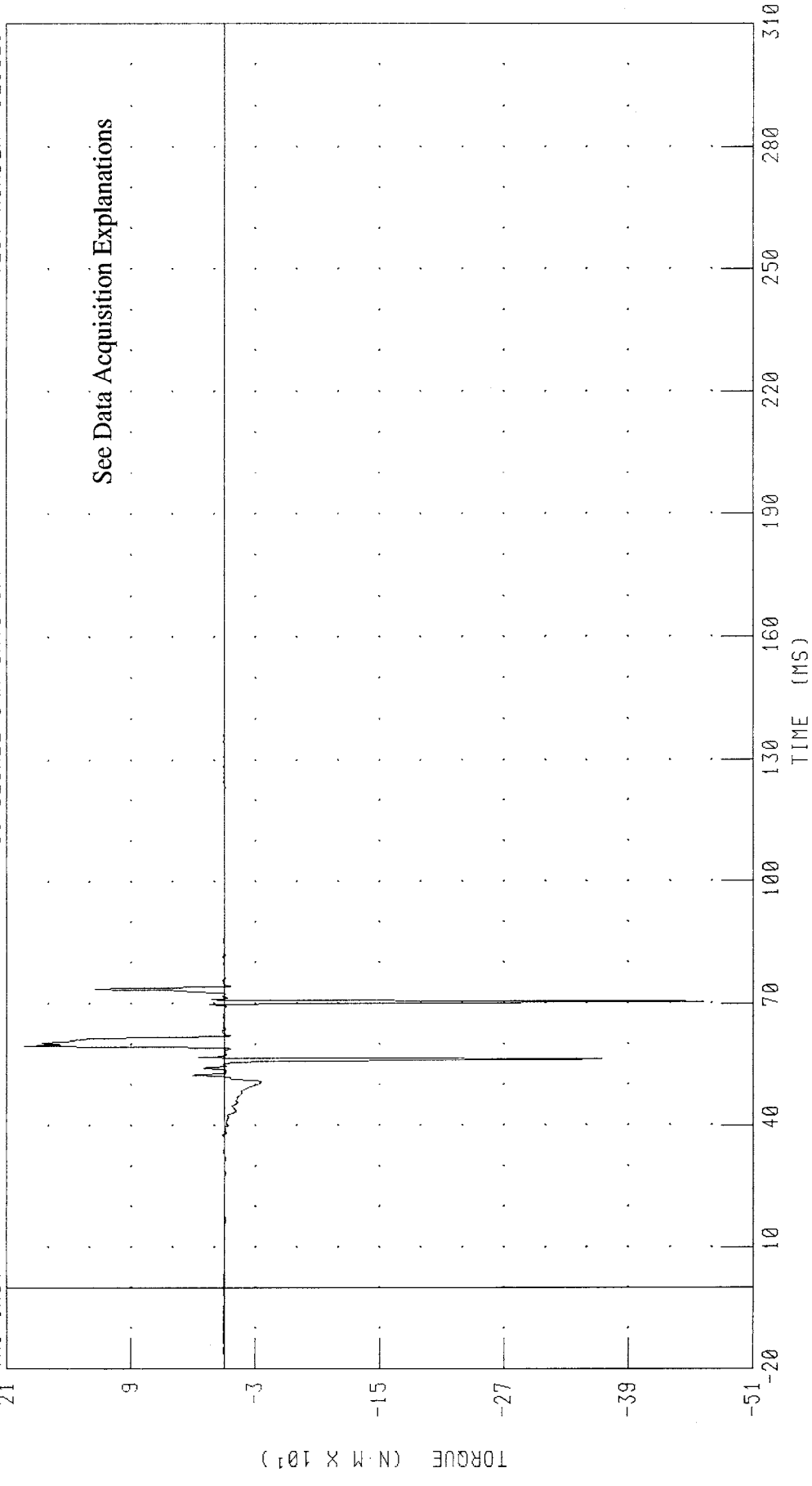
TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: TBRZF1 FILTER: CH. CLASS 600 PEAK DATA: 1112.46 N @ 65.12 MS; -6303.91 N @ 55.60 MS

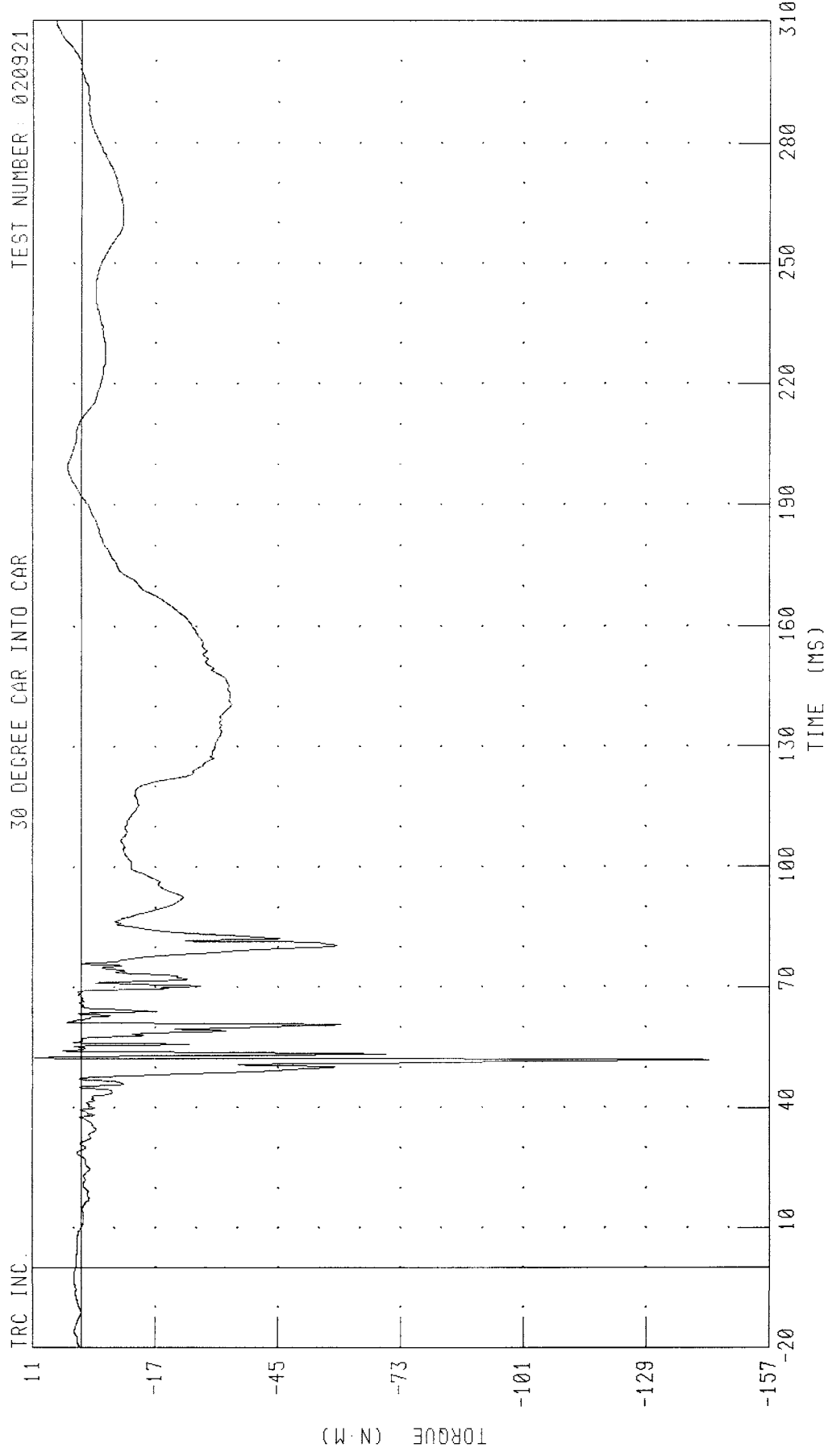
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: TBRX11 FILTER: CH. CLASS 600 PEAK DATA: 192.64 N·M @ 59.76 MS; -462.79 N·M @ 70.48 MS

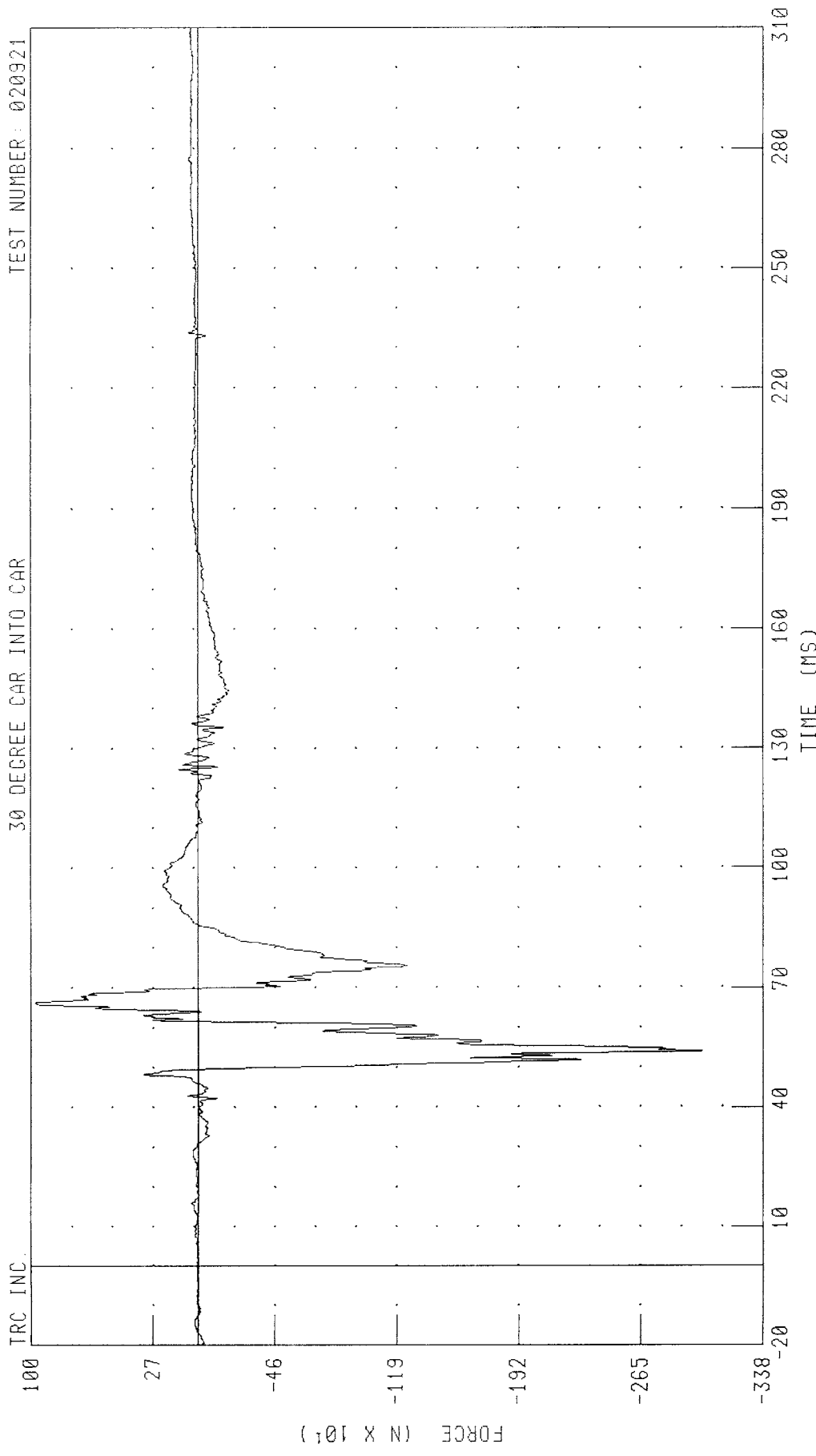
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR



CHANNEL: TBRYM1 FILTER: CH. CLASS 600
PEAK DATA: 10.54 N·M @ 52.64 MS; -143.36 N·M @ 51.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT LOWER TIBIA Z-AXIS FORCE
30 DEGREE CAR INTO CAR

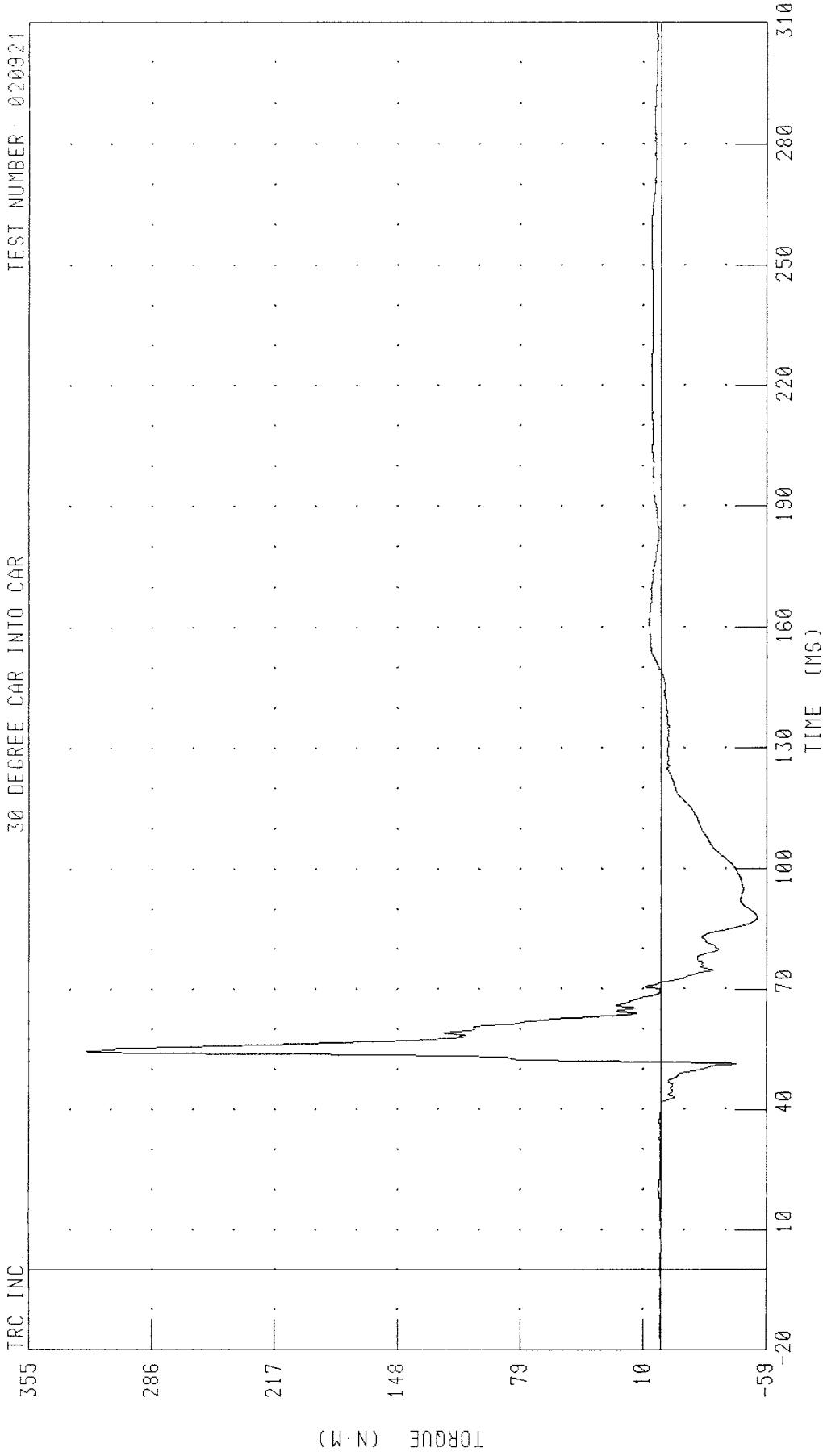
TRC INC. TEST NUMBER: 020921



CHANNEL: ANRZF1 FILTER: CH. CLASS 600 PEAK DATA: 977.46 N @ 66.40 MS; -3013.92 N @ 54.08 MS

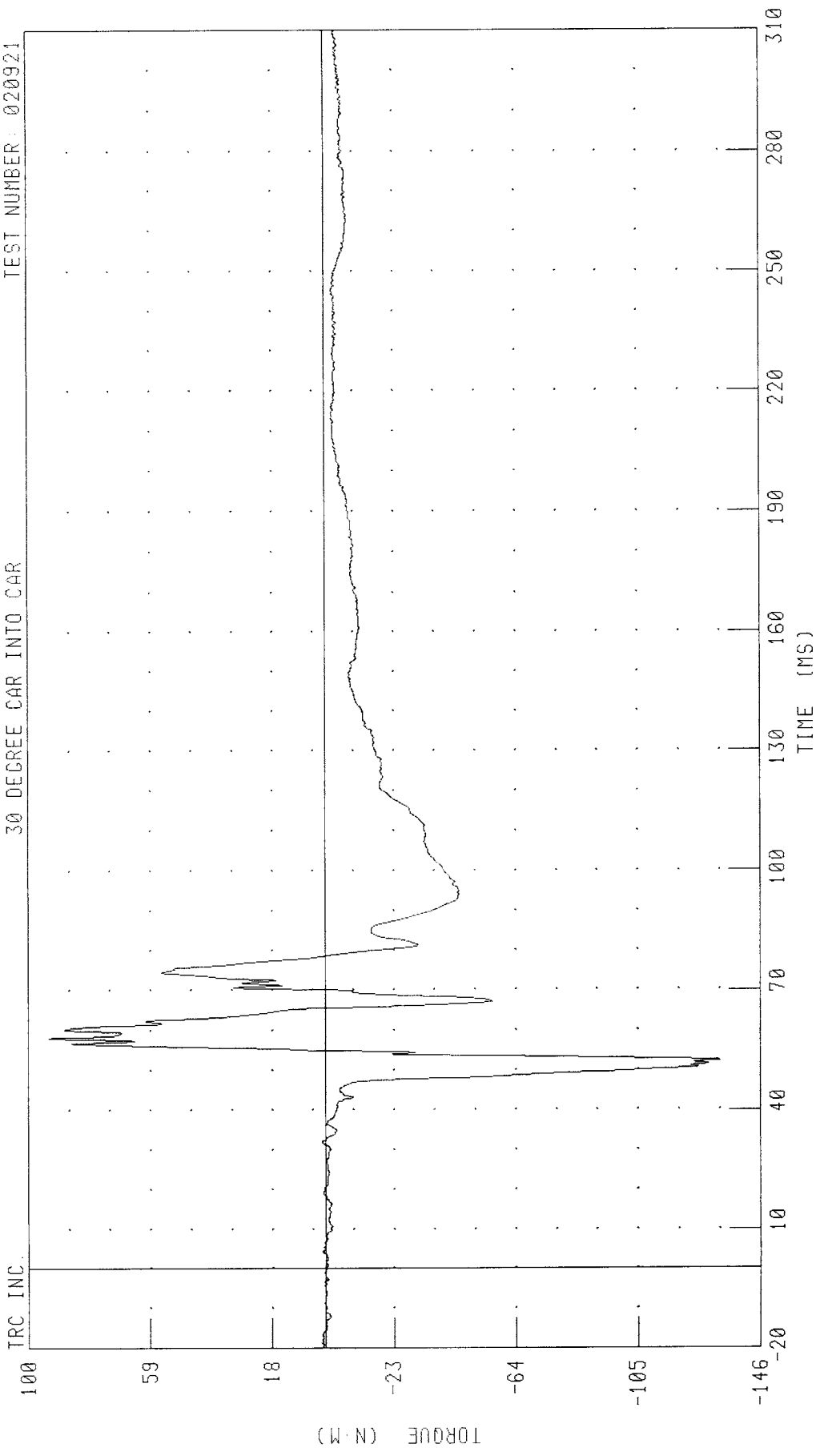
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT LOWER TIBIA MOMENT ABOUT X AXIS

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: ANRXM1 FILTER: CH. CLASS 600 PEAK DATA: 323.14 N-M @ 54.56 MS; -53.97 N-M @ 87.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET DRIVER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921



CHANNEL: ANRYM1 FILTER: CH. CLASS 600
PEAK DATA: 92.99 N·M @ 58.24 MS, -132.62 N·M @ 52.48 MS

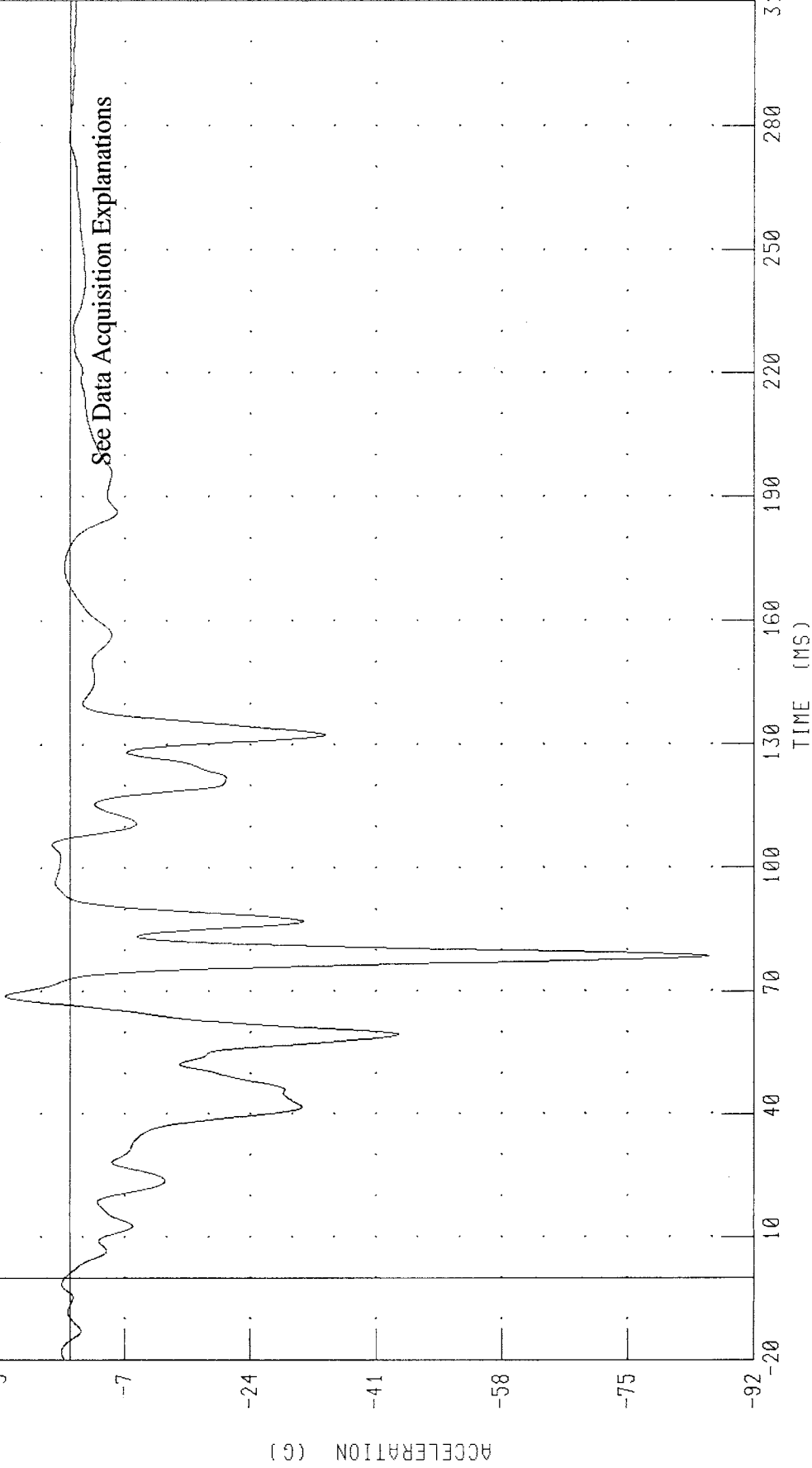
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION

TEST NUMBER: 020921

30 DEGREE CAR INTO CAR

TRC INC.



CHANNEL: VCGXG1 FILTER: CH. CLASS 60 PEAK DATA: 8.75 G @ 69.04 MS; -86.43 G @ 78.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

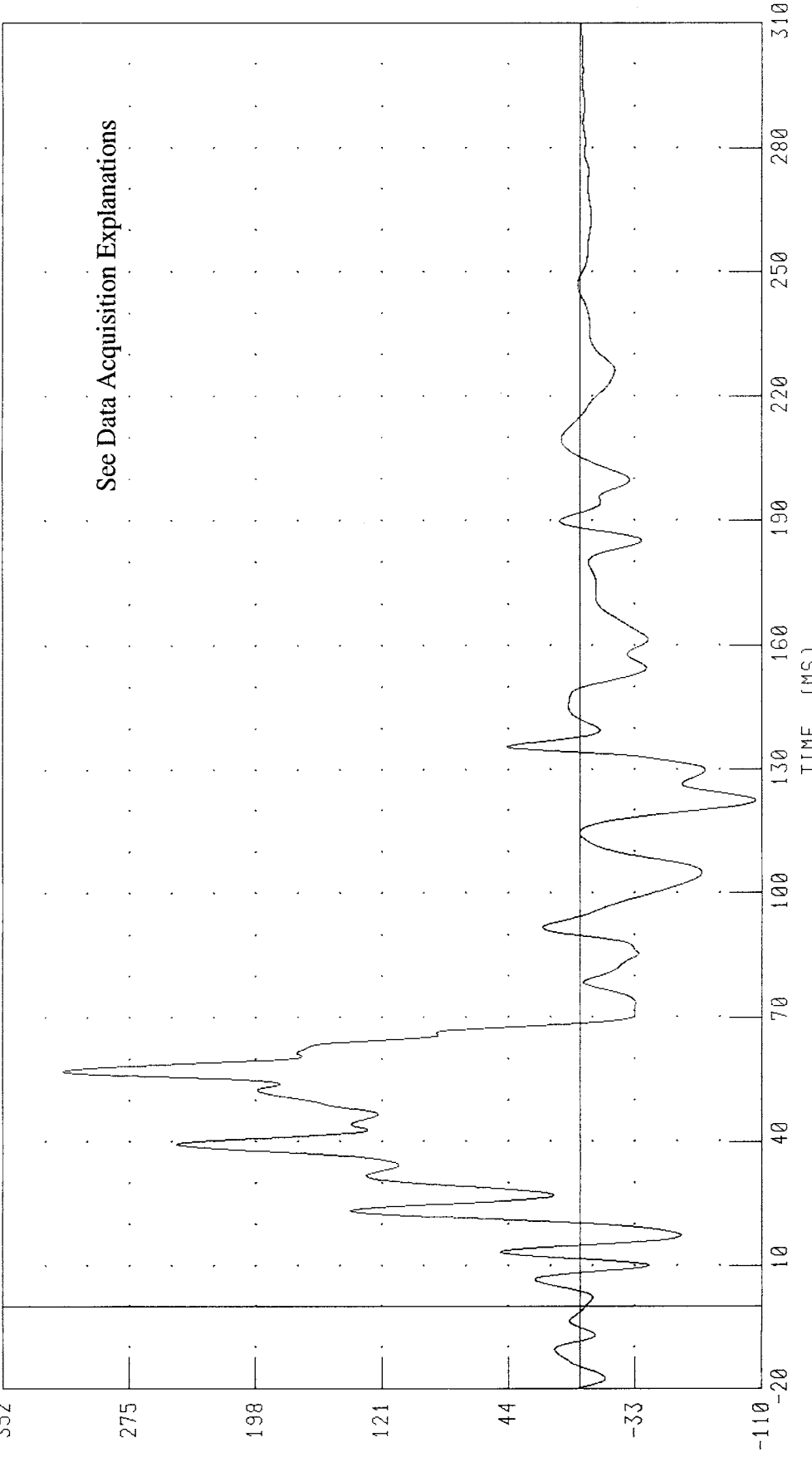
TRC INC.

See Data Acquisition Explanations

ACCELERATION (G X 10⁻¹)

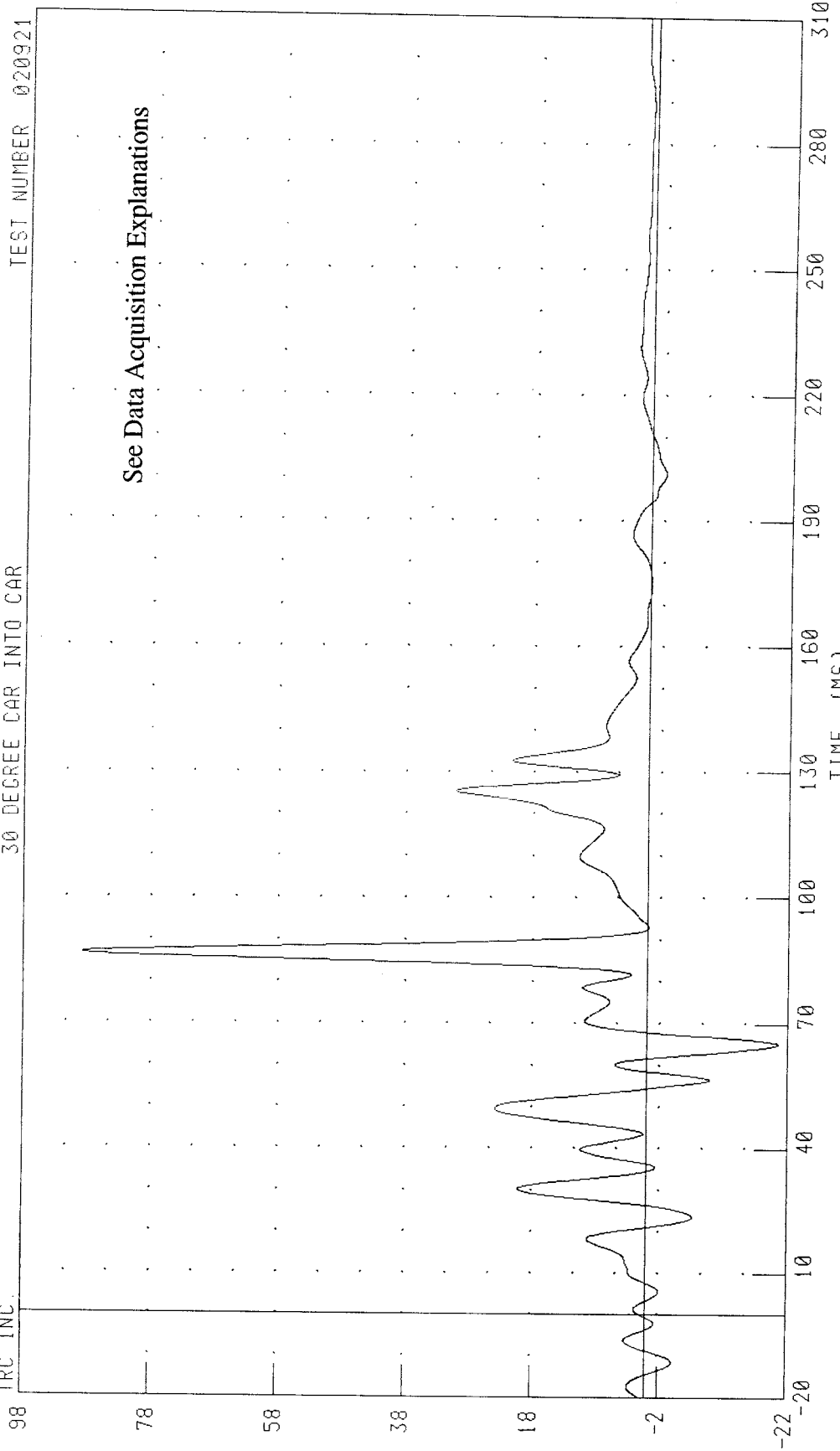
TIME (MS)

CHANNEL: VCCYG1 FILTER: CH. CLASS 60 PEAK DATA: 31.57 G @ 57.12 MS; -10.65 G @ 122.48 MS



2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC.



TEST NUMBER 020921

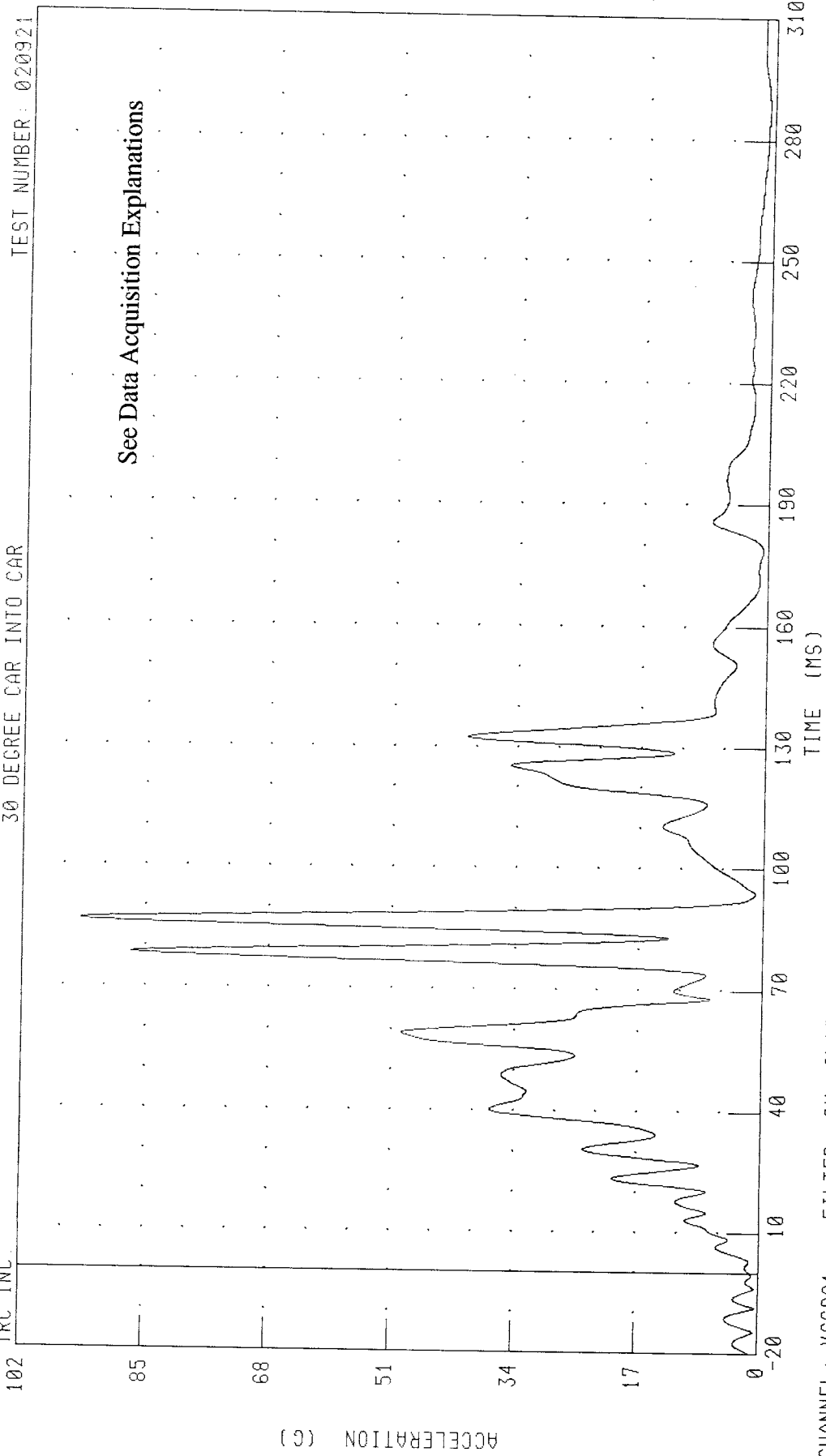
CHANNEL: VCGZG1 FILTER: CH. CLASS 60

PEAK DATA: 88.75 G @ 86.72 MS; -20.48 G @ 65.20 MS

ACCELERATION (G)

TIME (MS)

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR

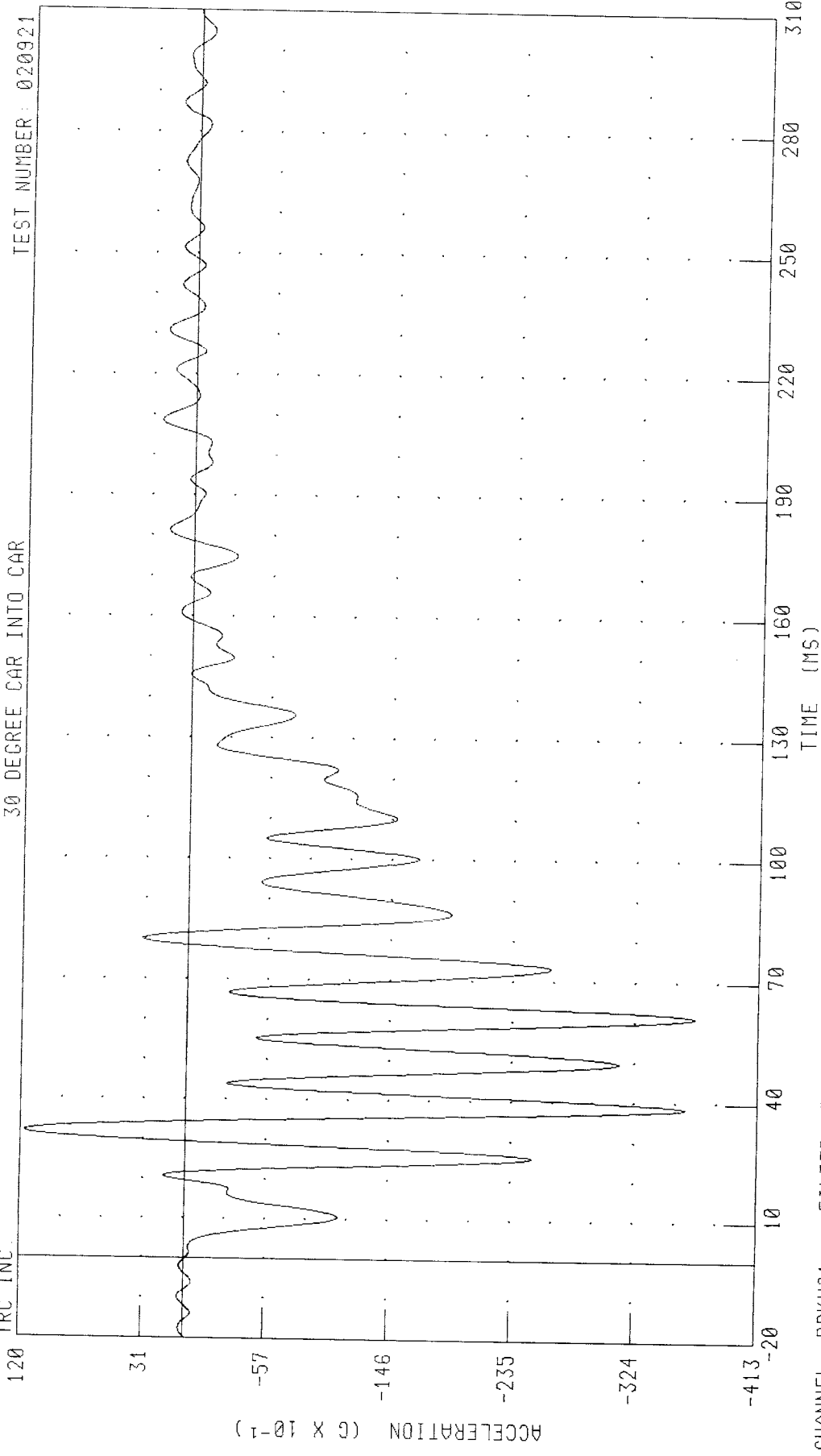


TEST NUMBER: 020921

CHANNEL: VCCRG1 FILTER: CH. CLASS 60

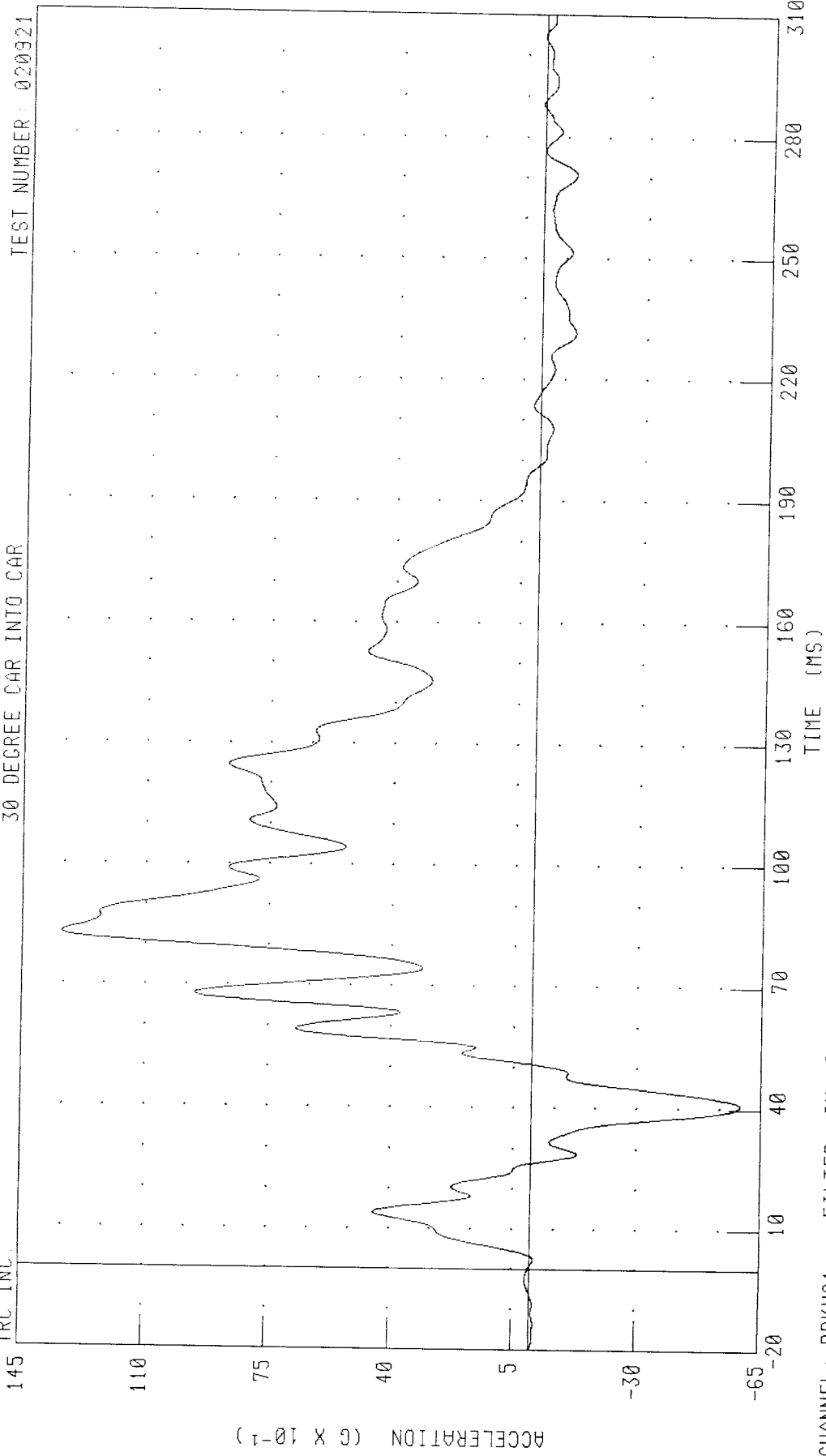
PEAK DATA: 94.04 G @ 86.80 MS; 0.42 G @ -8.64 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET REAR DECK X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RDKXG1 FILTER: CH. CLASS 60
PEAK DATA: 11.72 G @ 32.08 MS; -36.84 G @ 61.12 MS

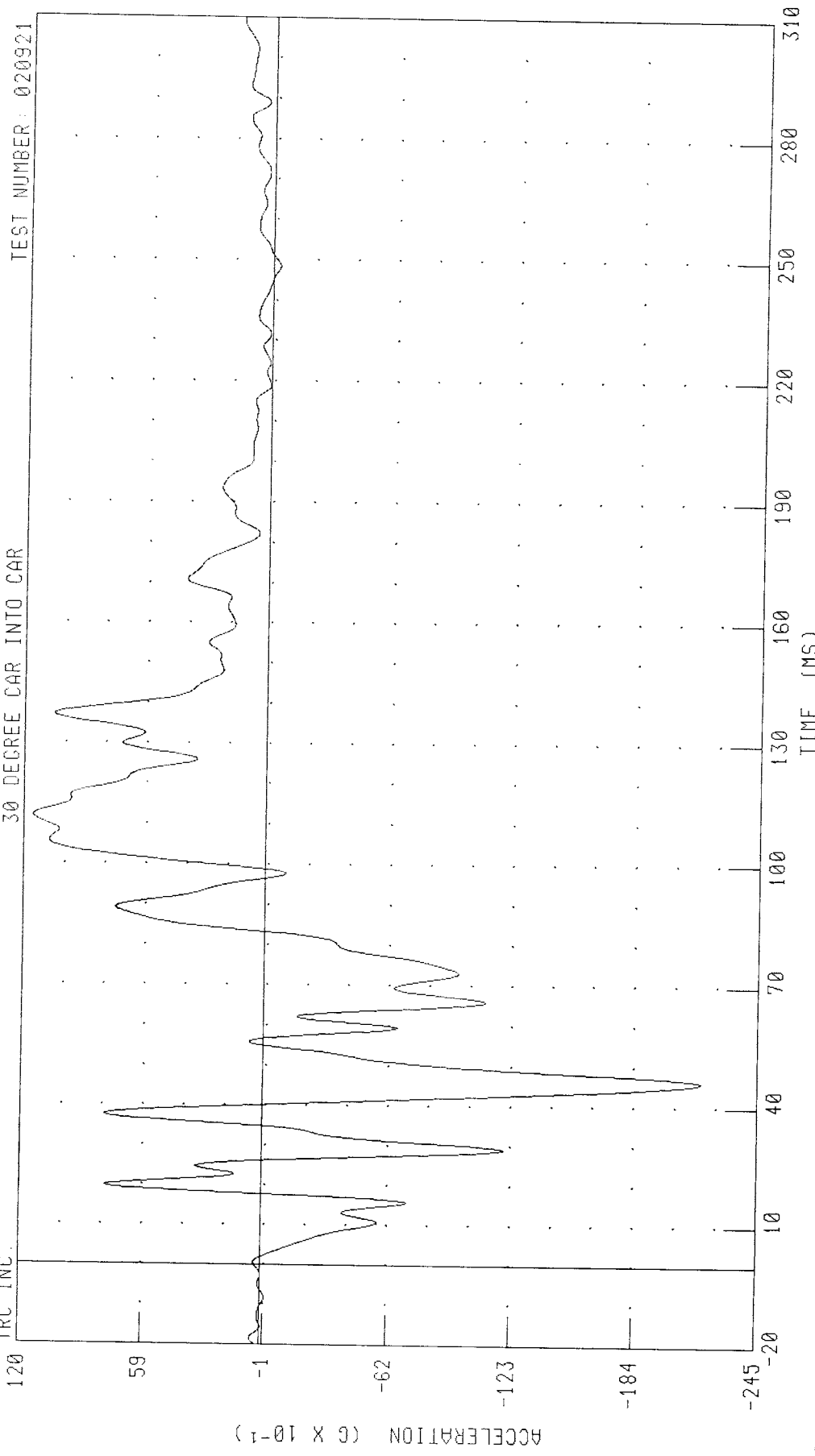
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET REAR DECK Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RDKYG1 FILTER: CH. CLASS 60

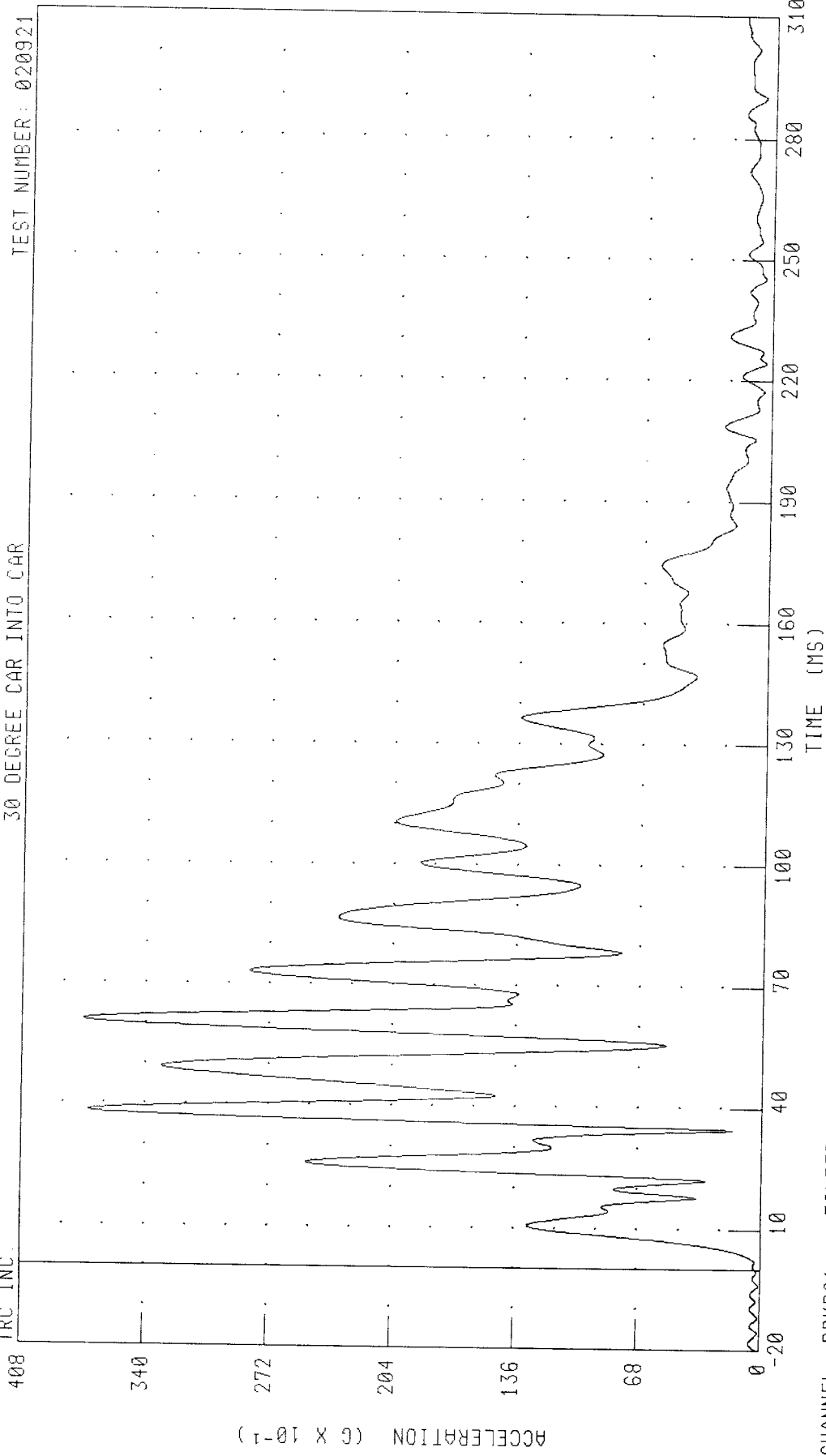
PEAK DATA: 13.38 G @ 83.12 MS, -5.92 G @ 40.80 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET REAR DECK Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



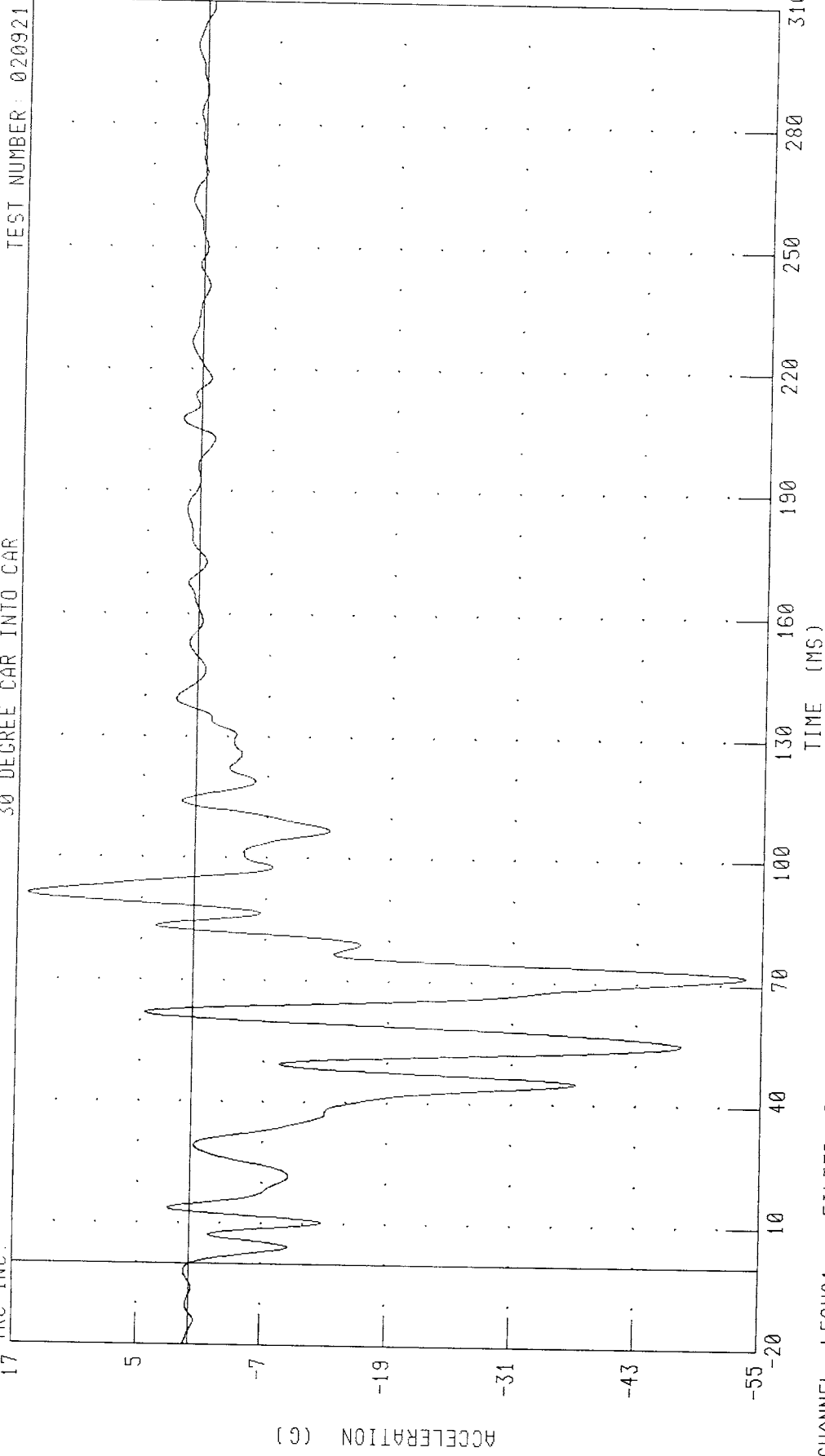
CHANNEL: RDKZG1 FILTER: CH. CLASS 60
PEAK DATA: 11.55 G @ 112.08 MS; -21.80 G @ 46.16 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
TARGET REAR DECK RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RDKRG1 FILTER: CH. CLASS 60
PEAK DATA: 37.43 G @ 61.04 MS; 0.10 G @ -3.92 MS

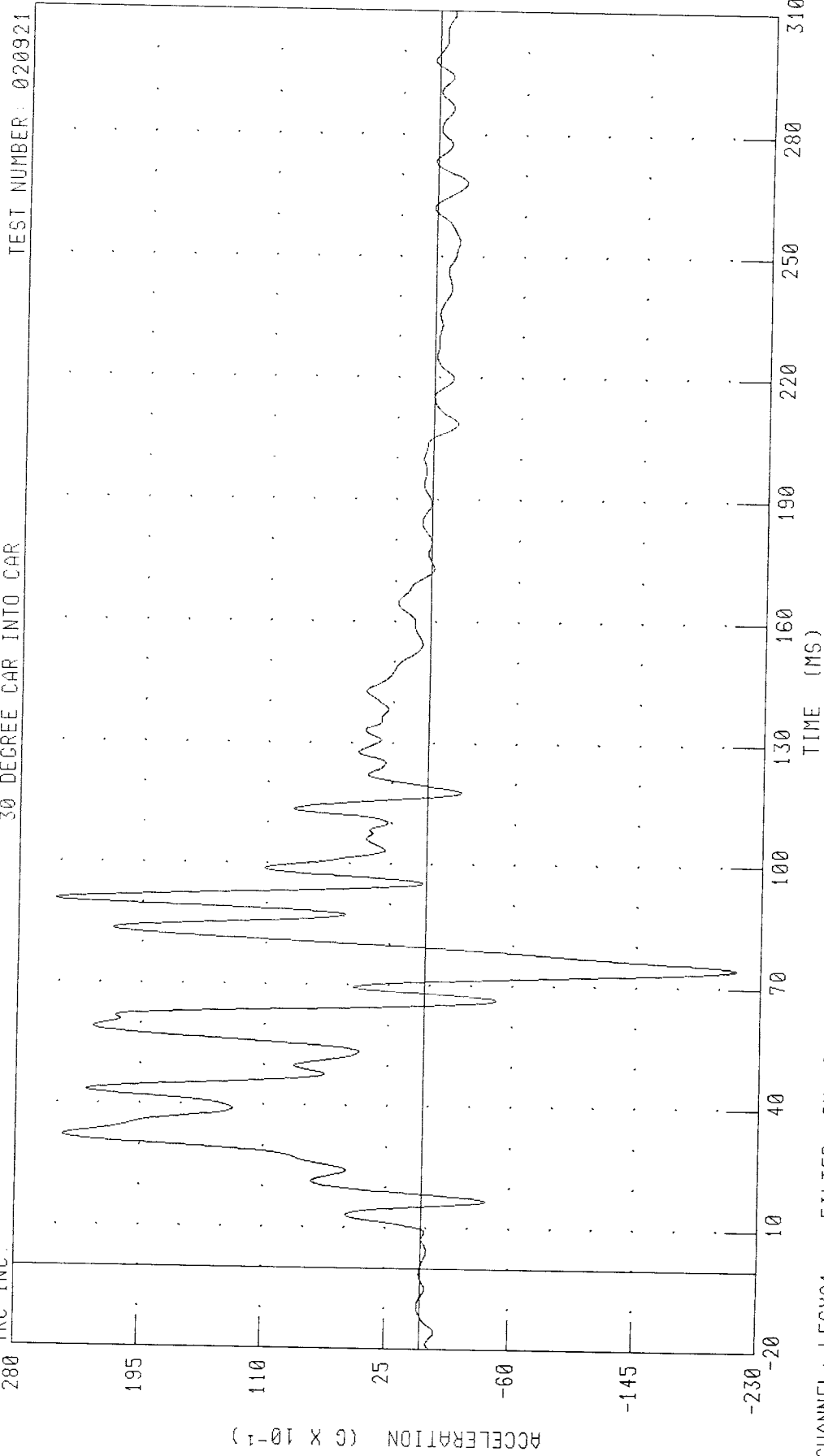
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET LEFT FRONT SILL X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: LFSXG1 FILTER: CH. CLASS 60
PEAK DATA: 15.96 G @ 91.20 MS; -53.44 G @ 71.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
TARGET LEFT FRONT SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC.



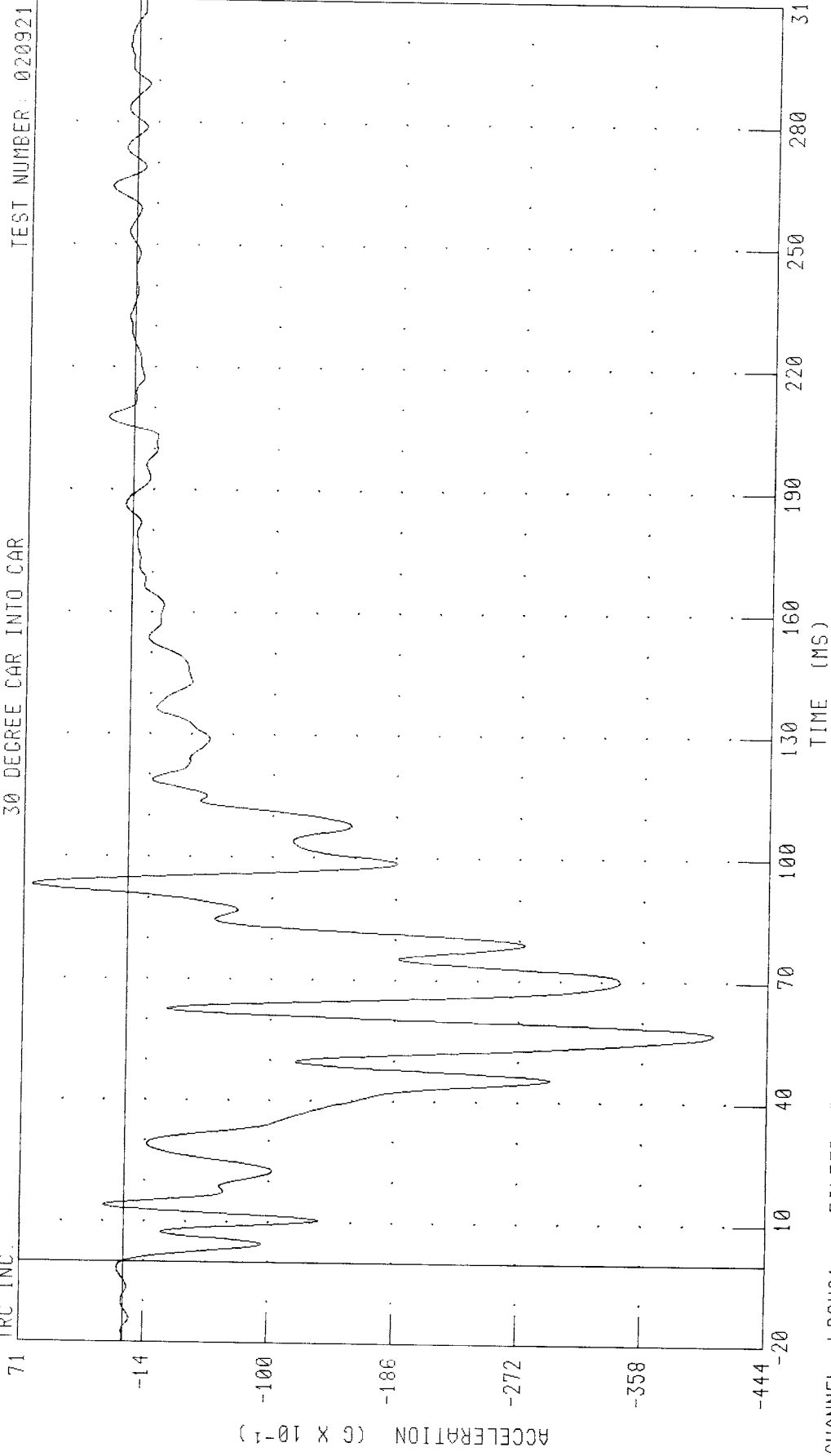
CHANNEL: LFSYG1

FILTER: CH. CLASS 60

PEAK DATA: 25.50 G @ 90.88 MS, -21.36 G @ 74.48 MS

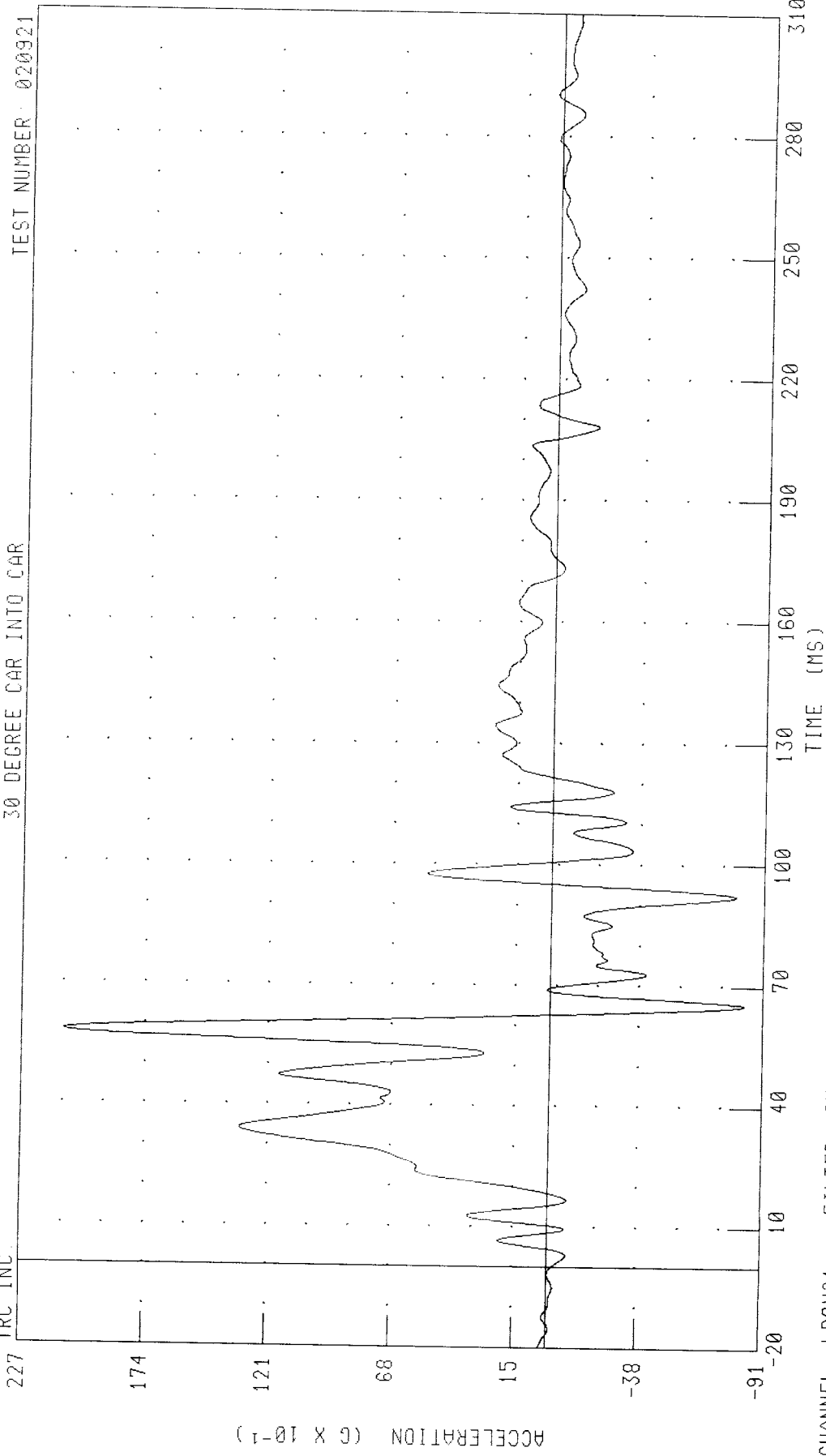
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET LEFT REAR SILL X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC.



CHANNEL: LRSXG1 FILTER: CH. CLASS 60
PEAK DATA: 6.62 G @ 93.28 MS, -40.69 G @ 56.96 MS

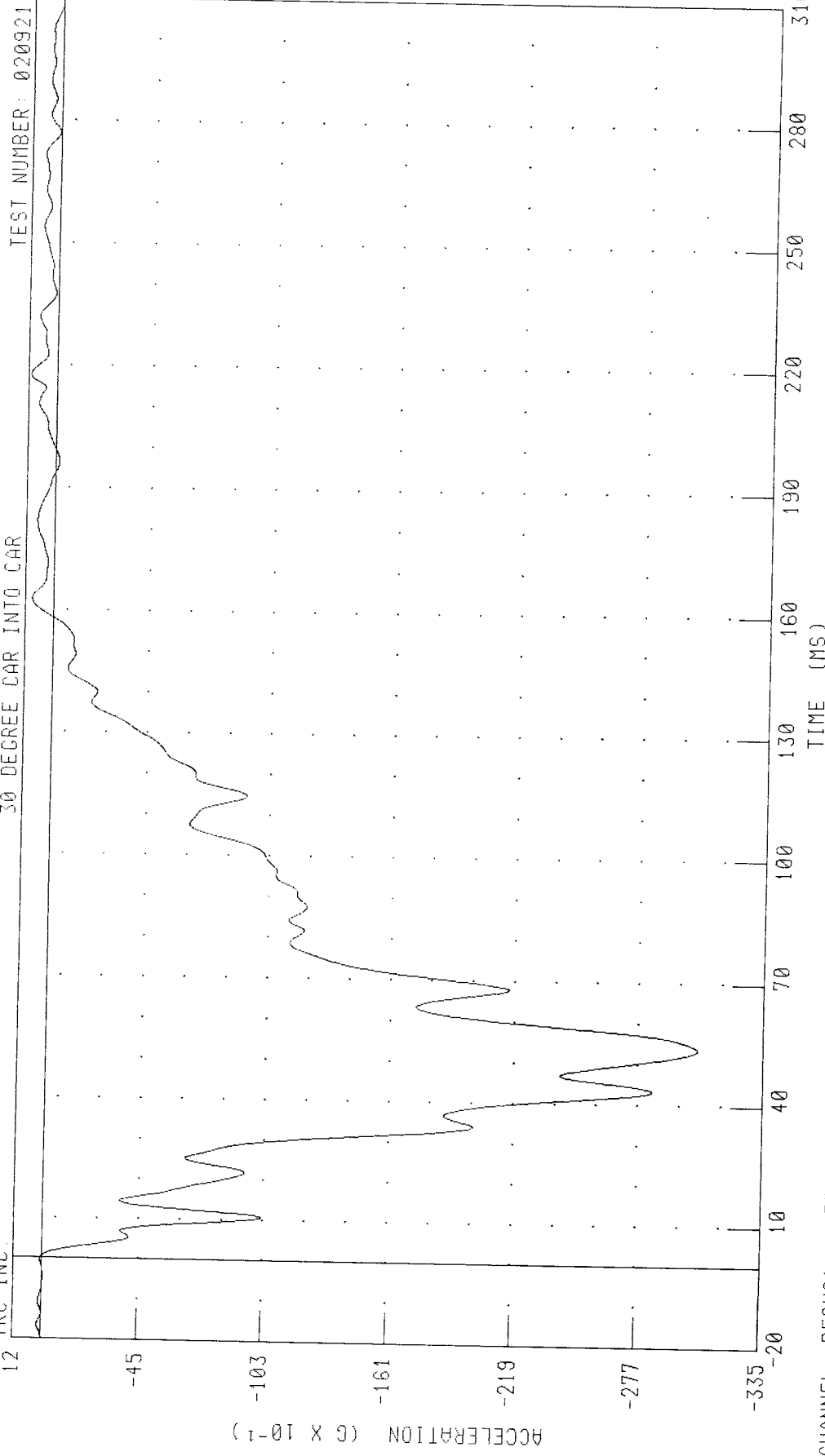
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET LEFT REAR SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: LRSYG1 FILTER: CH. CLASS 60

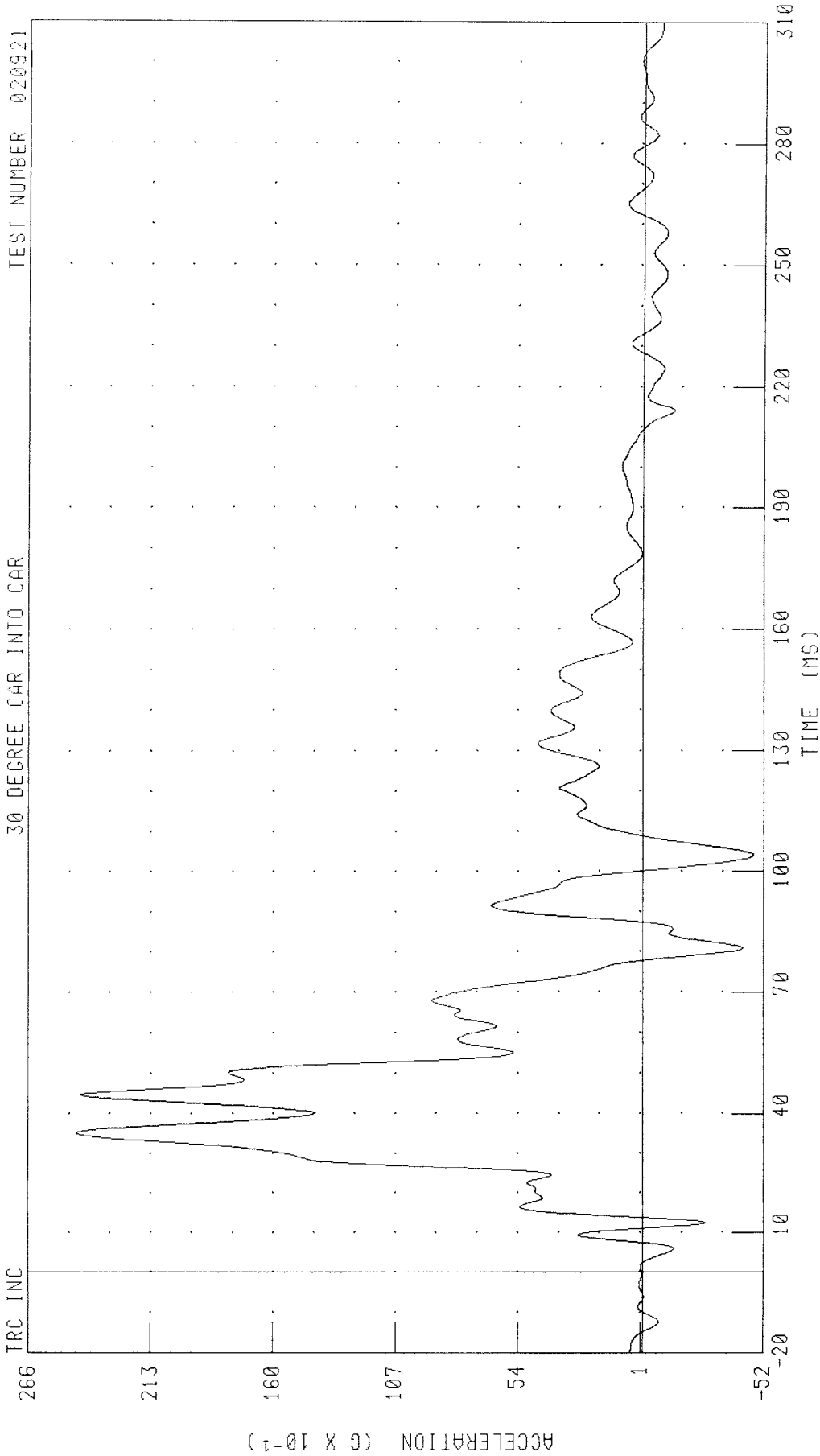
PEAK DATA: 20.91 G @ 58.32 MS, -8.29 G @ 65.20 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET RIGHT FRONT SILL X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RFSXC1 FILTER: CH. CLASS 60
PEAK DATA: 1.19 G @ 217.68 MS; -30.47 G @ 53.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET RIGHT FRONT SILL Y-AXIS ACCELERATION



CHANNEL: RFSYG1

FILTER: CH. CLASS 60

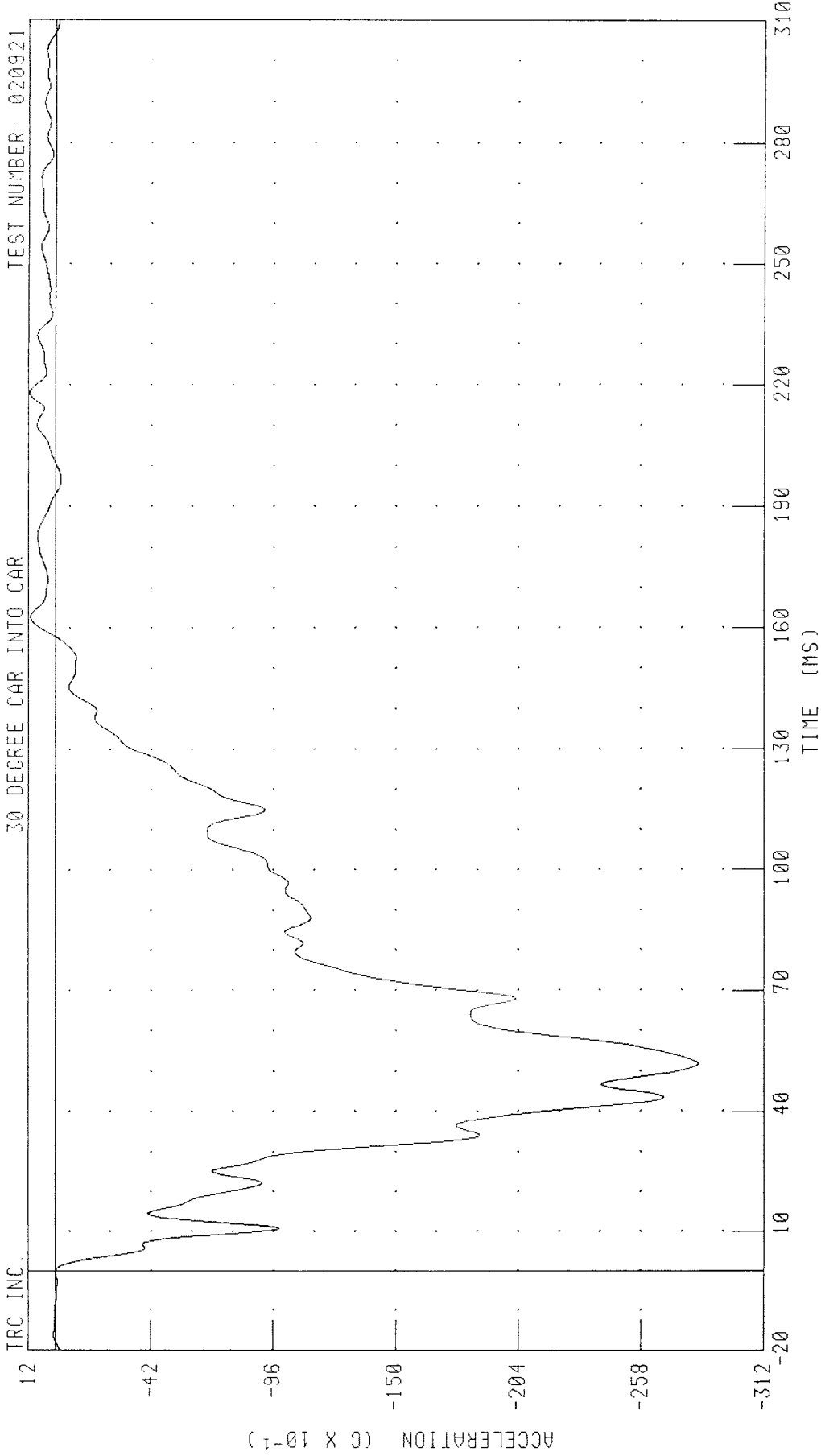
PEAK DATA: 24.51 G @ 35.28 MS, -4.76 G @ 104.08 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET RIGHT REAR SILL X-AXIS ACCELERATION

30 DEGREE CAR INTO CAR

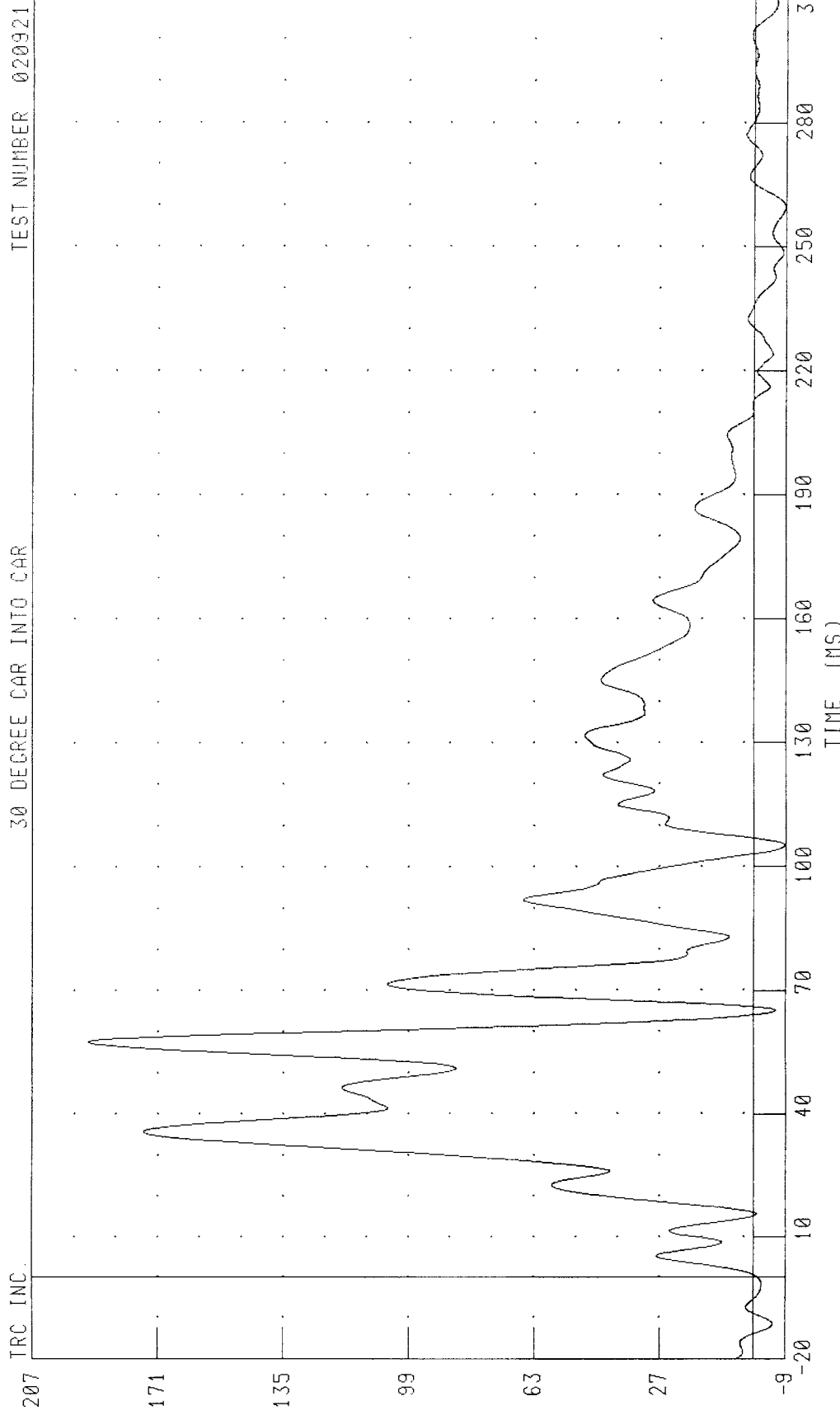
TEST NUMBER: 020921



CHANNEL: RRSXG1 FILTER: CH. CLASS 60

PEAK DATA: 1.15 G @ 218.08 MS, -28.32 G @ 51.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET RIGHT REAR SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



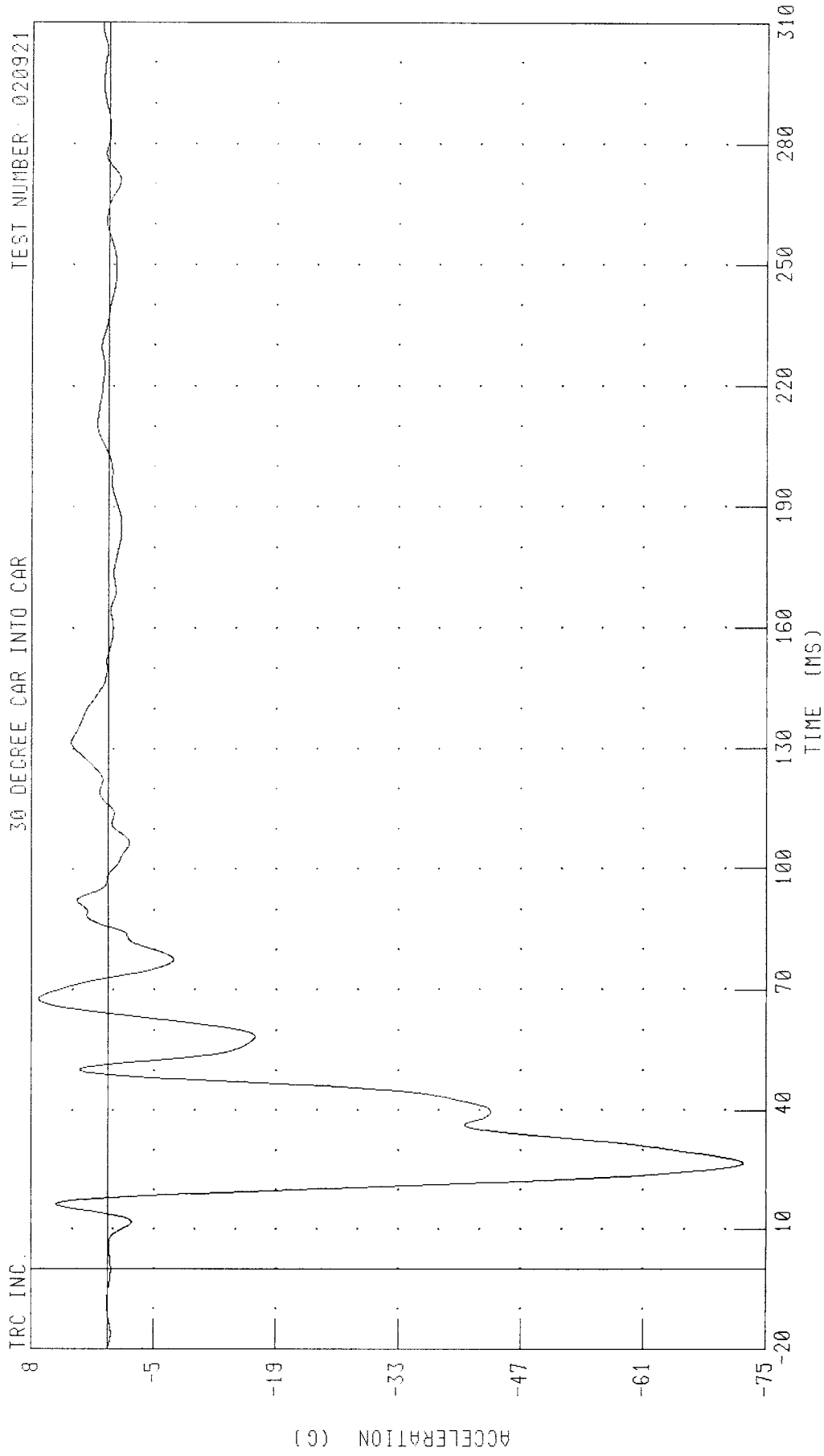
CHANNEL: RRSYG1 FILTER: CH. CLASS 60 PEAK DATA: 19.11 G @ 57.52 MS; -0.87 G @ 105.12 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET ENGINE TOP X-AXIS ACCELERATION

30 DEGREE CAR INTO CAR

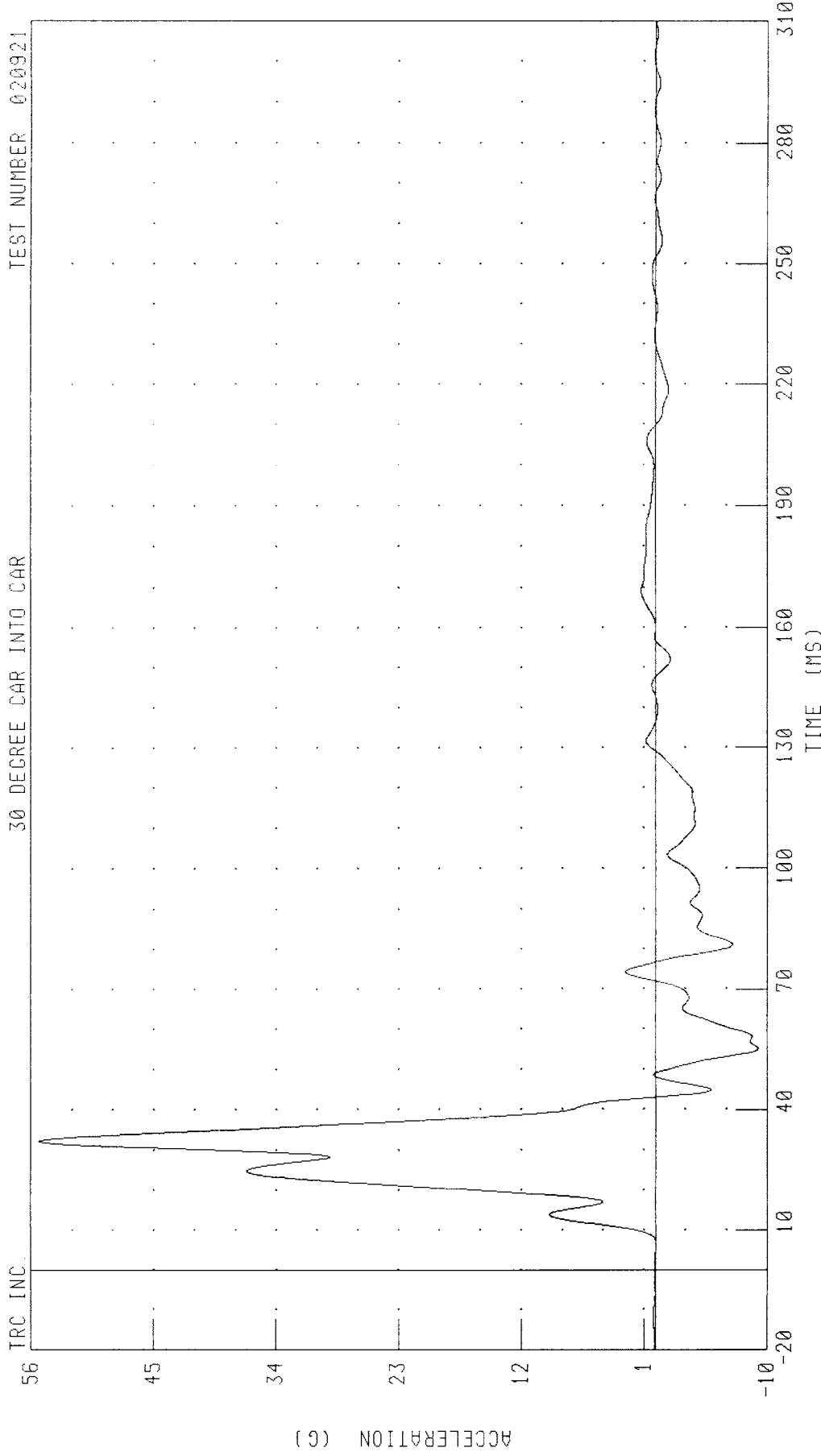
TEST NUMBER: 020921



CHANNEL: ENGXC1 FILTER: CH. CLASS 60

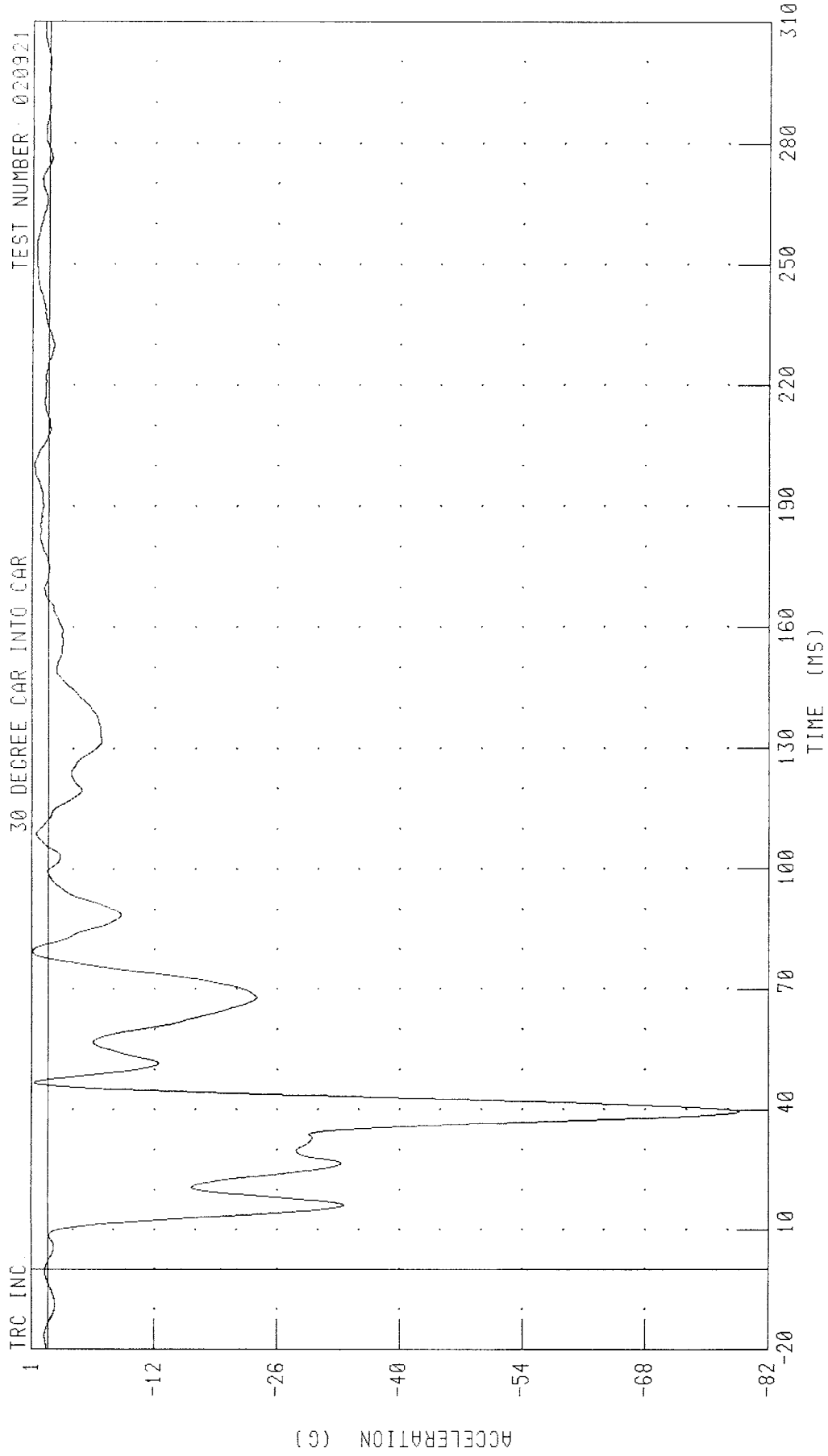
PEAK DATA: 7.93 G @ 67.92 MS; -72.72 G @ 26.72 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET ENGINE TOP Y-AXIS ACCELERATION



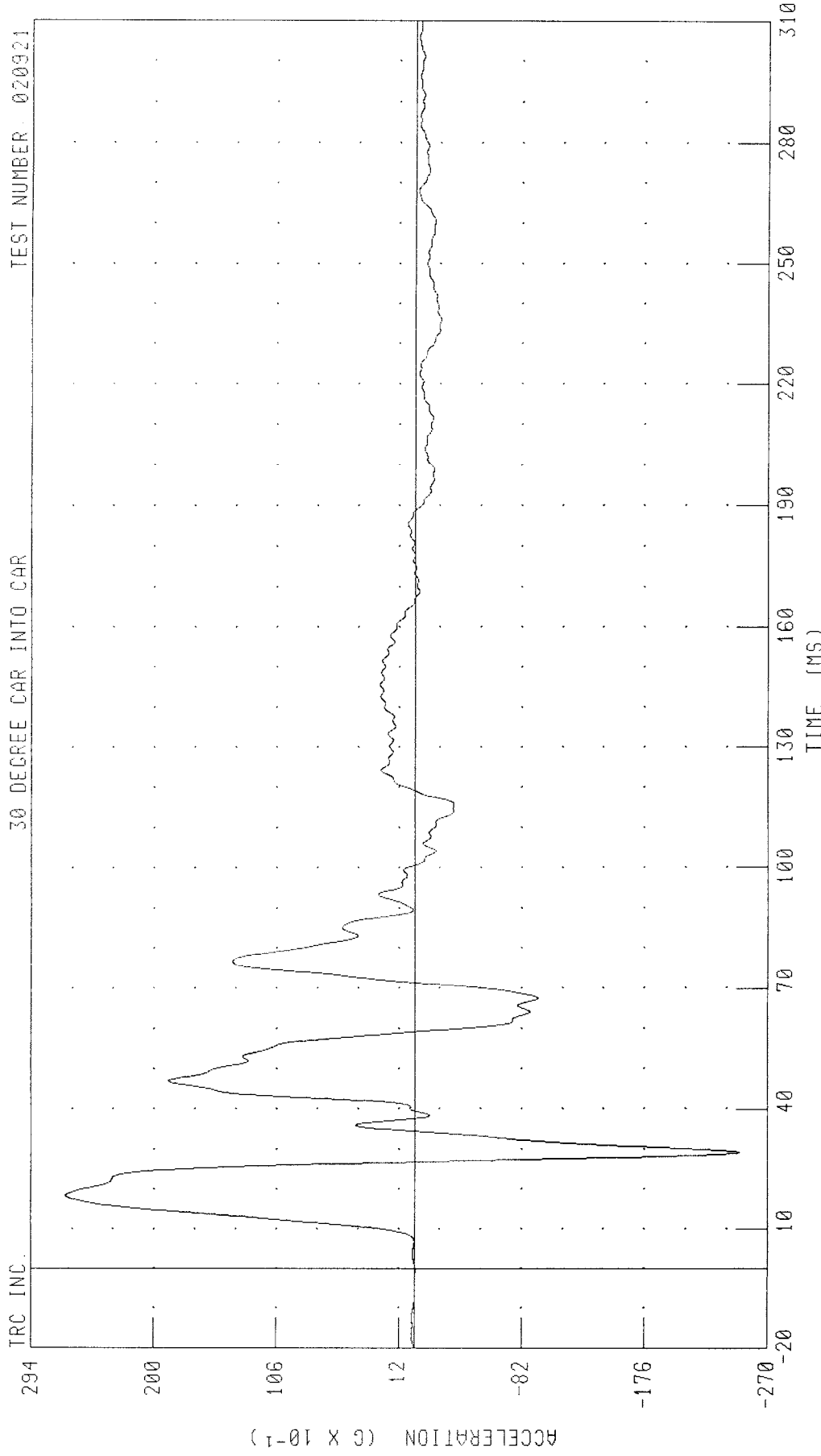
CHANNEL : ENCYG1 FILTER : CH. CLASS 60 PEAK DATA : 55.27 G @ 32.40 MS, -9.22 G @ 55.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET ENGINE BOTTOM X-AXIS ACCELERATION



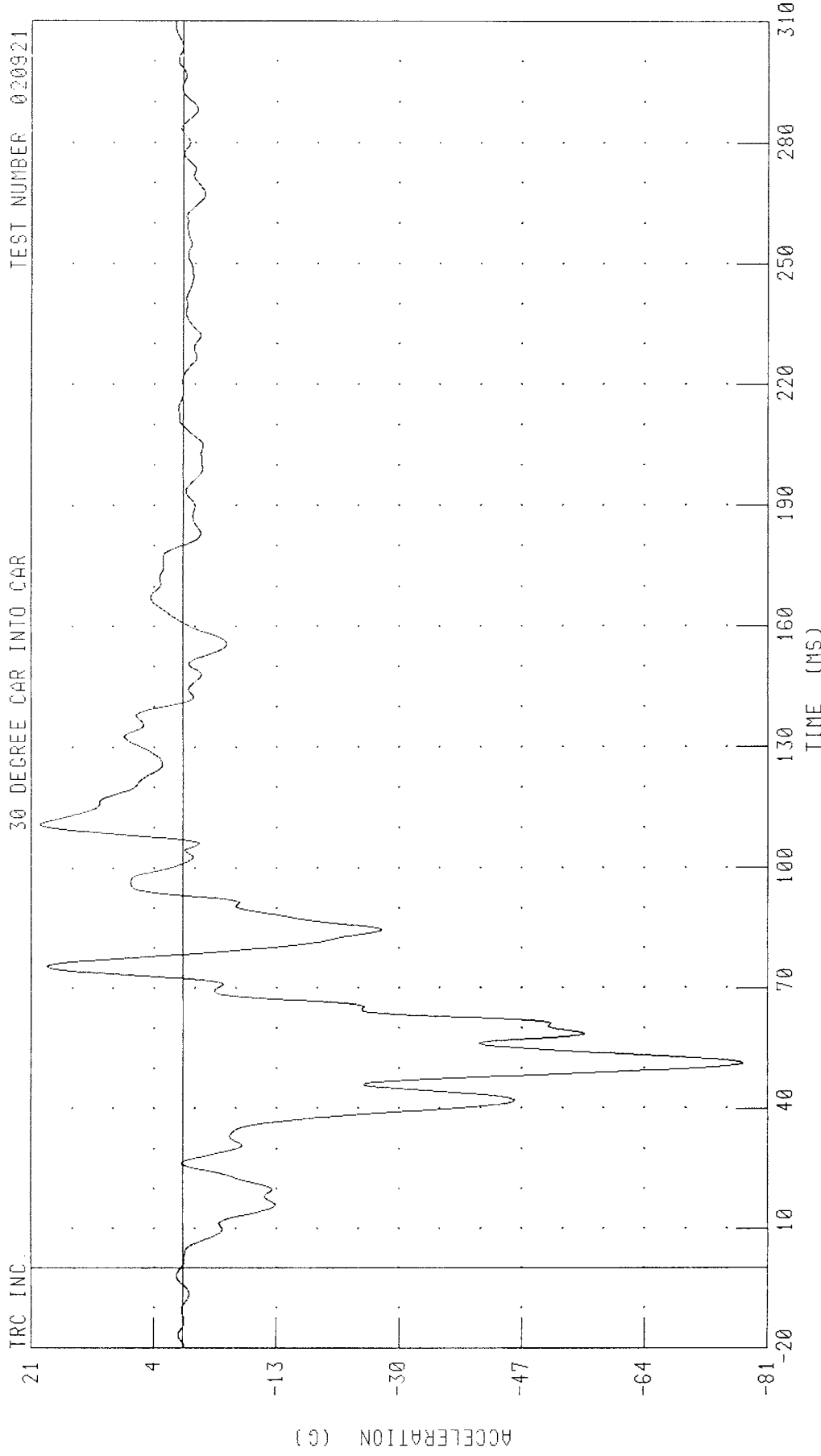
CHANNEL: ENXC2 FILTER: CH. CLASS 60 PEAK DATA: 1.79 G @ 79.68 MS, -78.83 G @ 39.52 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET ENGINE BOTTOM Y-AXIS ACCELERATION



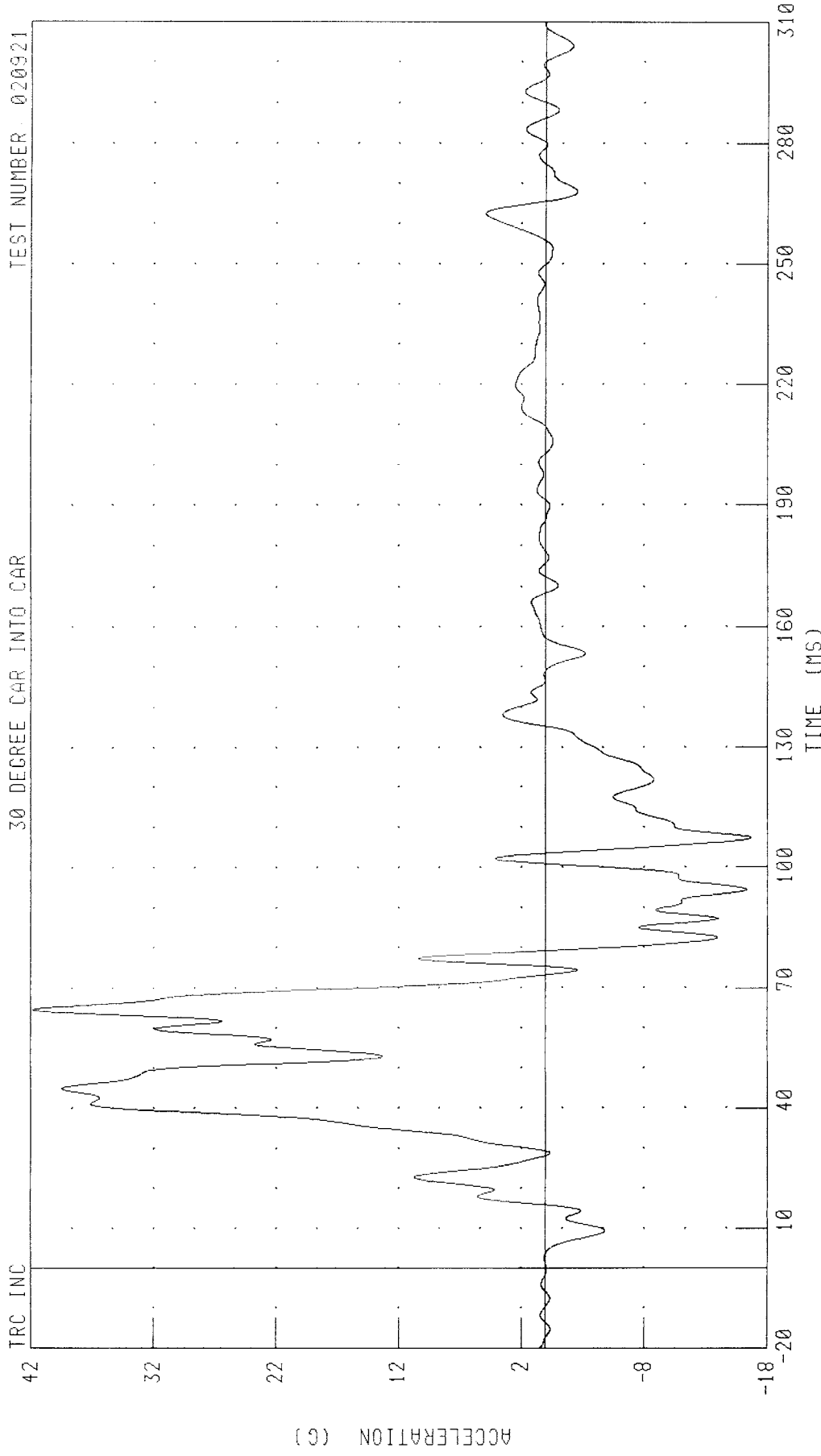
CHANNEL: ENCYG2 FILTER: CH. CLASS 60 PEAK DATA: 26.77 G @ 18.48 MS; -24.84 G @ 29.20 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET INSTRUMENT PANEL CENTER X-AXIS ACCELERATION



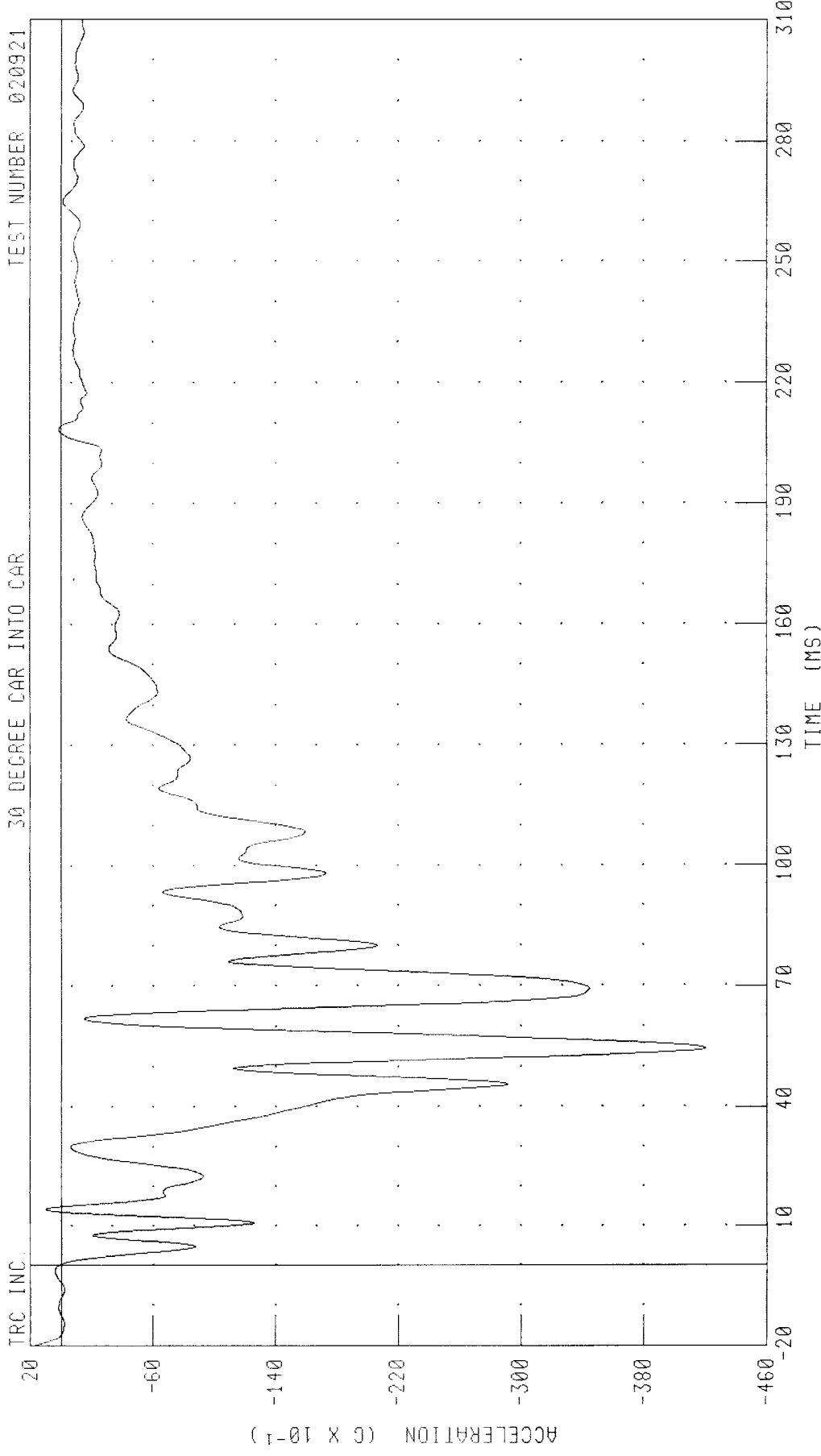
CHANNEL: DPCXG1 FILTER: CH: CLASS 60
PEAK DATA: 19.77 G @ 111.04 MS; -77.56 G @ 51.28 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET INSTRUMENT PANEL CENTER Y-AXIS ACCELERATION



CHANNEL: DPCYG1 FILTER: CH. CLASS 60 PEAK DATA: 41.86 G @ 64.80 MS, -16.64 G @ 107.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET LEFT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION

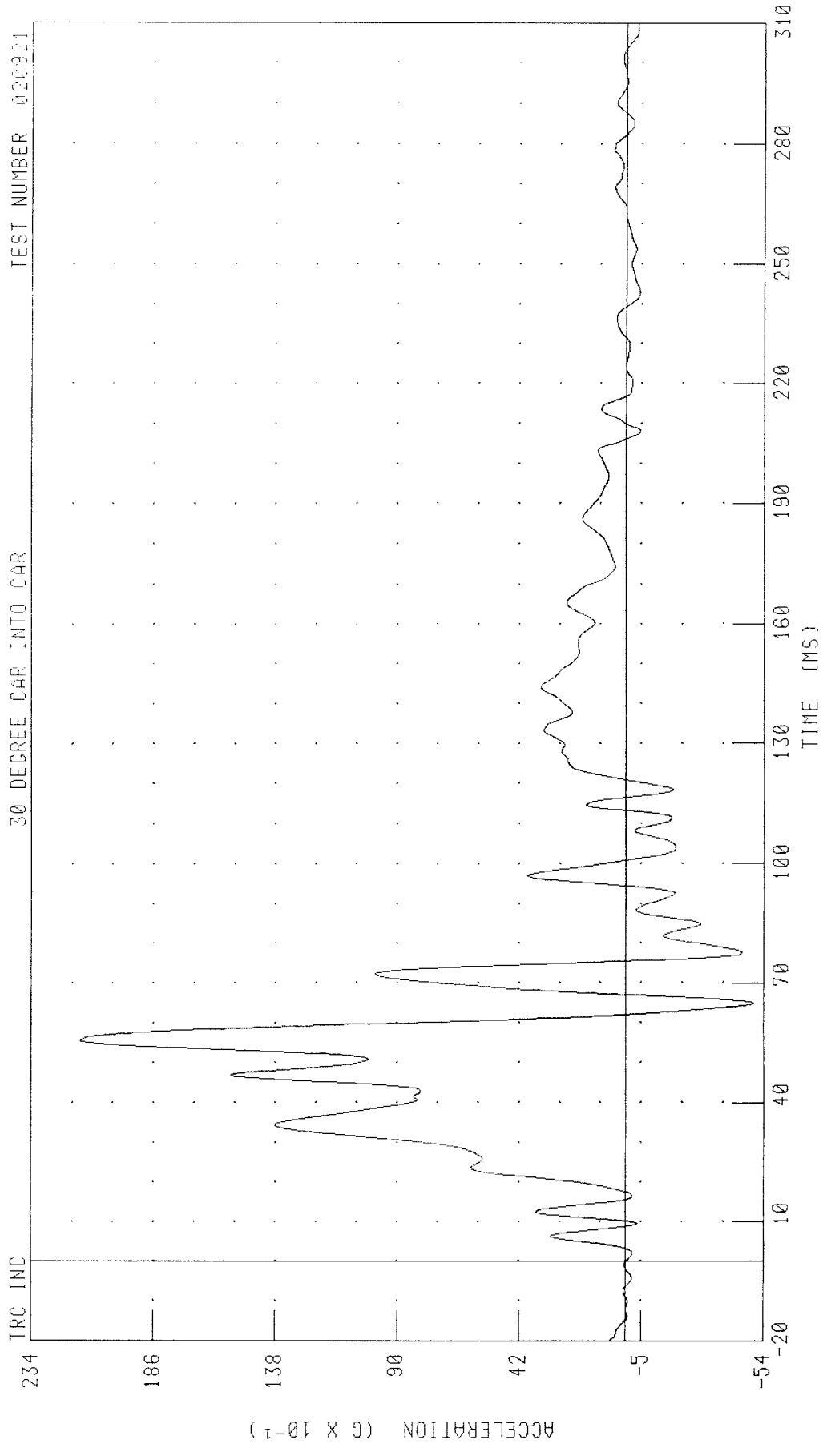


CHANNEL: LRXXG1 FILTER: CH CLASS 60 PEAK DATA: 1.88 G @ -20.00 MS; -42.00 G @ 54.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

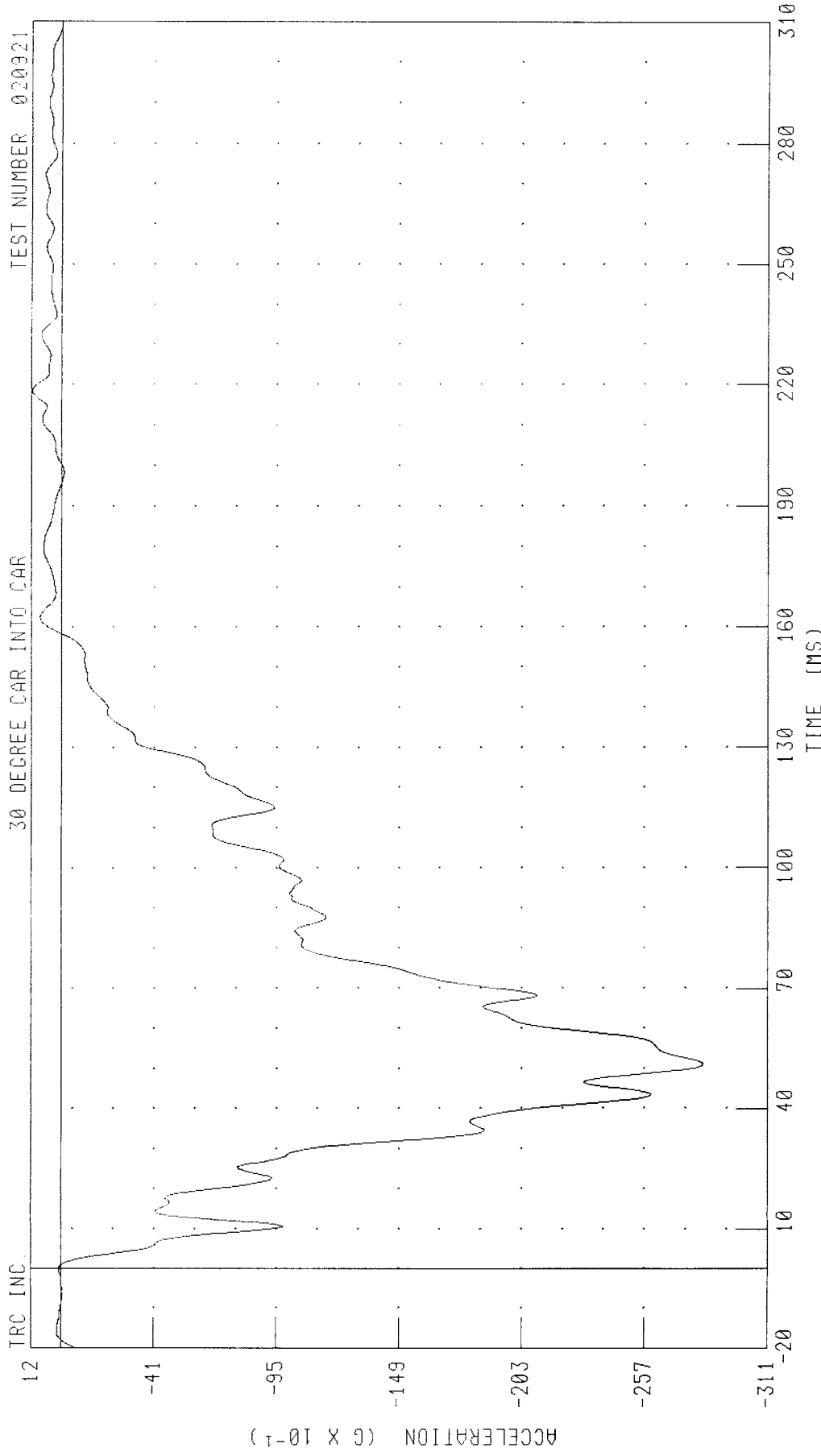
TARGET LEFT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION

TRC INC 30 DEGREE CAR INTO CAR TEST NUMBER 020921



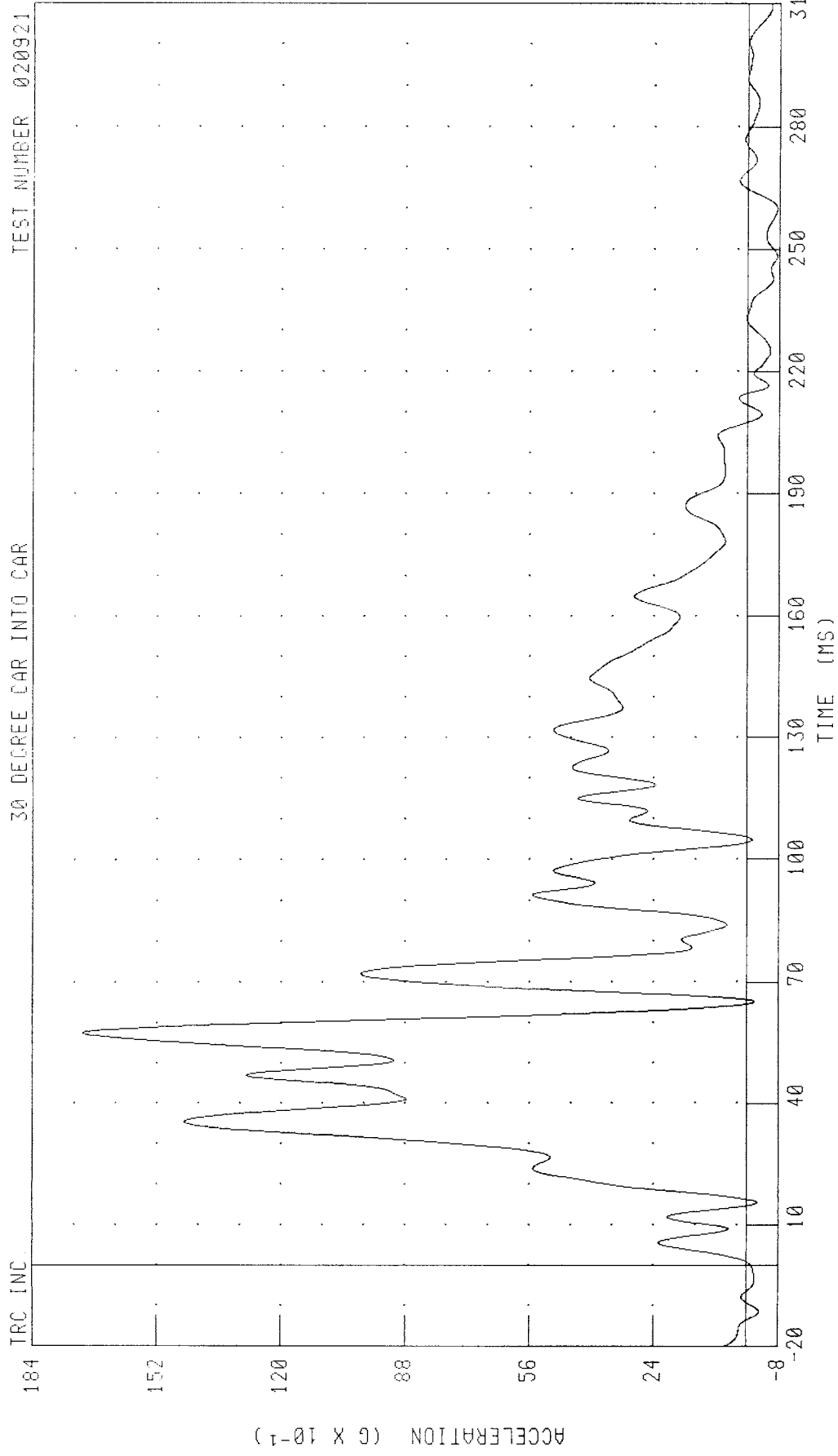
CHANNEL: LRXYG1 FILTER: CH. CLASS 60 PEAK DATA: 21.48 G @ 55.76 MS; -5.00 G @ 64.96 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET RIGHT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION



CHANNEL: RRXXG1 FILTER: CH. CLASS 60 PEAK DATA: 1.26 G @ 218.56 MS; -28.29 G @ 51.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
TARGET RIGHT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RRXYG1 FILTER: CH. CLASS 60 PEAK DATA: 17.10 G @ 57.60 MS, -0.74 G @ 248.32 MS

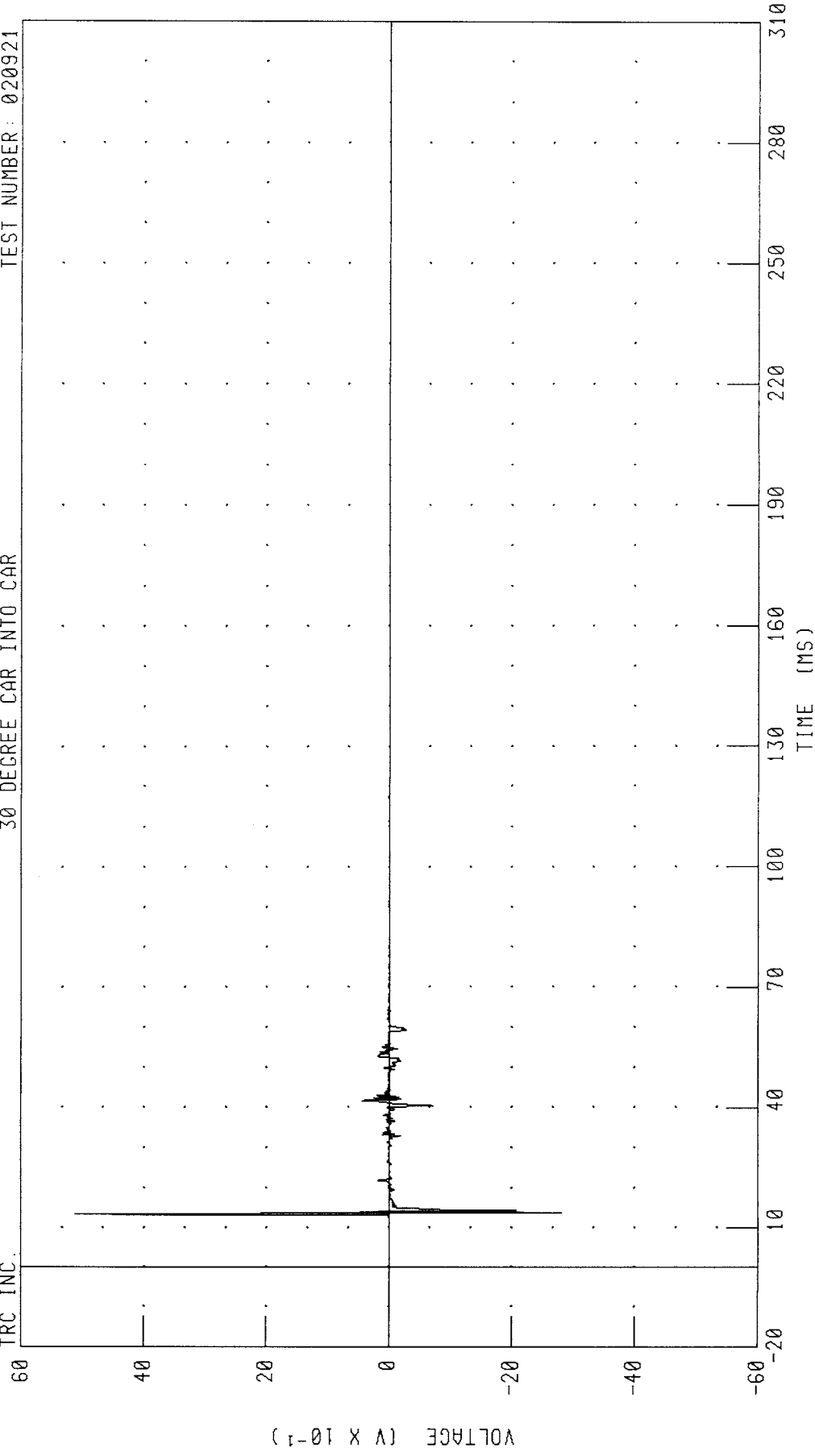
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

TARGET DRIVER AIRBAG EVENT

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

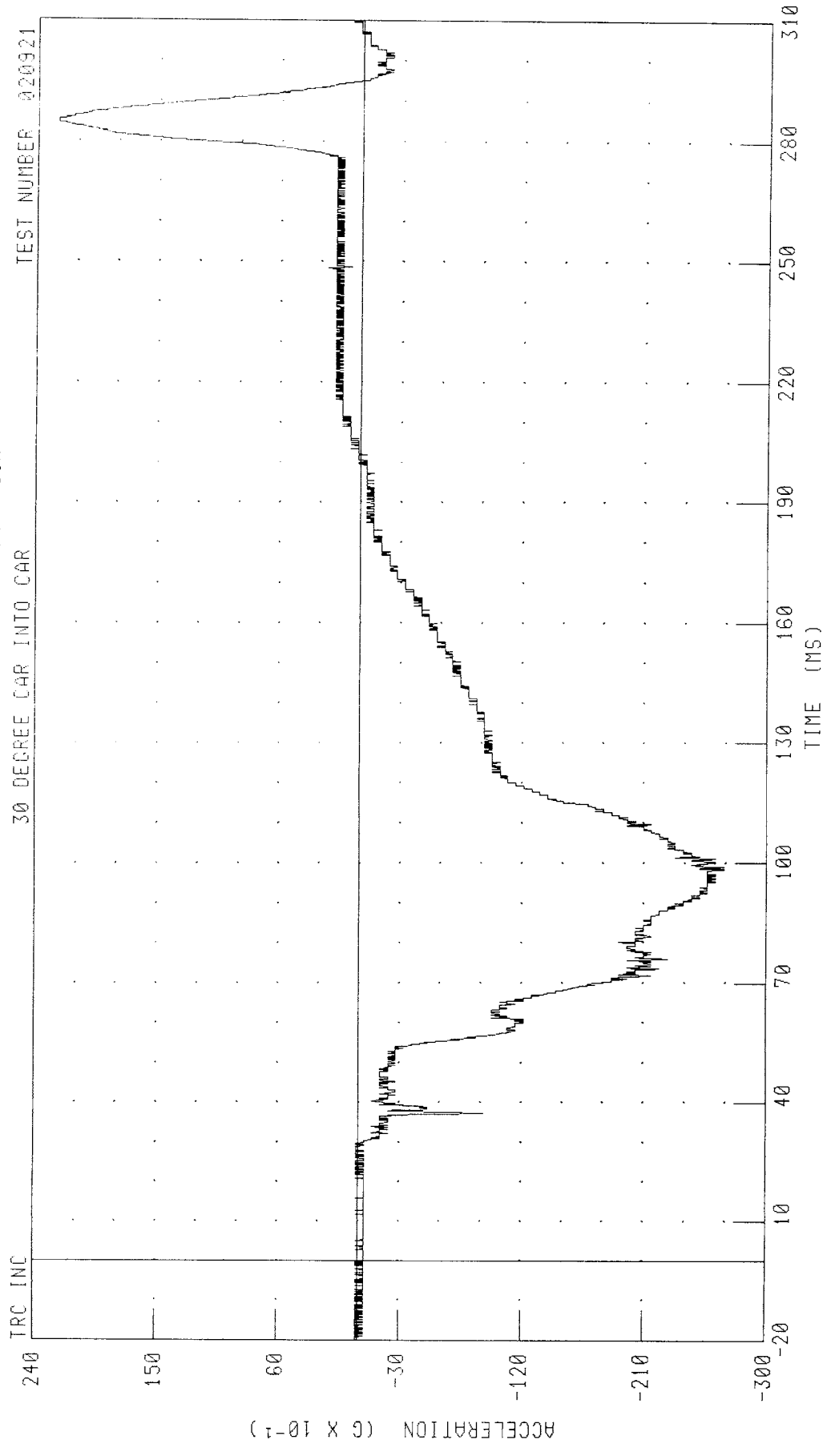
TRC INC.



CHANNEL: DABET1 FILTER: CH. CLASS 1000

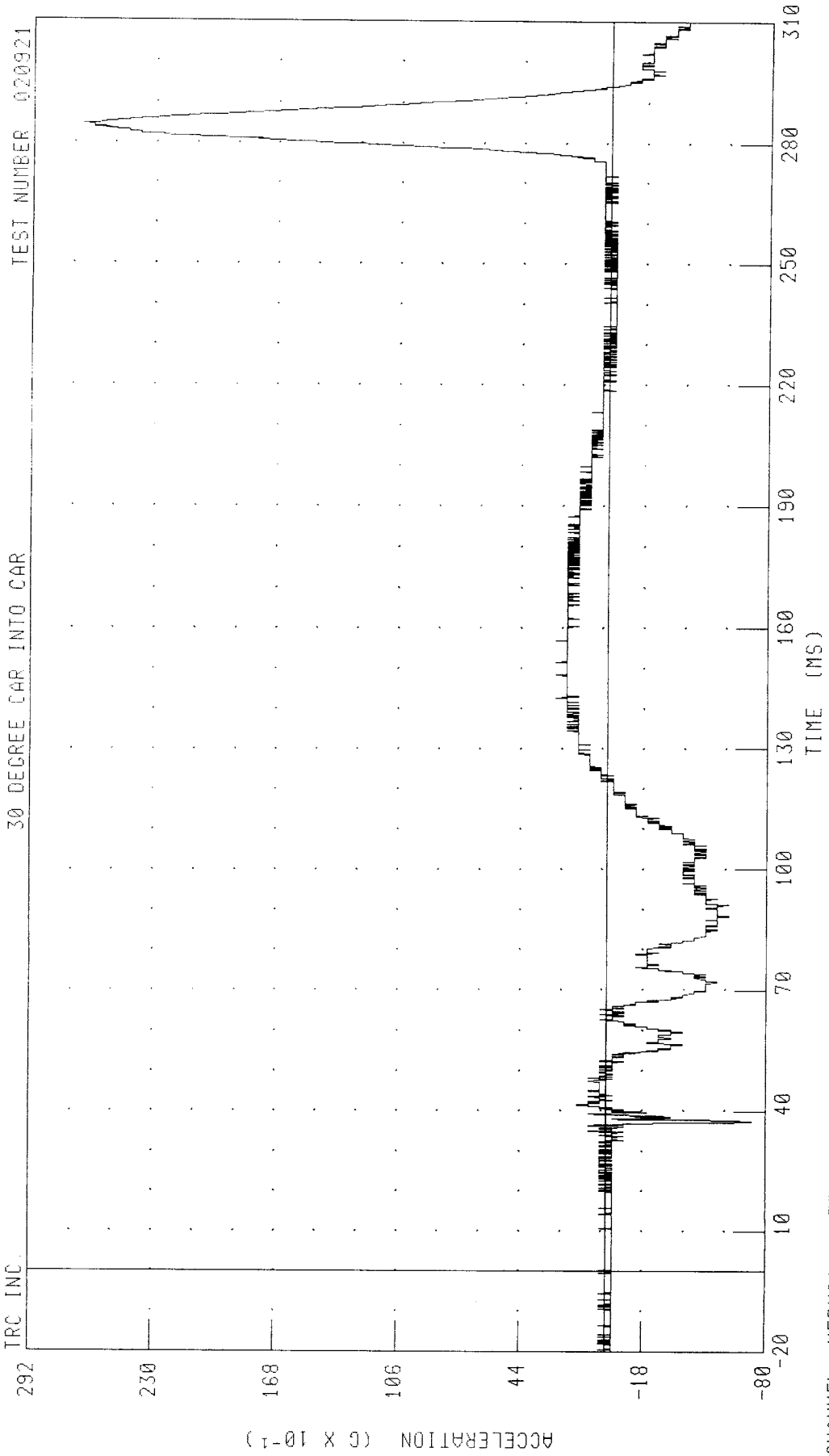
PEAK DATA: 5.12 V @ 13.44 MS; -2.81 V @ 13.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER HEAD X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

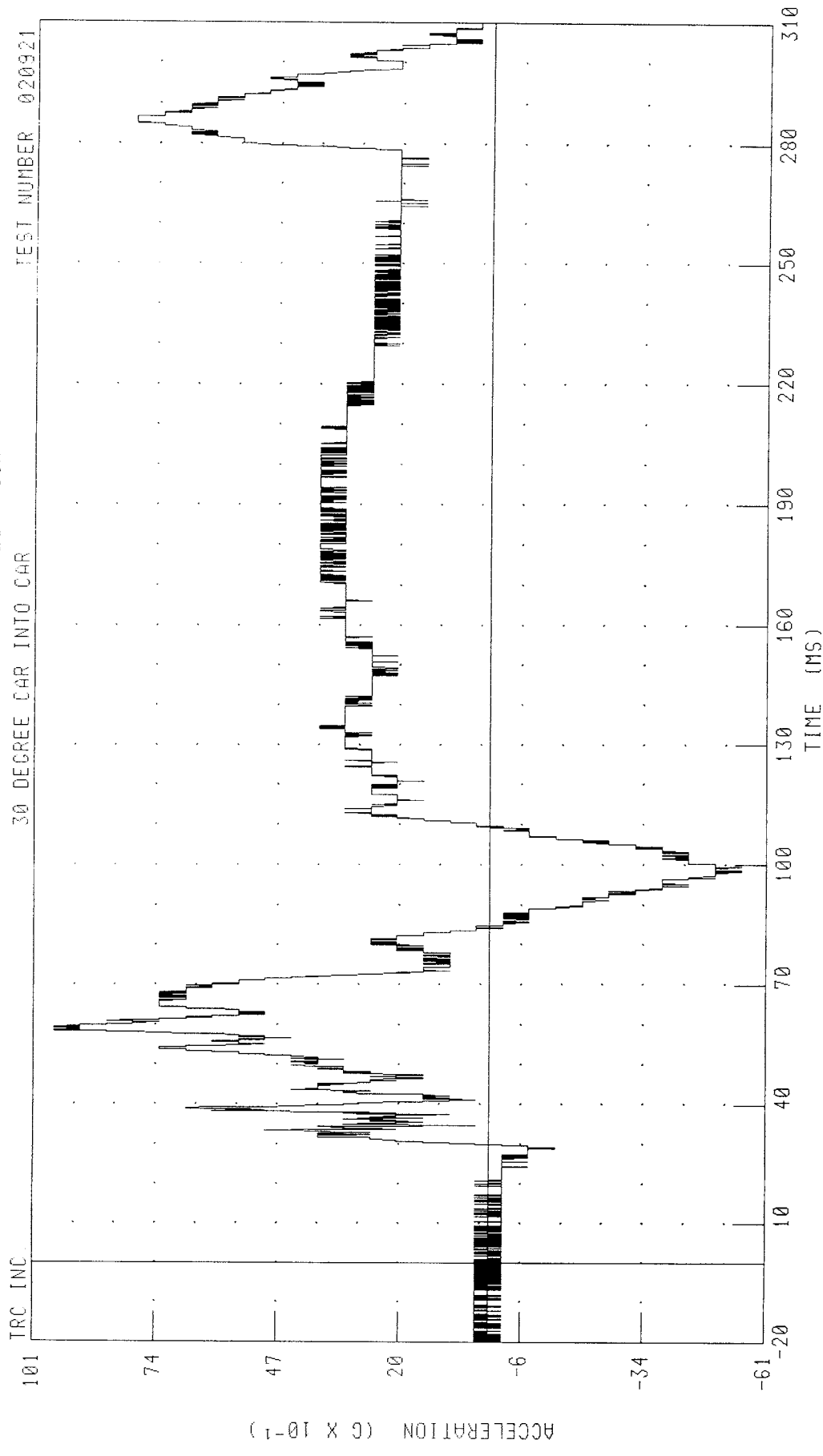


CHANNEL: HEDXGA FILTER: CH. CLASS 1000 PEAK DATA: 22.51 G @ 284.56 MS, -26.86 G @ 98.32 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER HEAD Y-AXIS ACCELERATION



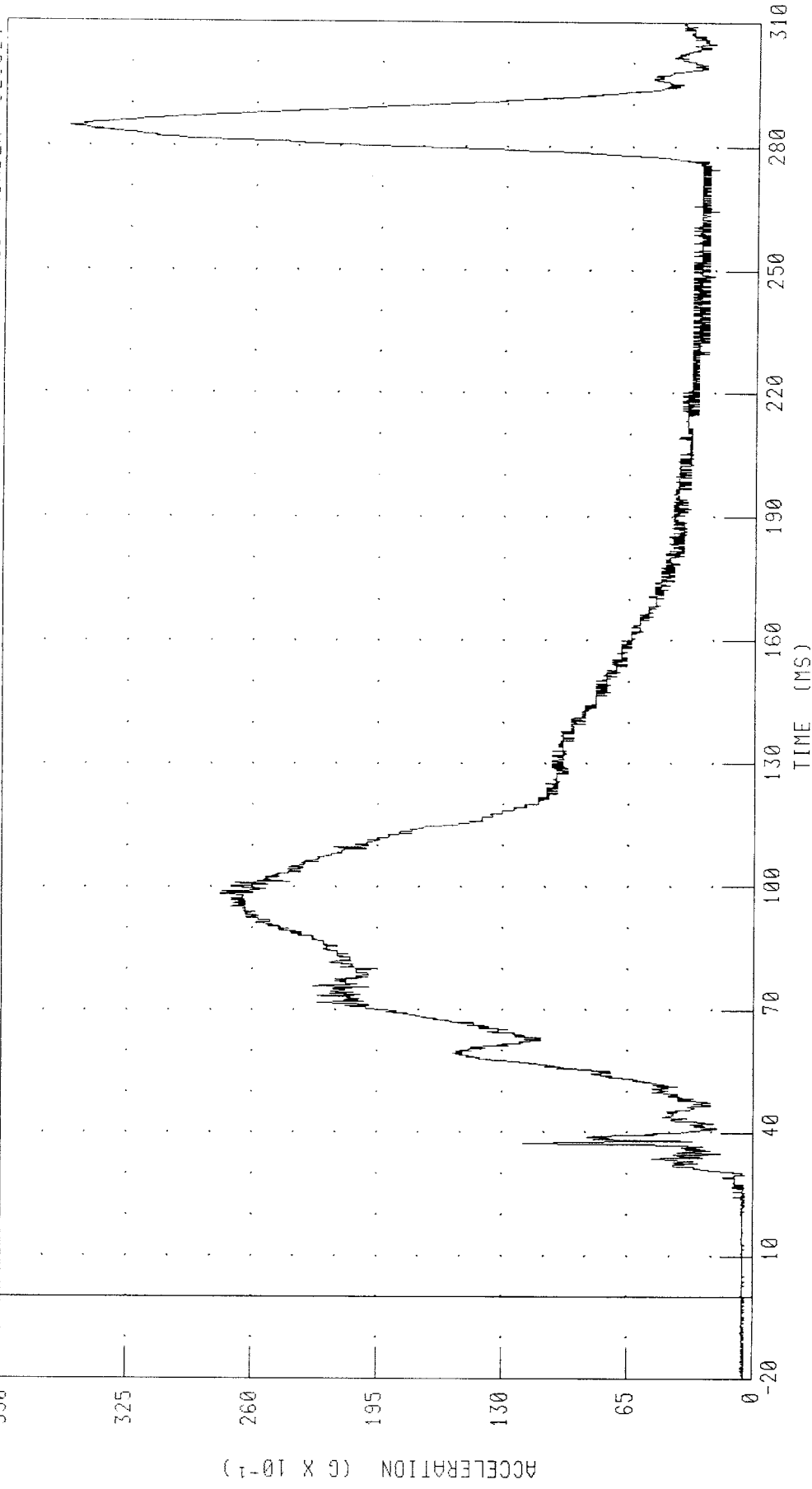
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER HEAD Z-AXIS ACCELERATION



CHANNEL: HEDZGA FILTER: CH. CLASS 1000 PEAK DATA: 9.66 G @ 58.56 MS; -5.56 G @ 98.24 MS

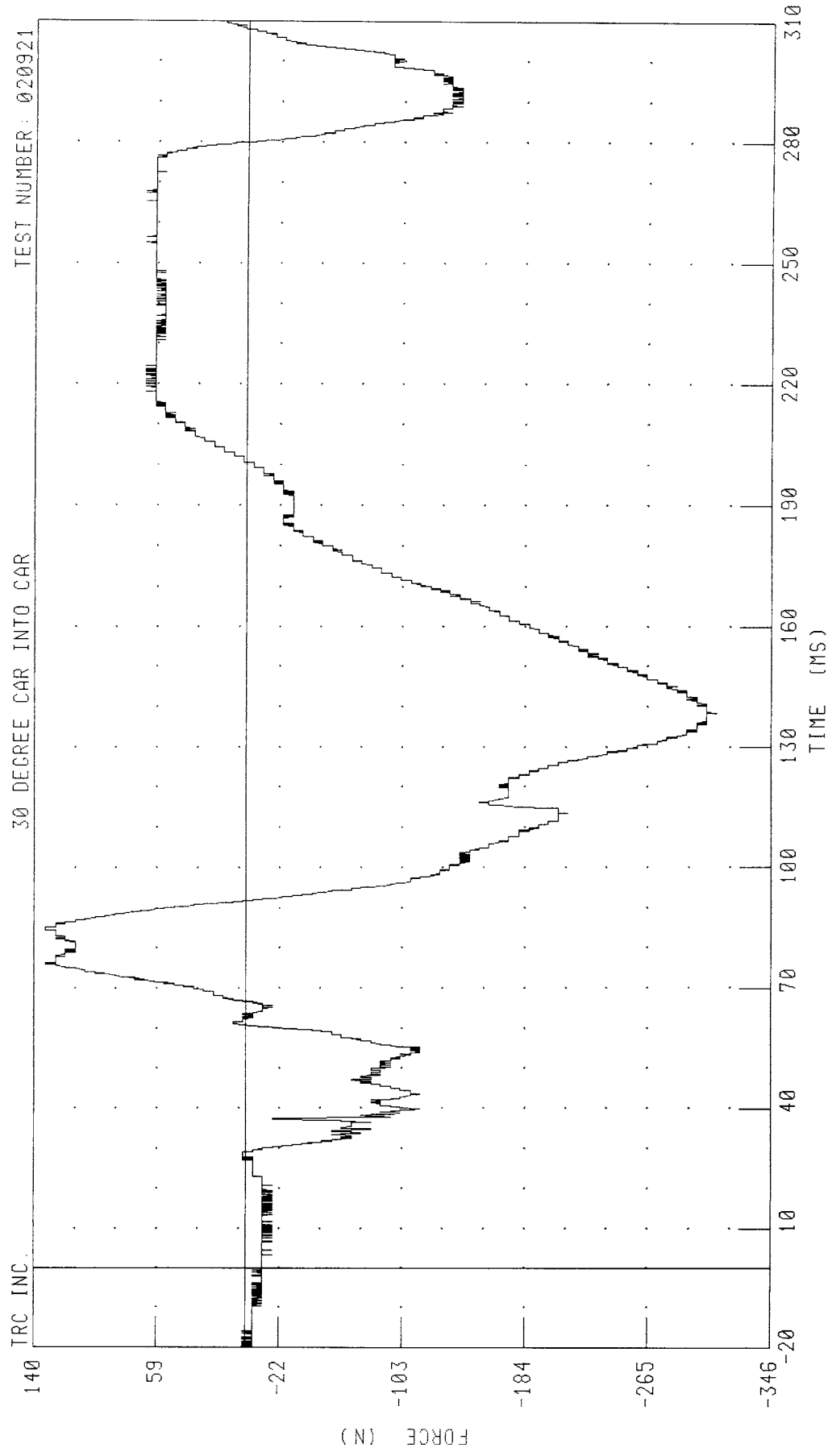
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER HEAD RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: HEDRGA FILTER: CH. CLASS 1000 PEAK DATA: 35.72 G @ 284.64 MS; 0.43 G @ -20.00 MS

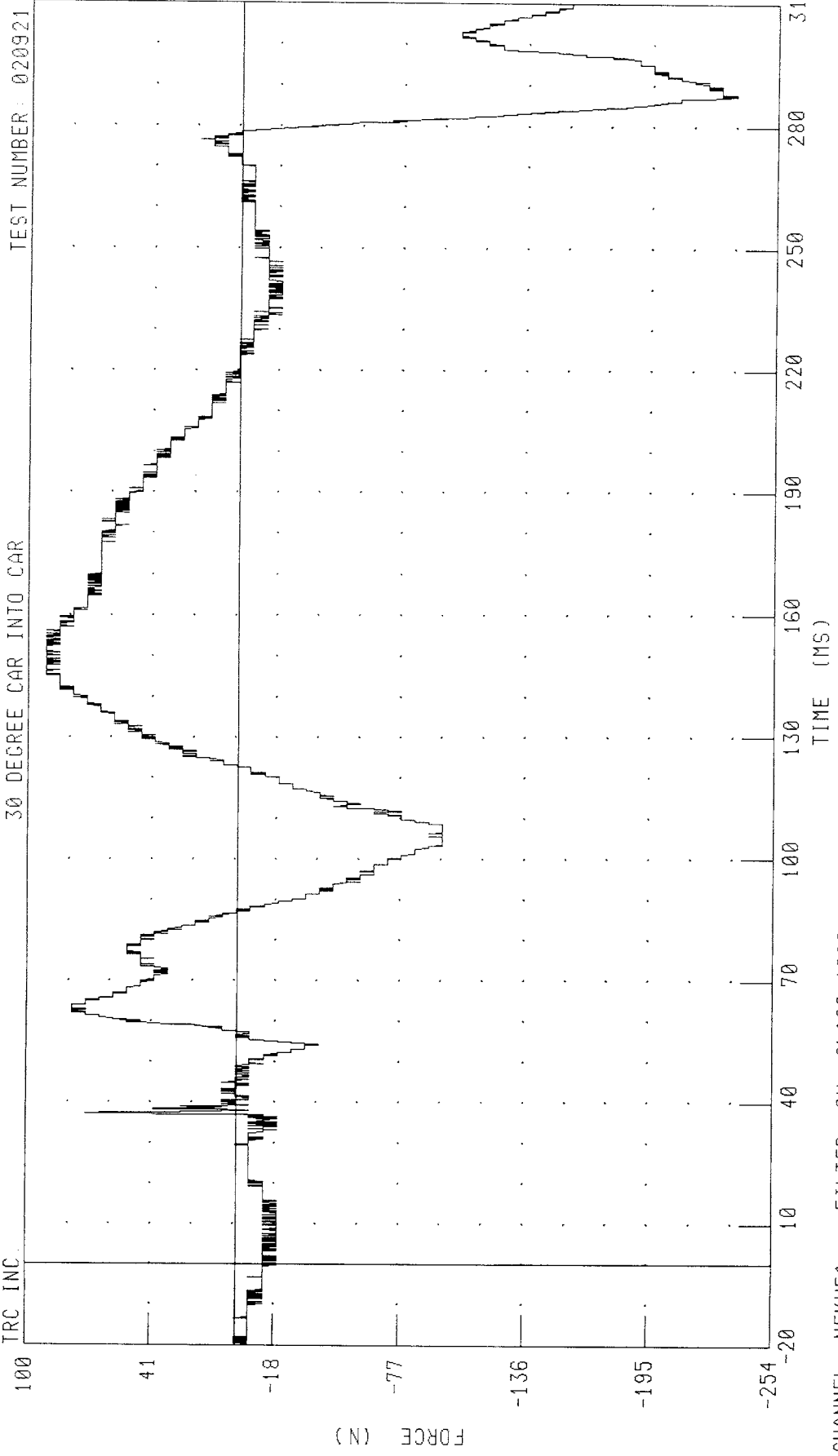
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK X-AXIS SHEAR FORCE
30 DEGREE CAR INTO CAR



CHANNEL: NEKXFA FILTER: CH. CLASS 1000 PEAK DATA: 132.51 N @ 76.00 MS; -310.35 N @ 138.48 MS

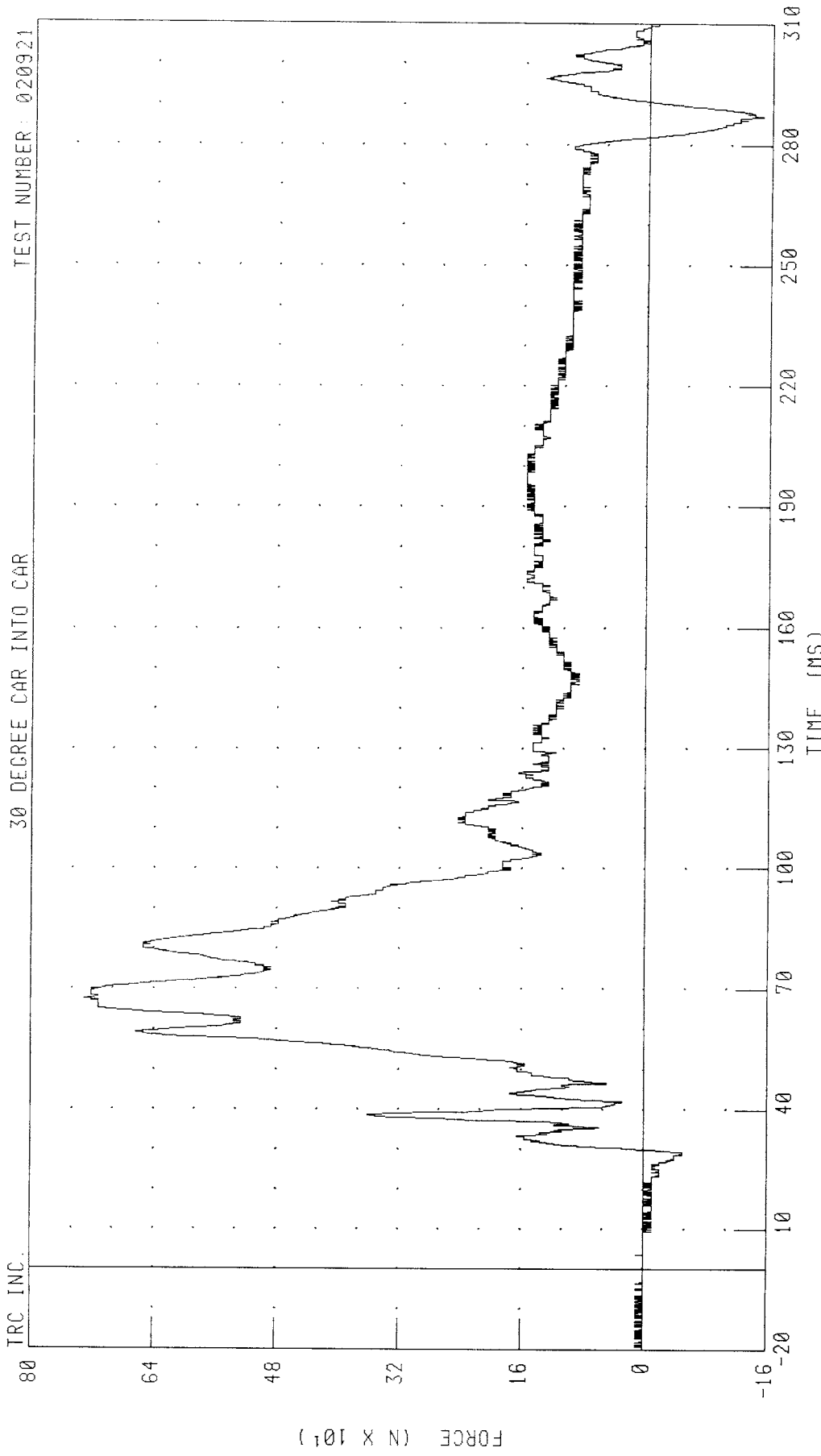
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK Y-AXIS SHEAR FORCE
30 DEGREE CAR INTO CAR

TRC INC.



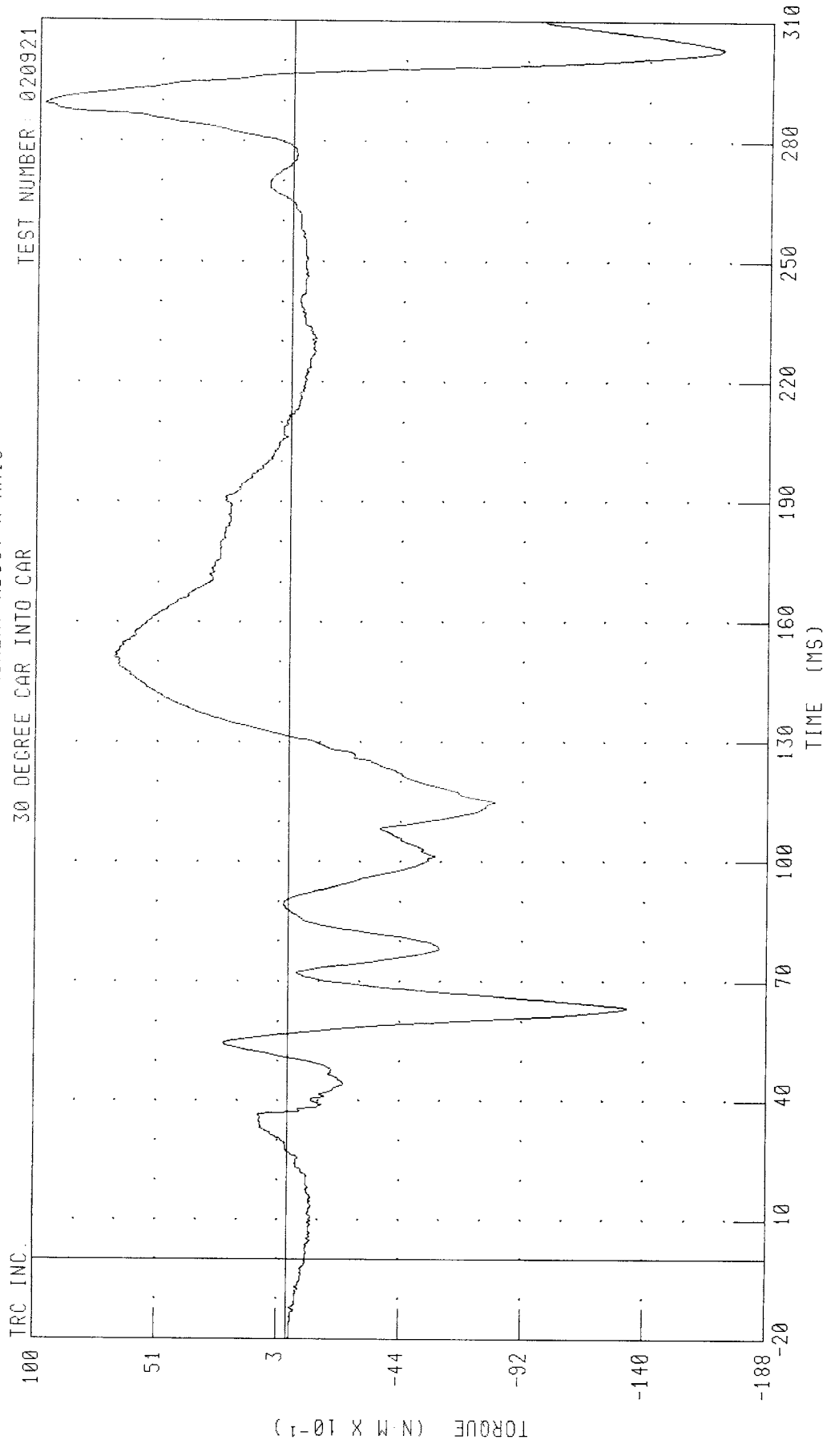
CHANNEL: NEKYFA FILTER: CH. CLASS 1000
PEAK DATA: 91.82 N @ 145.36 MS; -234.33 N @ 287.44 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK Z-AXIS AXIAL FORCE
30 DEGREE CAR INTO CAR



CHANNEL: NEKZFA FILTER: CH. CLASS 1000
PEAK DATA: 731.86 N @ 67.68 MS, -147.55 N @ 287.04 MS

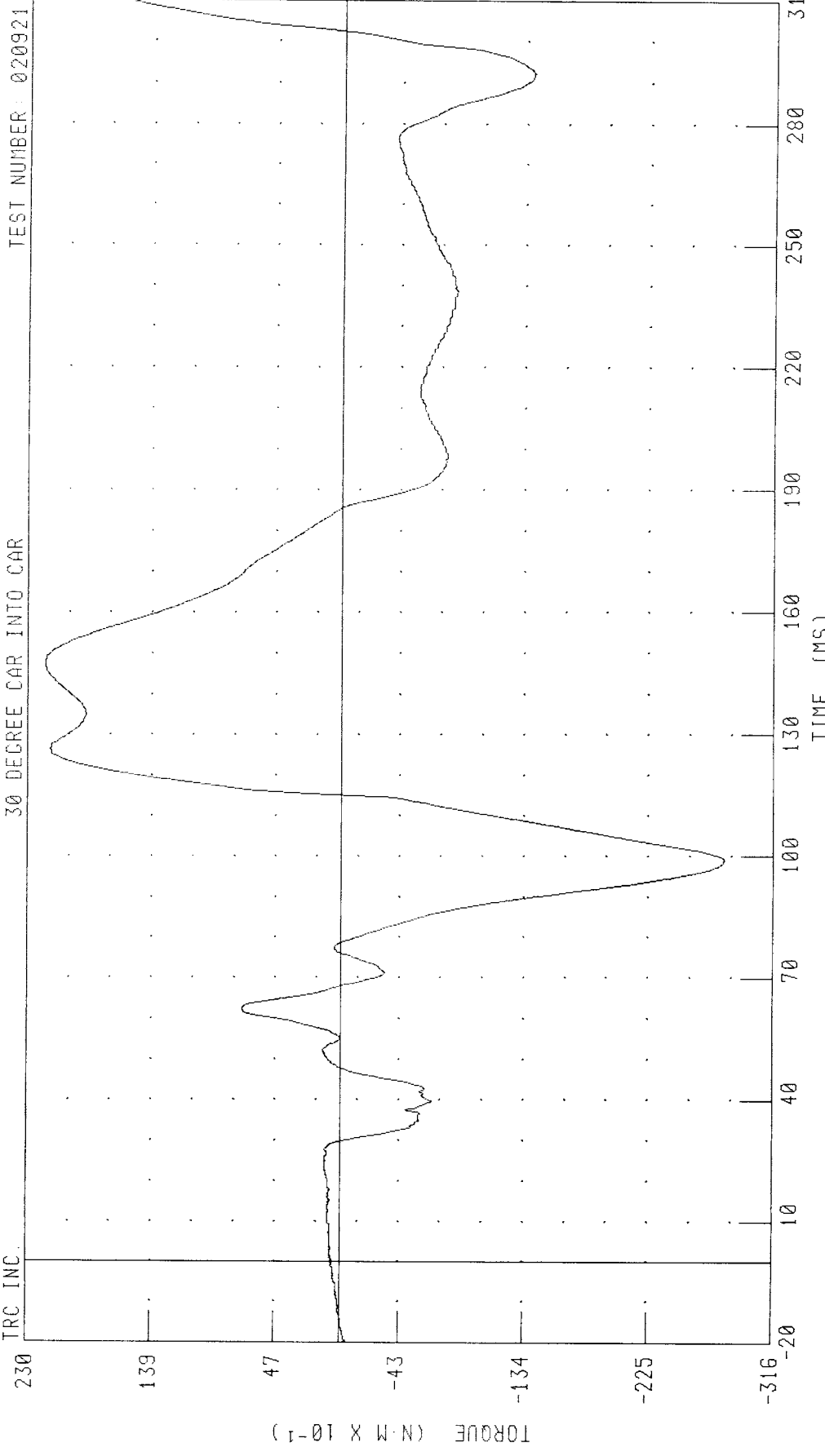
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR



CHANNEL: NEKXMA FILTER: CH. CLASS 600
PEAK DATA: 9.79 N·M @ 289.44 MS, -16.87 N·M @ 302.96 MS

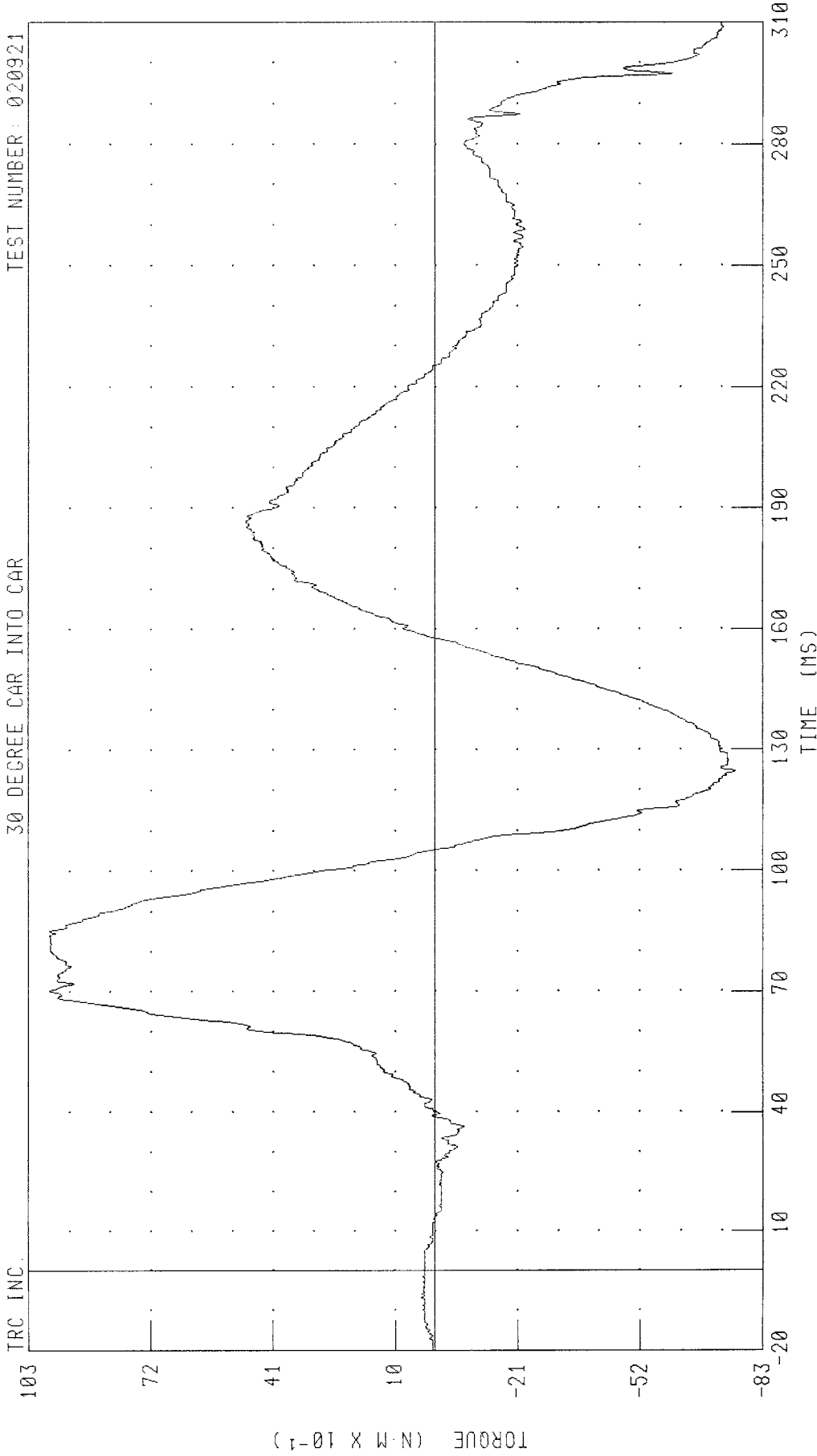
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR

TRC INC.



CHANNEL: NEKYMA FILTER: CH. CLASS 600
PEAK DATA: 21.73 N·M @ 148.00 MS; -28.07 N·M @ 99.12 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK MOMENT ABOUT Z AXIS

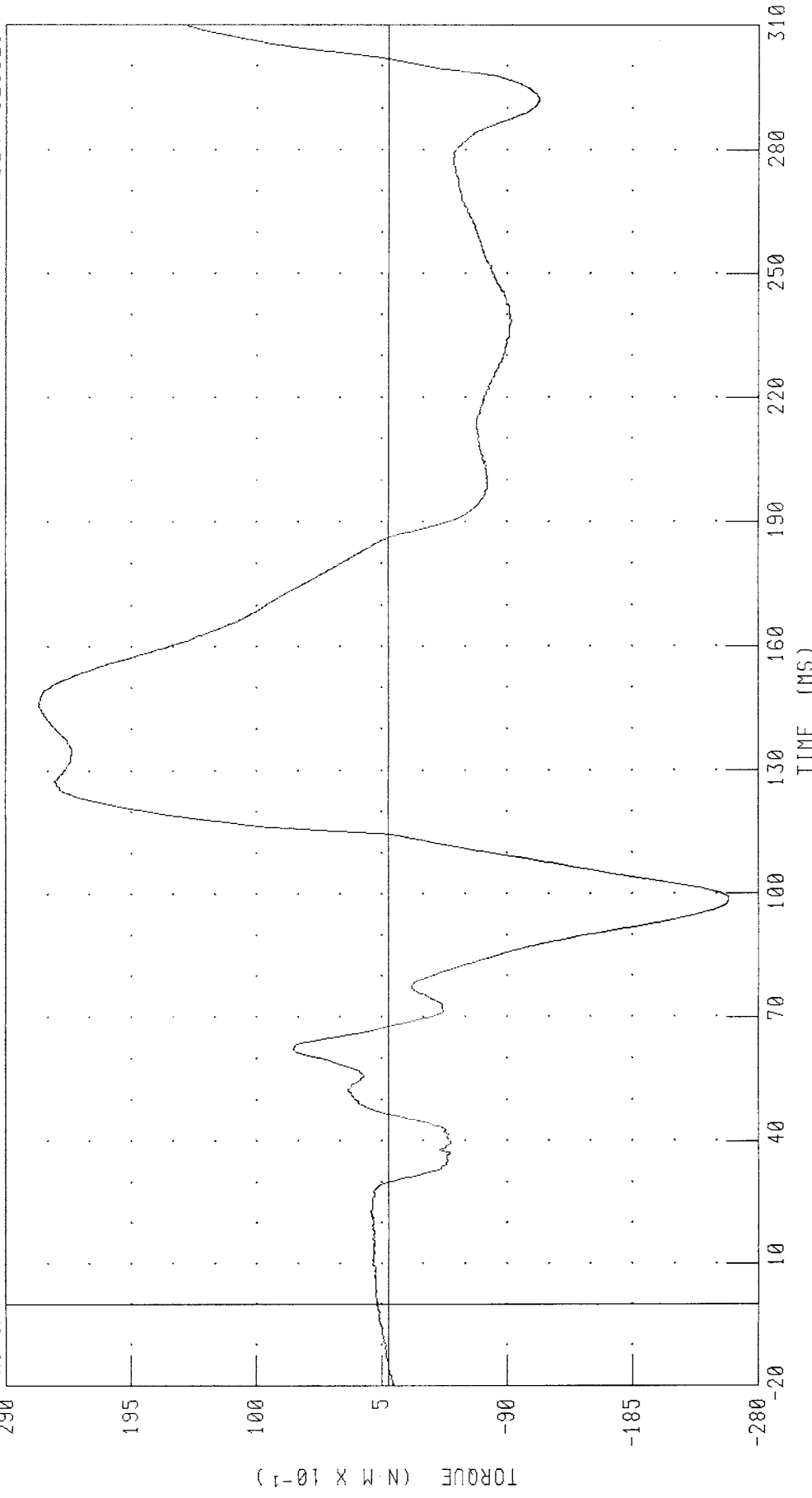


CHANNEL: NEKZMA FILTER: CH. CLASS 600
PEAK DATA: 9.77 N·M @ 85.28 MS; -7.62 N·M @ 124.64 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR

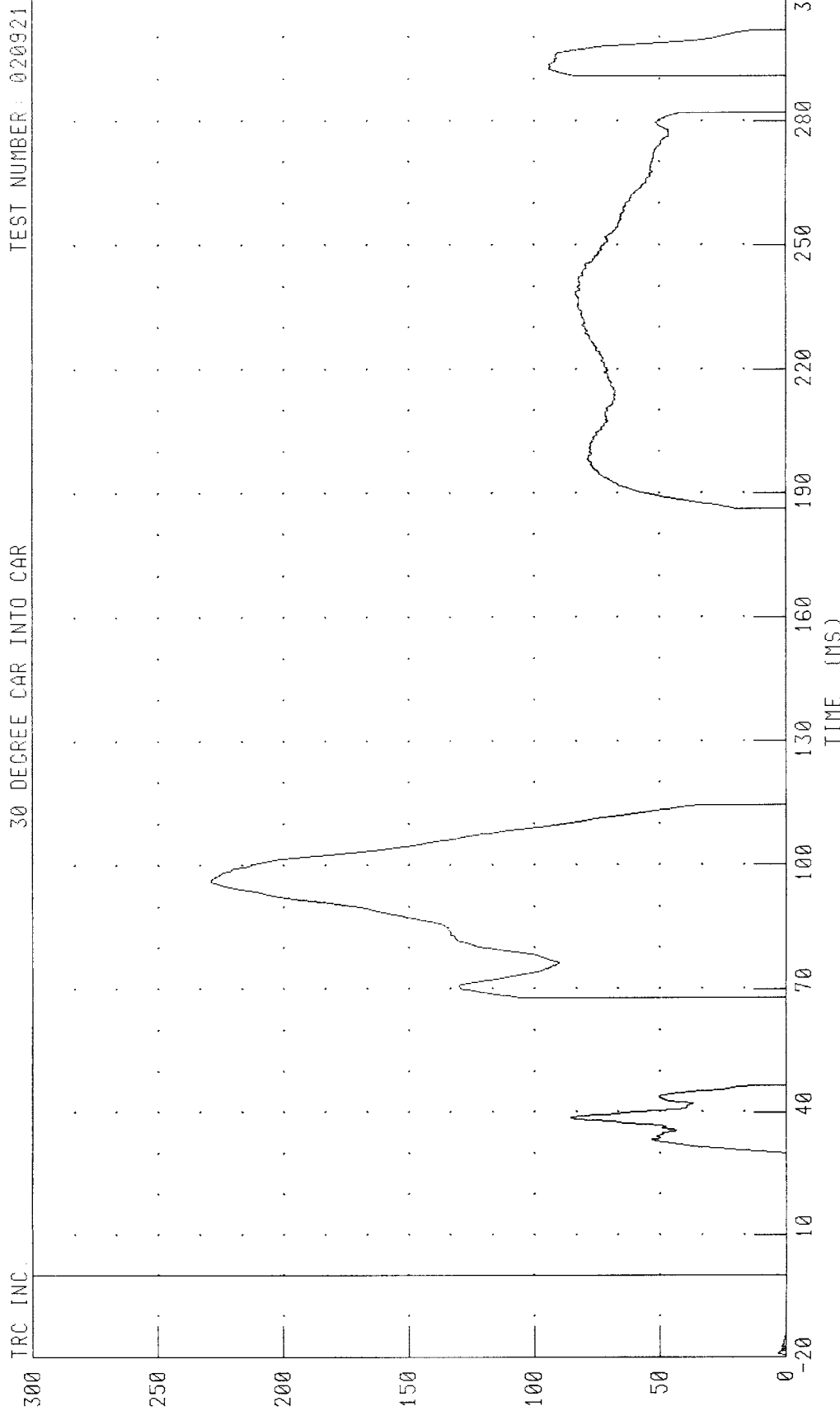
TRC INC.

TEST NUMBER: 020921



CHANNEL: NEKOMA FILTER: CH. CLASS 600
PEAK DATA: 26.52 N.M @ 145.84 MS; -25.79 N.M @ 99.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
BULLET DRIVER NIJ TENSION/EXTENSION
30 DEGREE CAR INTO CAR



(--- X 10⁻³)

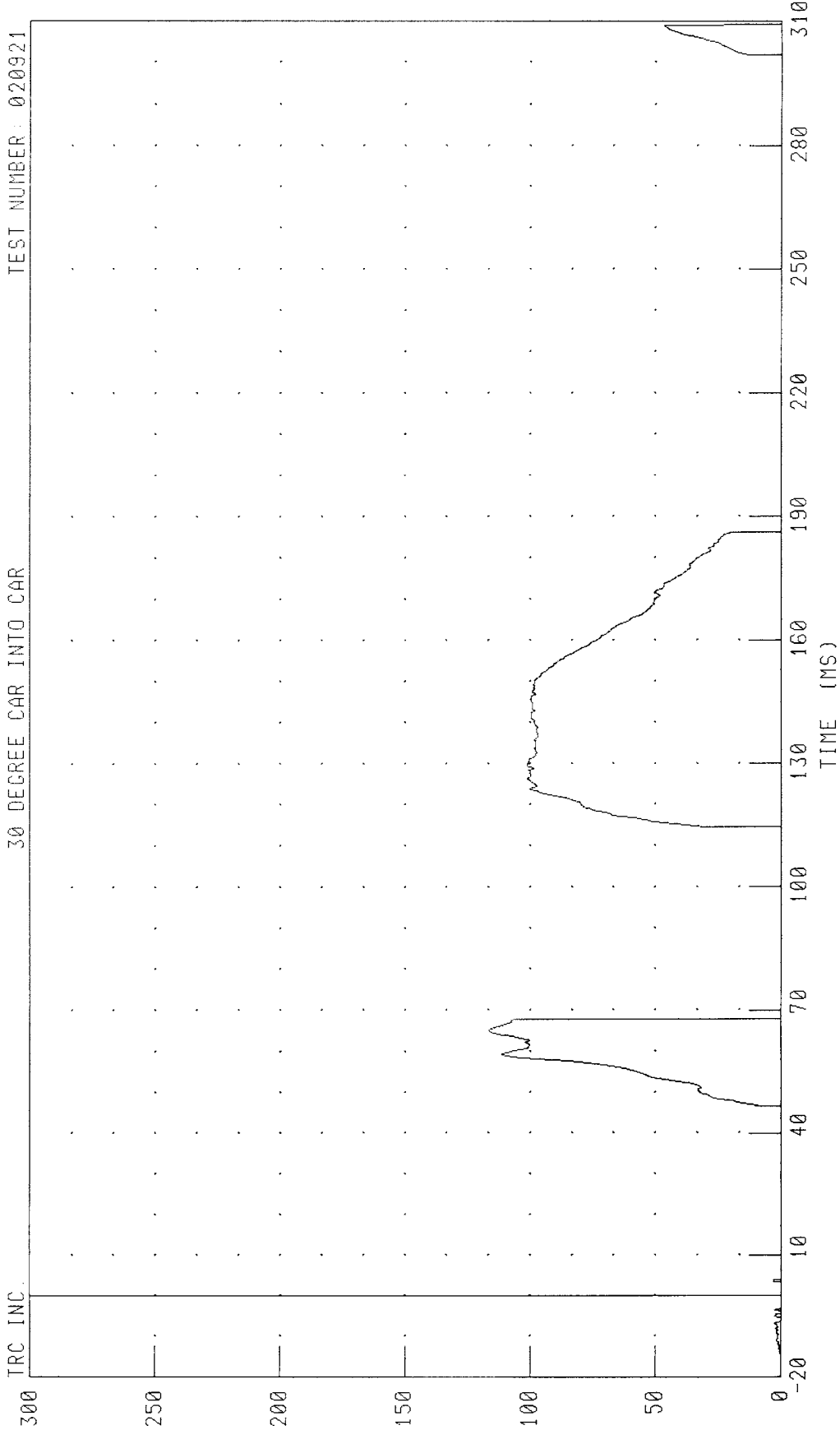
CHANNEL: NTEA FILTER: CH. CLASS 600 PEAK DATA: 0.23 --- 0 96.40 MS; 0.00 --- 0 -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET DRIVER NIJ TENSION/FLEXION

30 DEGREE CAR INTO CAR

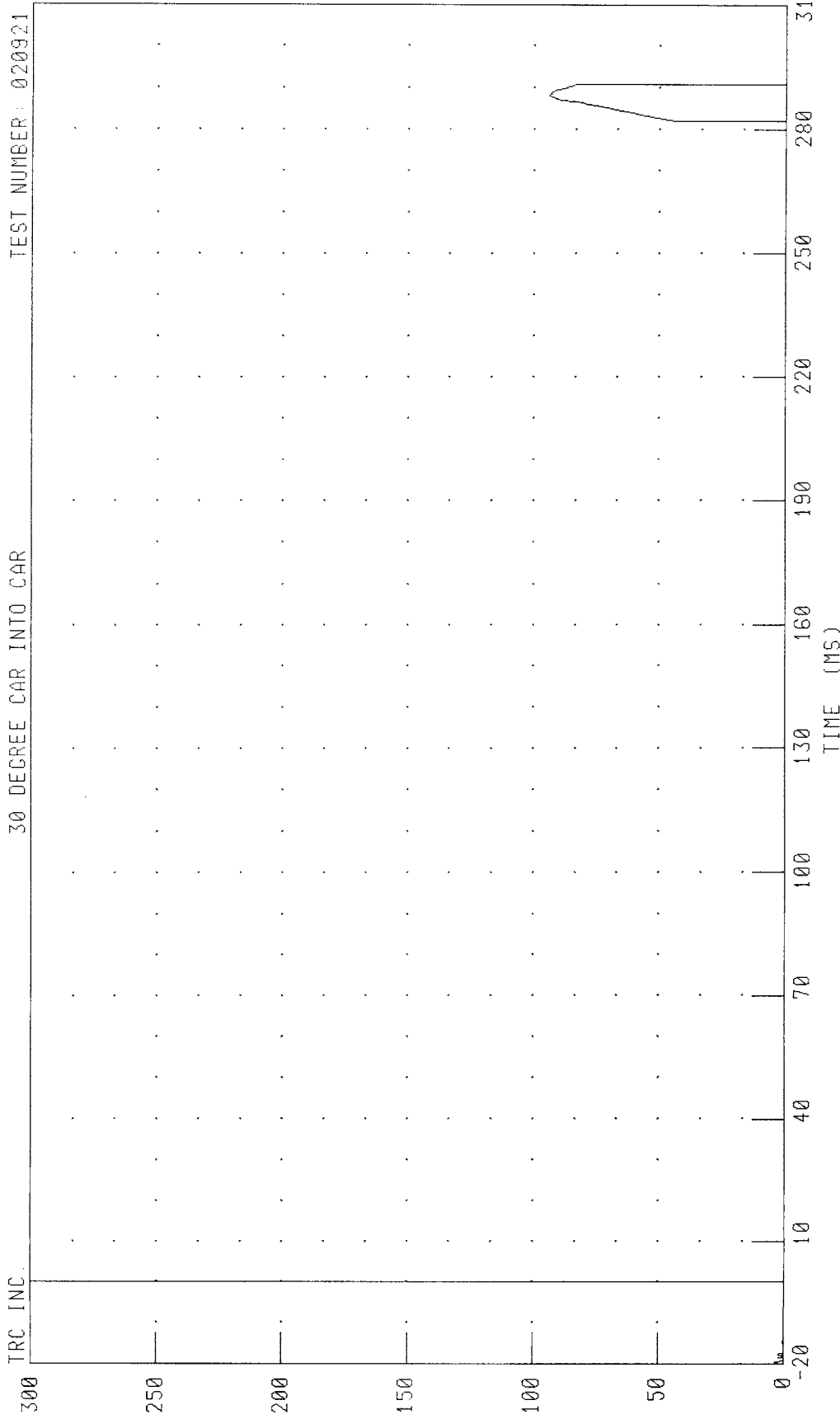
TEST NUMBER: 020921



(--- X 10⁻³)

CHANNEL: NTFA FILTER: CH. CLASS 600

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NIJ COMPRESSION/EXTENSION

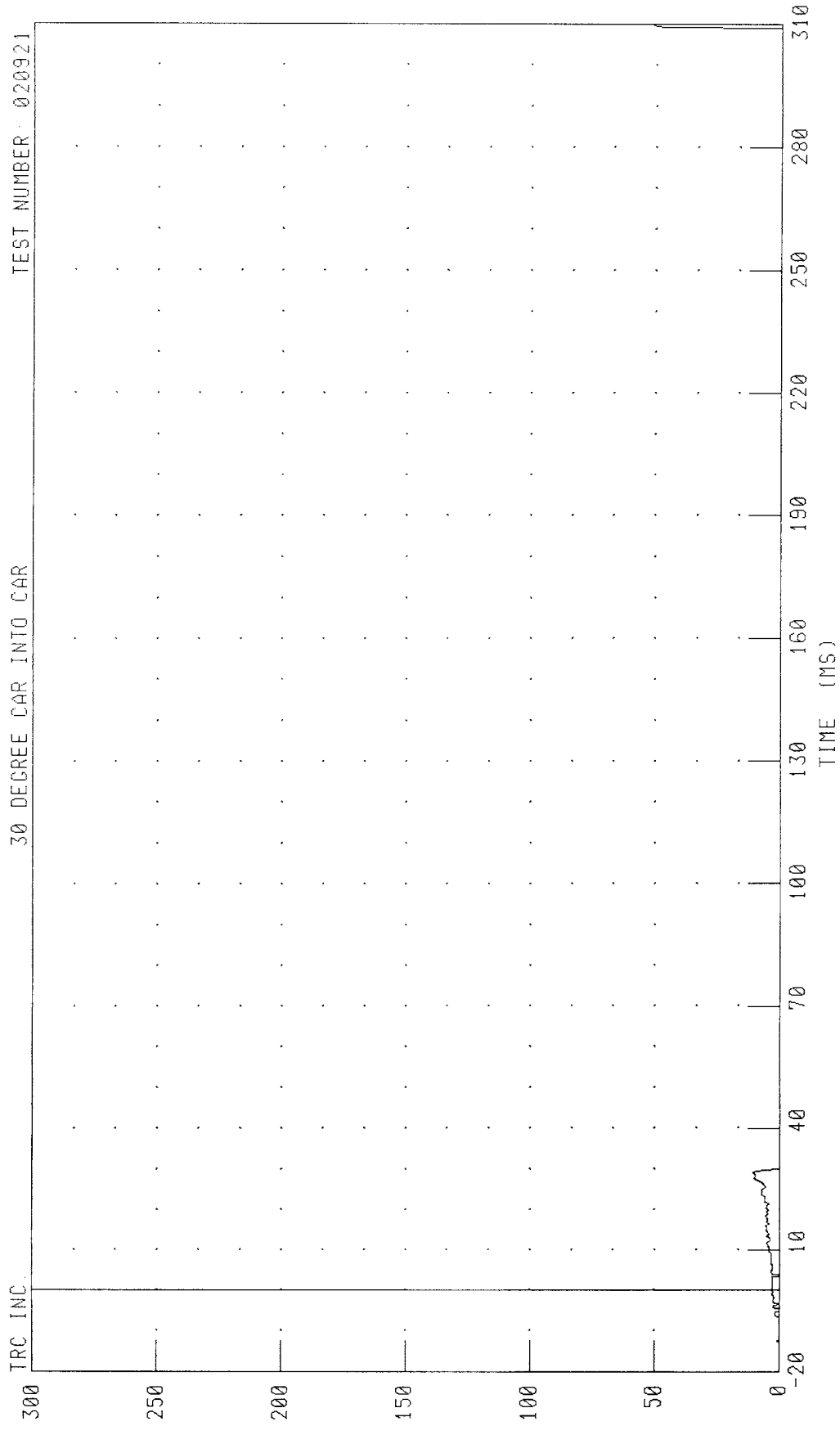


(--- X 10⁻³)

CHANNEL: NCEA FILTER: CH. CLASS 600 PEAK DATA: 0.09 --- @ 288.24 MS; 0.00 --- @ -19.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NIJ COMPRESSION/FLEXION
30 DEGREE CAR INTO CAR

TRC INC TEST NUMBER: 020921

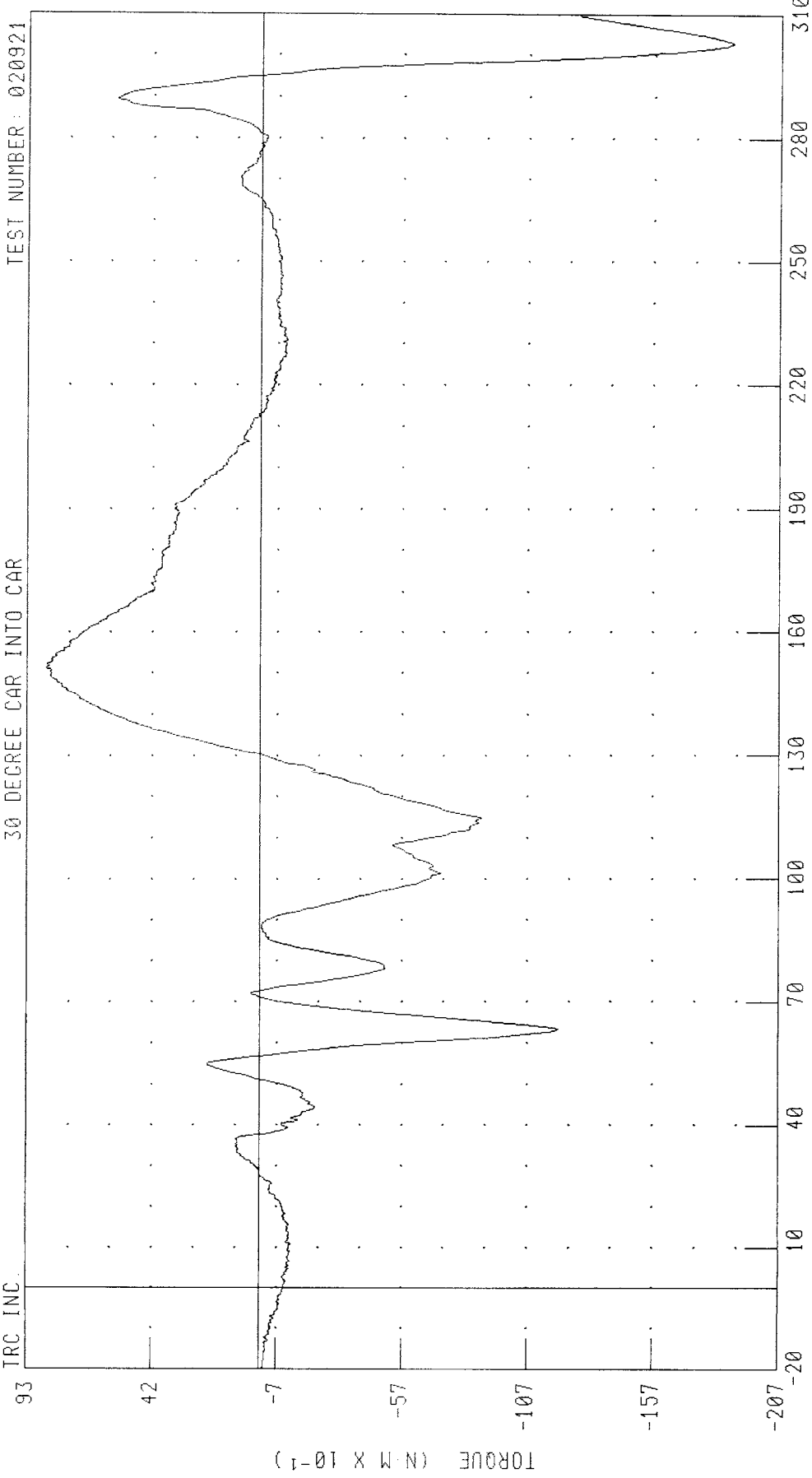


(--- X 10⁻³)

CHANNEL: NCFA FILTER: CH. CLASS 600 PEAK DATA: 0.05 --- 0 309.68 MS; 0 00 --- 0 -20.00 MS

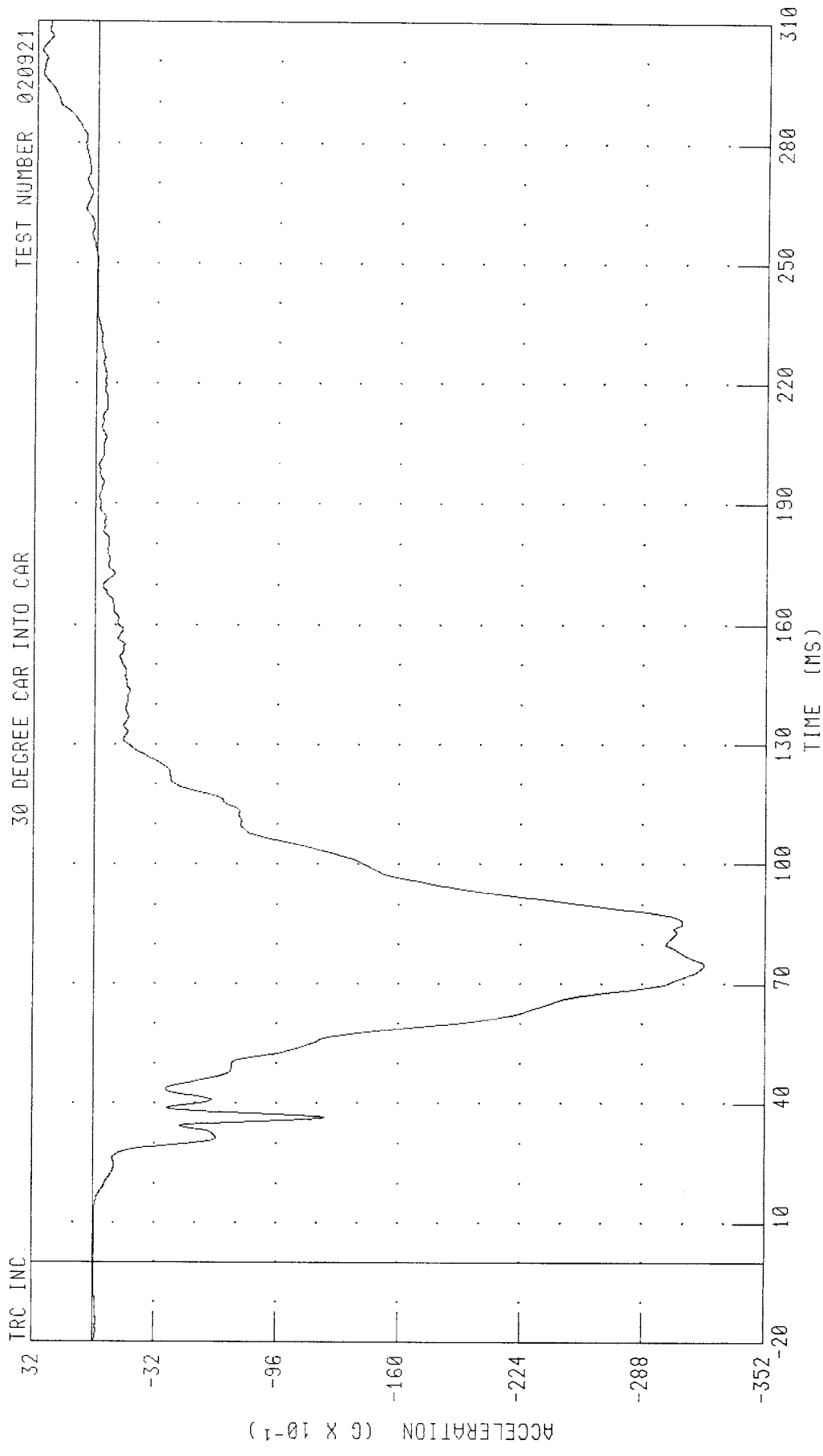
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: NK0XMA FILTER: CH. CLASS 600 PEAK DATA: 8.55 N·m @ 151.44 MS; -18.78 N·m @ 303.04 MS

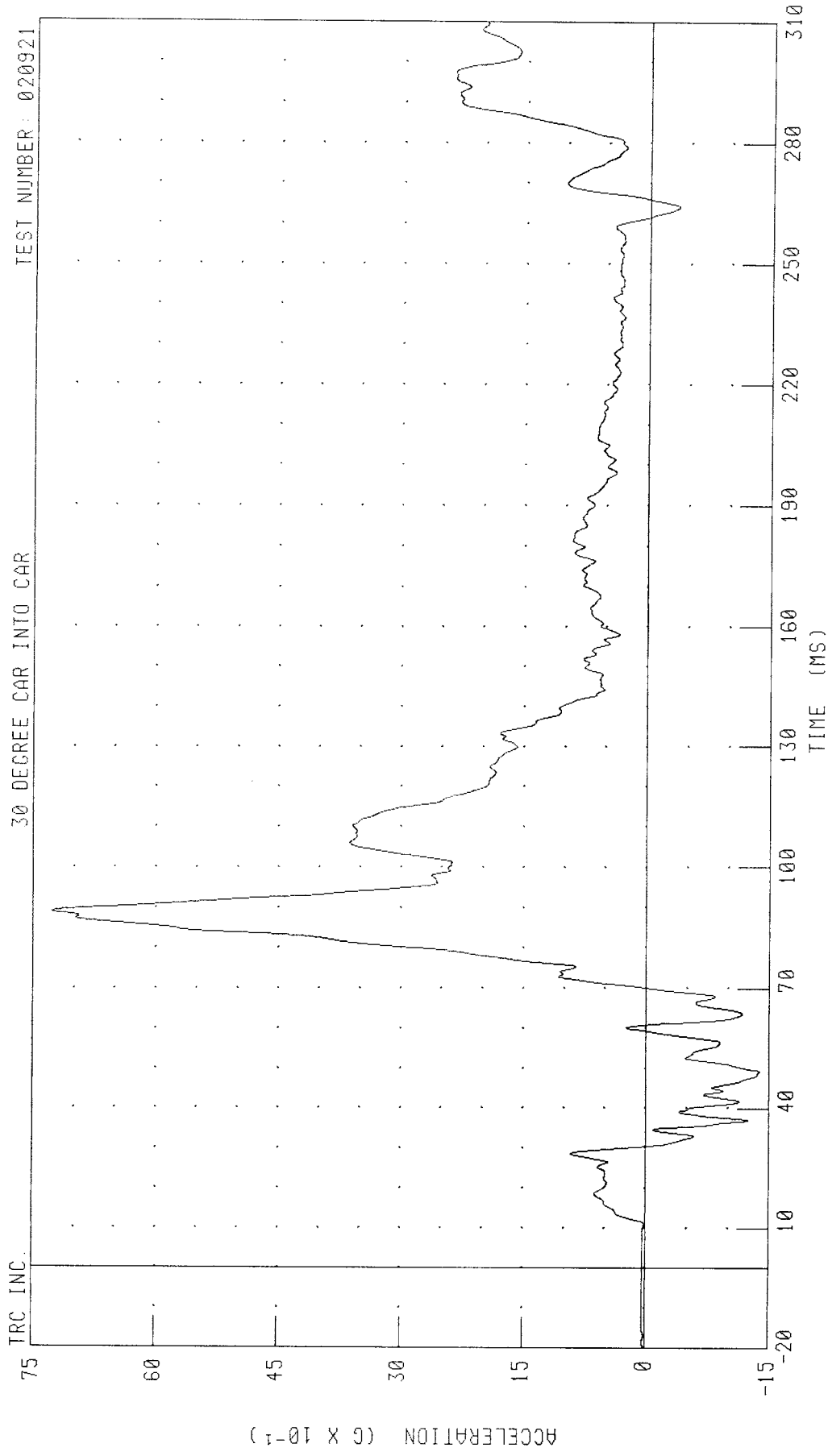
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER CHEST X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: CSTXGA FILTER: CH. CLASS 180 PEAK DATA: 2.94 G @ 302.64 MS, -32.03 G @ 74.88 MS

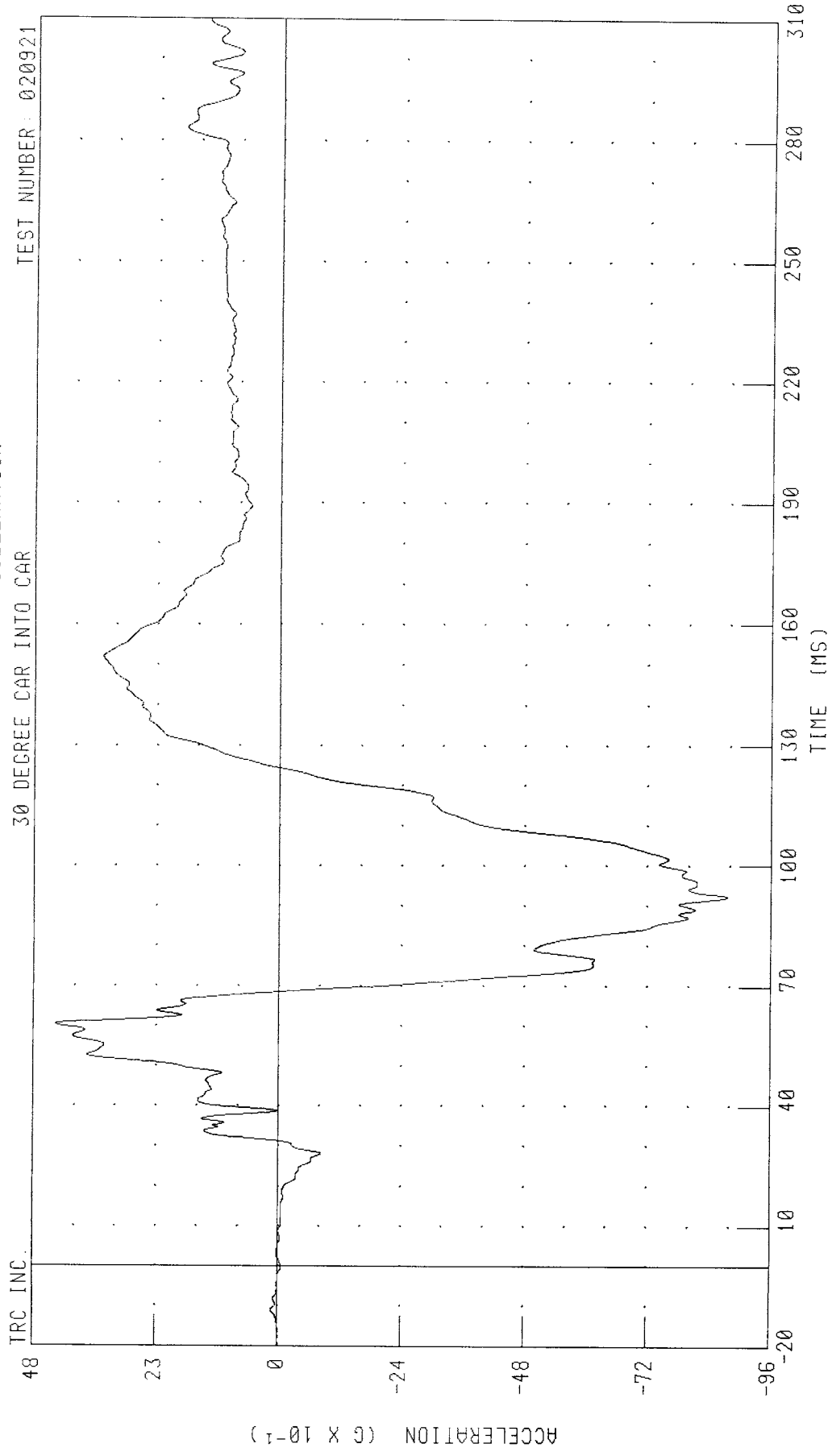
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER CHEST Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC.
TEST NUMBER: 020921



CHANNEL: CSTYGA FILTER: CH. CLASS 180 PEAK DATA: 7.27 G @ 89.12 MS; -1.39 G @ 49.12 MS

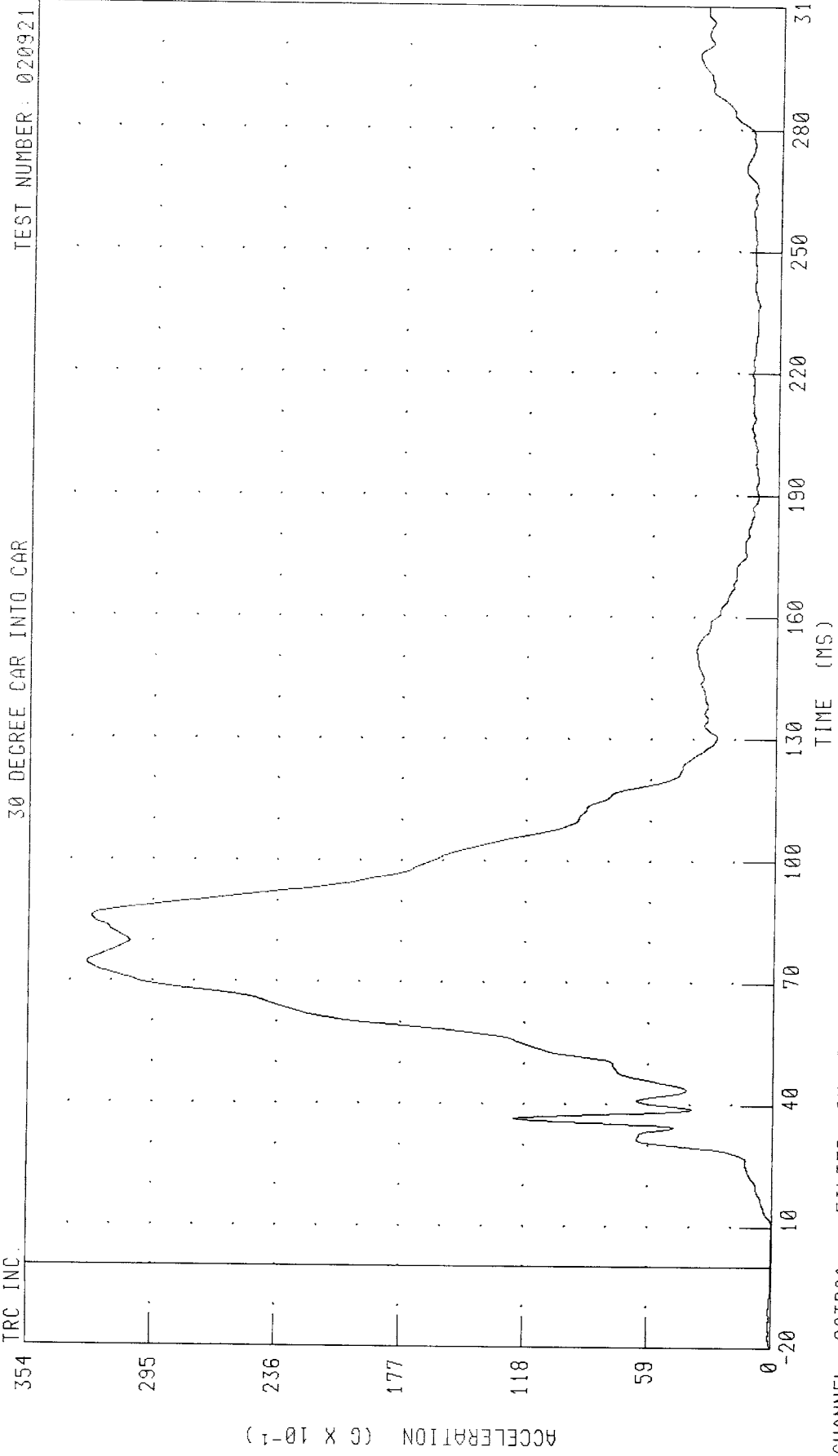
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER CHEST Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: CSTZGA FILTER: CH. CLASS 180 PEAK DATA: 4.37 G @ 60.48 MS; -8.75 G @ 92.32 MS

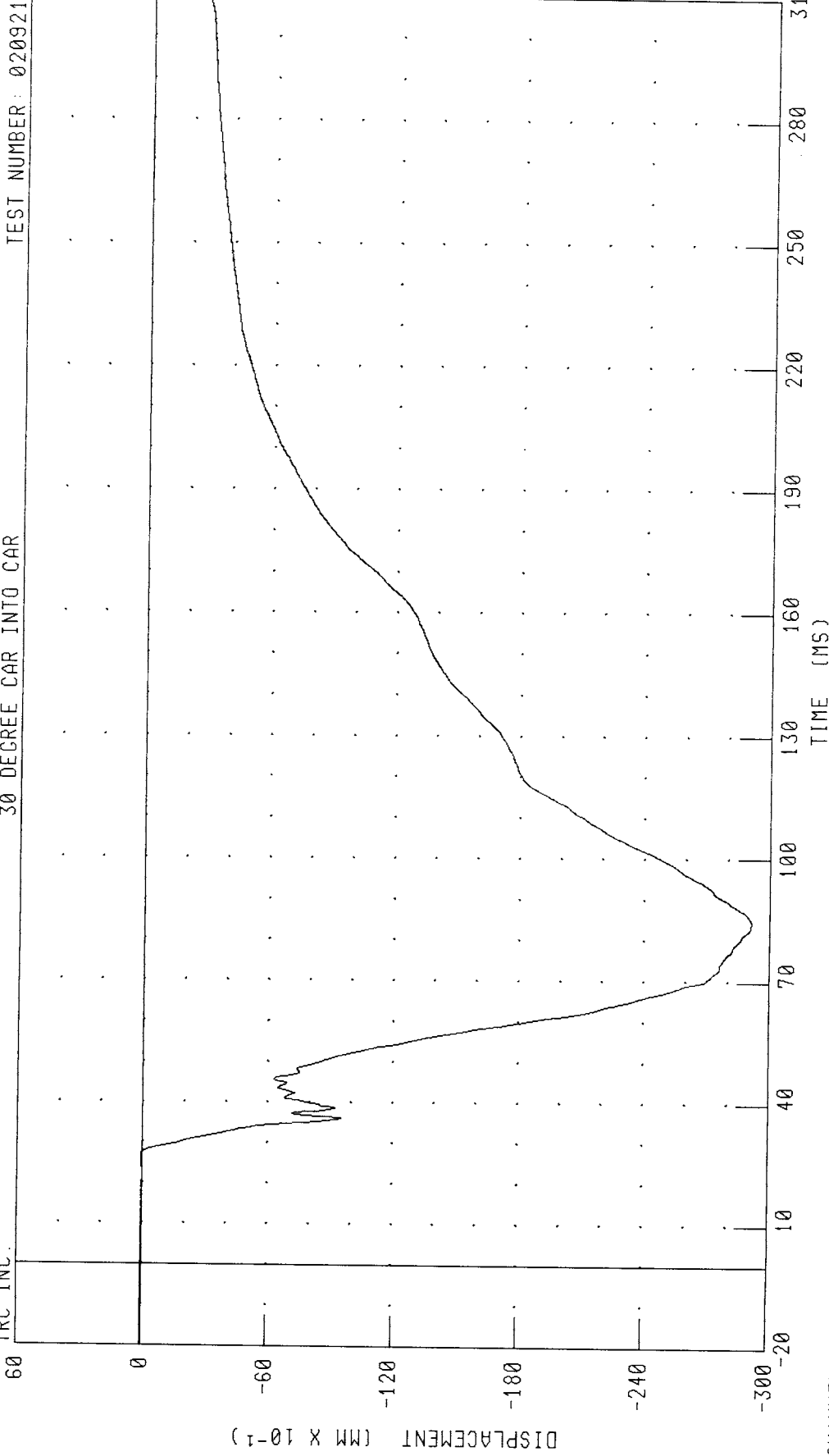
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER CHEST RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC.



CHANNEL: CSTRGA FILTER: CH. CLASS 180
PEAK DATA: 32.63 G @ 74.88 MS, 0.00 G @ -20.00 MS

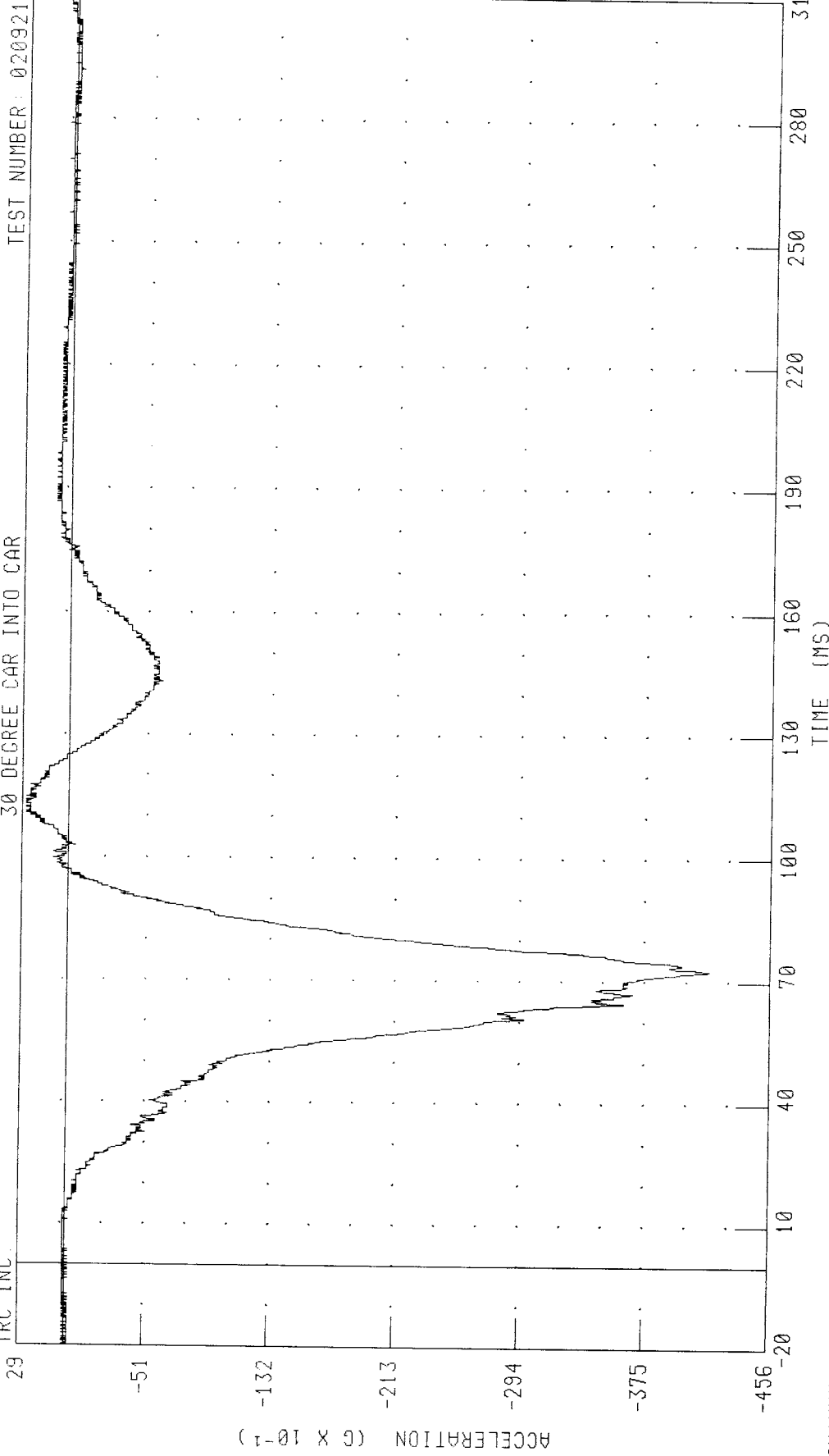
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER CHEST DEFLECTION
30 DEGREE CAR INTO CAR



CHANNEL: CSTXDA FILTER: CH. CLASS 600

PEAK DATA: 0.08 MM @ -16.32 MS, -29.15 MM @ 84.40 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER PELVIS X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

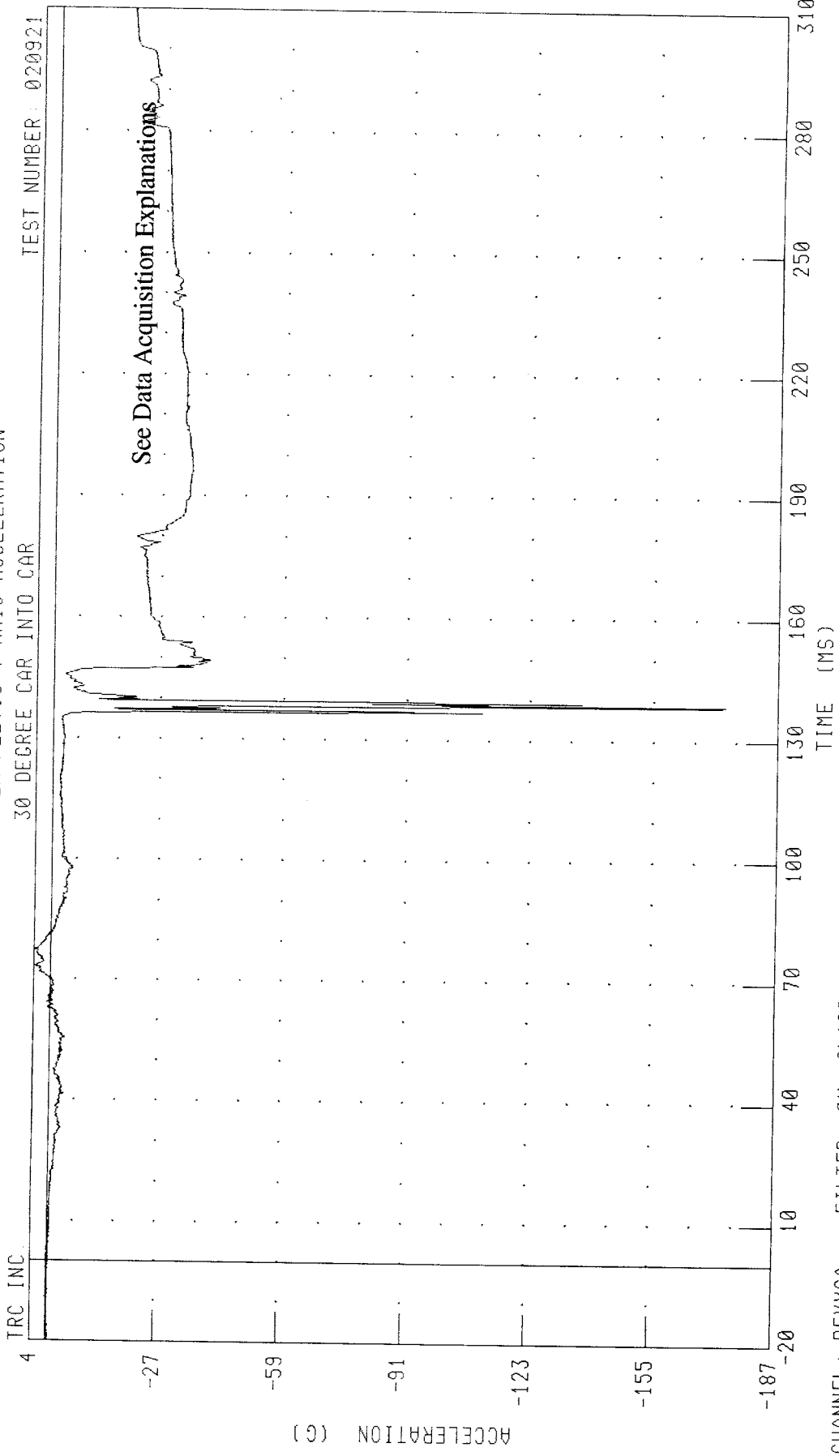


CHANNEL: PEVXGA FILTER: CH. CLASS 1000

PEAK DATA: 2.74 G @ 110.64 MS, -41.70 G @ 72.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER PELVIS Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC
TEST NUMBER: 020921

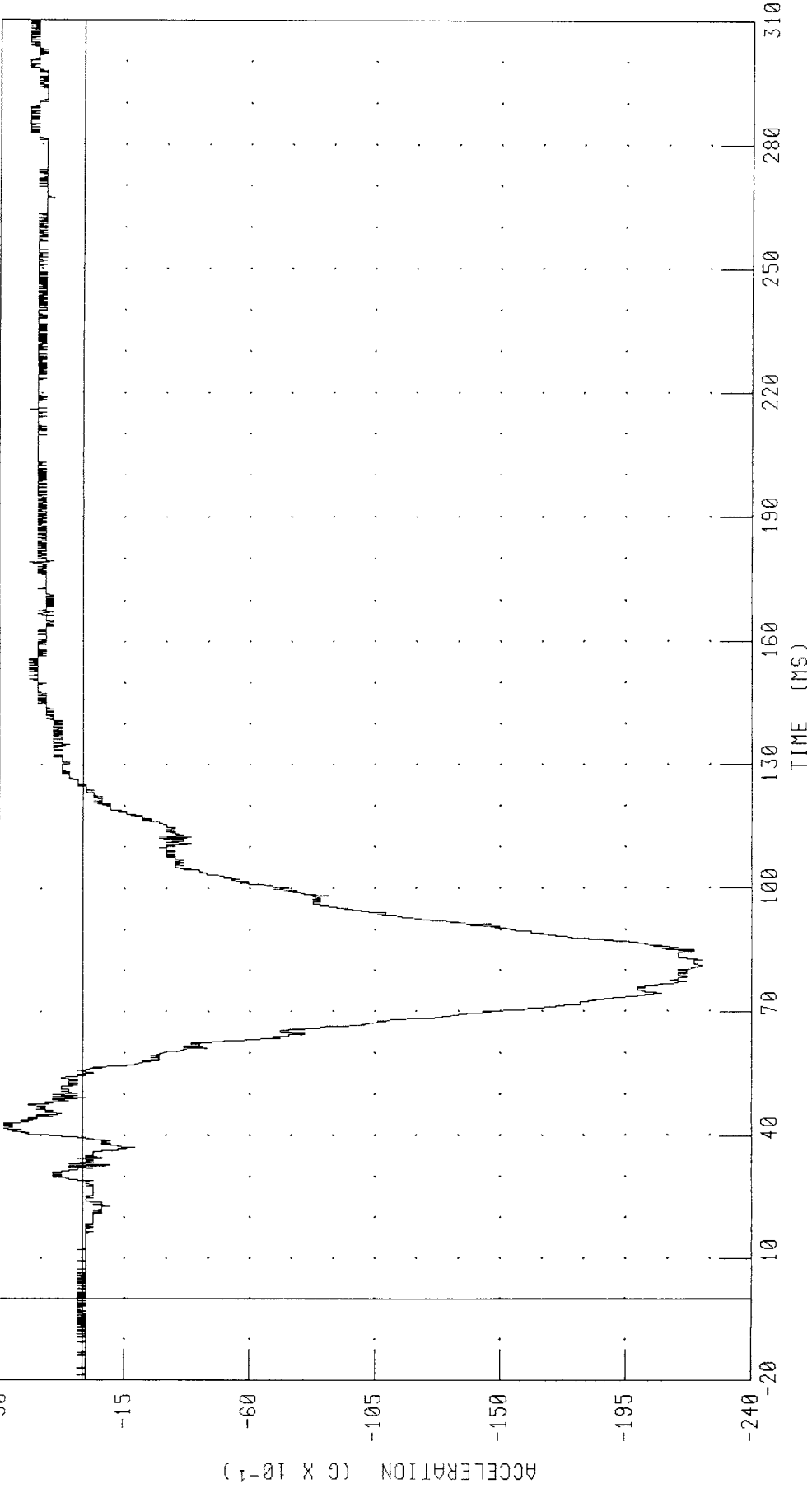


CHANNEL: PEVYGA FILTER: CH. CLASS 1000

PEAK DATA: 4.06 G @ 73.36 MS, -173.96 G @ 138.64 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER PELVIS Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

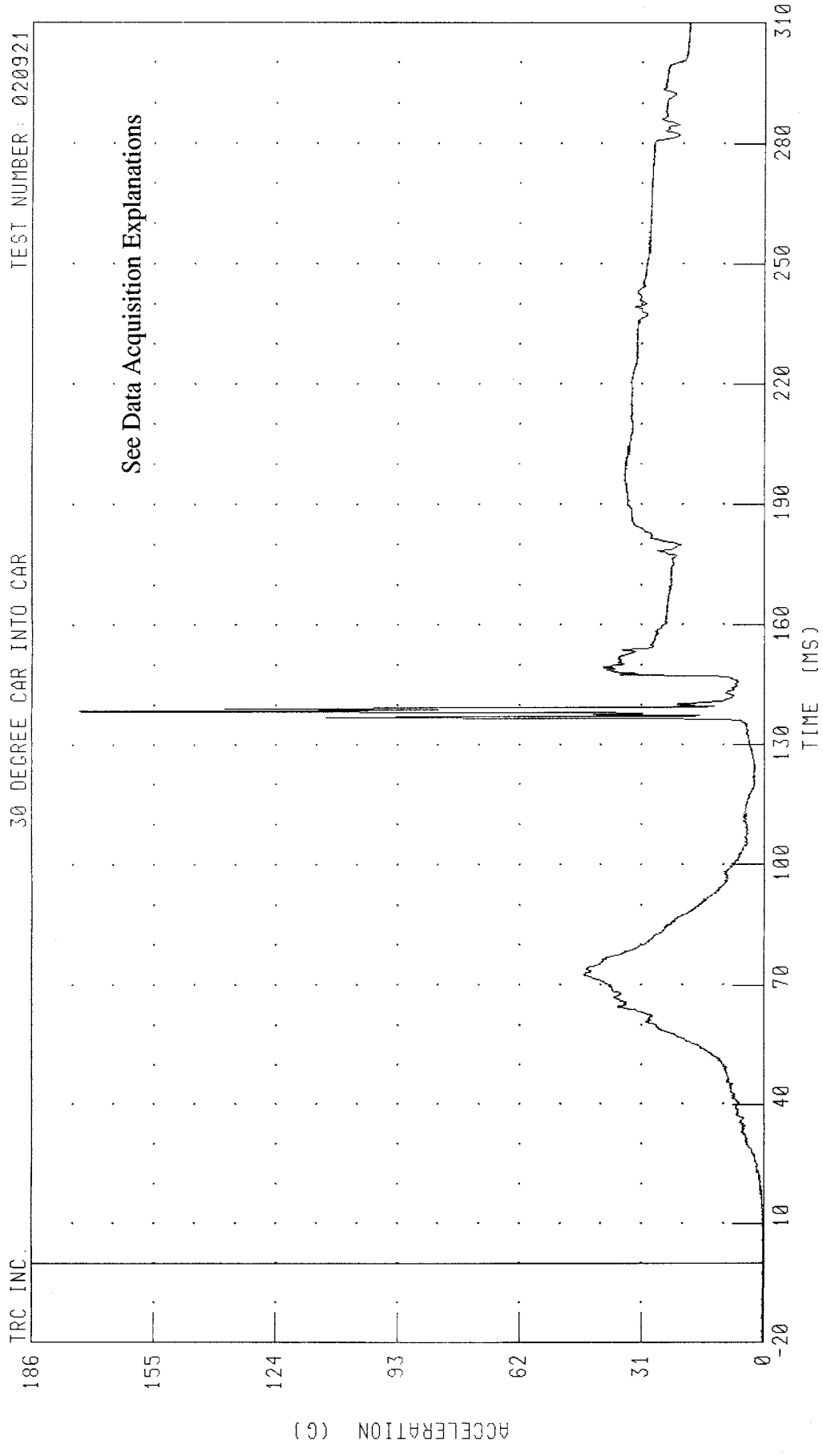
TRC INC. TEST NUMBER: 020921



CHANNEL: PEVZGA FILTER: CH. CLASS 1000 PEAK DATA: 2.81 G @ 41.84 MS; -22.24 G @ 80.96 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER PELVIS RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR

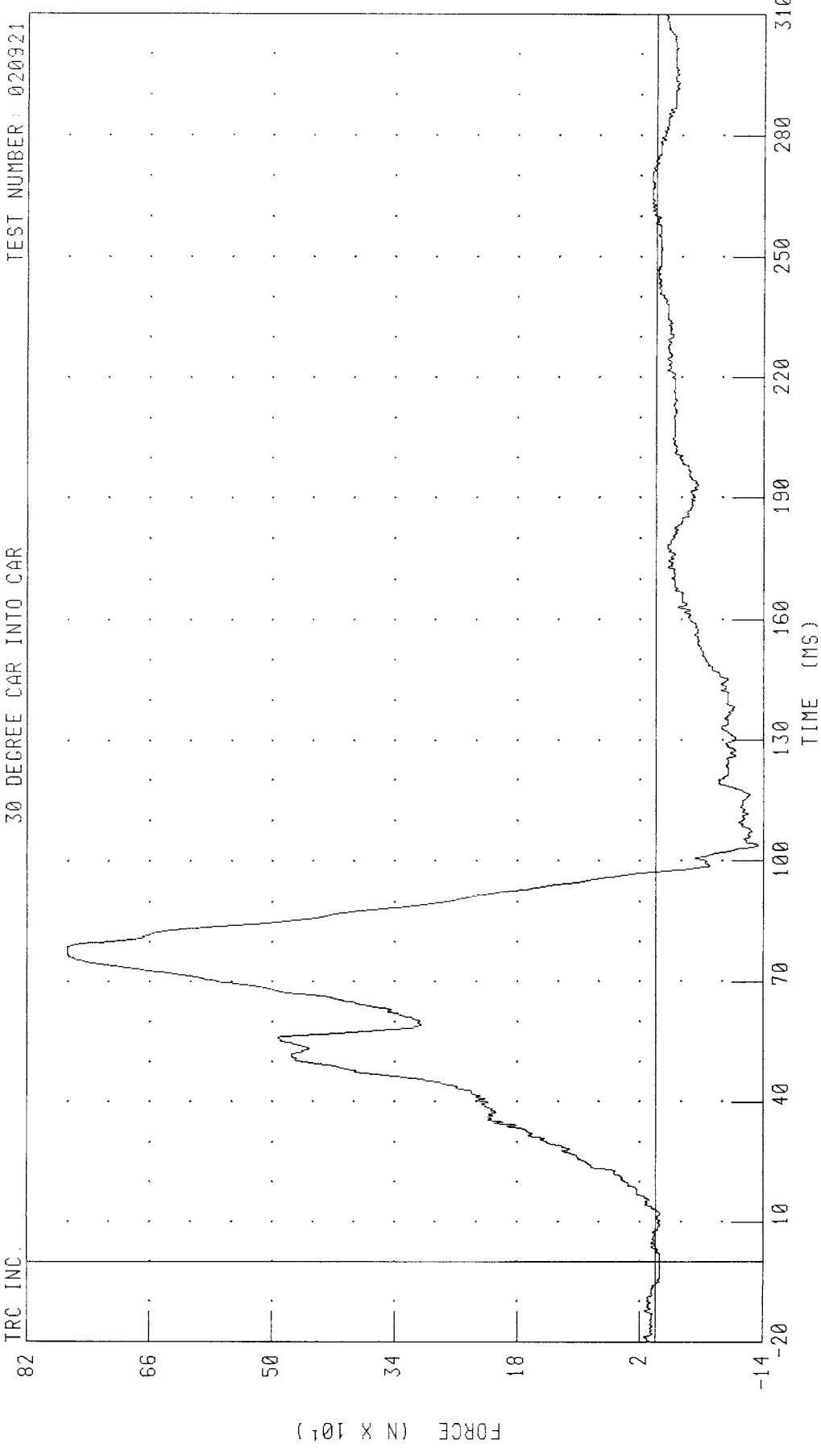
TRC INC. TEST NUMBER: 020921



CHANNEL: PEVRGA FILTER: CH. CLASS 1000 PEAK DATA: 174.03 G @ 138.64 MS; 0.16 G @ -18.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR X-AXIS FORCE
30 DEGREE CAR INTO CAR

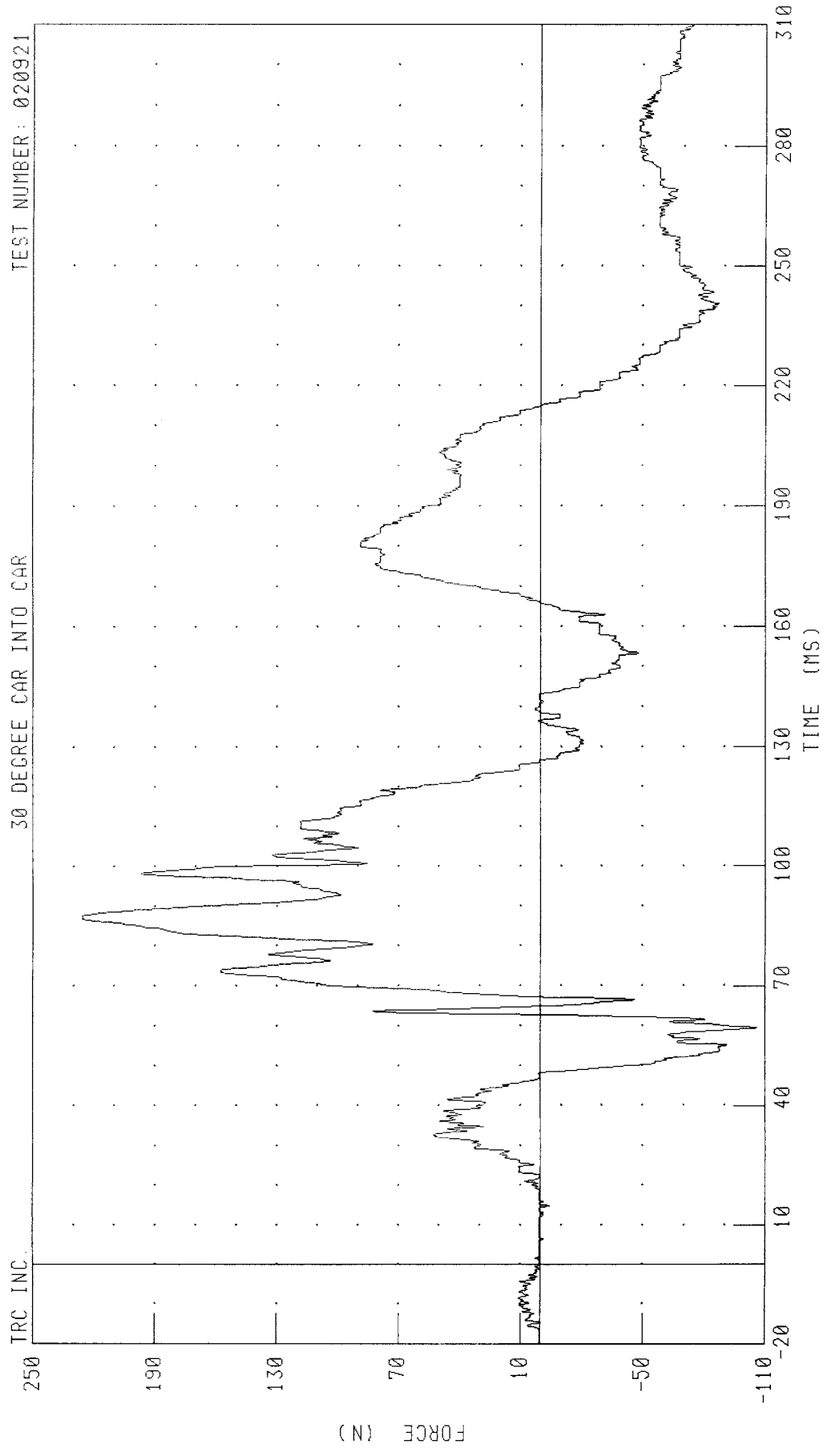
TRC INC. TEST NUMBER: 020921



CHANNEL: LFMXFA FILTER: CH. CLASS 600 PEAK DATA: 767.92 N @ 78.72 MS; -133.34 N @ 103.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR Y-AXIS FORCE
30 DEGREE CAR INTO CAR

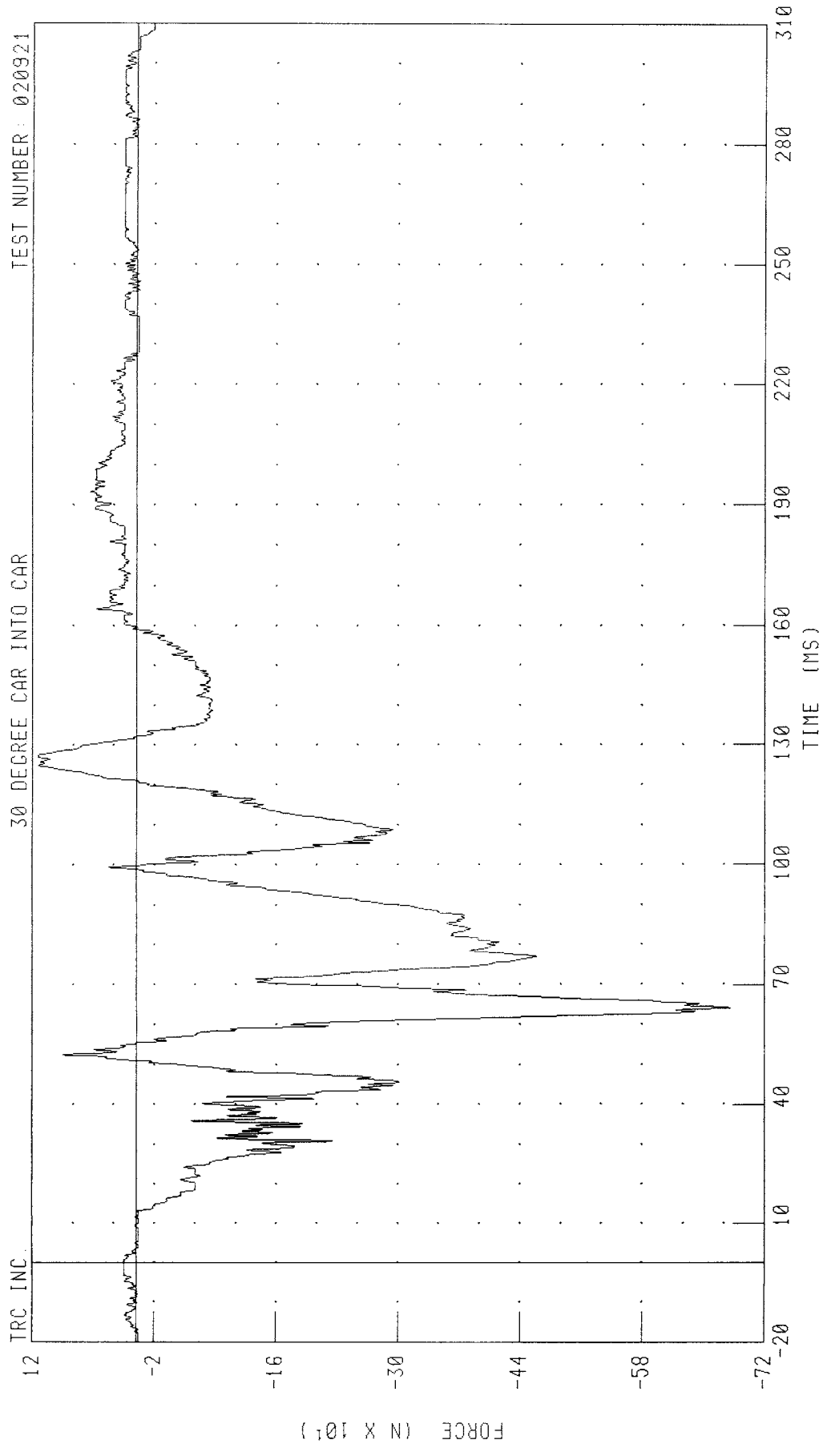
TRC INC. TEST NUMBER: 020921



CHANNEL: LFMYFA FILTER: CH. CLASS 600 PEAK DATA: 225.87 N @ 87.60 MS; -106.03 N @ 59.36 MS

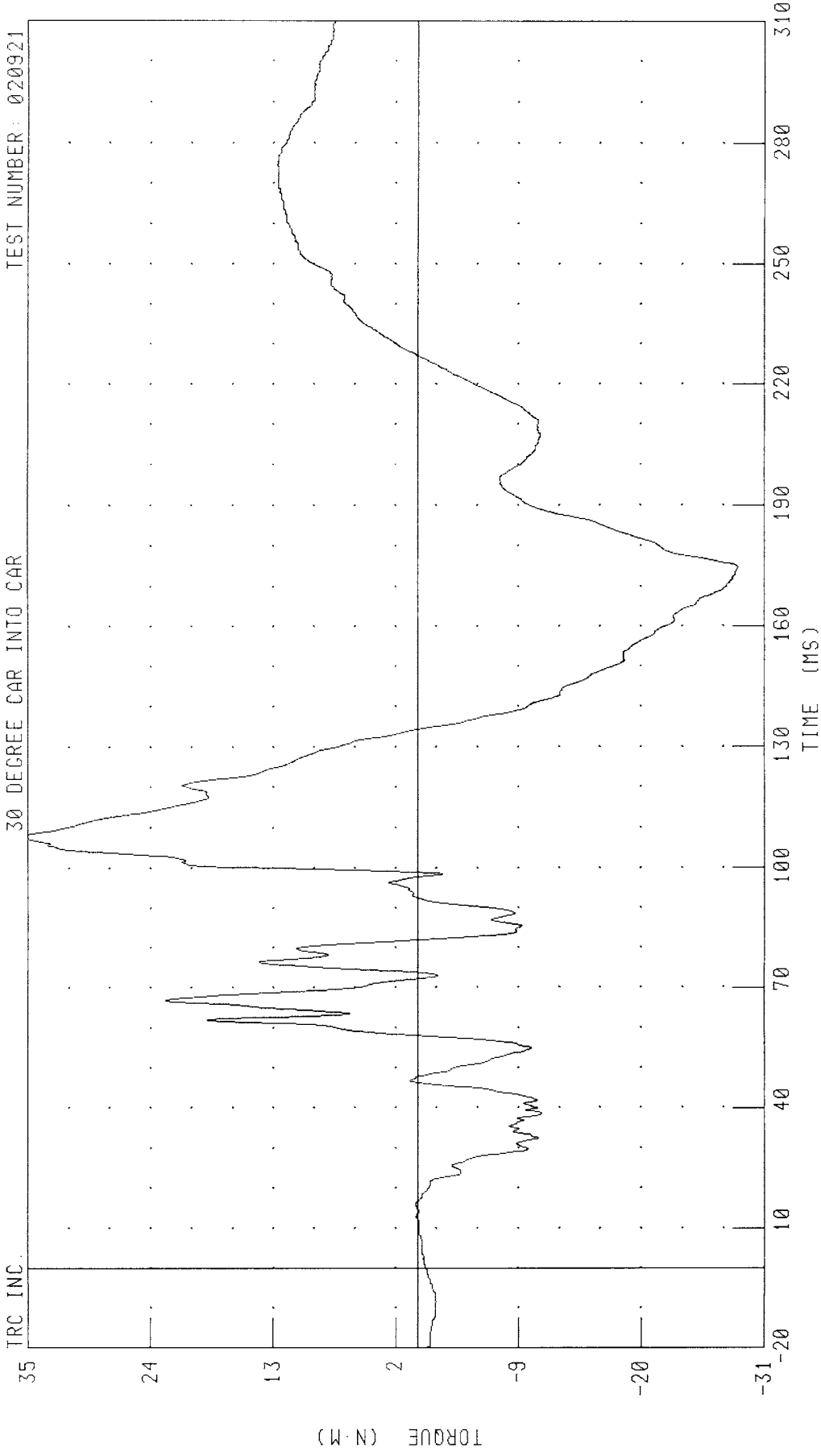
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR Z-AXIS FORCE
30 DEGREE CAR INTO CAR

TRC INC
TEST NUMBER: 020921



CHANNEL: LFMZFA FILTER: CH. CLASS 600
PEAK DATA: 113.19 N @ 125.04 MS; -681.26 N @ 64.16 MS

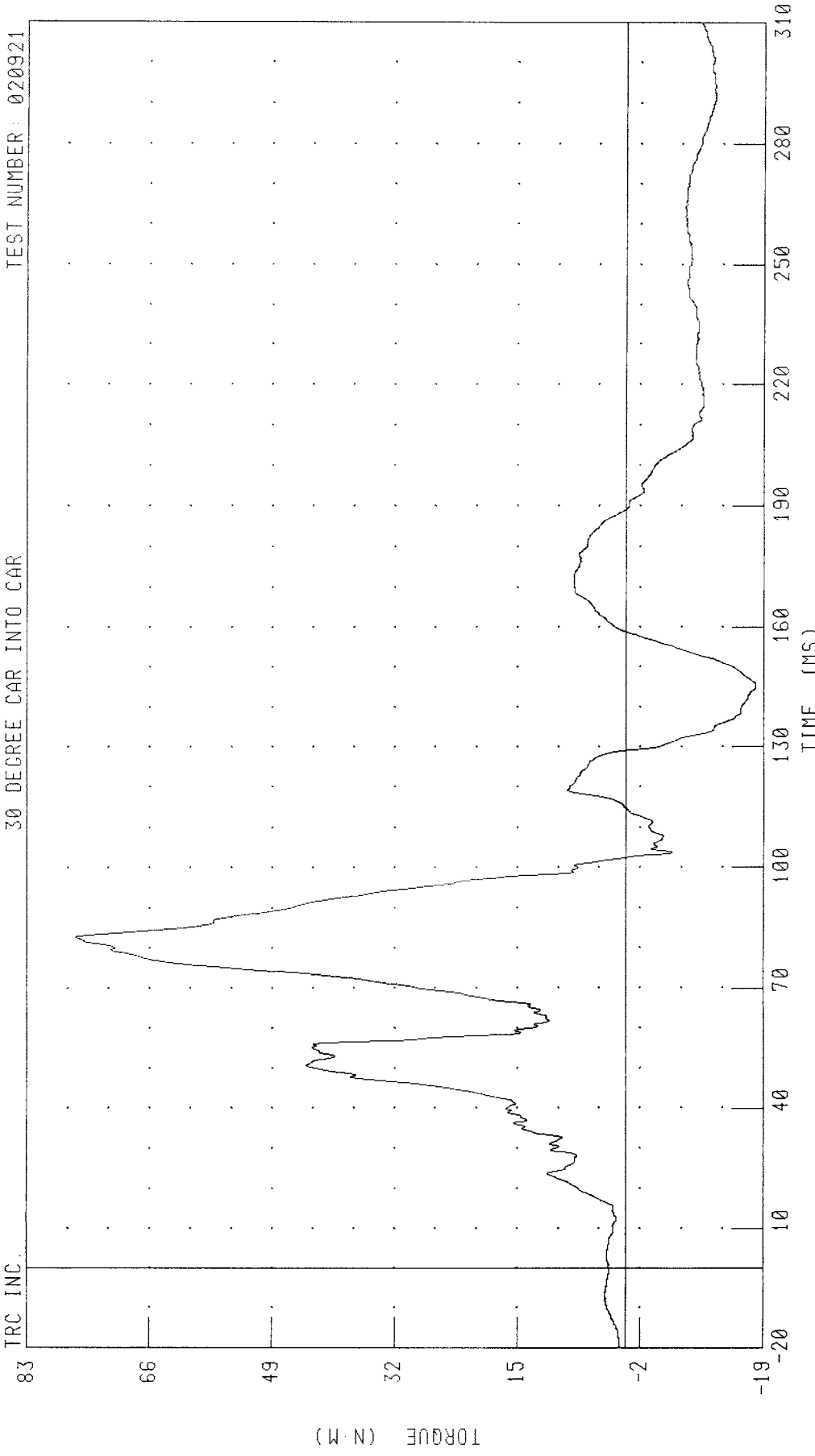
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR MOMENT ABOUT X AXIS



CHANNEL: LFMXMA FILTER: CH. CLASS 600 PEAK DATA: 35.20 N-M @ 108.24 MS; -28.65 N-M @ 174.80 MS

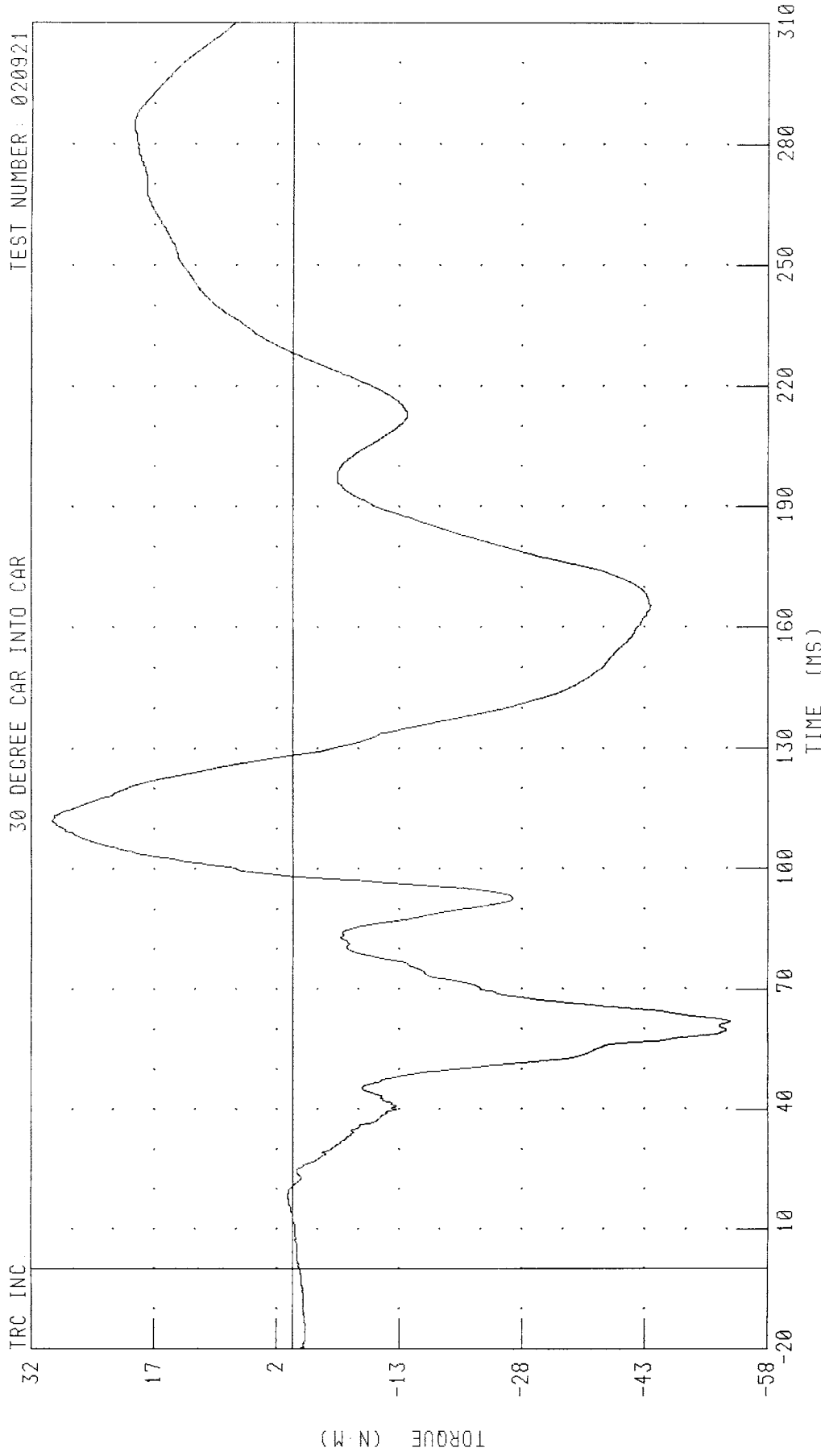
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 0220921



CHANNEL: LFMVMA FILTER: CH. CLASS 600
PEAK DATA: 76.22 N·M @ 82.80 MS; -17.89 N·M @ 145.28 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER LEFT FEMUR MOMENT ABOUT Z AXIS



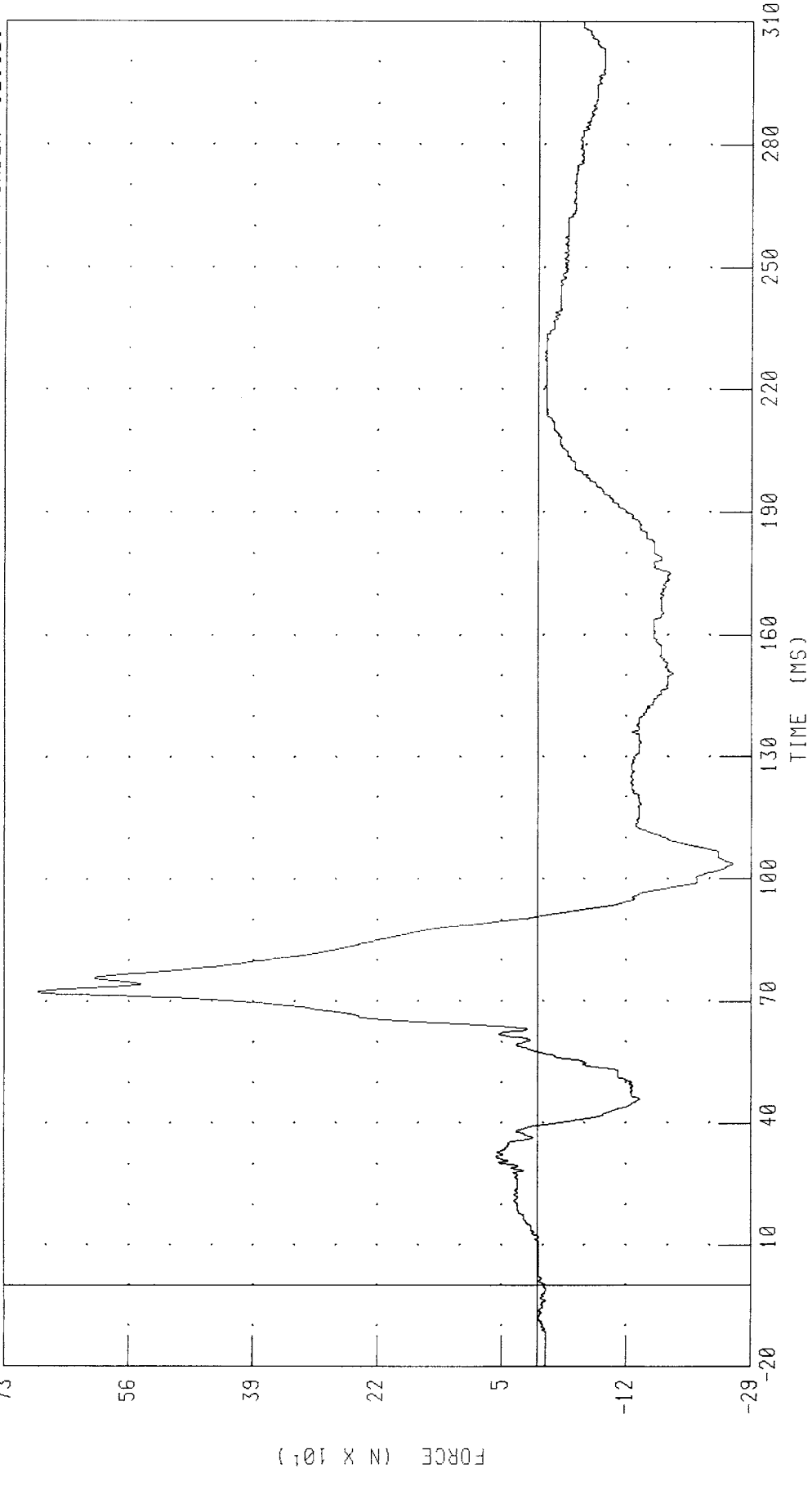
CHANNEL: LFMZNA FILTER: CH. CLASS 600
PEAK DATA: 29.46 N-M @ 112.32 MS; -53.43 N-M @ 61.84 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT FEMUR X-AXIS FORCE

TRC INC. TEST NUMBER: 020921

30 DEGREE CAR INTO CAR

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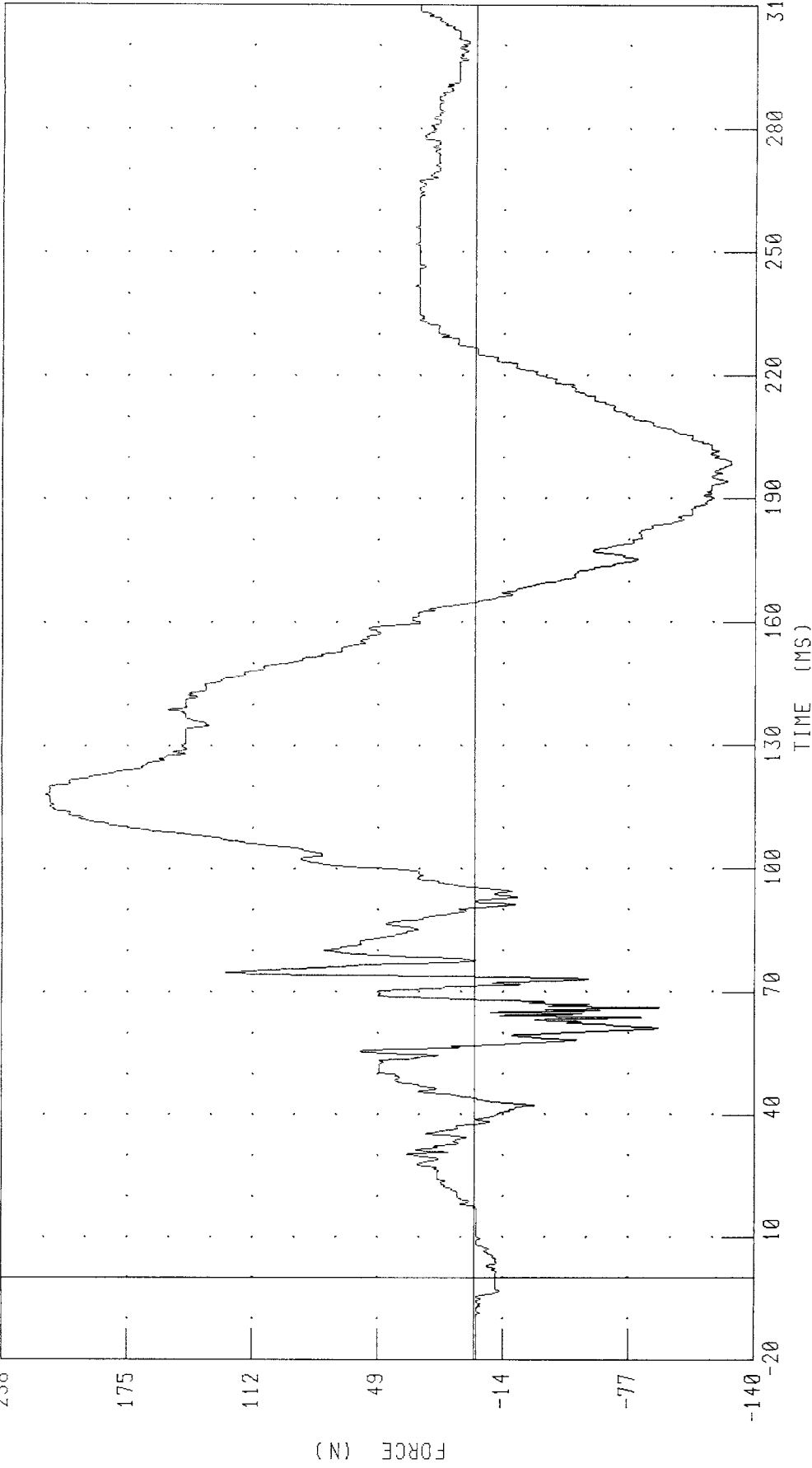


CHANNEL: RFXFA FILTER: CH. CLASS 600 PEAK DATA: 684.95 N @ 72.48 MS; -265.66 N @ 103.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT FEMUR Y-AXIS FORCE
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

TRC INC.



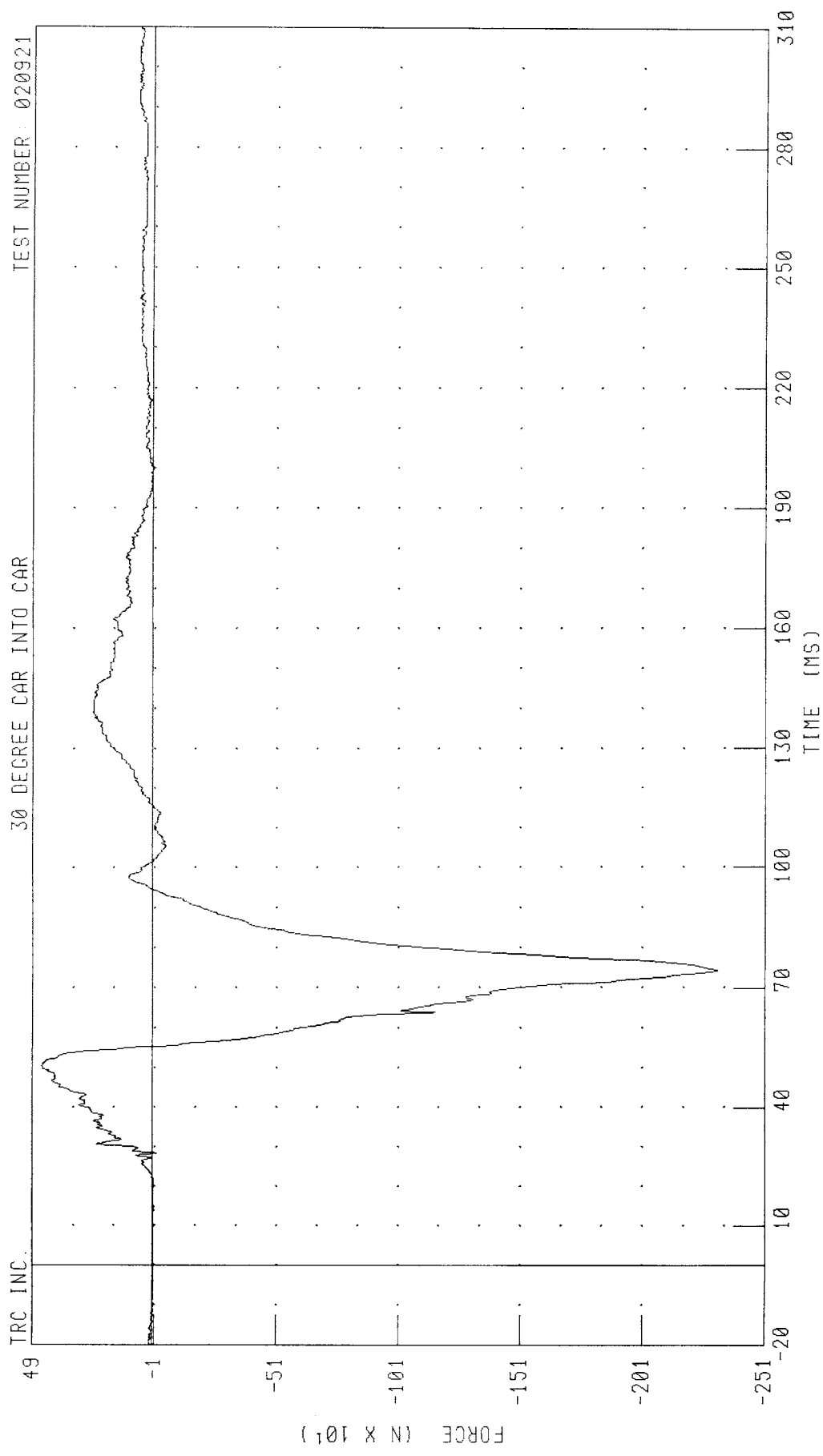
CHANNEL: RFMYFA FILTER: CH. CLASS 600

PEAK DATA: 216.24 N @ 118.32 MS; -128.06 N @ 198.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT FEMUR Z-AXIS FORCE
30 DEGREE CAR INTO CAR

TRC INC.

TEST NUMBER: 020921

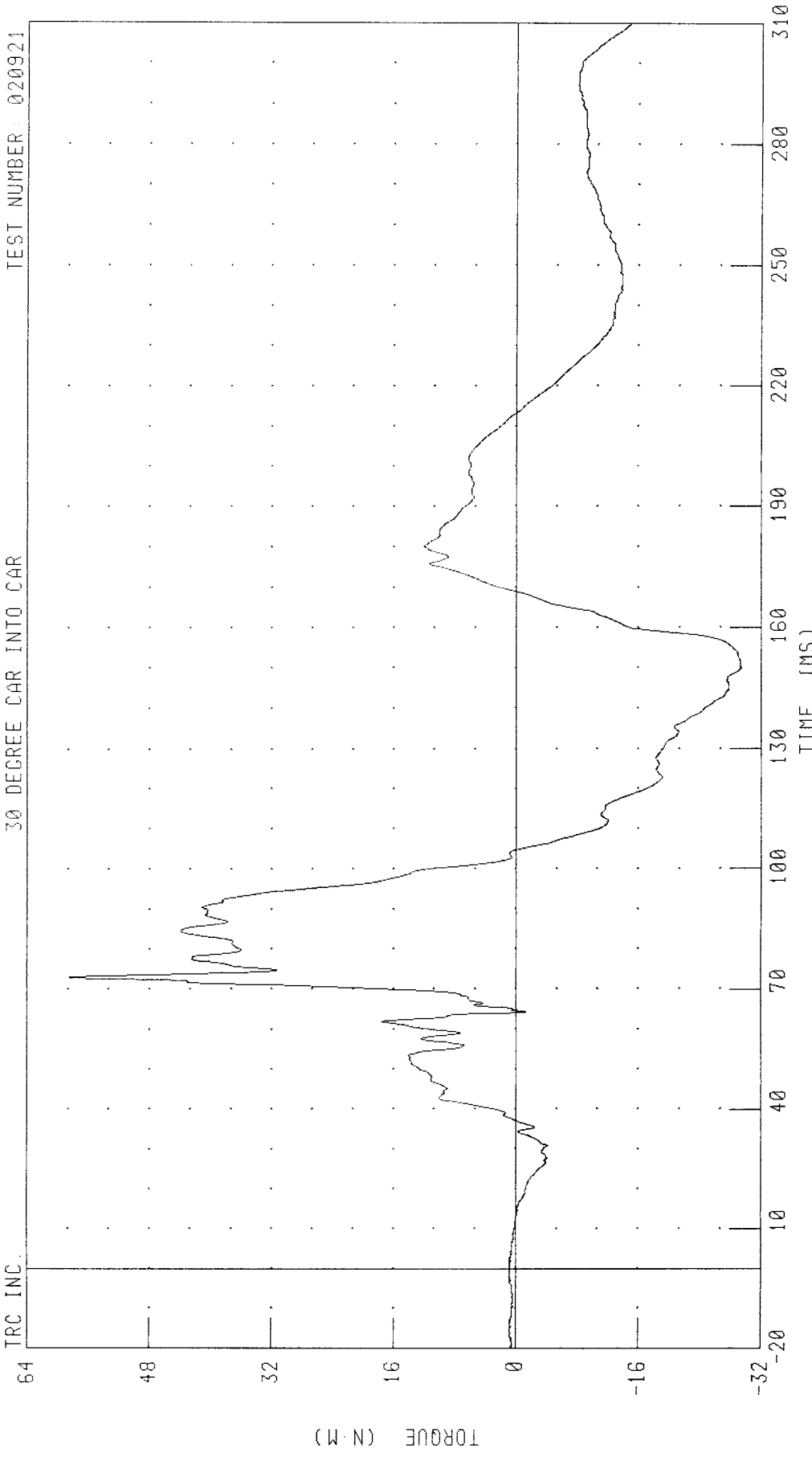


CHANNEL: RFMZFA FILTER: CH. CLASS 600

PEAK DATA: 451.40 N @ 50.56 MS; -2317.64 N @ 74.32 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT FEMUR MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: RFXMA FILTER: CH. CLASS 600 PEAK DATA: 58.42 N-M @ 73.04 MS; -29.39 N-M @ 150.00 MS

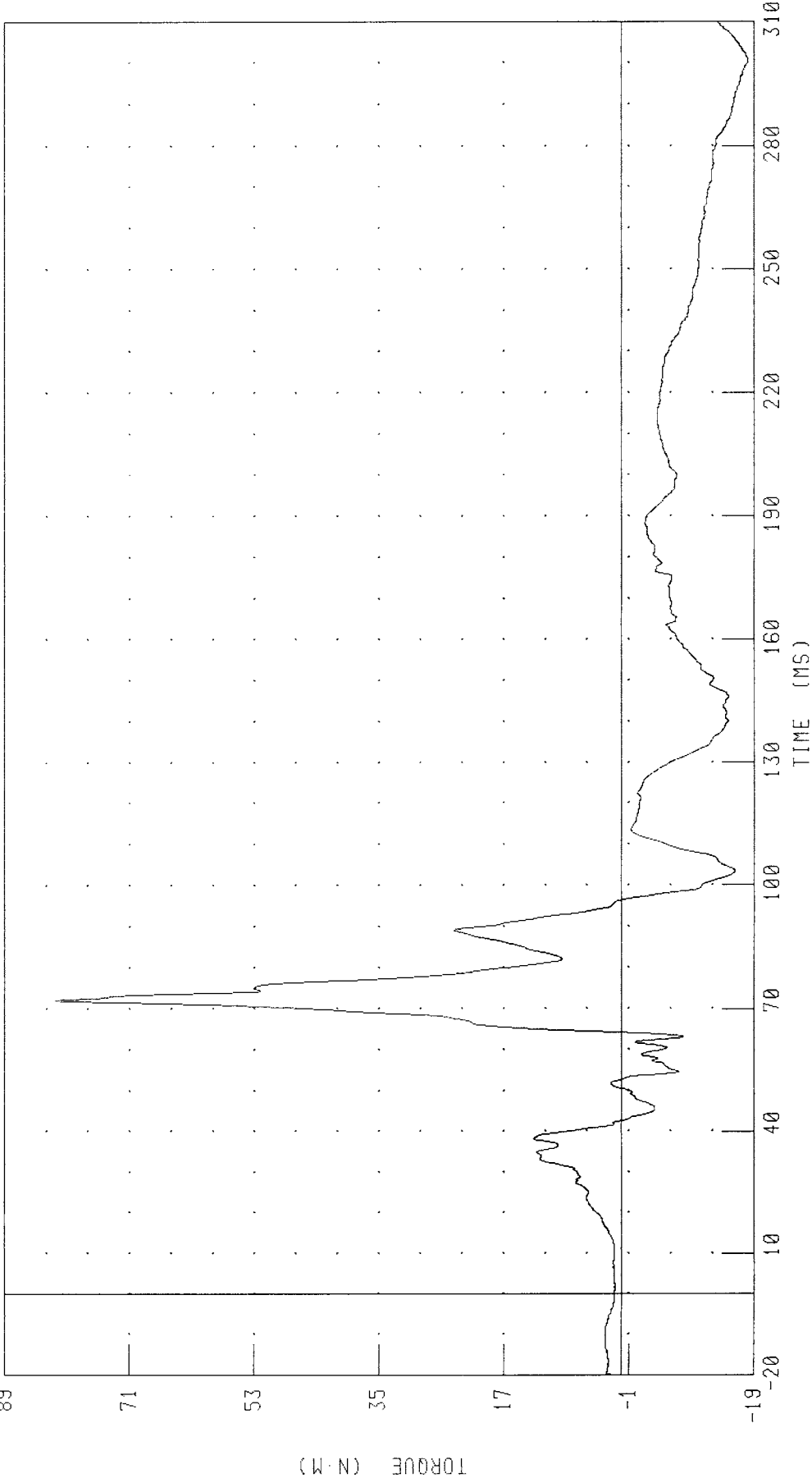
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET DRIVER RIGHT FEMUR MOMENT ABOUT Y AXIS

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

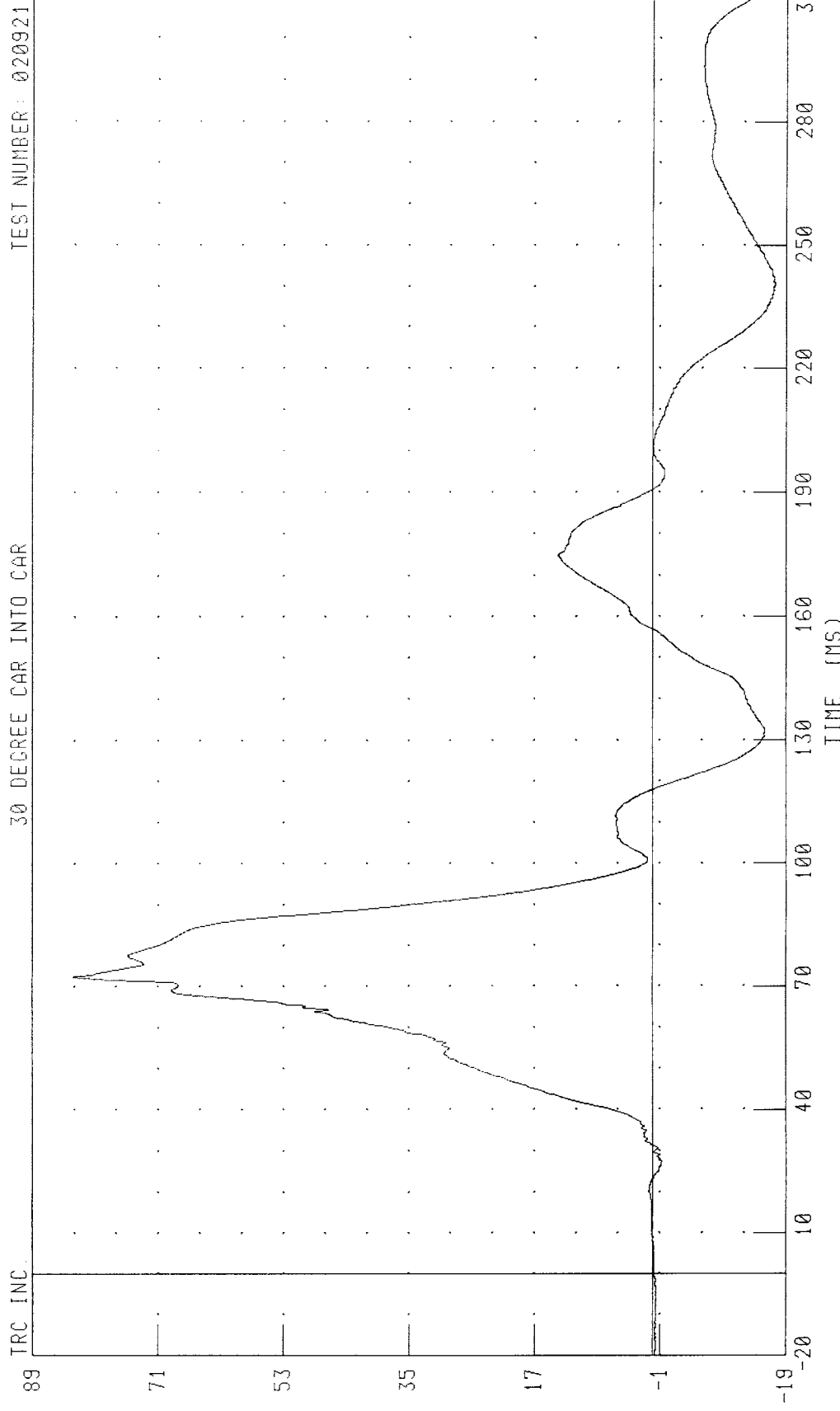
TRC INC.



CHANNEL: RFMYMA FILTER: CH. CLASS 600

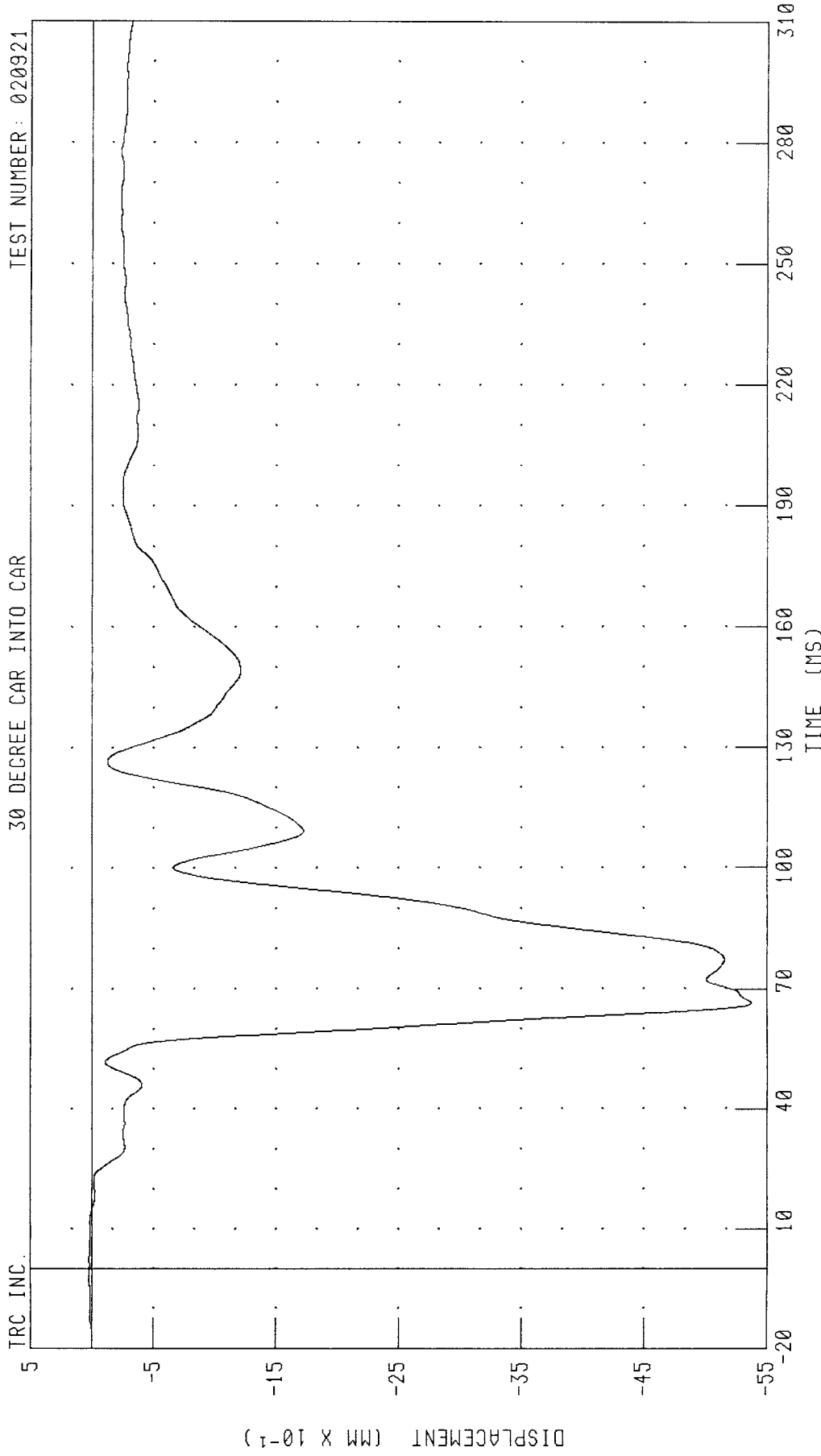
PEAK DATA: 81.66 N·M @ 72.16 MS; -18.09 N·M @ 300.24 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT FEMUR MOMENT ABOUT Z AXIS
30 DEGREE CAR INTO CAR



CHANNEL: RFMZMA FILTER: CH. CLASS 600
PEAK DATA: 83.26 N-M @ 72.48 MS; -17.45 N-M @ 240.56 MS

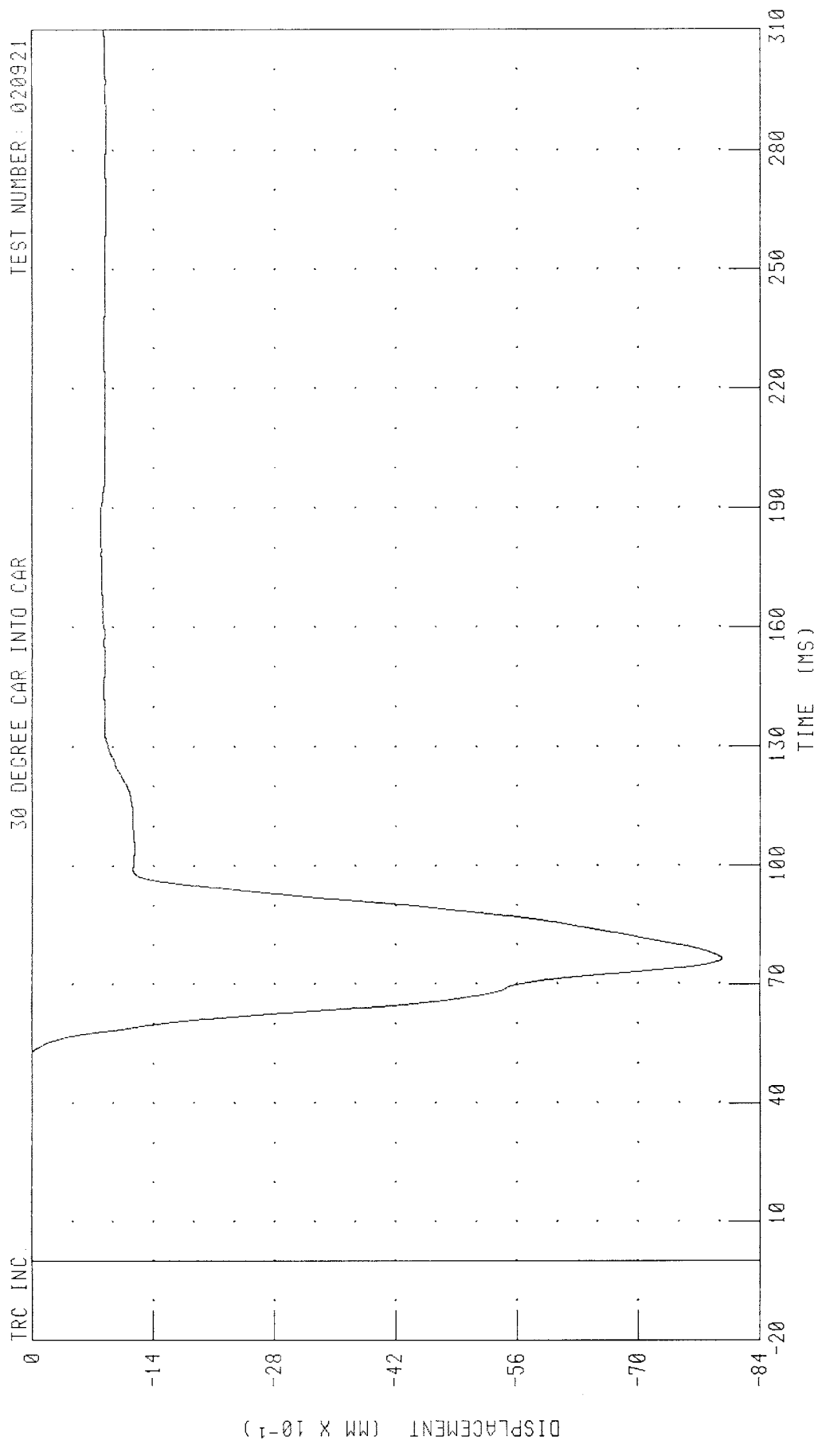
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
BULLET DRIVER LEFT KNEE DISPLACEMENT
30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: KNLXDA FILTER: CH. CLASS 180 PEAK DATA: 0.03 MM @ -1.60 MS; -5.37 MM @ 66.40 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER RIGHT KNEE DISPLACEMENT
30 DEGREE CAR INTO CAR

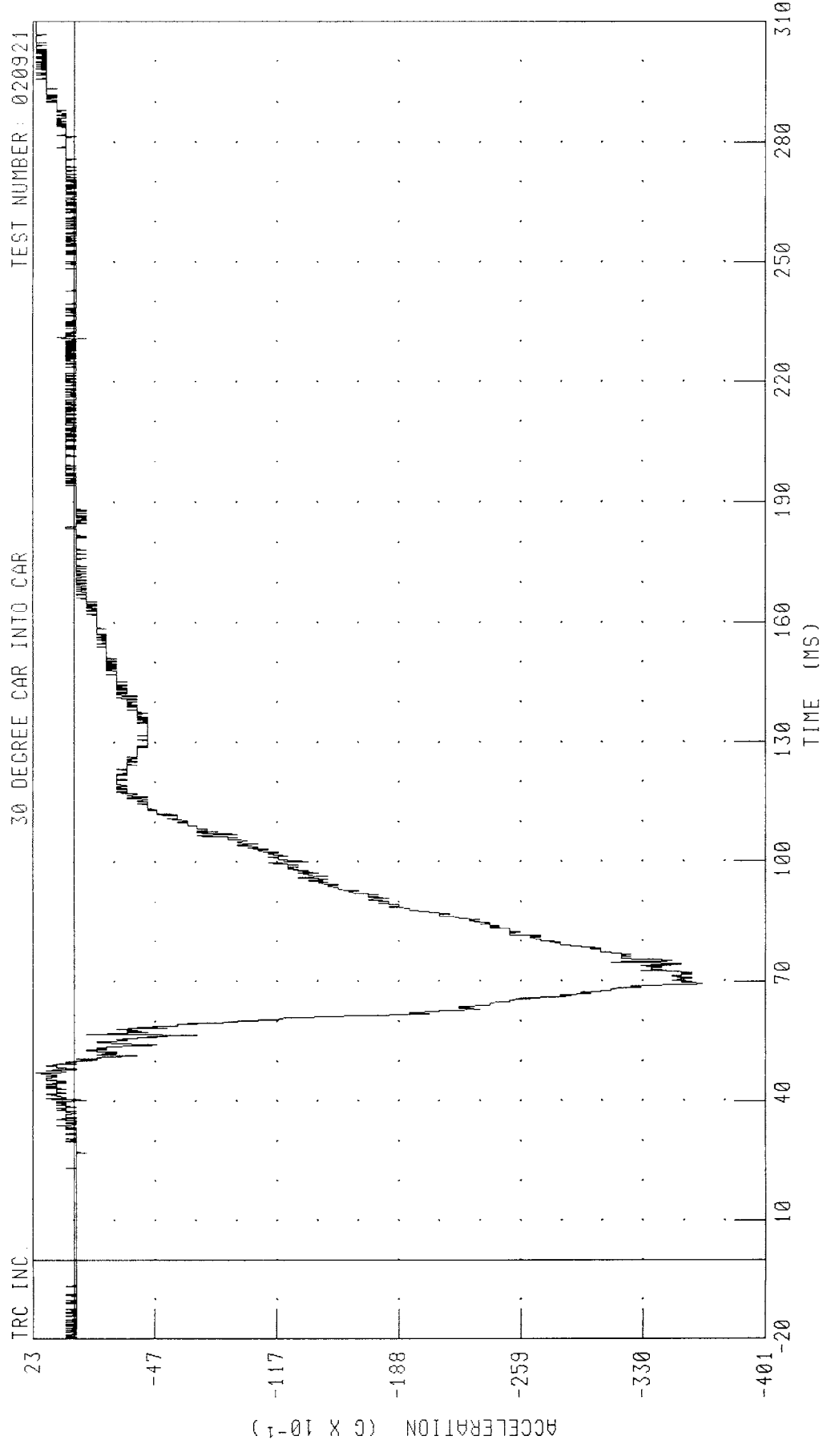
TRC INC.
TEST NUMBER: 020921



CHANNEL: KNRXDA FILTER: CH. CLASS 180
PEAK DATA: 0.06 MM @ 41.04 MS, -7.96 MM @ 76.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921

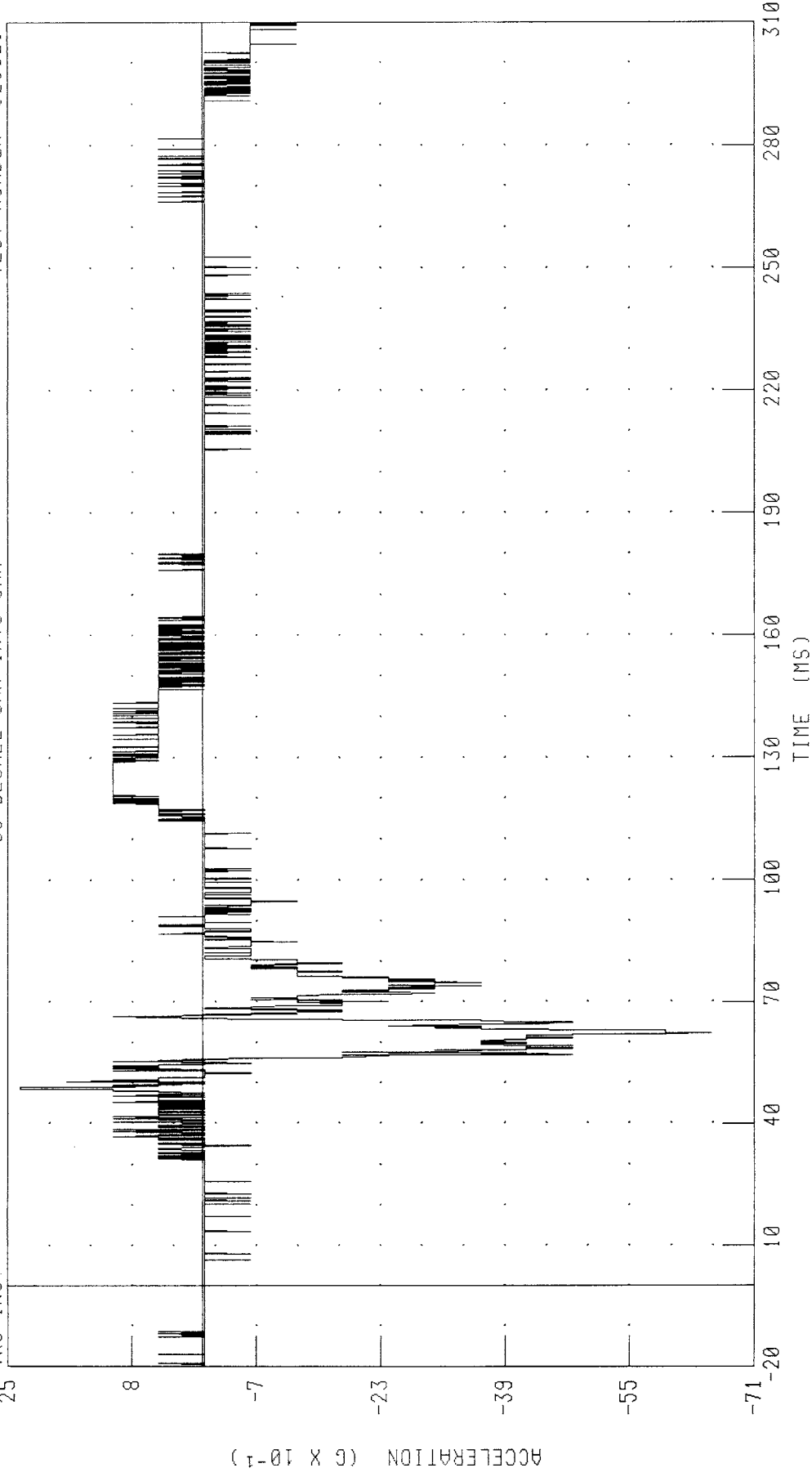


CHANNEL: HEDXGB FILTER: CH. CLASS 1000 PEAK DATA: 2.23 G @ 310.00 MS, -36.53 G @ 69.28 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

TRC INC.

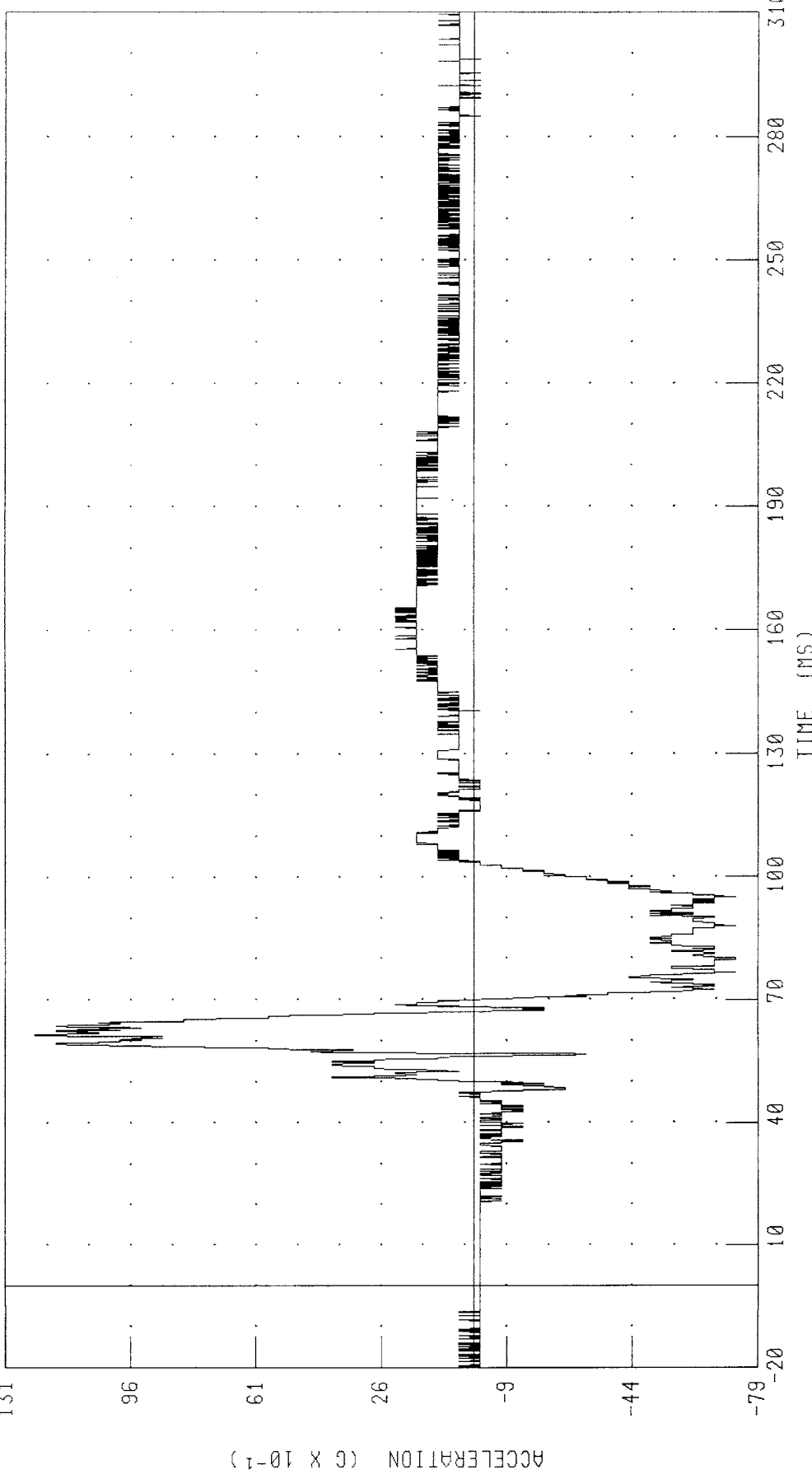


CHANNEL: HEDYGB FILTER: CH. CLASS 1000 PEAK DATA: 2.34 G @ 48.64 MS; -6.55 G @ 62.16 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

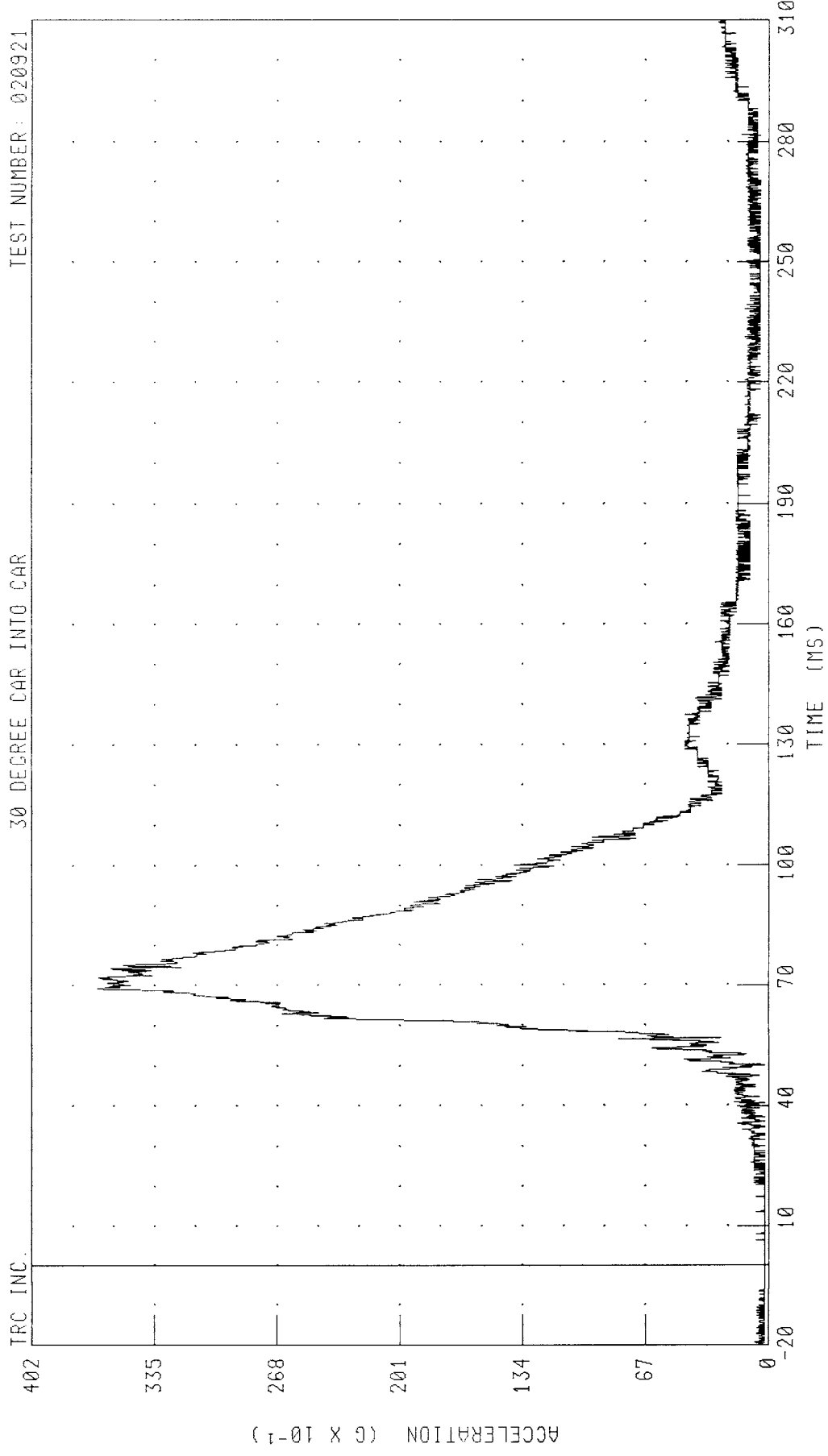
TRC INC. TEST NUMBER: 020921

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CHANNEL: HEDZGB FILTER: CH. CLASS 1000 PEAK DATA: 12.29 G @ 61.52 MS; -7.27 G @ 76.48 MS

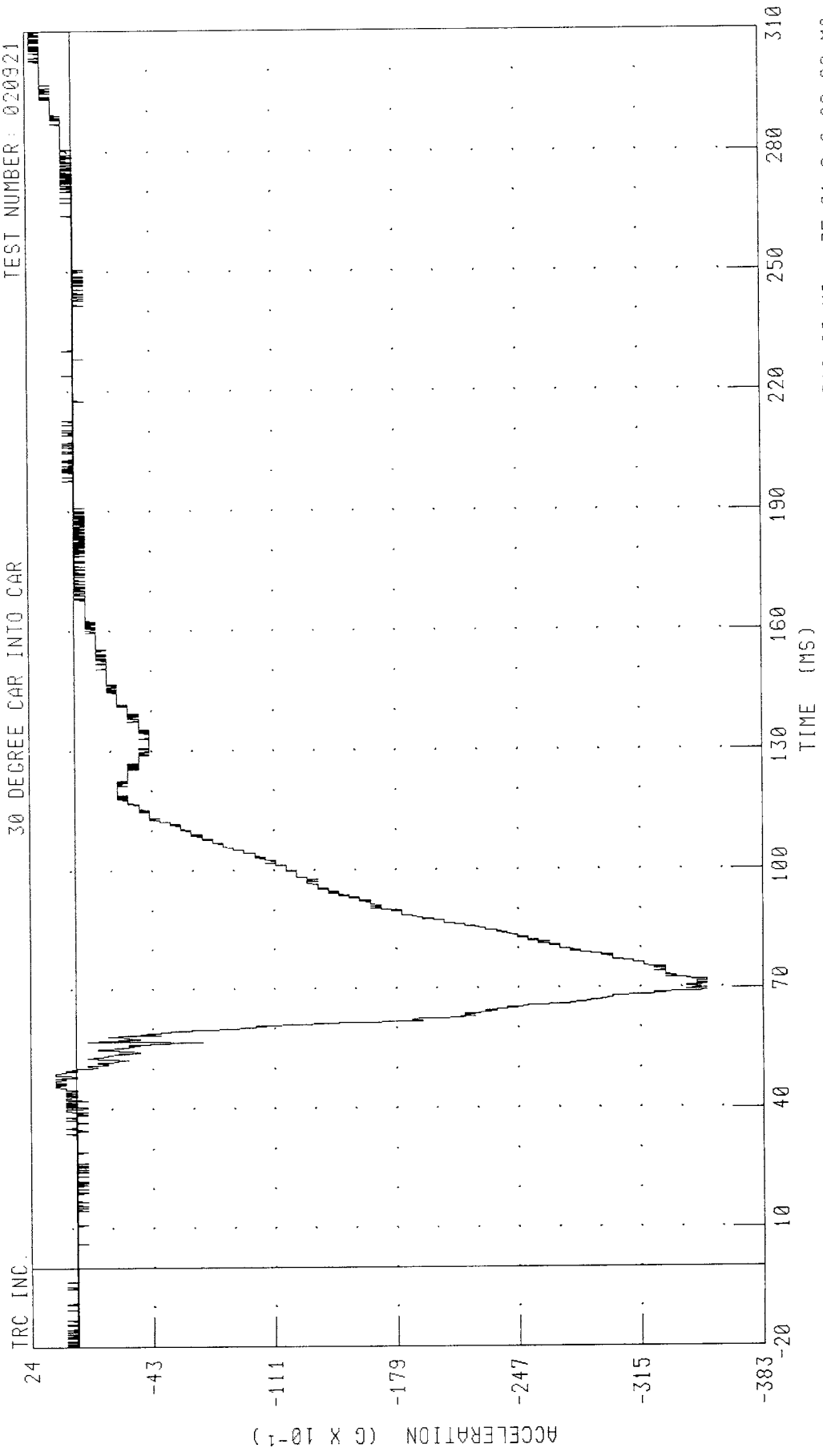
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921



CHANNEL: HEDR6B FILTER: CH. CLASS 1000
PEAK DATA: 36.61 G @ 69.28 MS; 0.20 G @ -19.60 MS

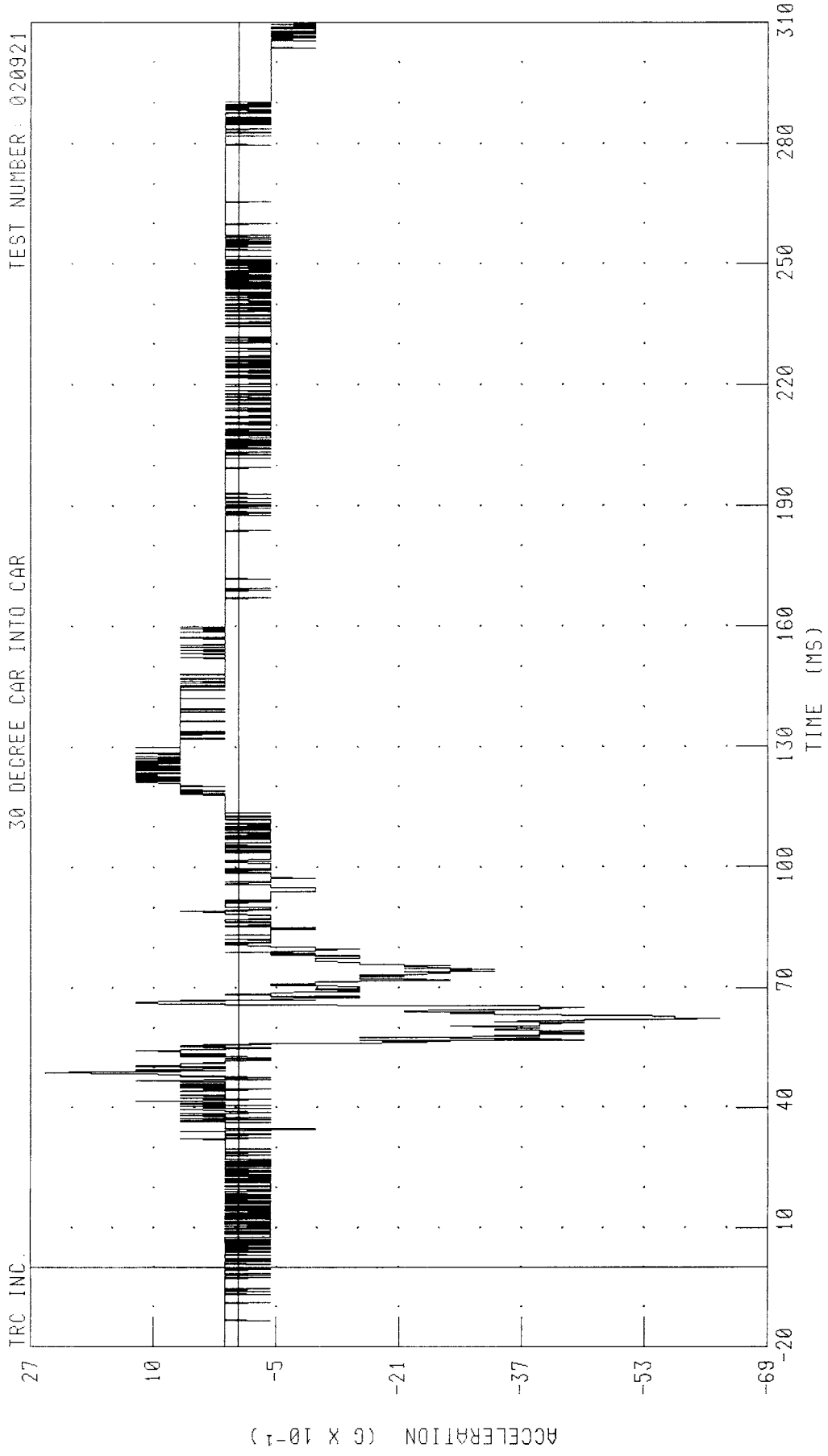
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD X-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



CHANNEL: HEDXR8 FILTER: CH. CLASS 1000 PEAK DATA: 2.29 G @ 310.00 MS; -35.21 G @ 69.28 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD Y-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921

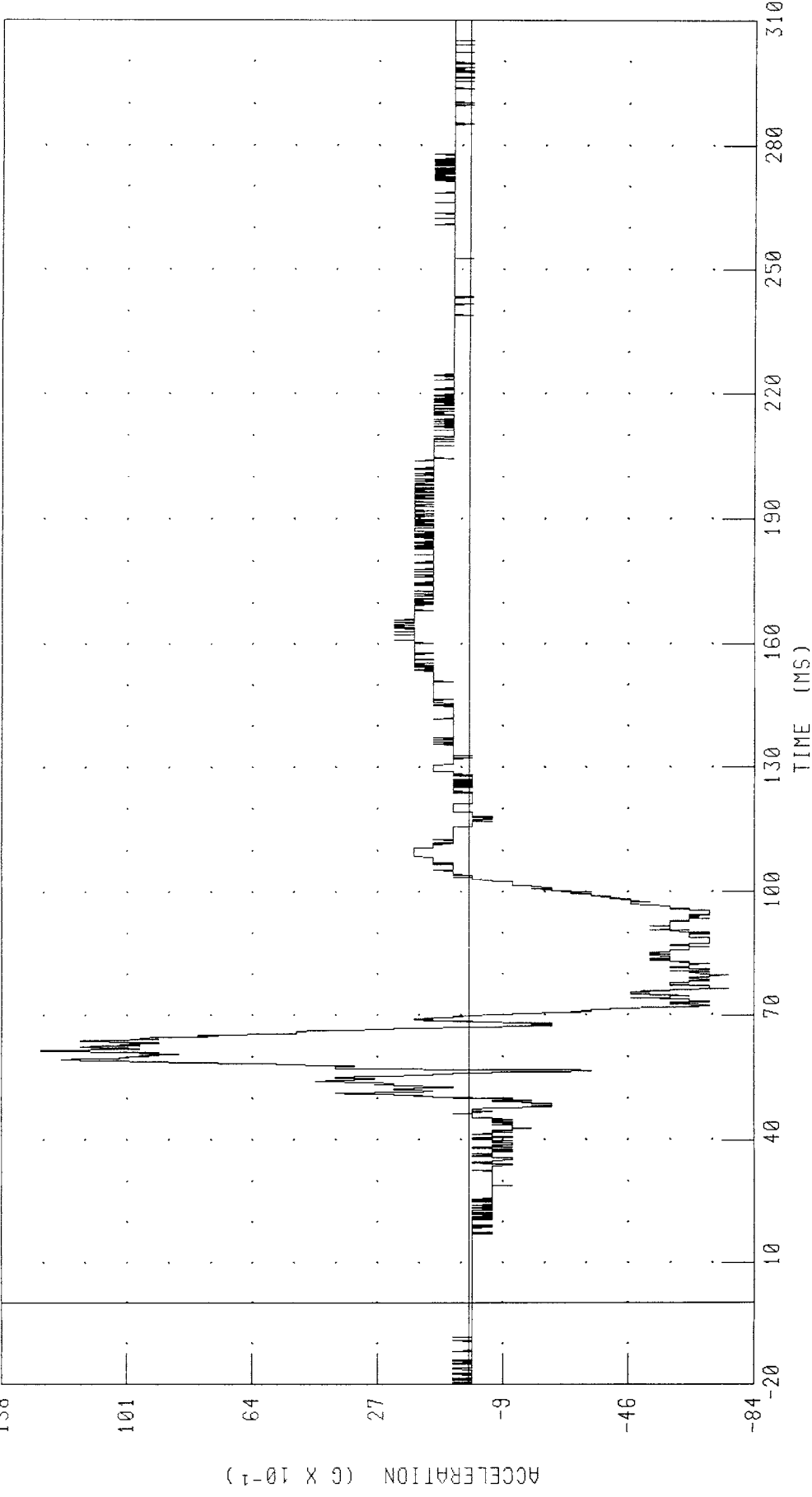


CHANNEL: HEDYRB FILTER: CH. CLASS 1000 PEAK DATA: 2.51 G @ 48.80 MS; -6.28 G @ 62.16 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD Z-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

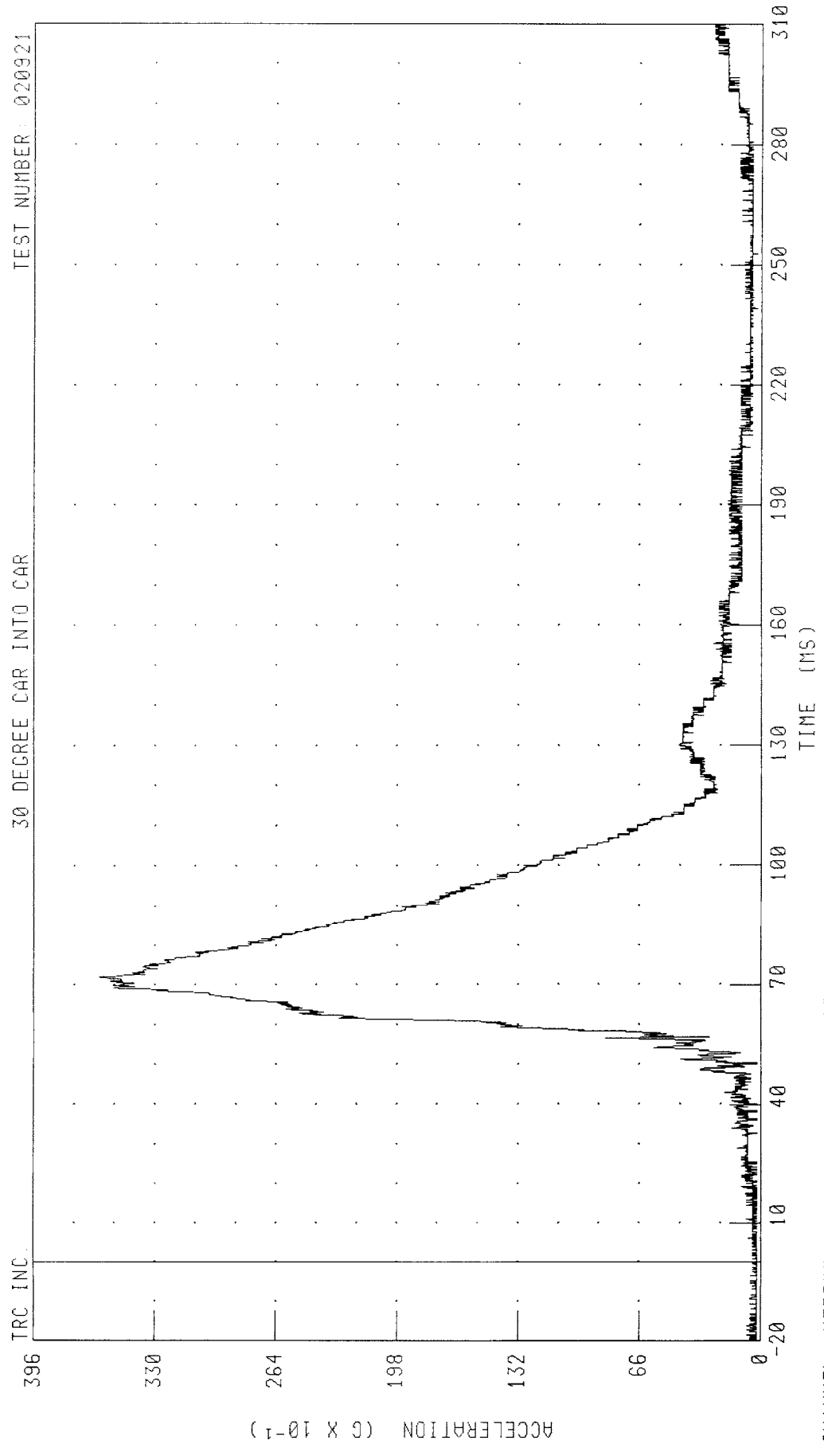
TRC INC.



CHANNEL: HEDZRB FILTER: CH. CLASS 1000

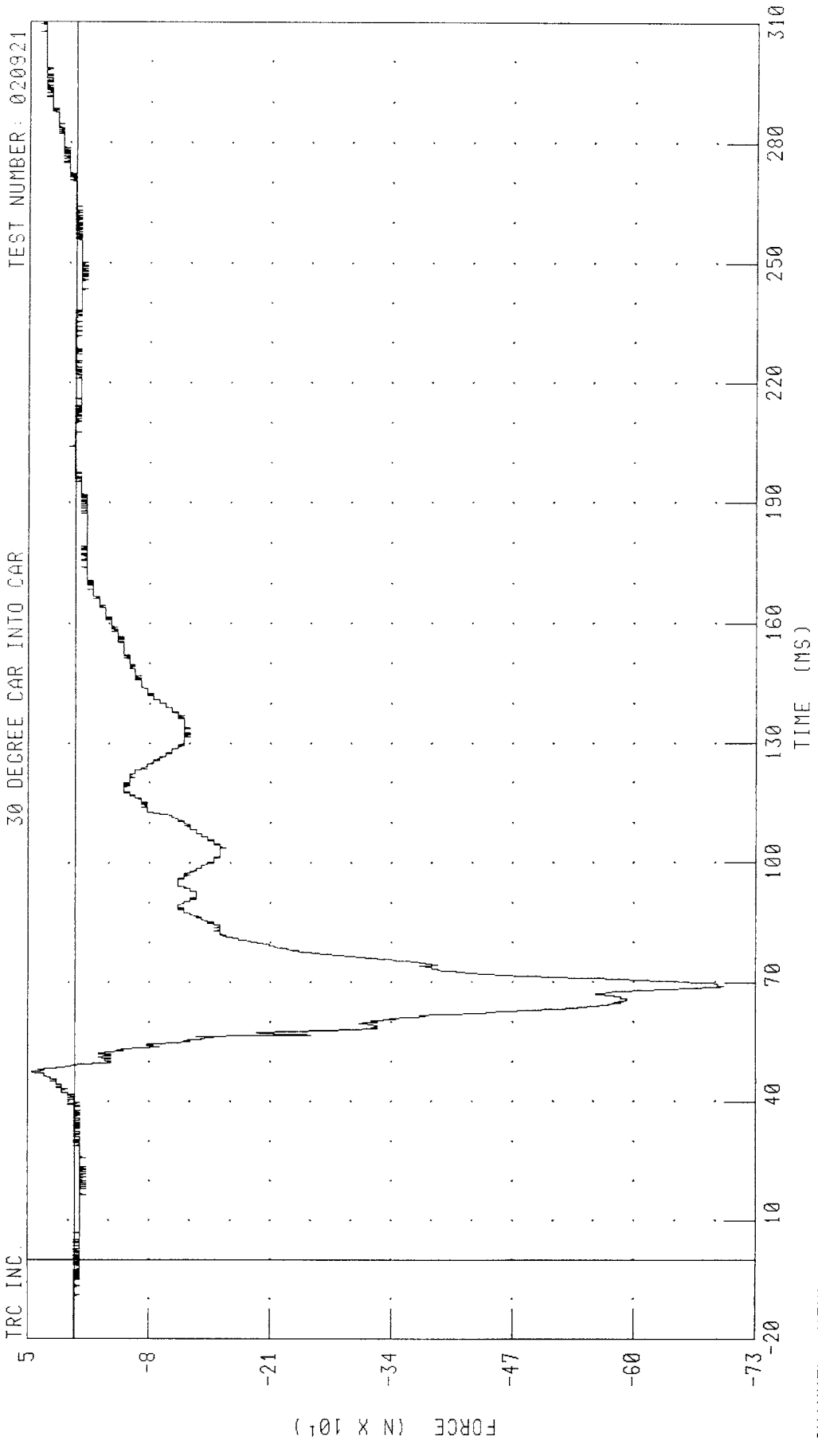
PEAK DATA: 12.65 G @ 61.60 MS; -7.66 G @ 76.48 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER HEAD RESULTANT ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR
TEST NUMBER: 020921



CHANNEL: HEDRB FILTER: CH. CLASS 1000 PEAK DATA: 36.02 G @ 72.08 MS; 0.21 G @ -20.00 MS

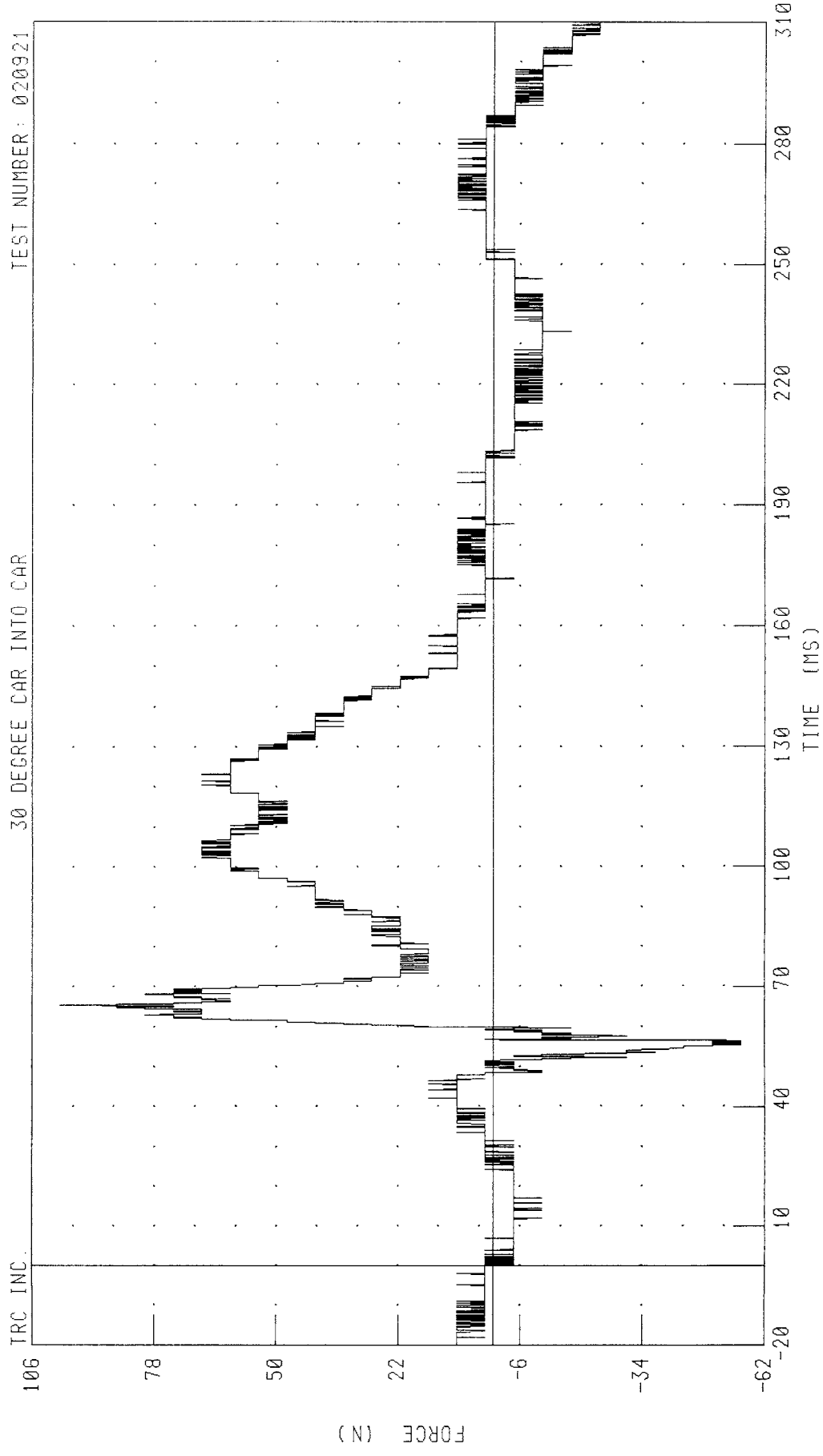
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK X-AXIS SHEAR FORCE
30 DEGREE CAR INTO CAR



CHANNEL: NEKXFB FILTER: CH. CLASS 1000 PEAK DATA: 45.98 N @ 47.44 MS; -696.18 N @ 69.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK Y-AXIS SHEAR FORCE
30 DEGREE CAR INTO CAR

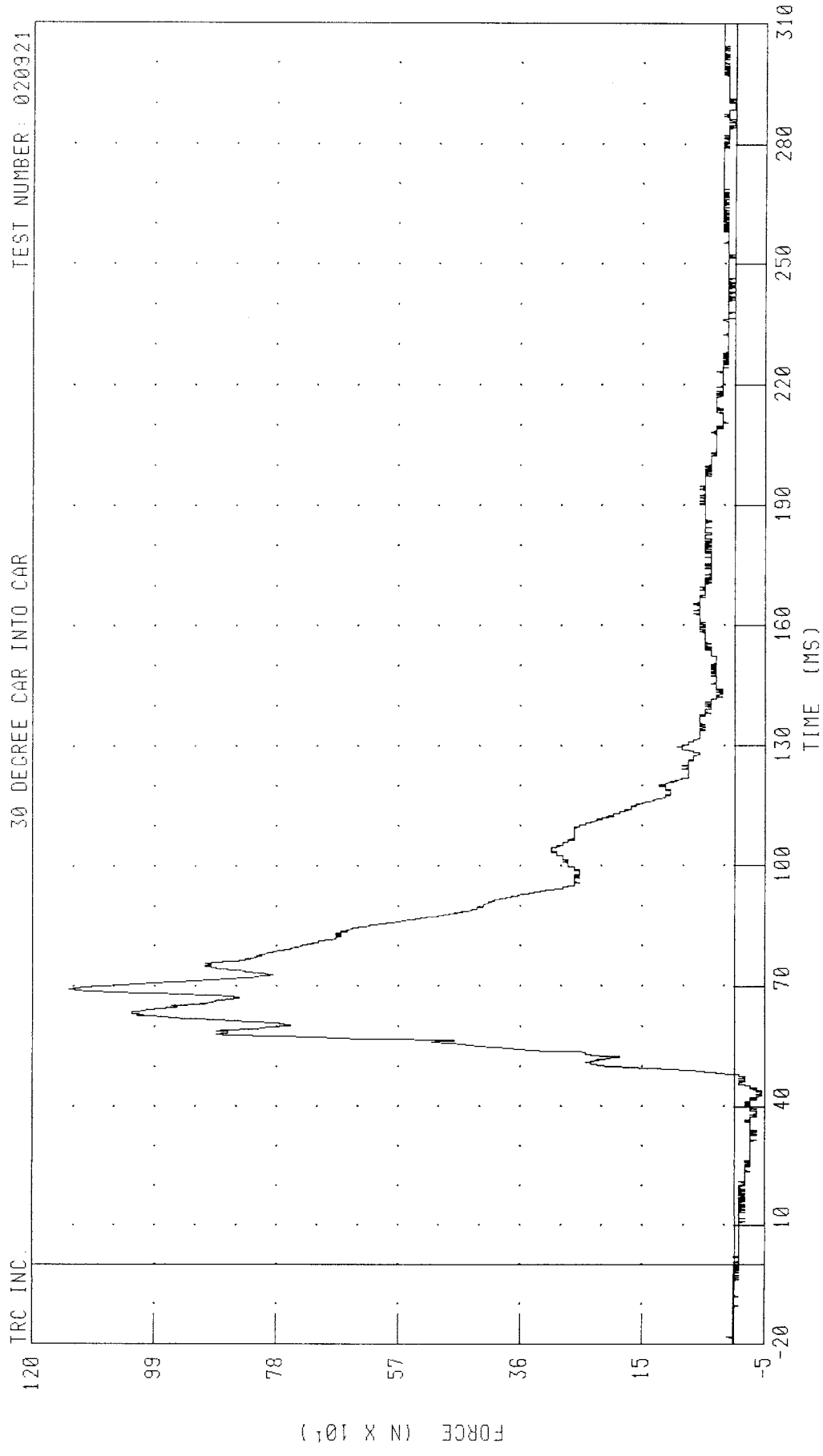
TRC INC. TEST NUMBER: 020921



CHANNEL: NEKYFB FILTER: CH. CLASS 1000 PEAK DATA: 99.70 N @ 65.52 MS; -56.68 N @ 55.44 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK Z-AXIS AXIAL FORCE
30 DEGREE CAR INTO CAR

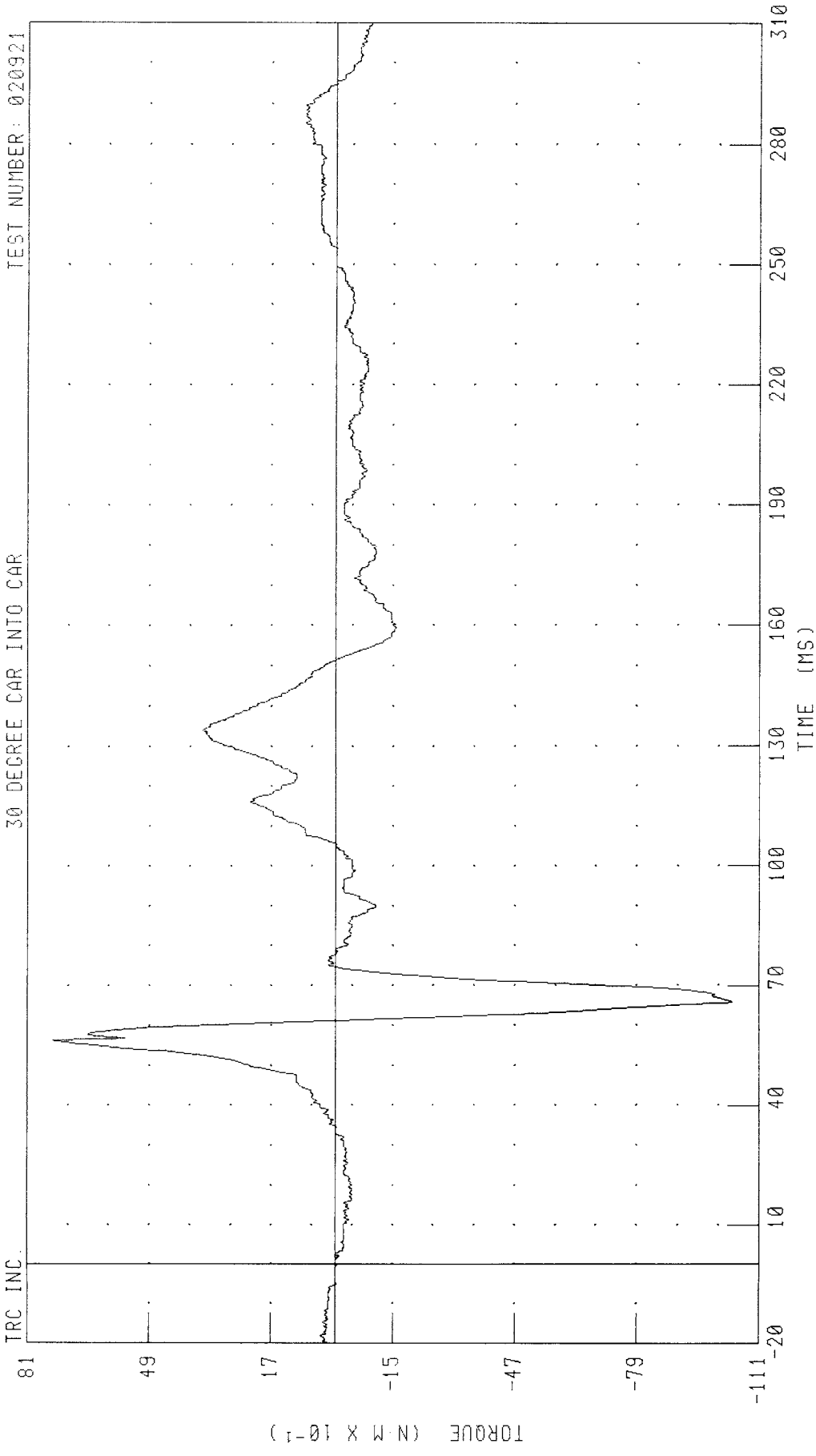
TRC INC. TEST NUMBER: 020921



CHANNEL: NEKZFB FILTER: CH. CLASS 1000 PEAK DATA: 1146.73 N @ 69.36 MS; -46.64 N @ 42.64 MS

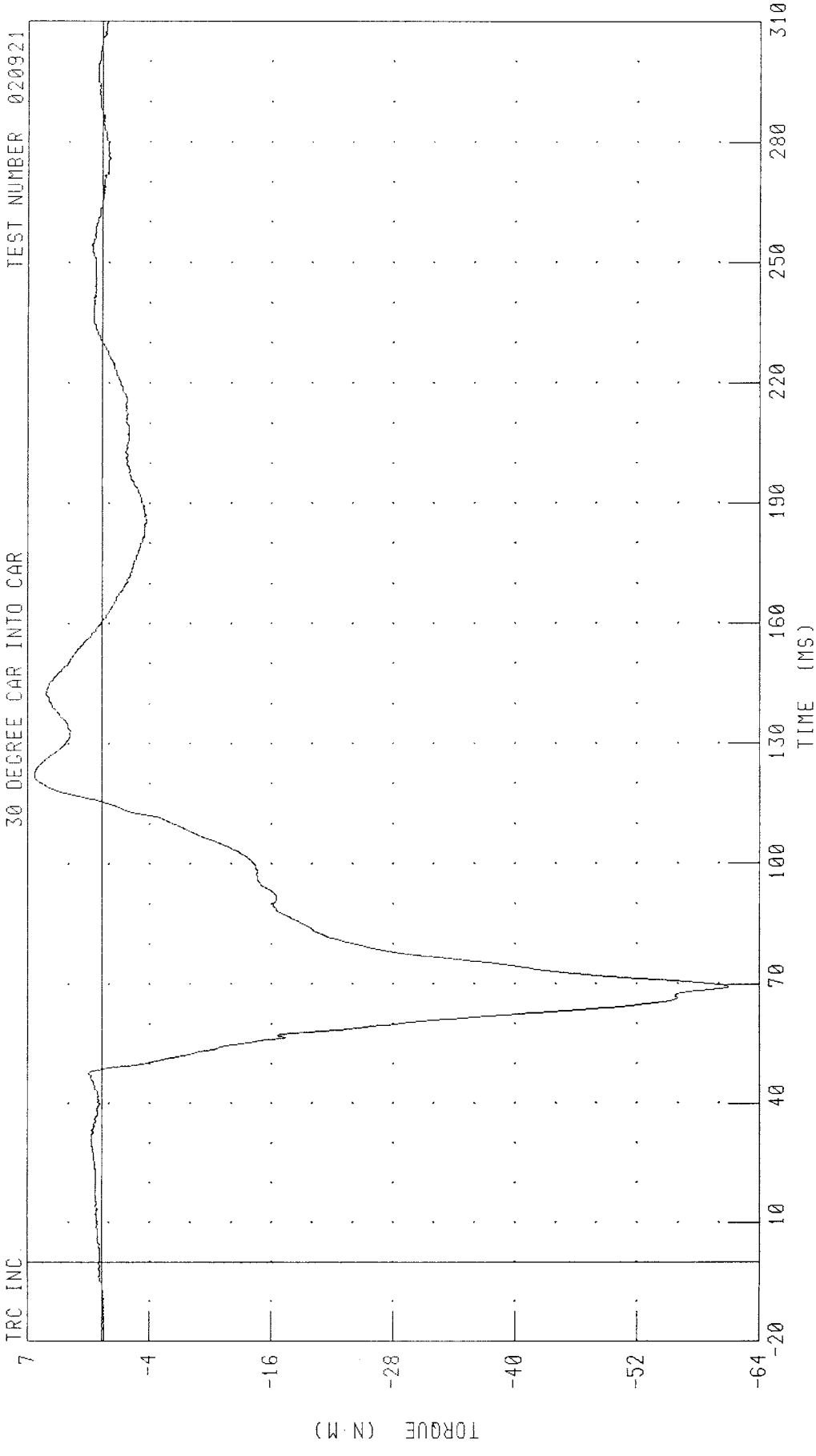
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK MOMENT ABOUT X AXIS
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



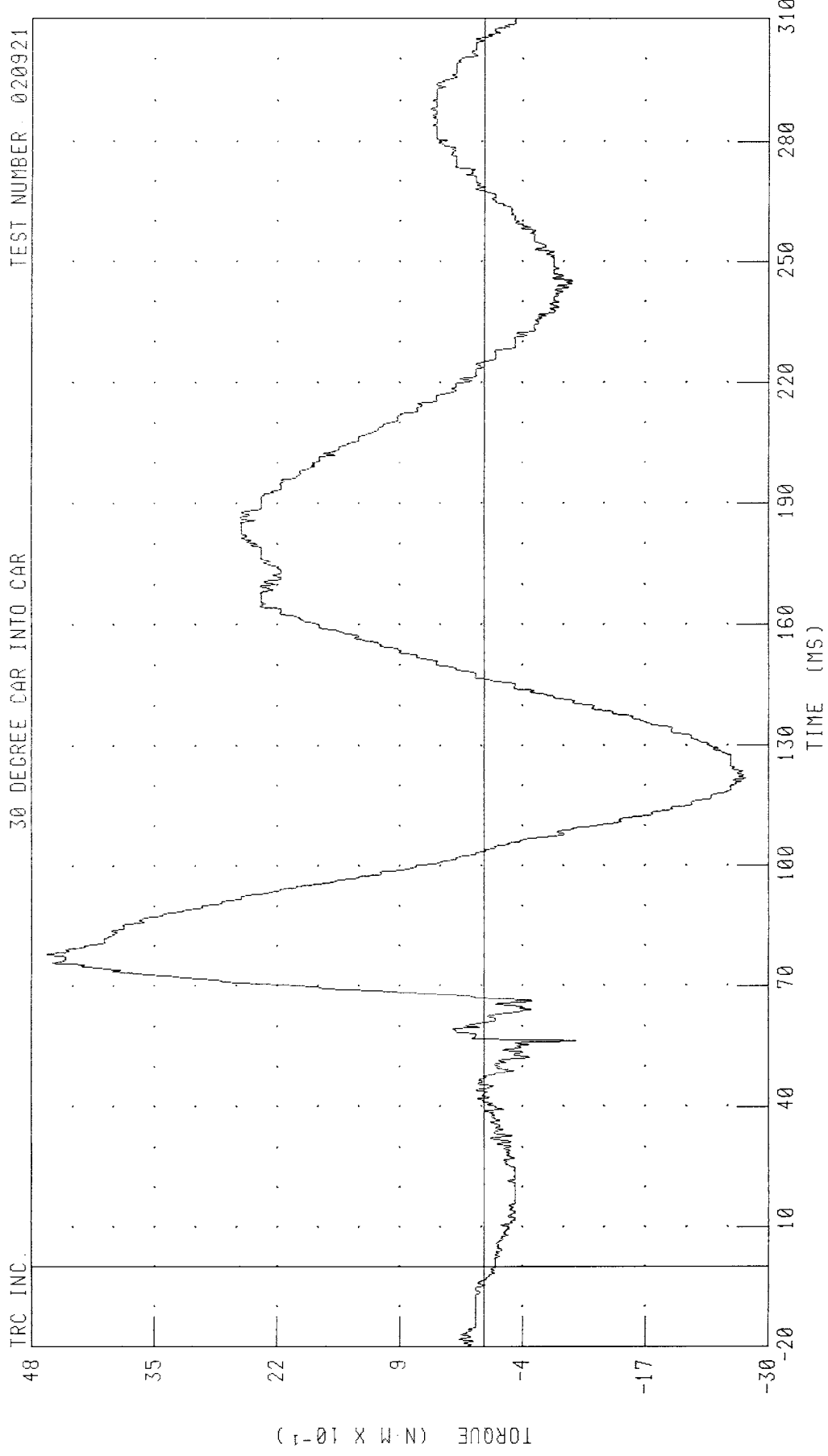
CHANNEL: NEKXMB FILTER: CH. CLASS 600 PEAK DATA: 7.42 N·M @ 56.32 MS; -10.39 N·M @ 65.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR



CHANNEL: NEKYMB FILTER: CH. CLASS 600 PEAK DATA: 6.64 N-M @ 122.08 MS; -61.71 N-M @ 69.36 MS

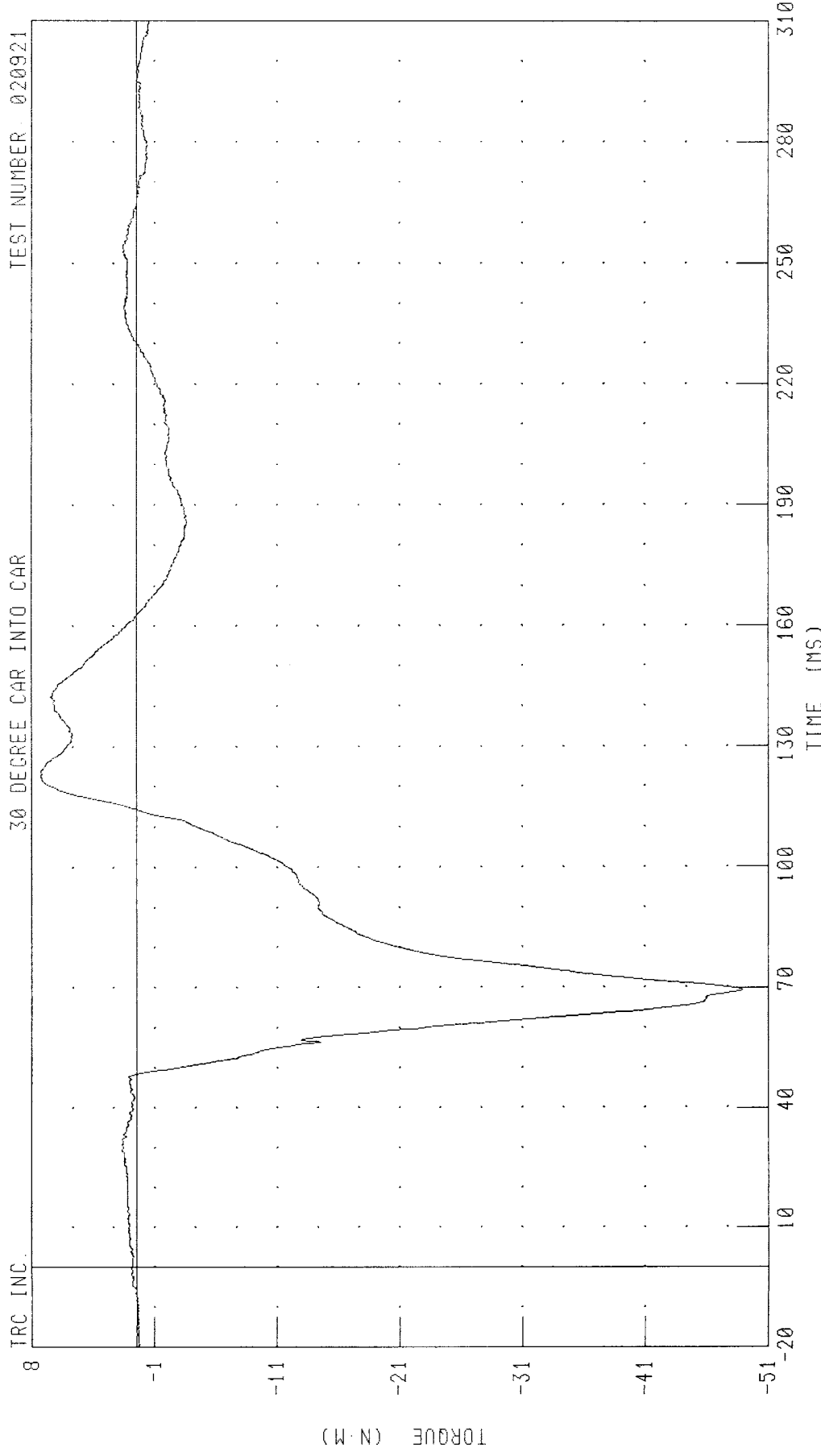
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK MOMENT ABOUT Z AXIS



CHANNEL: NEKZMB FILTER: CH. CLASS 600 PEAK DATA: 4.64 N·M @ 78.16 MS, -2.76 N·M @ 121.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS
30 DEGREE CAR INTO CAR

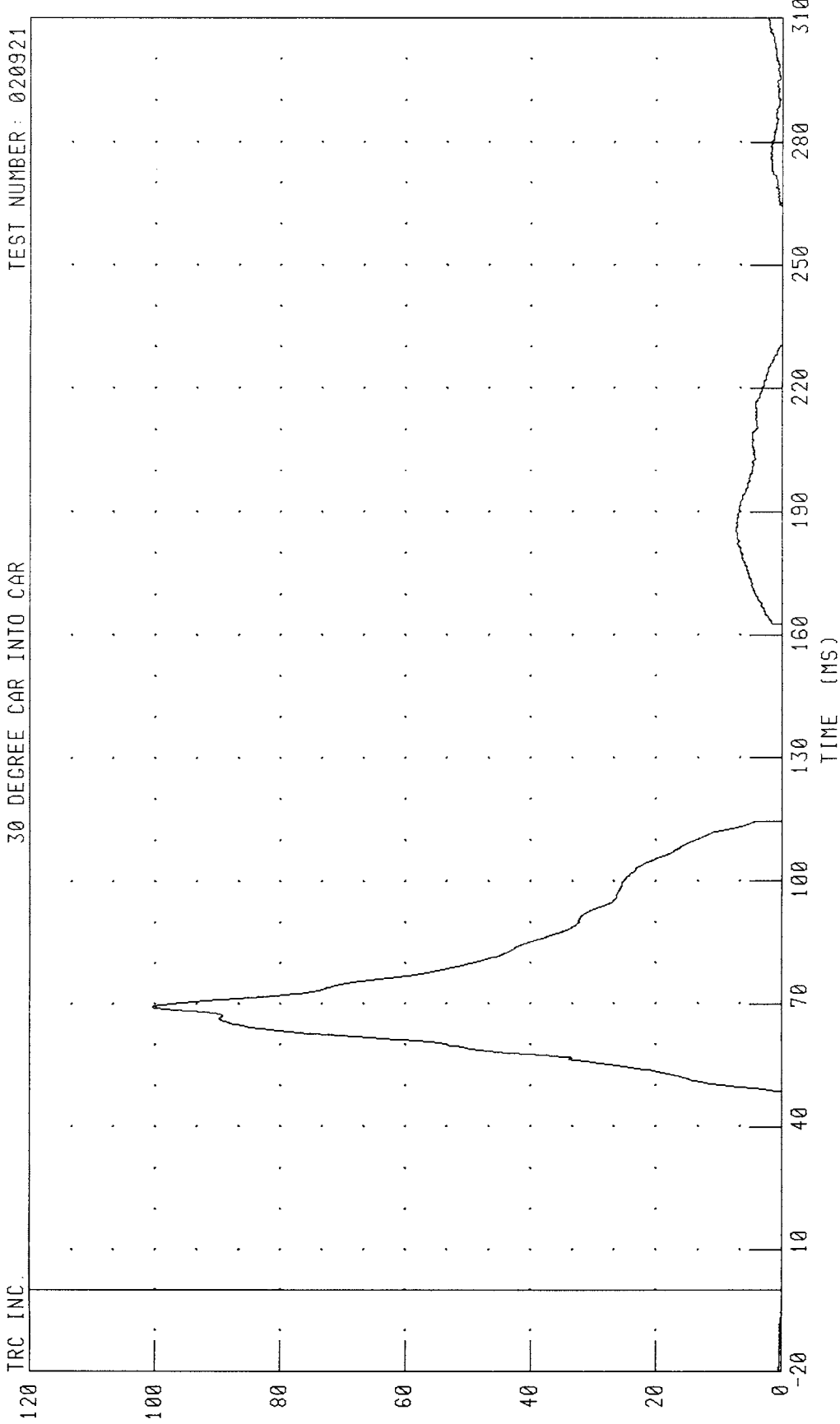
TRC INC. TEST NUMBER 020921



CHANNEL: NEKOMB FILTER: CH CLASS 600 PEAK DATA: 7.76 N·M @ 123.04 MS; -49.41 N·M @ 69.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NIJ TENSION/EXTENSION
30 DEGREE CAR INTO CAR

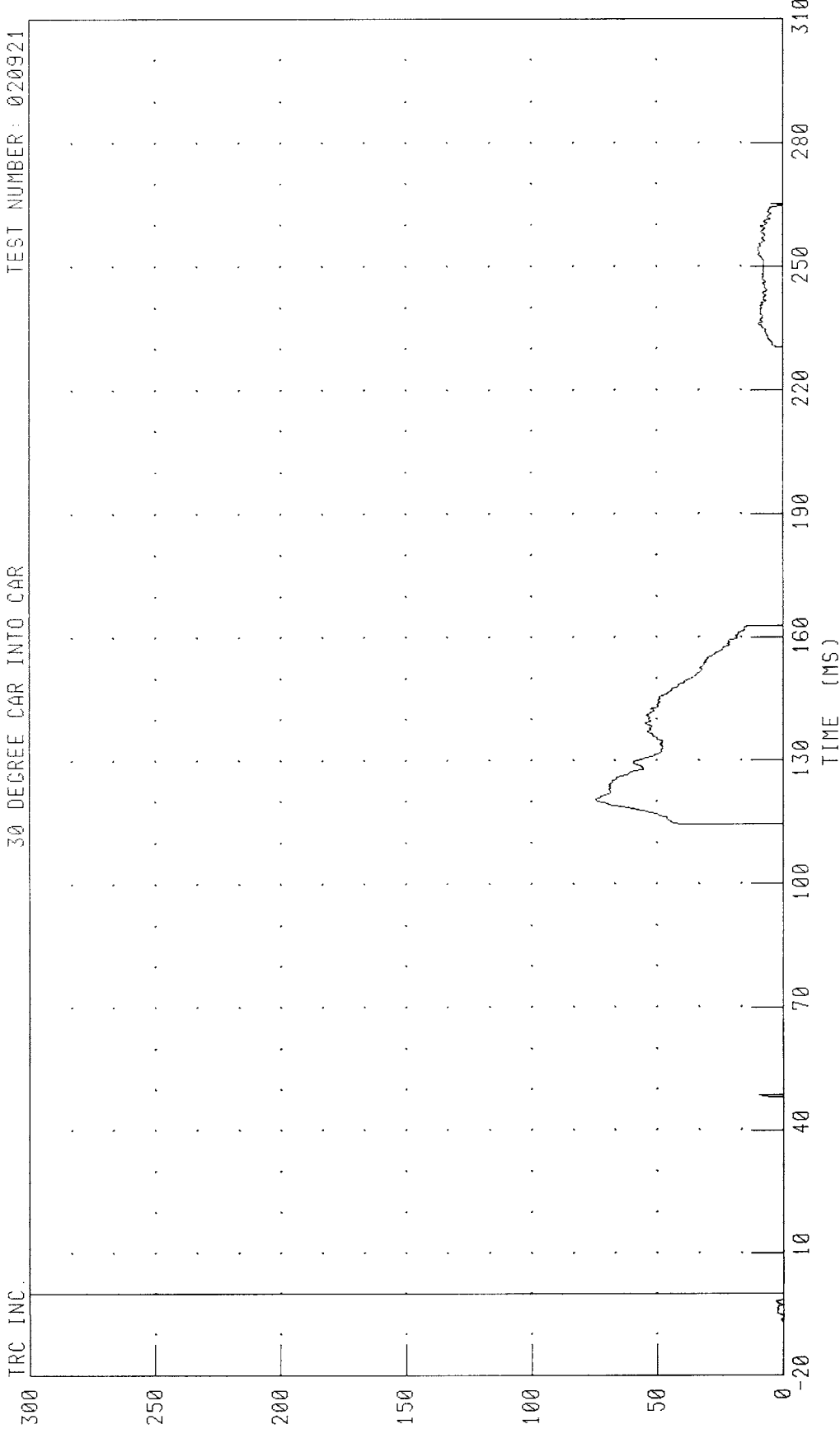
TRC INC. TEST NUMBER: 020921



CHANNEL: NTEB FILTER: CH. CLASS 600 PEAK DATA: 1.00 --- 0 69.36 MS; 0.00 --- 0 -6.64 MS

2001MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NIJ TENSION/FLEXION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921

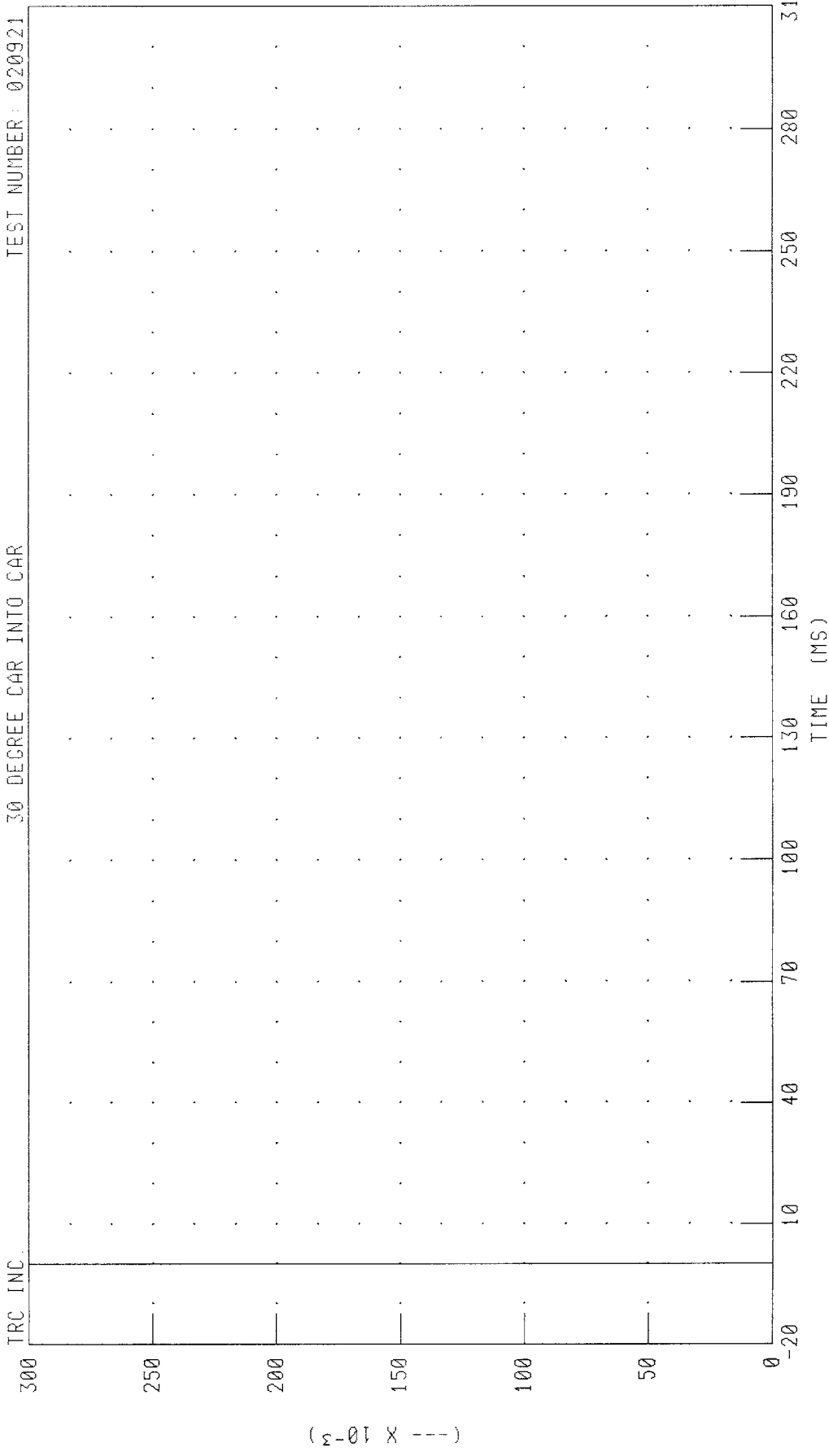


(--- X 10⁻³)

CHANNEL: NTFB FILTER: CH. CLASS 600 PEAK DATA: 0.07 --- 0 120.64 MS; 0.00 --- 0 -20.00 MS

2001MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NIJ COMPRESSION/EXTENSION

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921

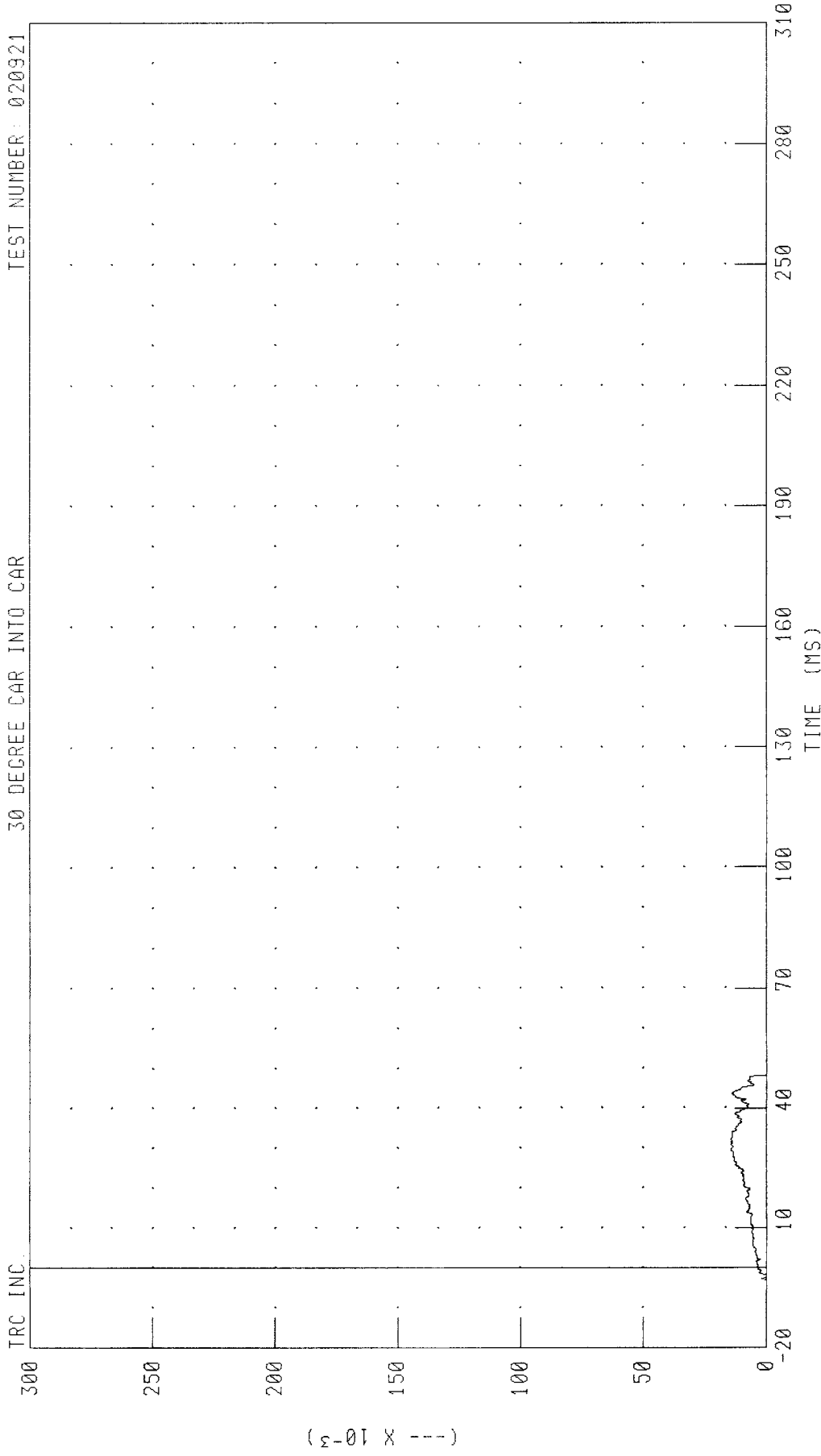


(--- X 10⁻³)

CHANNEL: NCEB FILTER: CH. CLASS 600 PEAK DATA: 0.00 --- 0 310.00 MS; 0.00 --- 0 -20.00 MS

2001MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NIJ COMPRESSION/FLEXION

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



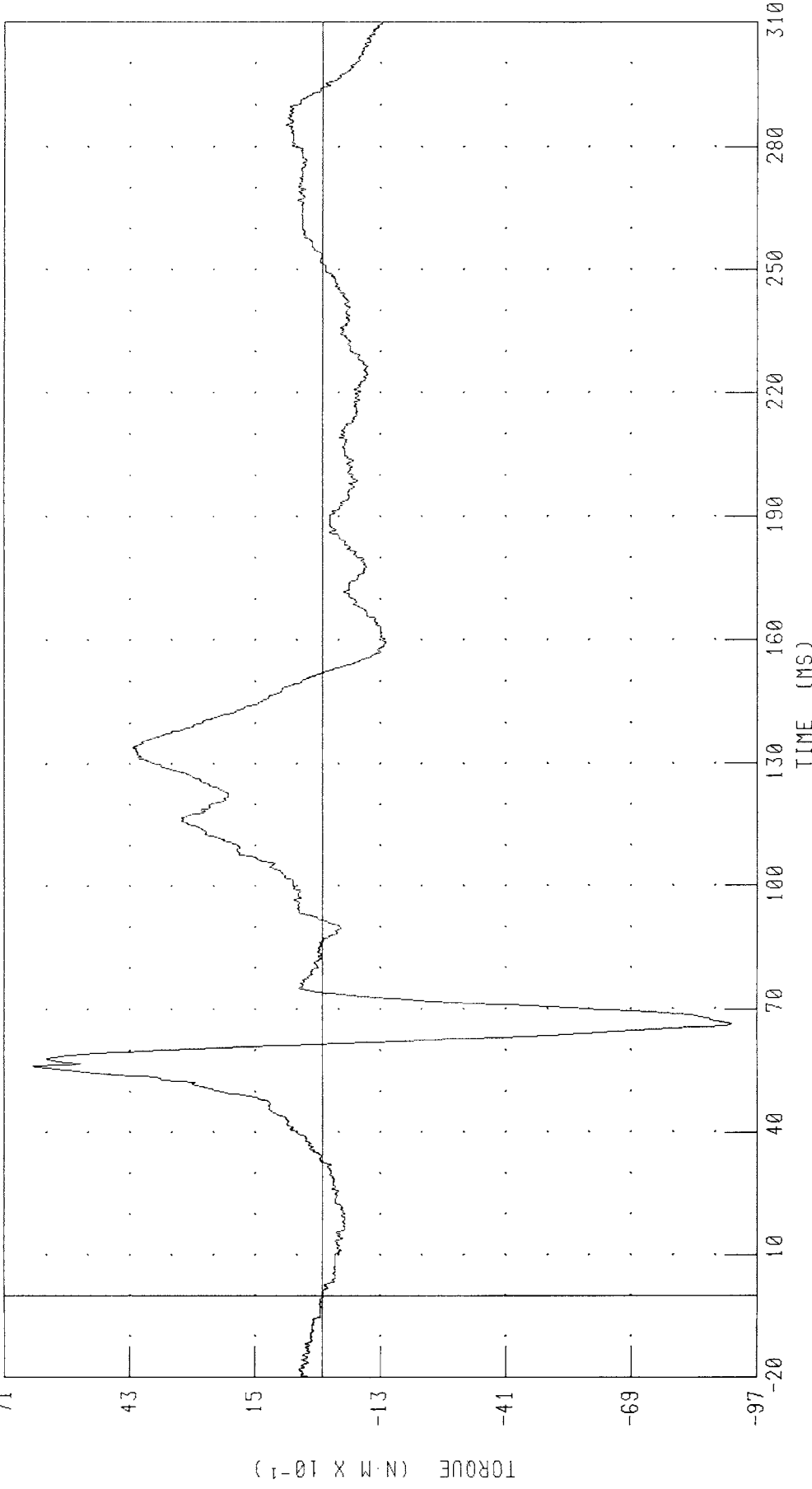
CHANNEL: NCFB FILTER: CH. CLASS 600 PEAK DATA: 0.01 --- 0 29.52 MS; 0.00 --- 0 -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER NECK OCCIPITAL CONDYLE MOMENT ABOUT X AXIS

TRC INC. TEST NUMBER: 020921

30 DEGREE CAR INTO CAR

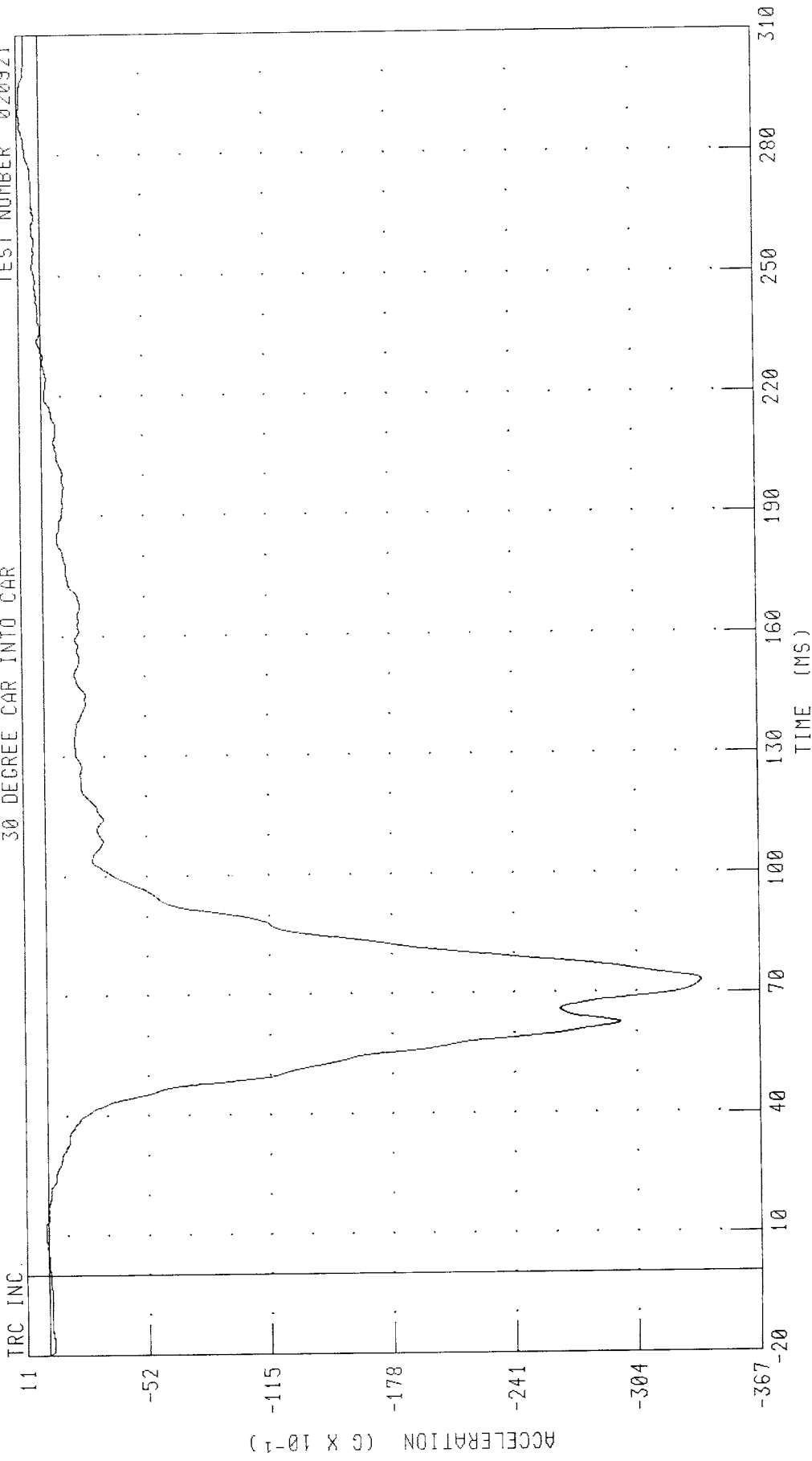
71



CHANNEL: NK0XMB FILTER: CH. CLASS 600 PEAK DATA: 6.46 N·M @ 56.32 MS; -9.12 N·M @ 66.24 MS

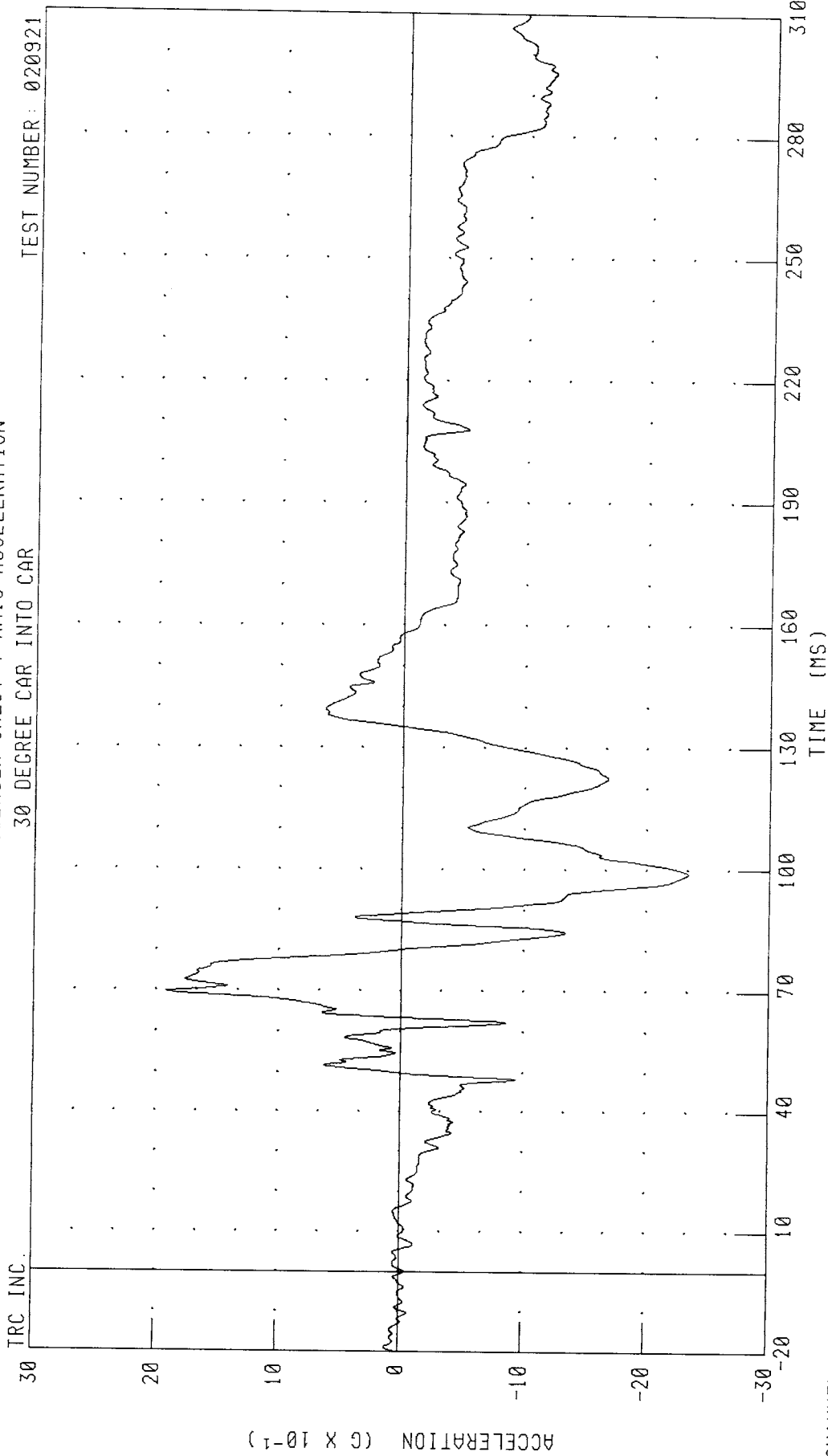
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TEST NUMBER 020921



CHANNEL: CSTXGB FILTER: CH. CLASS 180
PEAK DATA: 1.05 G @ 290.72 MS, -33.73 G @ 72.96 MS

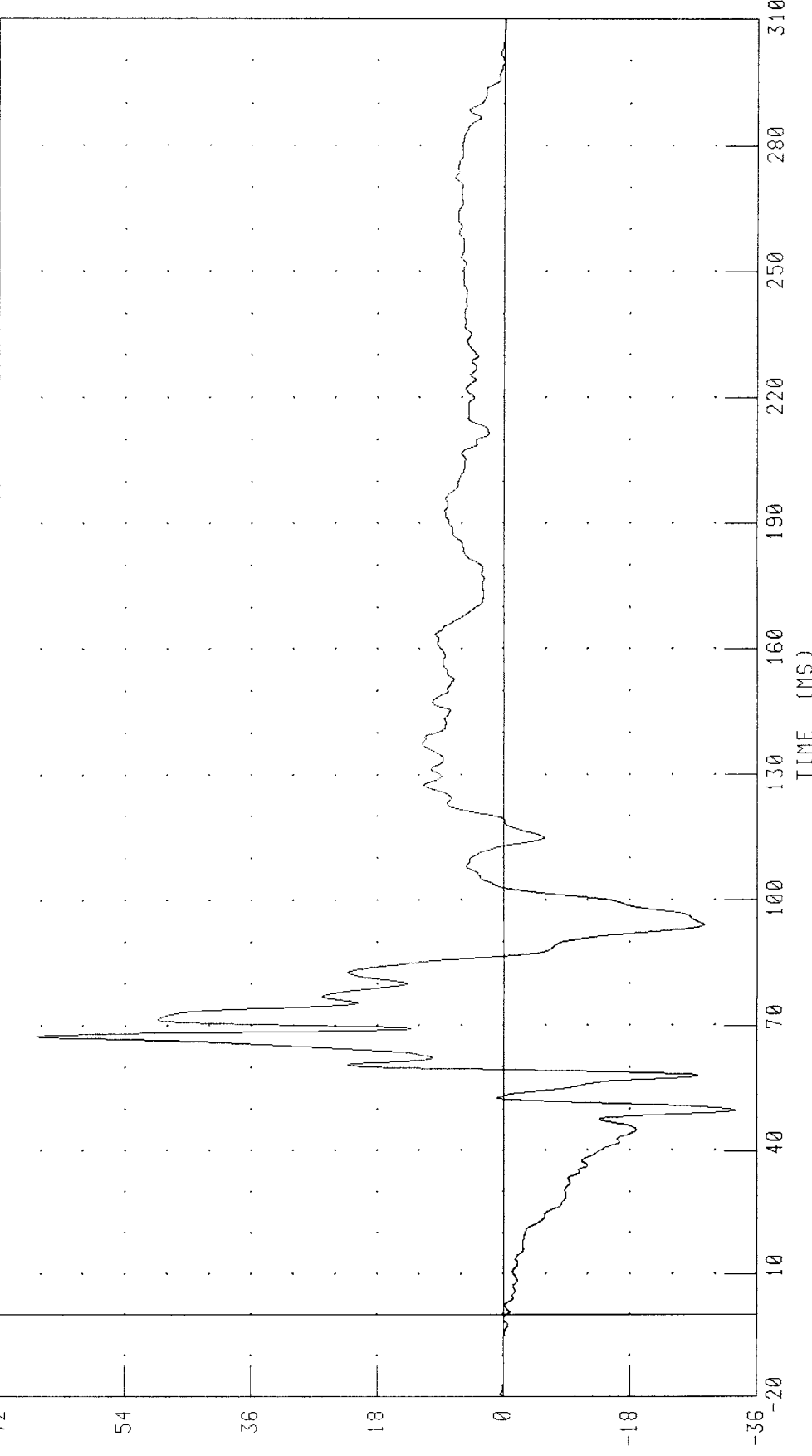
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST Y-AXIS ACCELERATION



CHANNEL: CSTYGB FILTER: CH. CLASS 180 PEAK DATA: 1.92 G @ 69.76 MS; -2.34 G @ 99.12 MS

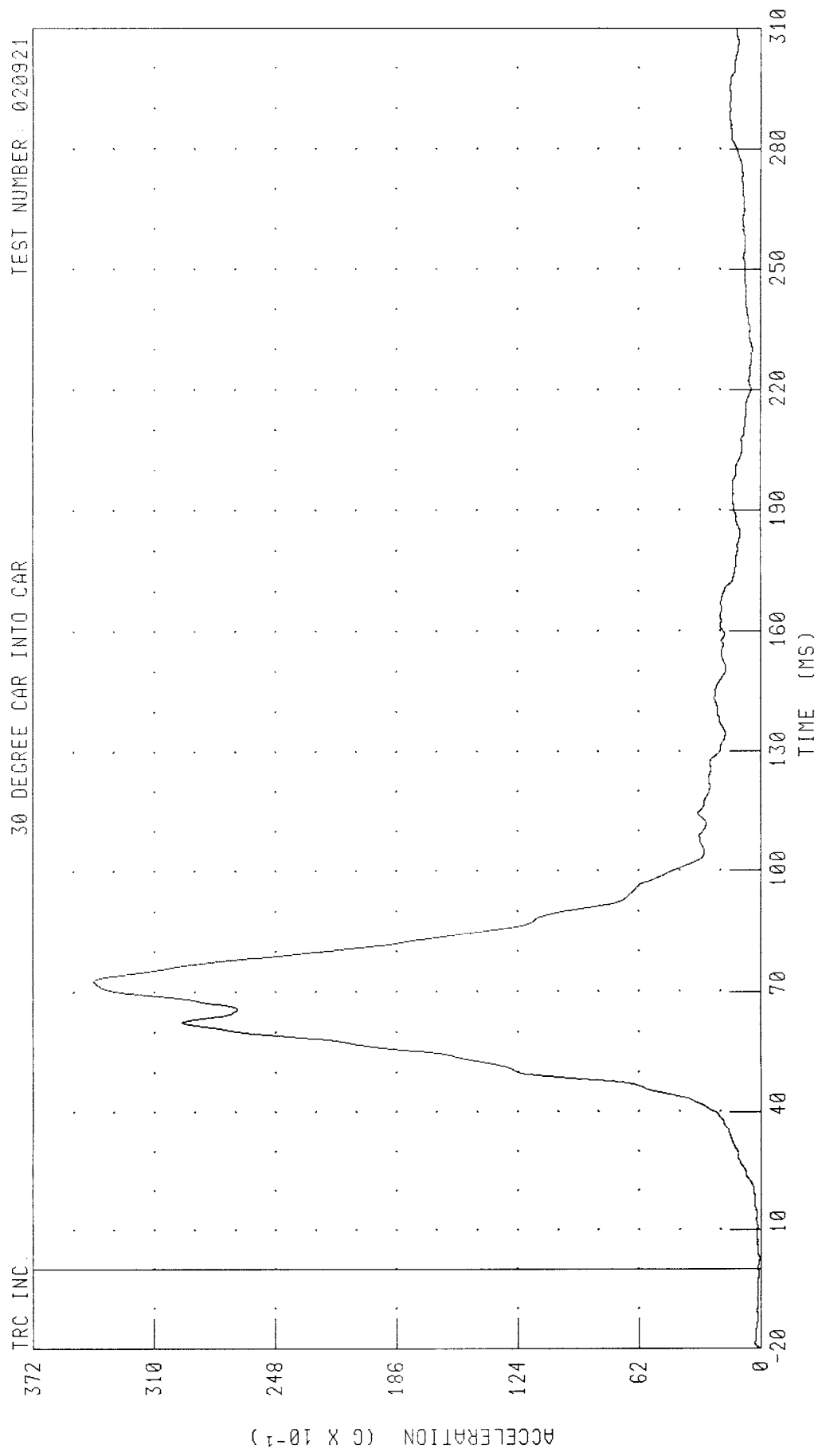
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST Z-AXIS ACCELERATION

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: CSTZGB FILTER: CH. CLASS 180 PEAK DATA: 6.66 G @ 67.60 MS; -3.29 G @ 49.68 MS

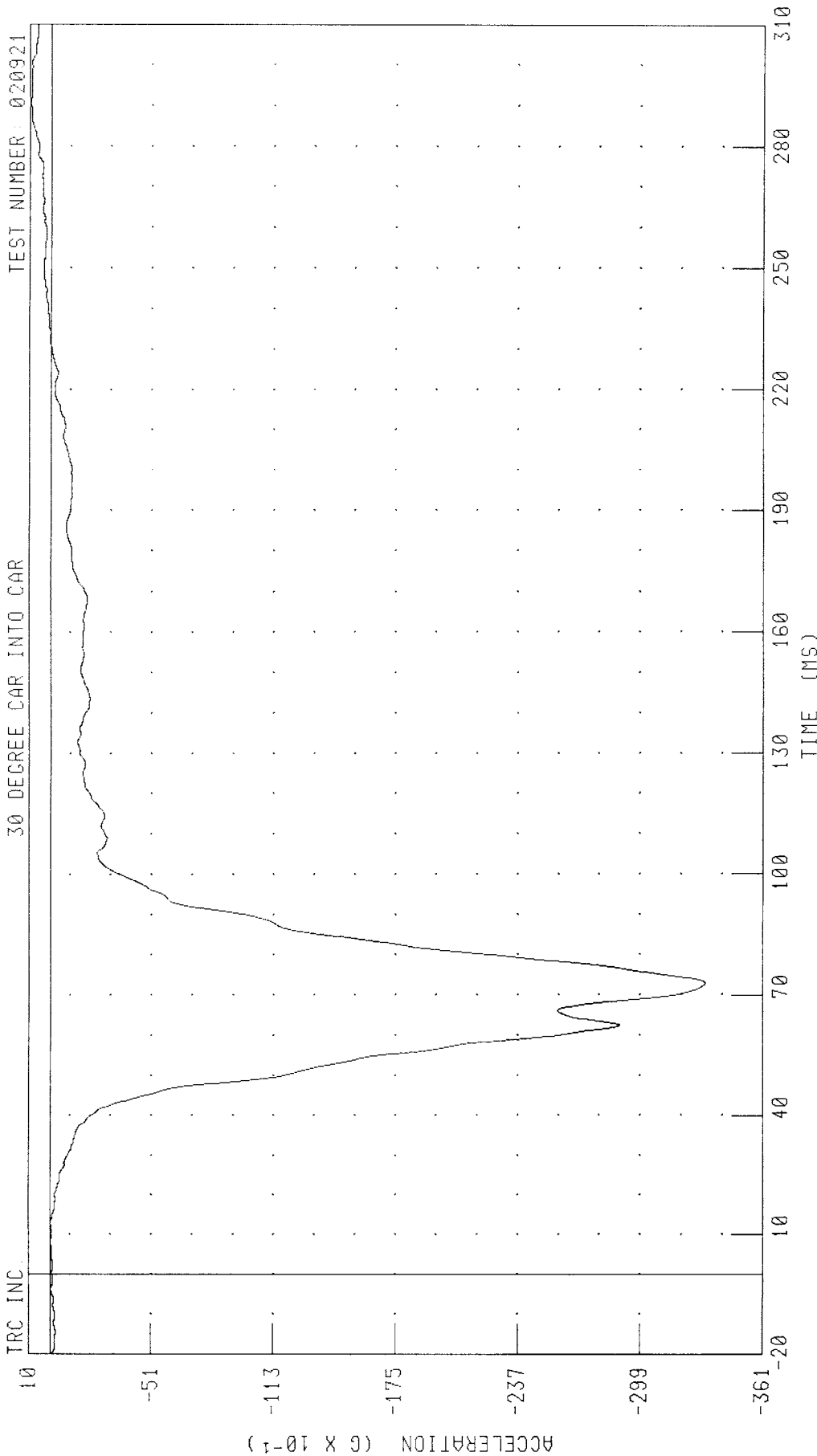
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST RESULTANT ACCELERATION
30 DEGREE CAR INTO CAR TEST NUMBER: 020921



TRC INC. CHANNEL: CSTRGB FILTER: CH. CLASS 180 PEAK DATA: 34.09 G @ 72.96 MS; 0.02 G @ -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST X-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

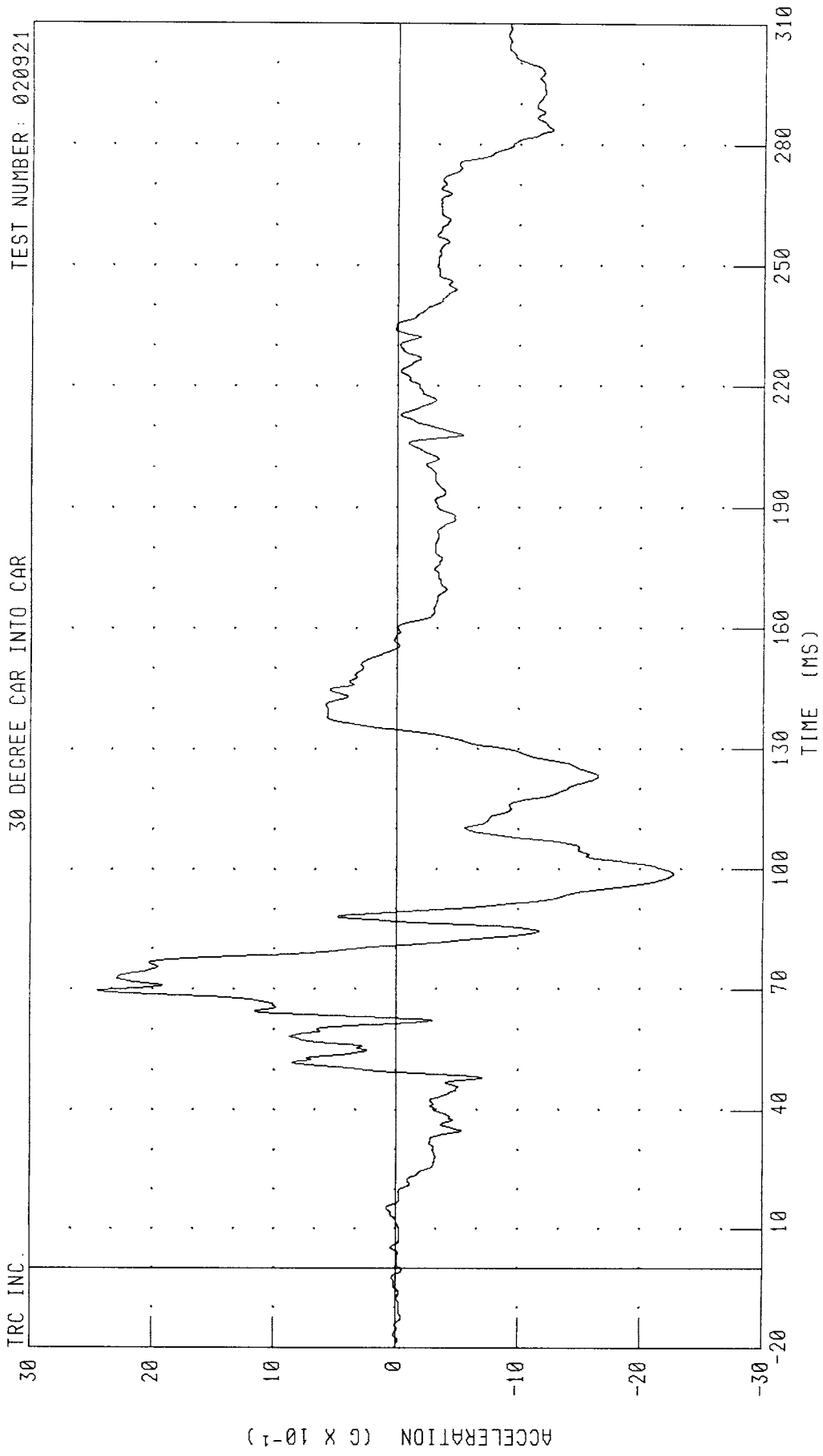
TEST NUMBER: 020921



CHANNEL: CSTXRB FILTER: CH. CLASS 180 PEAK DATA: 1.06 G @ 291.20 MS, -33.19 G @ 72.88 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD -- OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST Y-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

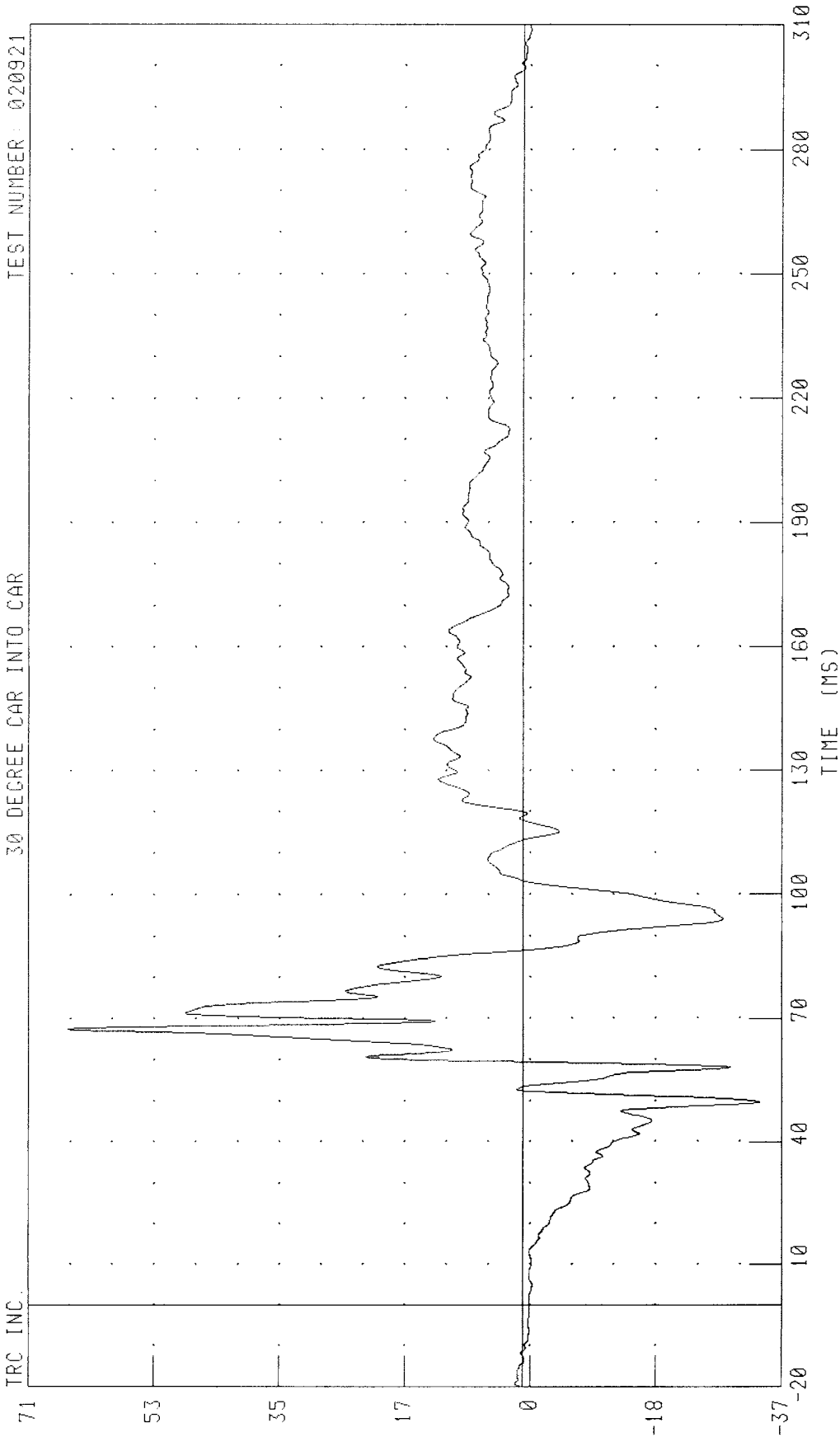
TRC INC.
TEST NUMBER: 020921



CHANNEL: CSTYRB FILTER: CH CLASS 180 PEAK DATA: 2.45 G @ 69.76 MS; -2.27 G @ 98.80 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST Z-AXIS ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921

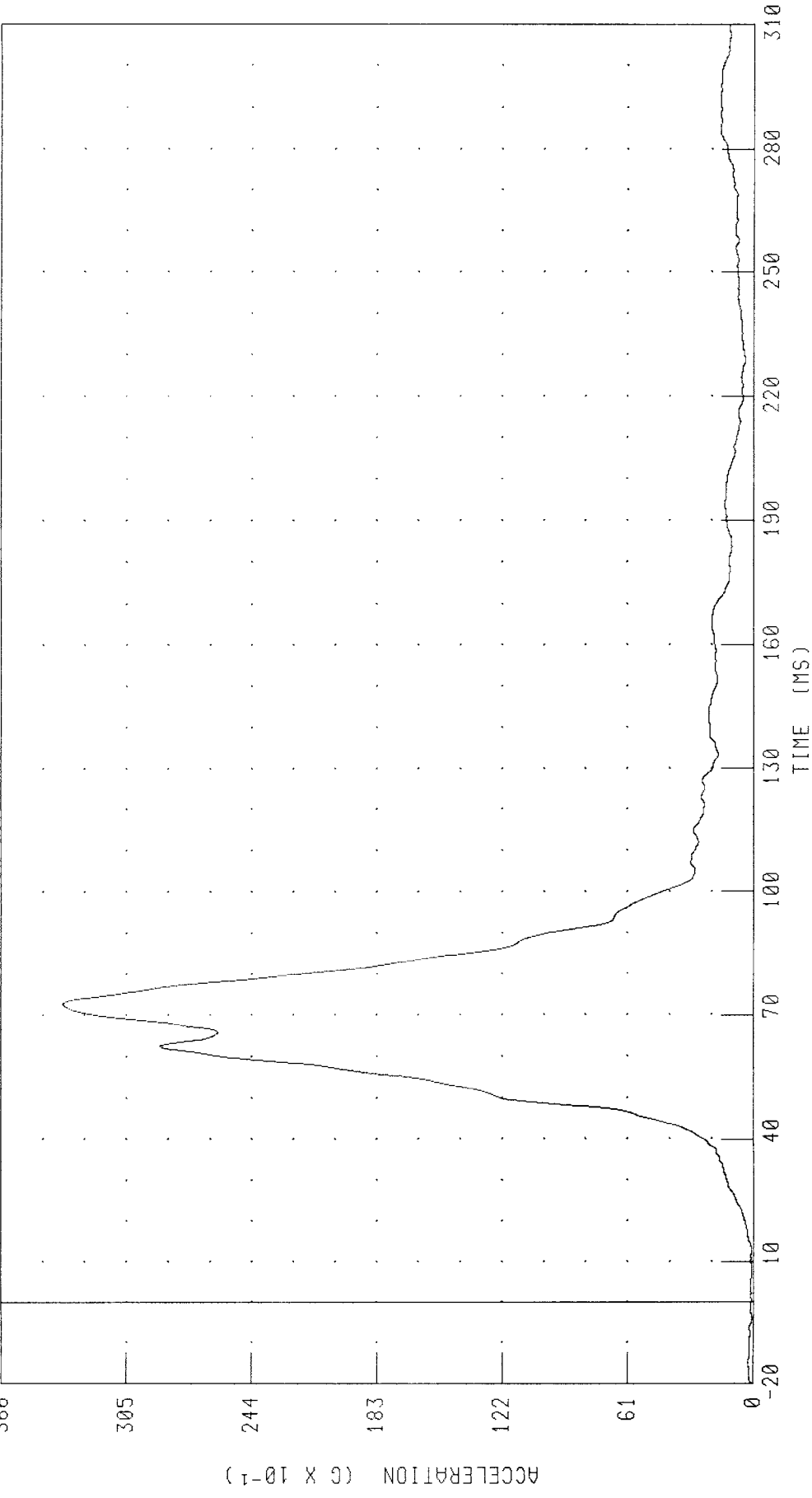


CHANNEL: CSTZRB FILTER: CH. CLASS 180 PEAK DATA: 6.54 G @ 67.60 MS, -3.38 G @ 49.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST RESULTANT ACCELERATION REDUNDANT
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

TRC INC.

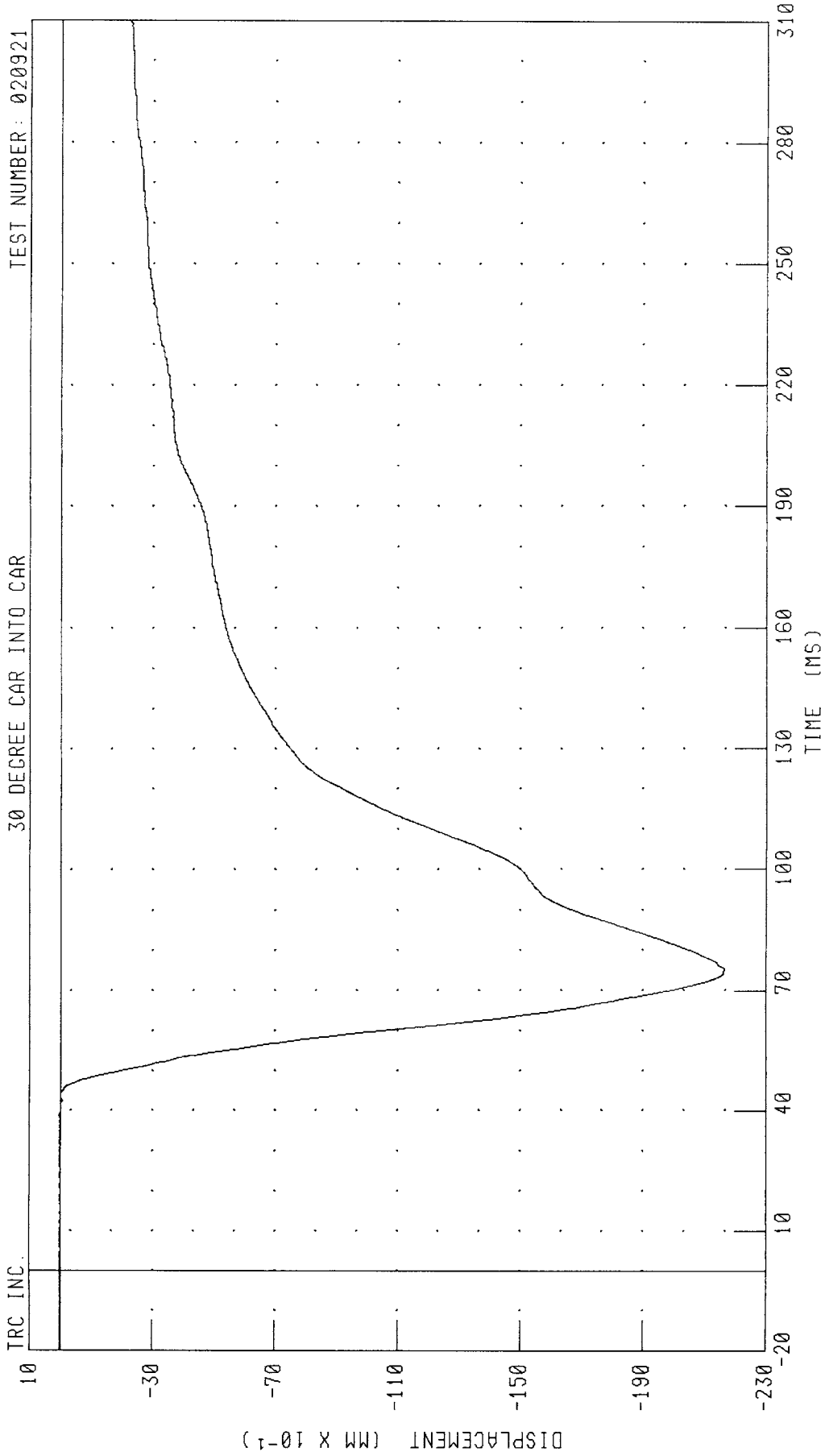


CHANNEL: CSTRRB FILTER: CH. CLASS 180 PEAK DATA: 33.59 G @ 72.88 MS; 0.01 G @ -20.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER CHEST DEFLECTION

TRC INC. TEST NUMBER: 020921

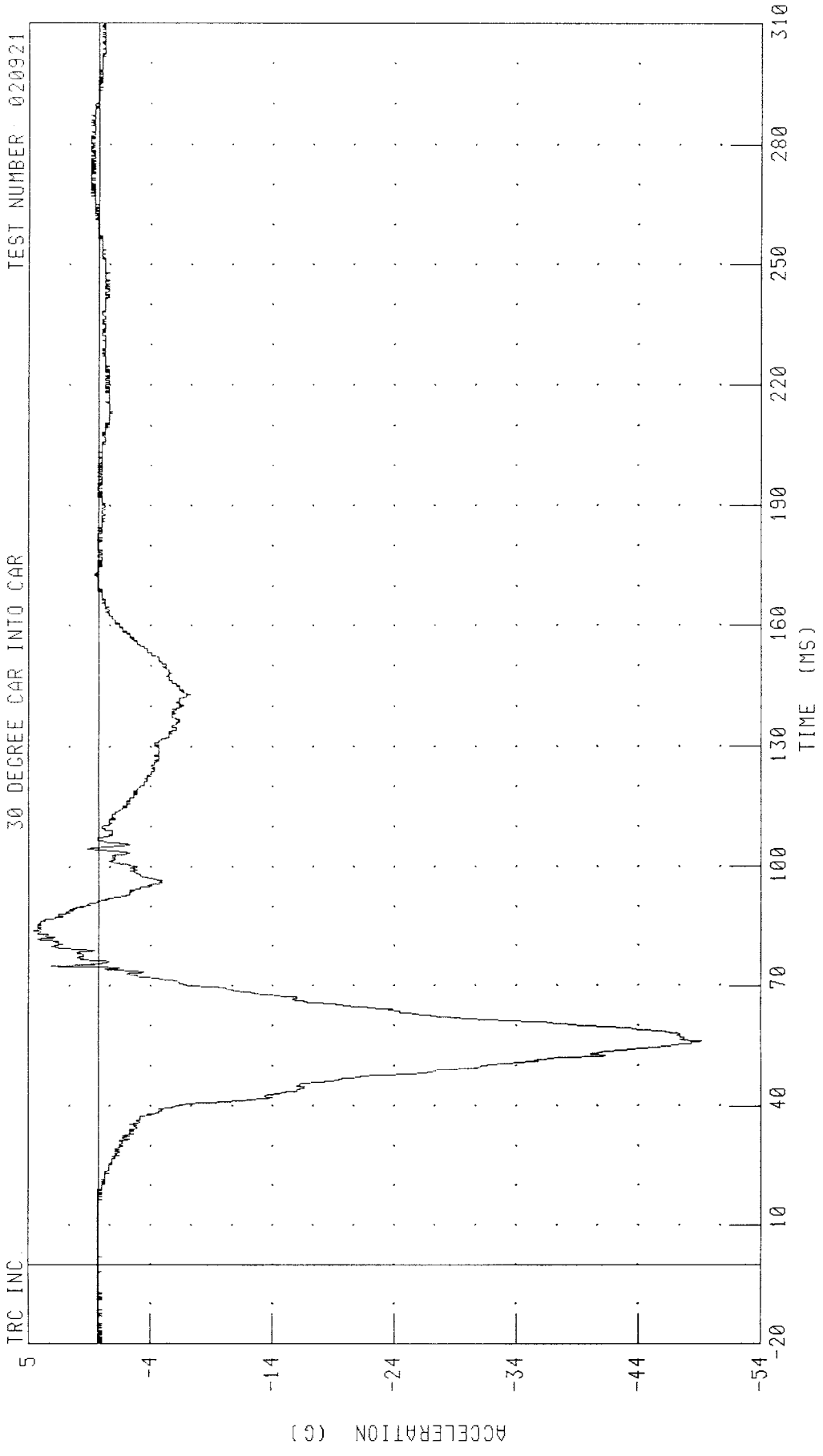
30 DEGREE CAR INTO CAR



CHANNEL: CSTXDB FILTER: CH. CLASS 600 PEAK DATA: 0.04 MM @ 38.96 MS; -21.65 MM @ 75.20 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER PELVIS X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

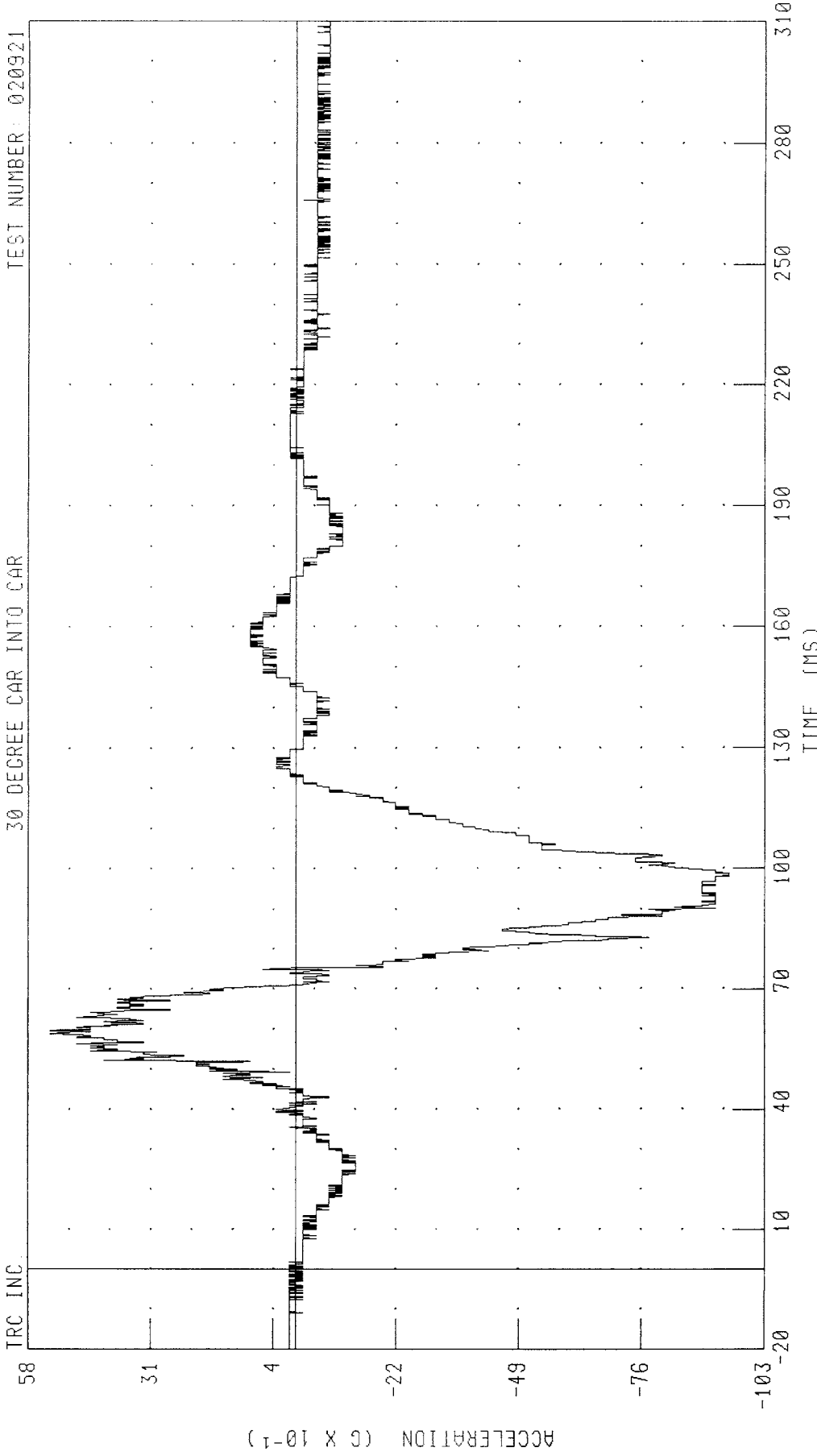
TRC INC. TEST NUMBER: 020921



CHANNEL: PEVXGB FILTER: CH. CLASS 1000 PEAK DATA: 5.27 G @ 83.92 MS; -49.47 G @ 56.08 MS

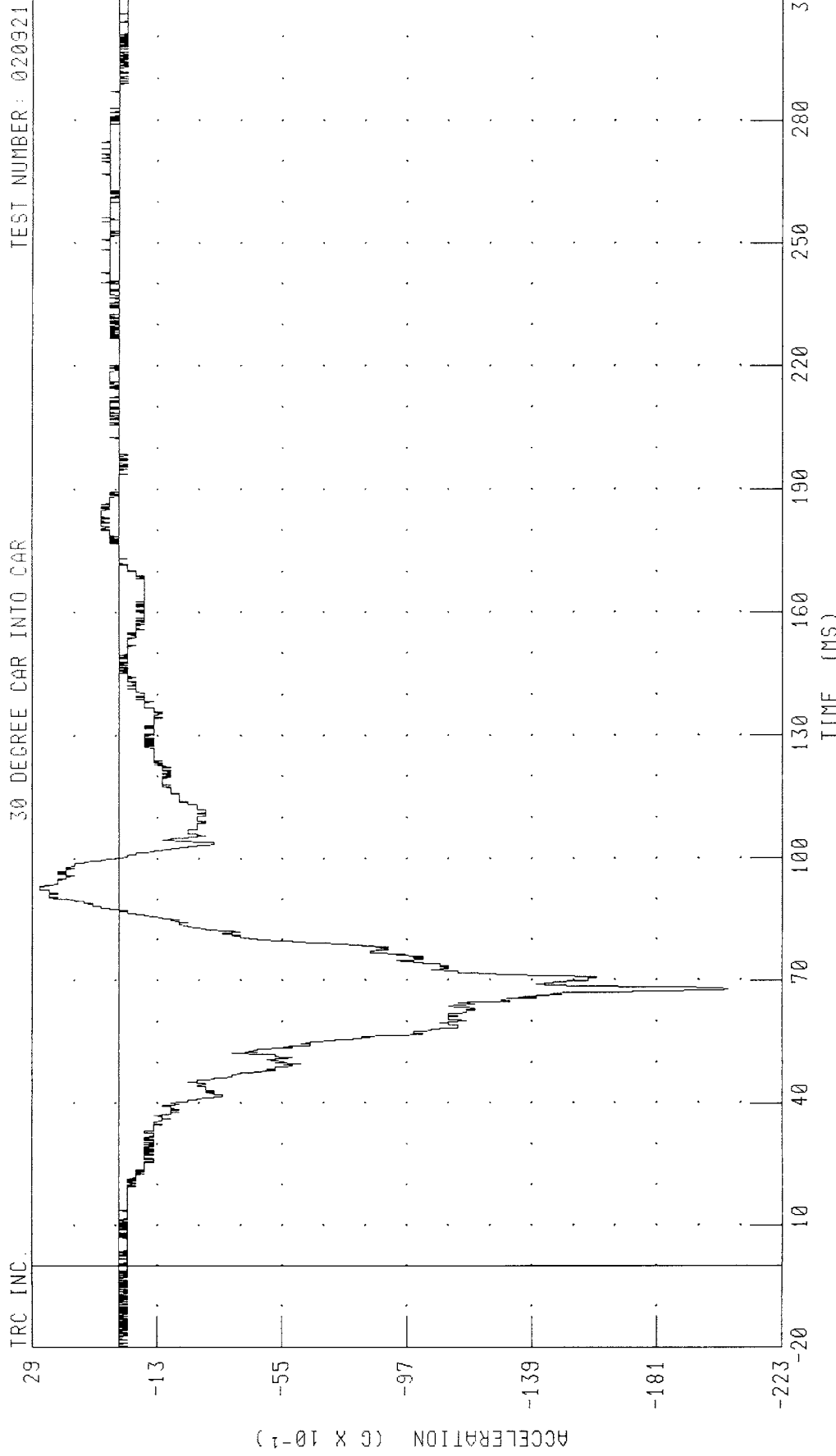
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER PELVIS Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



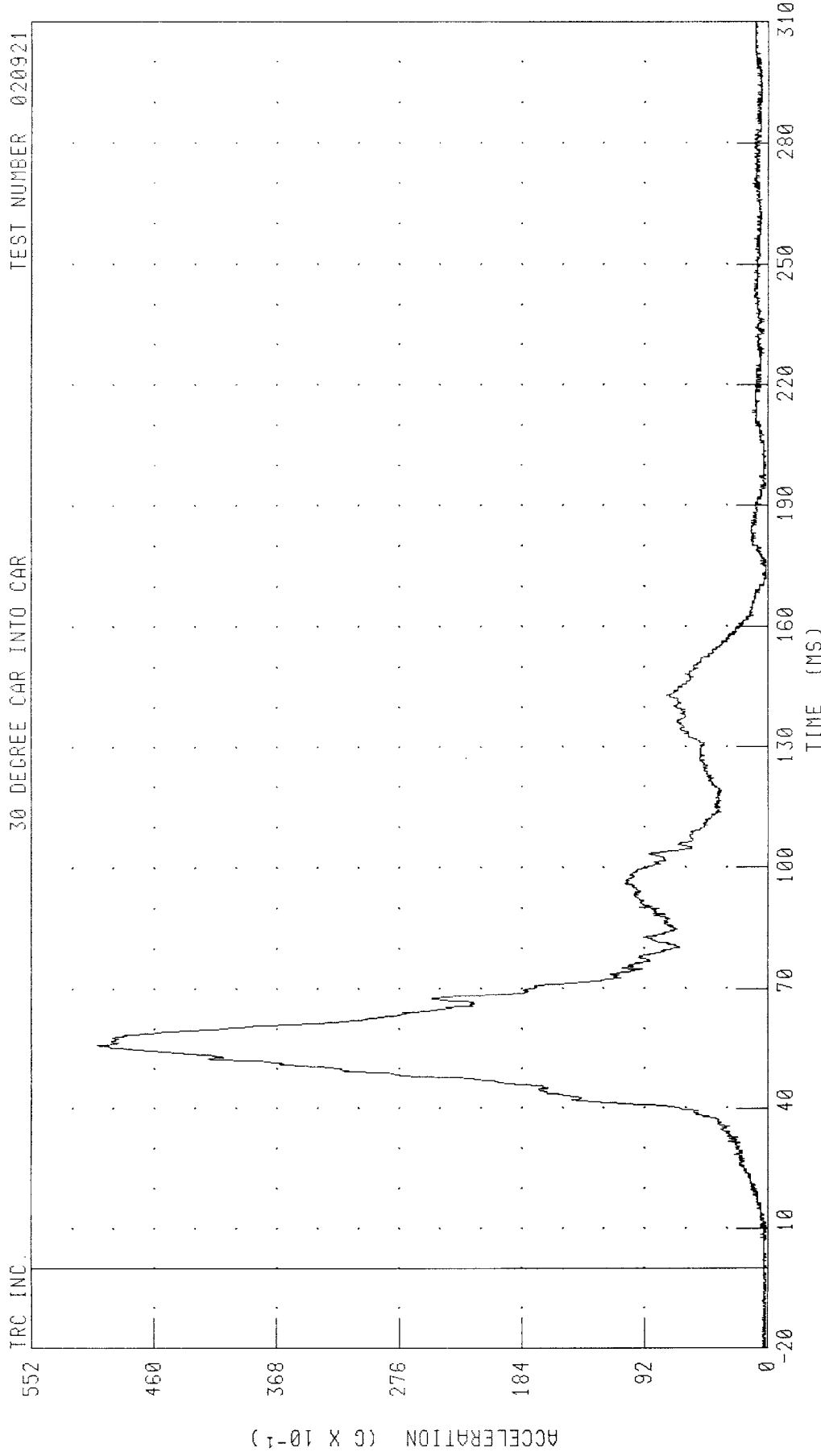
CHANNEL: PEVYGB FILTER: CH. CLASS 1000 PEAK DATA: 5.41 G @ 59.04 MS; -9.52 G @ 98.08 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER PELVIS Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



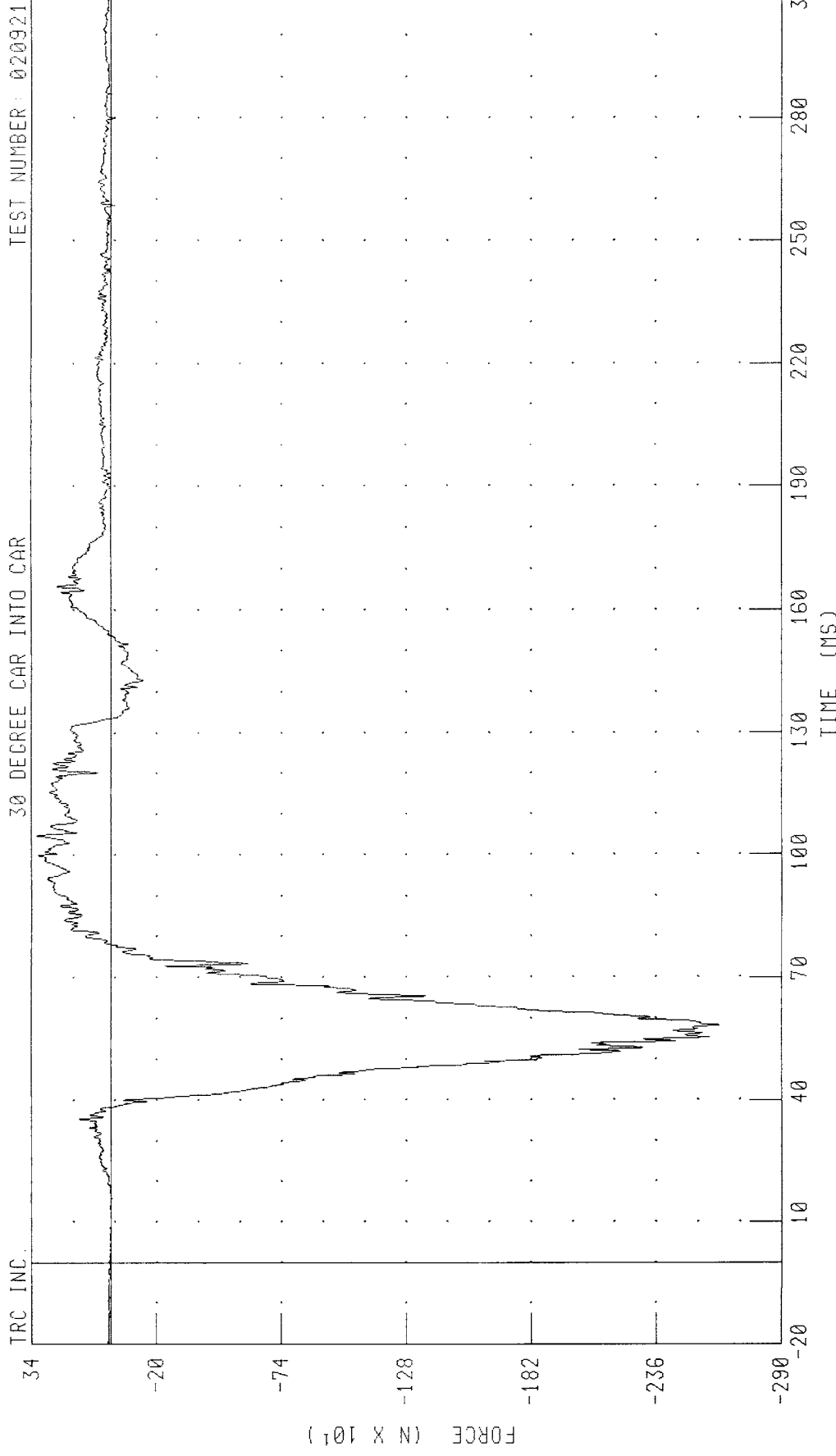
CHANNEL: PEVZGB FILTER: CH. CLASS 1000 PEAK DATA: 2.64 G @ 92.56 MS; -20.48 G @ 67.76 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER PELVIS RESULTANT ACCELERATION



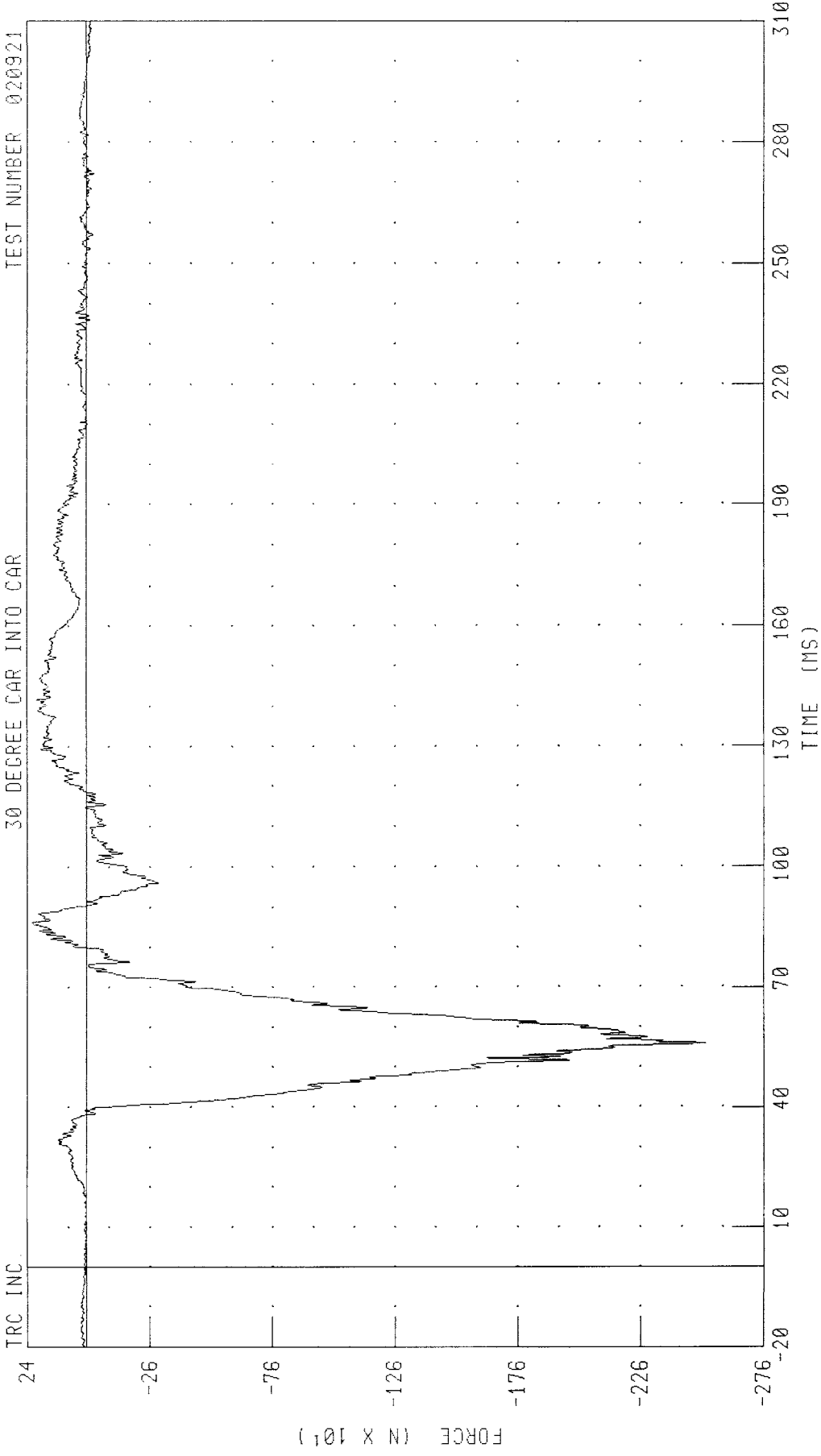
CHANNEL: PEVRGB FILTER: CH. CLASS 1000 PEAK DATA: 50.32 G @ 56.08 MS; 0.15 G @ -19.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER LEFT FEMUR FORCE
30 DEGREE CAR INTO CAR



CHANNEL: LFMZFB FILTER: CH. CLASS 600 PEAK DATA: 317.72 N @ 104.80 MS, -2629.82 N @ 58.24 MS

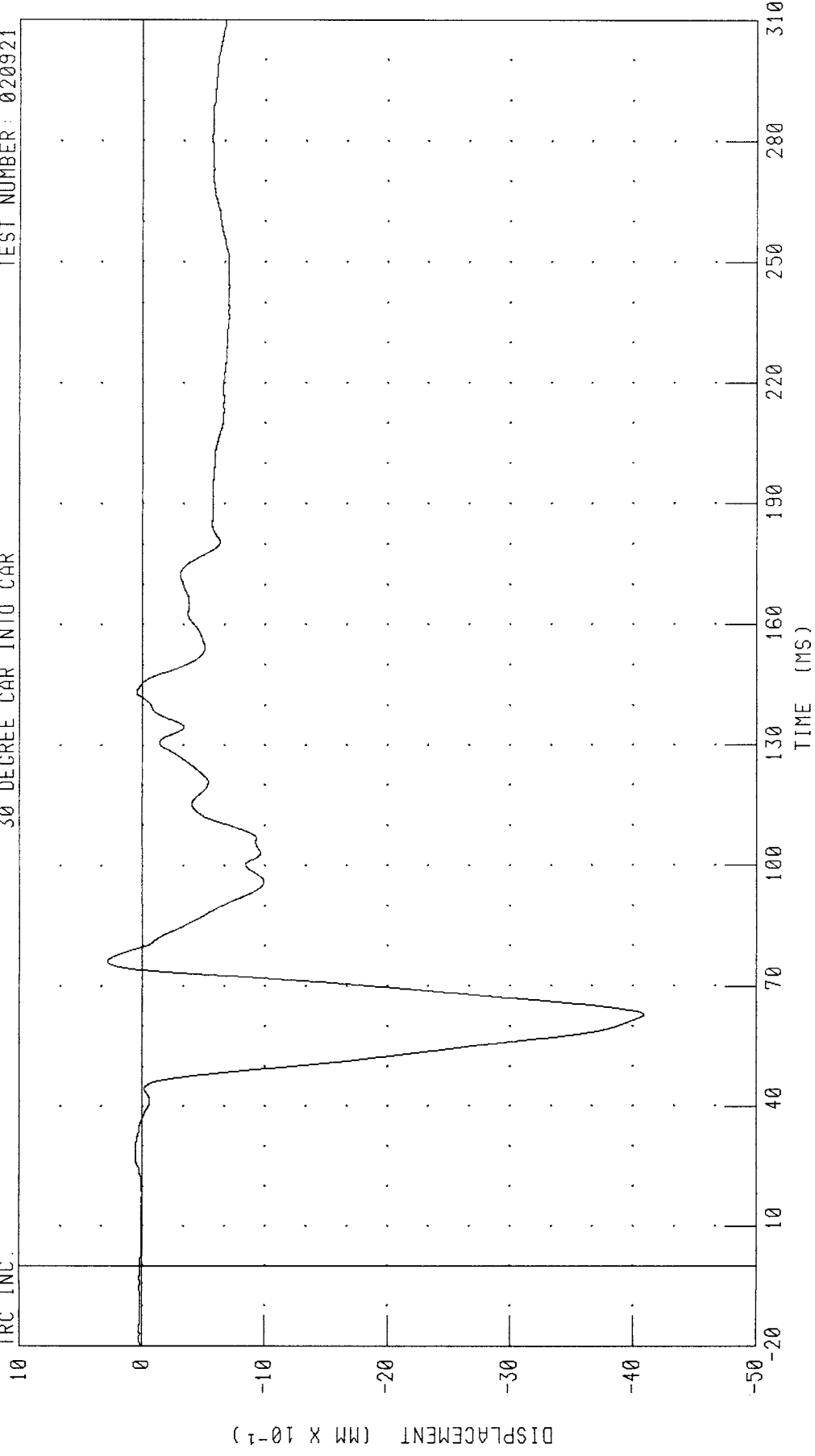
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER RIGHT FEMUR FORCE
30 DEGREE CAR INTO CAR



CHANNEL: RFMZFB FILTER: CH. CLASS 600
PEAK DATA: 219.36 N @ 86.40 MS; -2521.90 N @ 55.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER LEFT KNEE DISPLACEMENT
30 DEGREE CAR INTO CAR

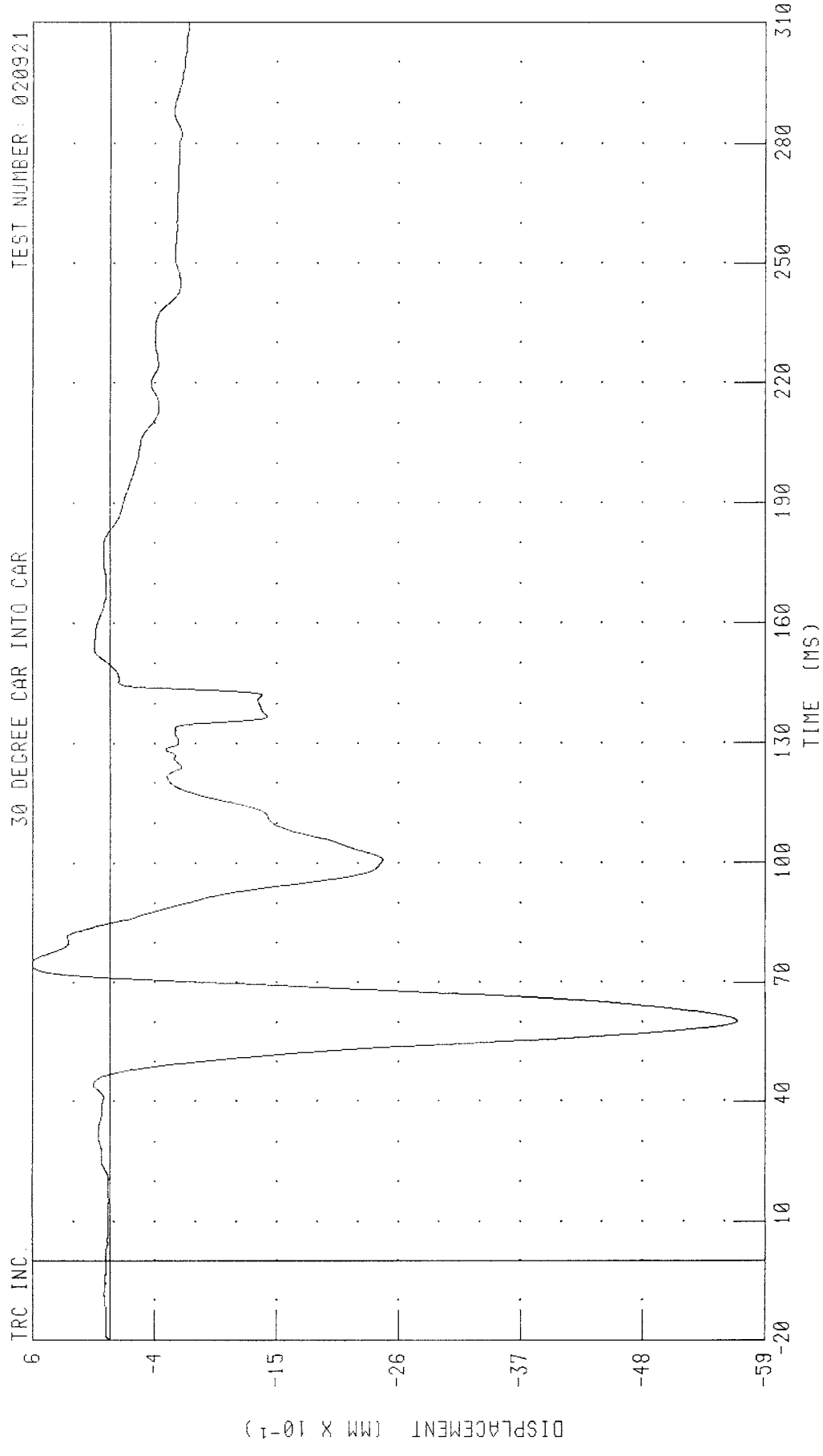
TRC INC. TEST NUMBER: 020921



CHANNEL: KNLXDB FILTER: CH. CLASS 180 PEAK DATA: 0 28 MM @ 76.32 MS; -4.09 MM @ 62.88 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET PASSENGER RIGHT KNEE DISPLACEMENT
30 DEGREE CAR INTO CAR

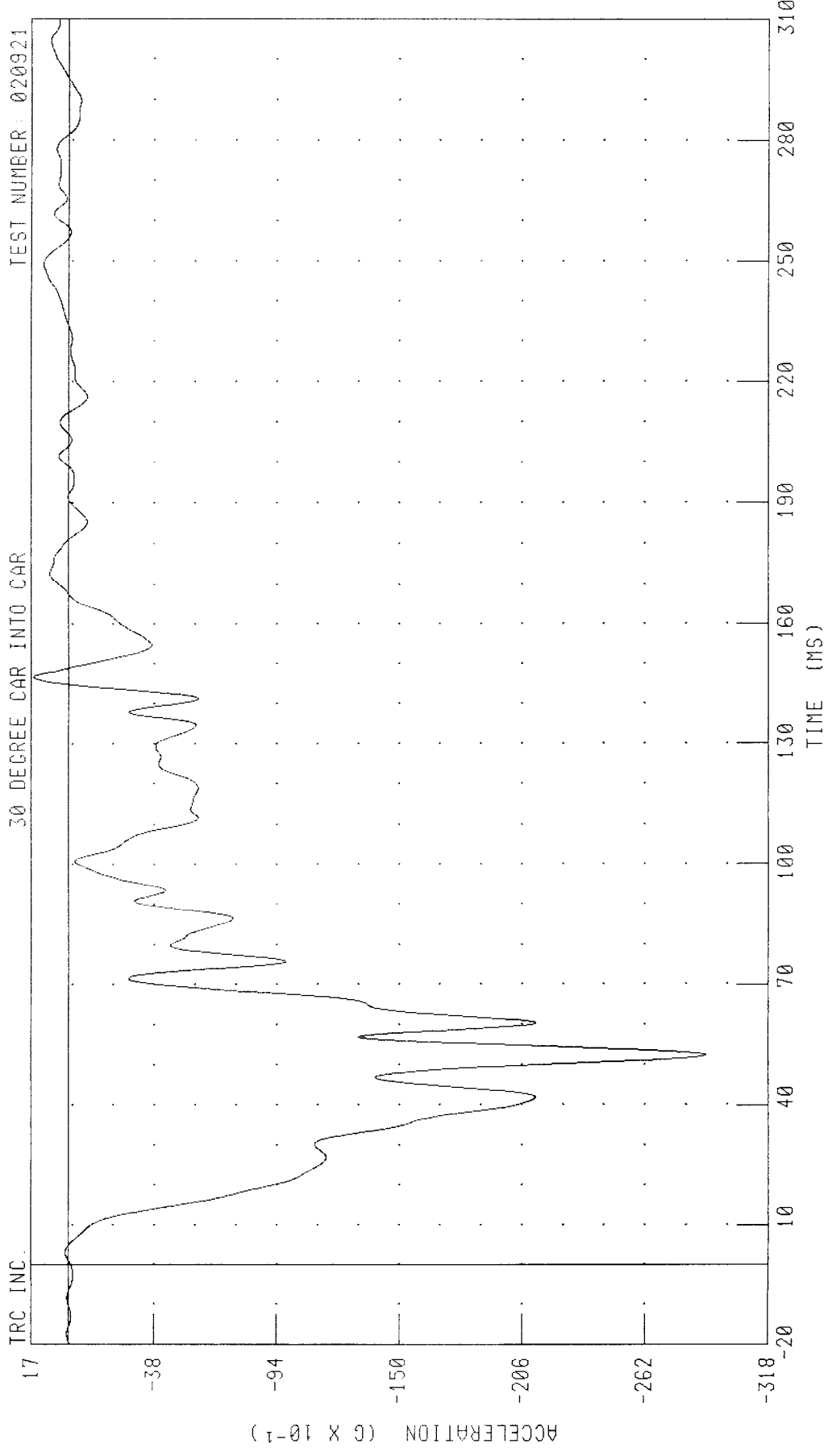
TEST NUMBER: 020921



TRC INC.

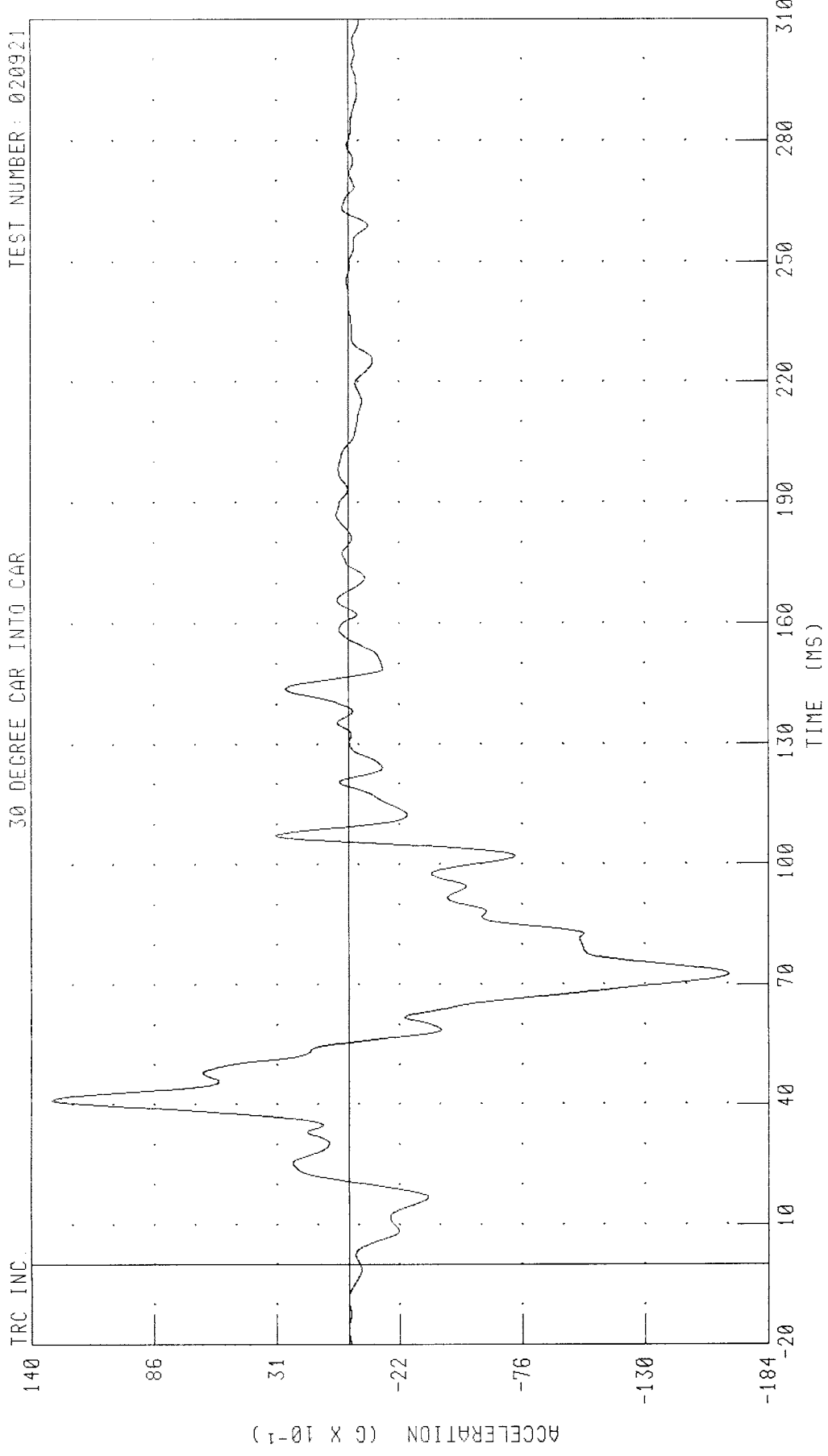
CHANNEL: KNRXDB FILTER: CH. CLASS 180 PEAK DATA: 0.72 MM @ 74.88 MS; -5.65 MM @ 60.24 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: VCGXGA FILTER: CH. CLASS 60
PEAK DATA: 1.60 G @ 146.96 MS; -29.08 G @ 52.40 MS

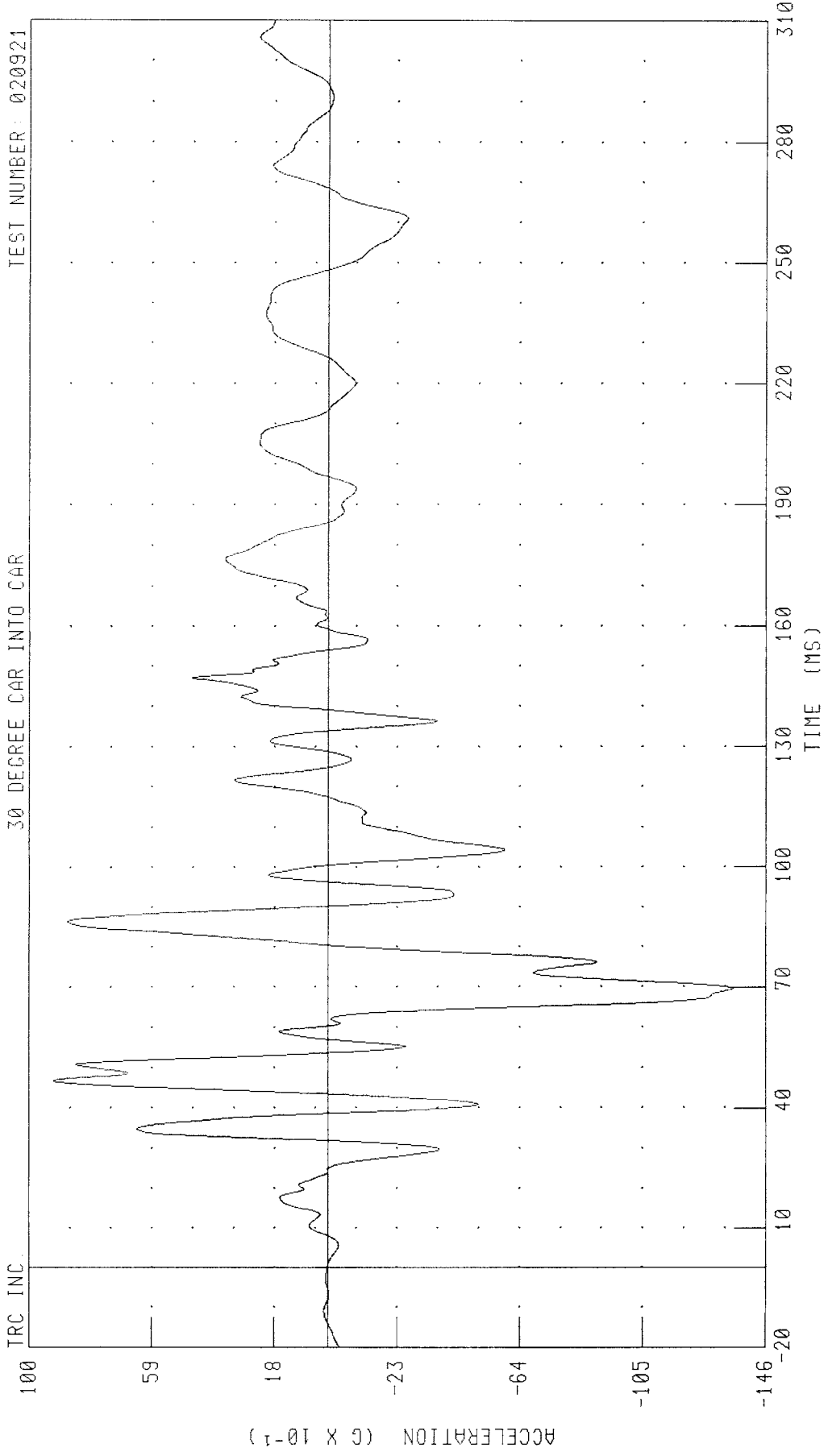
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



TEST NUMBER: 020921

CHANNEL: VCGYGA FILTER: CH. CLASS 60
PEAK DATA: 13.09 G @ 41.20 MS; -16.69 G @ 72.56 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



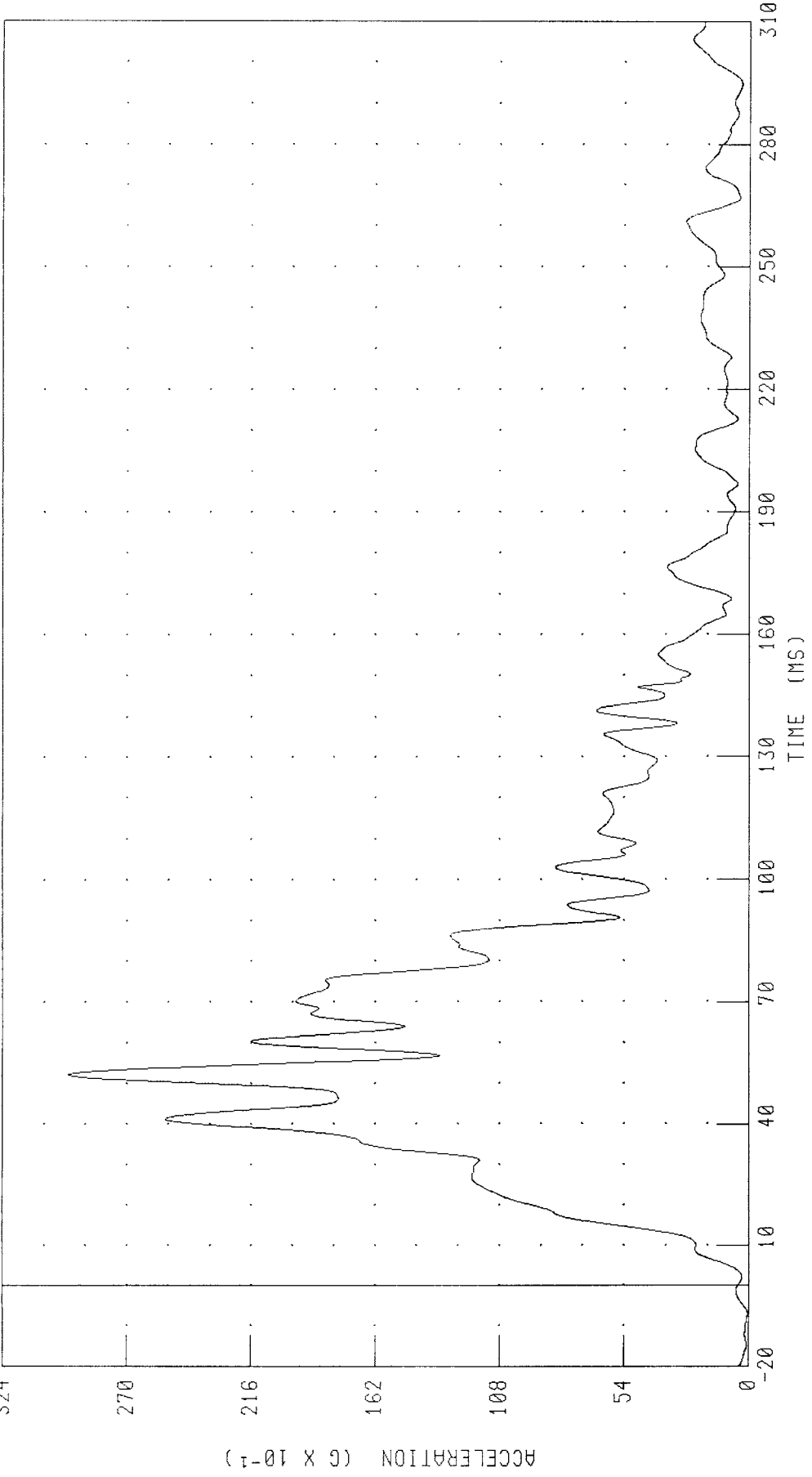
CHANNEL: VCCZGA FILTER: CH. CLASS 60 PEAK DATA: 9.19 G @ 46.88 MS; -13.54 G @ 69.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION

TEST NUMBER : 020921

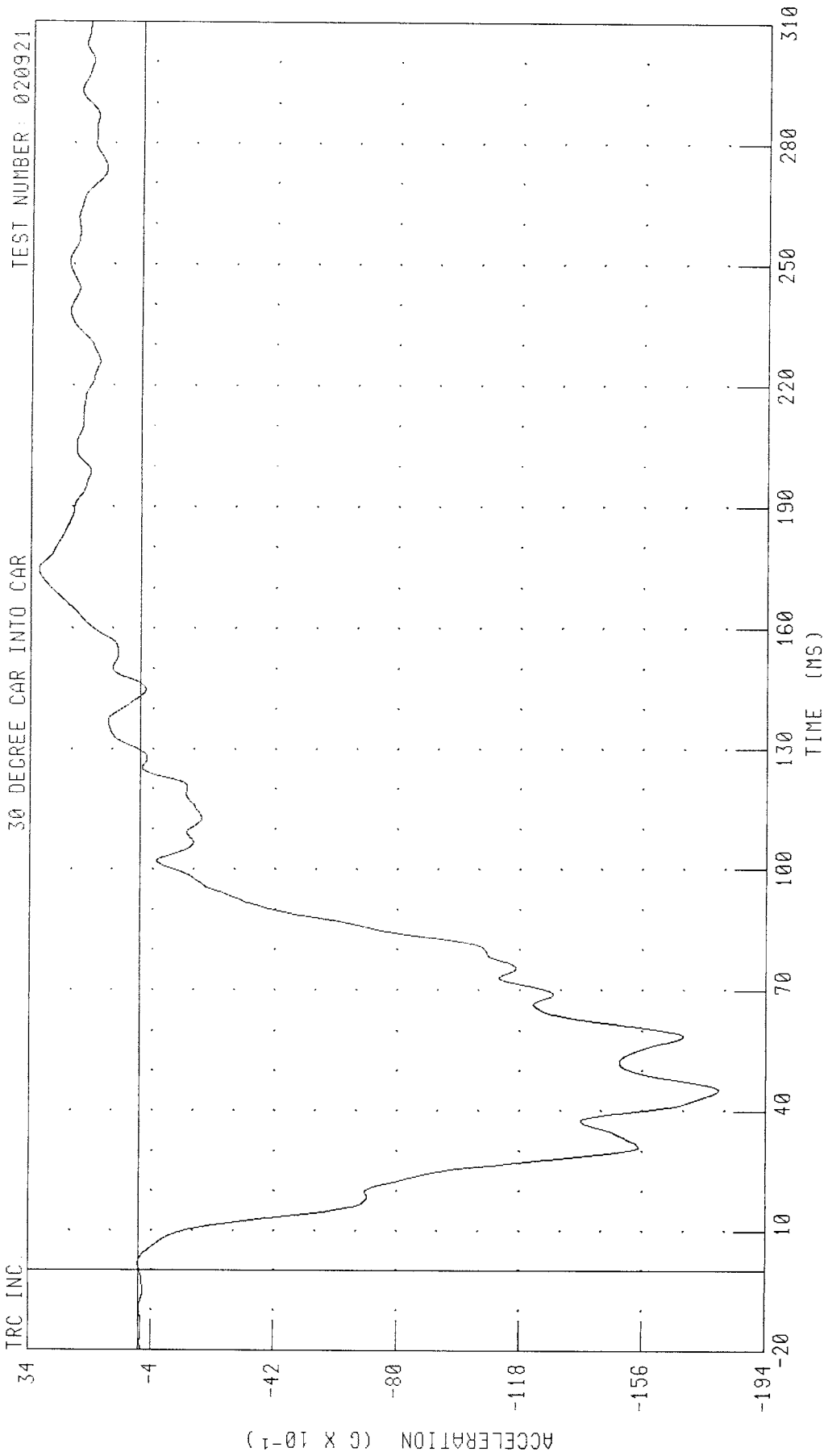
30 DEGREE CAR INTO CAR

TRC INC.



CHANNEL : VCGRCA FILTER : CH. CLASS 60 PEAK DATA : 29.53 G @ 52.24 MS; 0.05 G @ -6.96 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET REAR DECK X-AXIS ACCELERATION



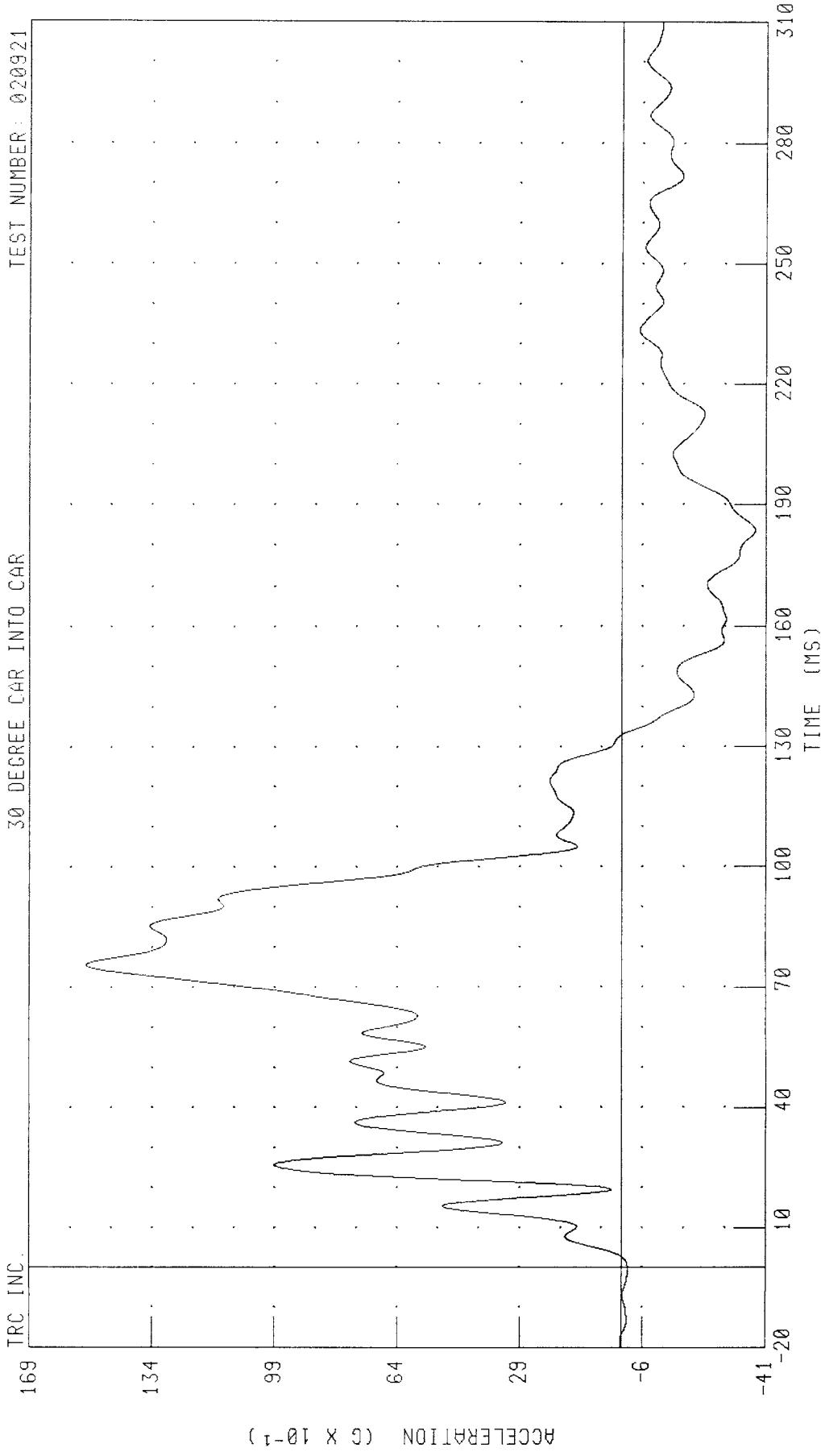
CHANNEL: RDKXCA FILTER: CH. CLASS 60

PEAK DATA: 3.16 G @ 174.64 MS; -17.96 G @ 45.12 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET REAR DECK Y-AXIS ACCELERATION

TRC INC. 30 DEGREE CAR INTO CAR TEST NUMBER: 020921



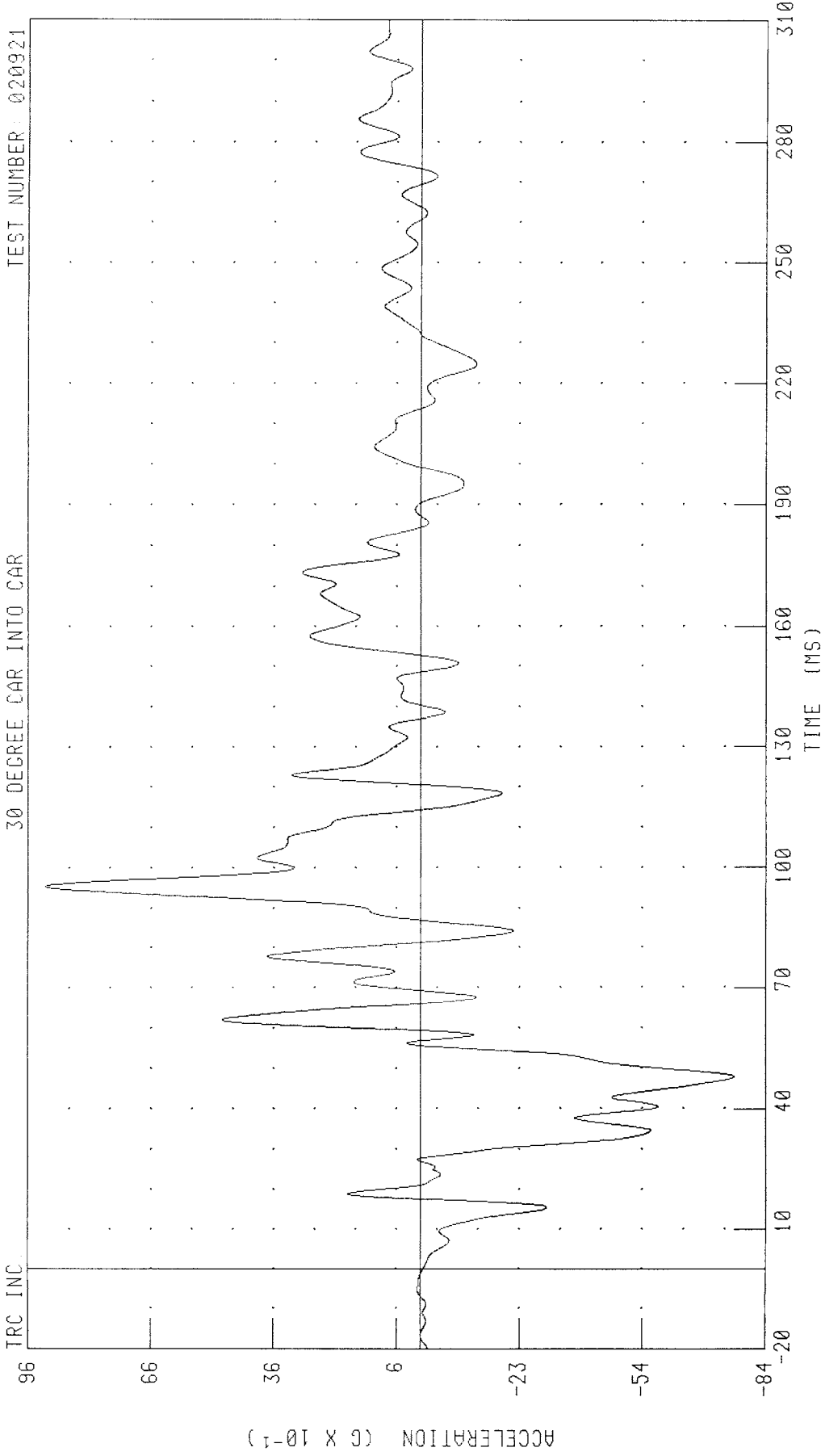
CHANNEL: RDKYGA FILTER: CH. CLASS 60 PEAK DATA: 15.29 G @ 75.76 MS; -3.81 G @ 183.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET REAR DECK Z-AXIS ACCELERATION

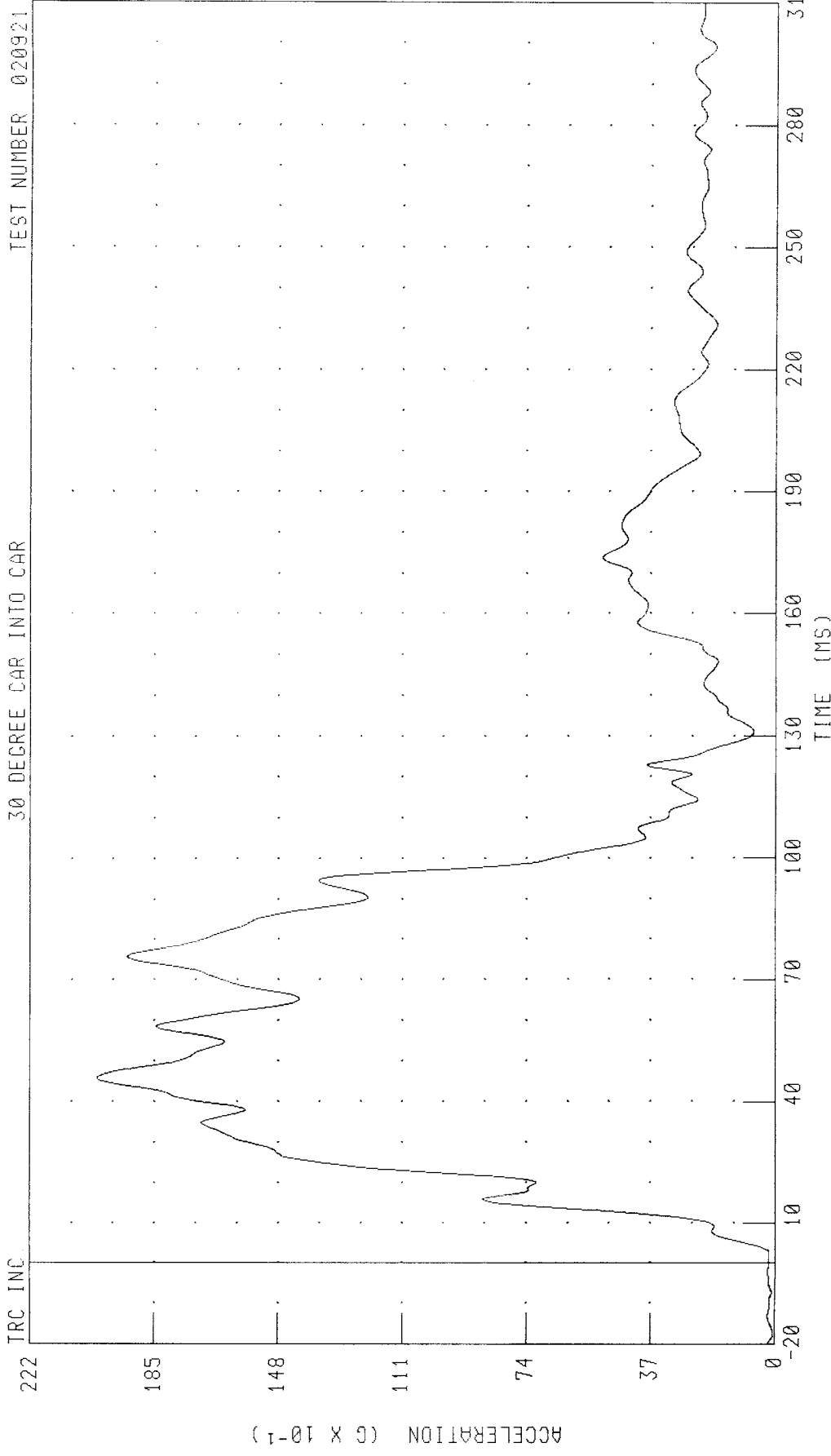
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



CHANNEL: RDKZGA FILTER: CH. CLASS 60 PEAK DATA: 9.18 G @ 95.52 MS; -7.65 G @ 47.92 MS

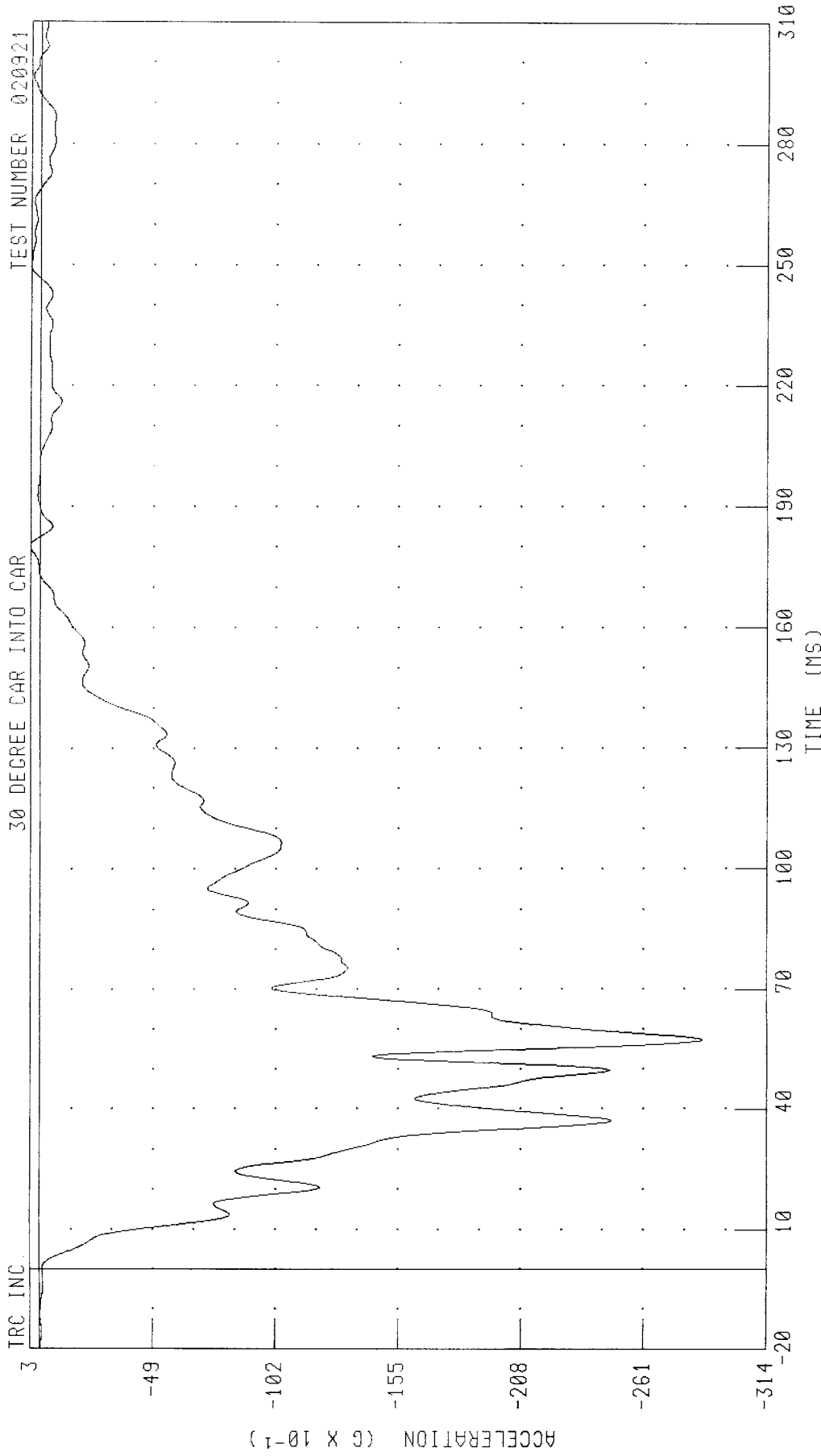
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET REAR DECK RESULTANT ACCELERATION



CHANNEL: RDKRGA FILTER: CH. CLASS 60

PEAK DATA: 20.21 G @ 45.92 MS; 0 05 G @ -17.60 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET LEFT FRONT SILL X-AXIS ACCELERATION



CHANNEL: LFSXGA FILTER: CH. CLASS 60 PEAK DATA: 0.44 G @ 180.16 MS; -28.64 G @ 57.28 MS

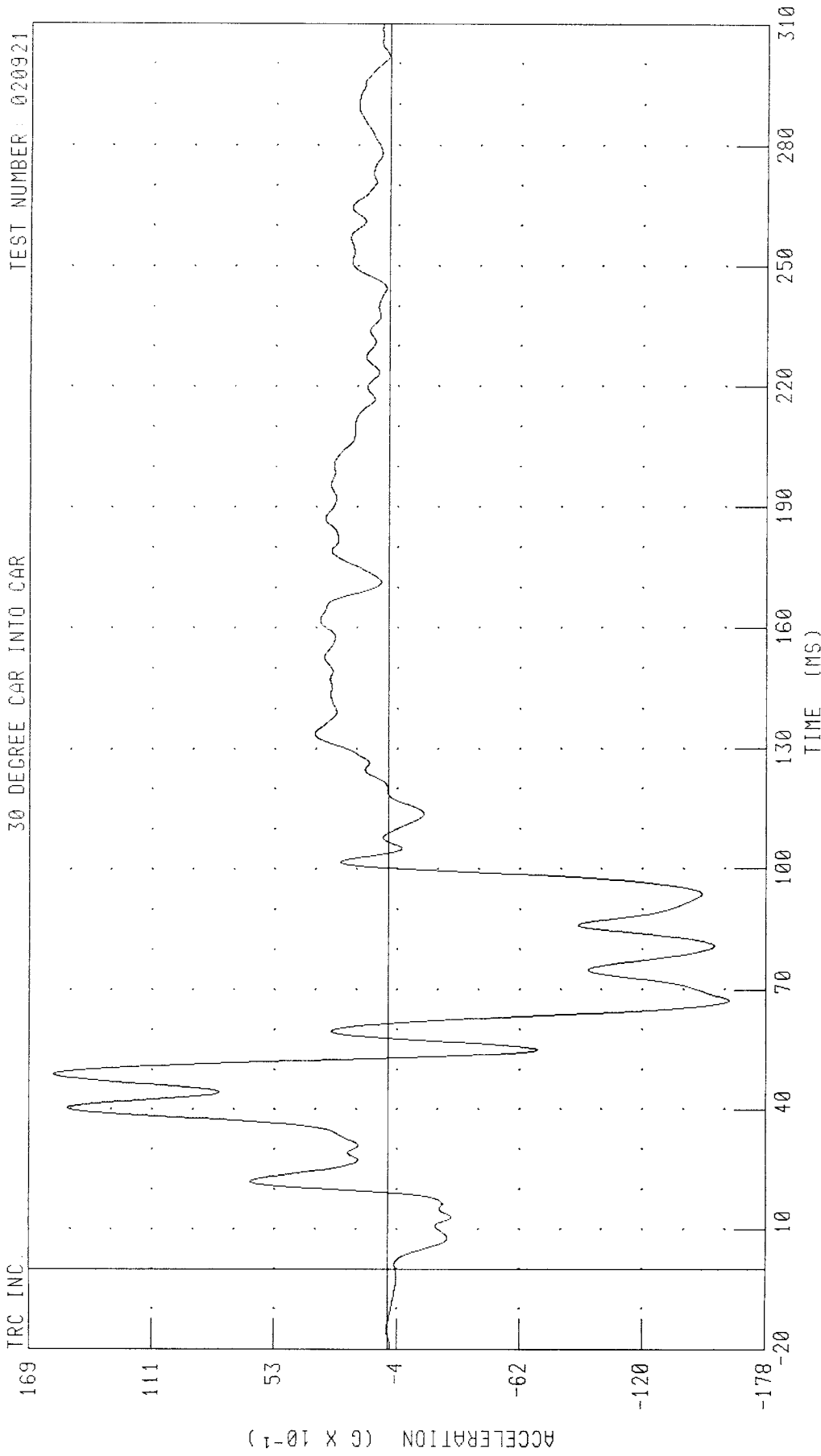
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET LEFT FRONT SILL Y-AXIS ACCELERATION

30 DEGREE CAR INTO CAR

TRC INC.

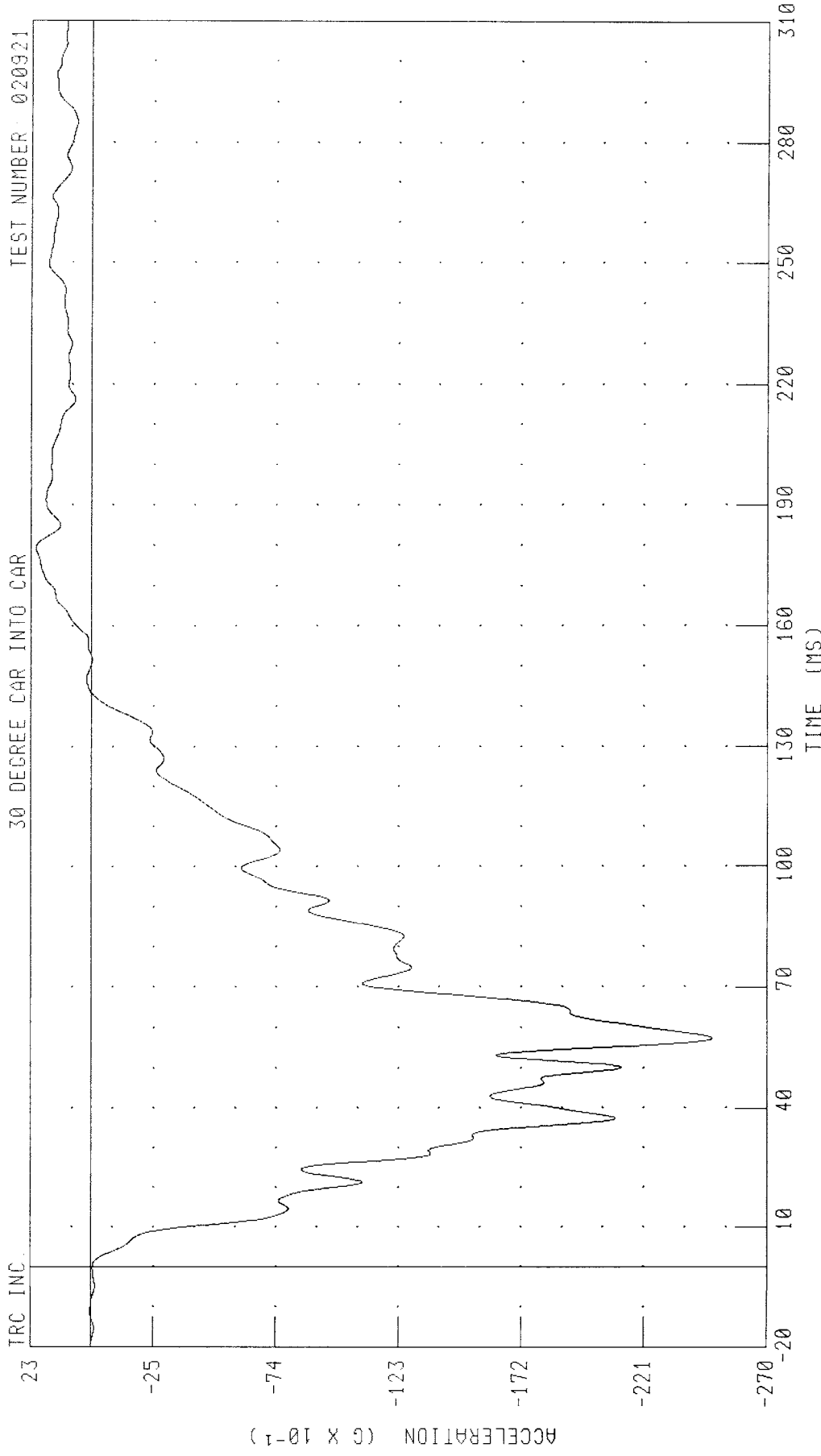
TEST NUMBER: 020921



CHANNEL: LFSYGA FILTER: CH. CLASS 60

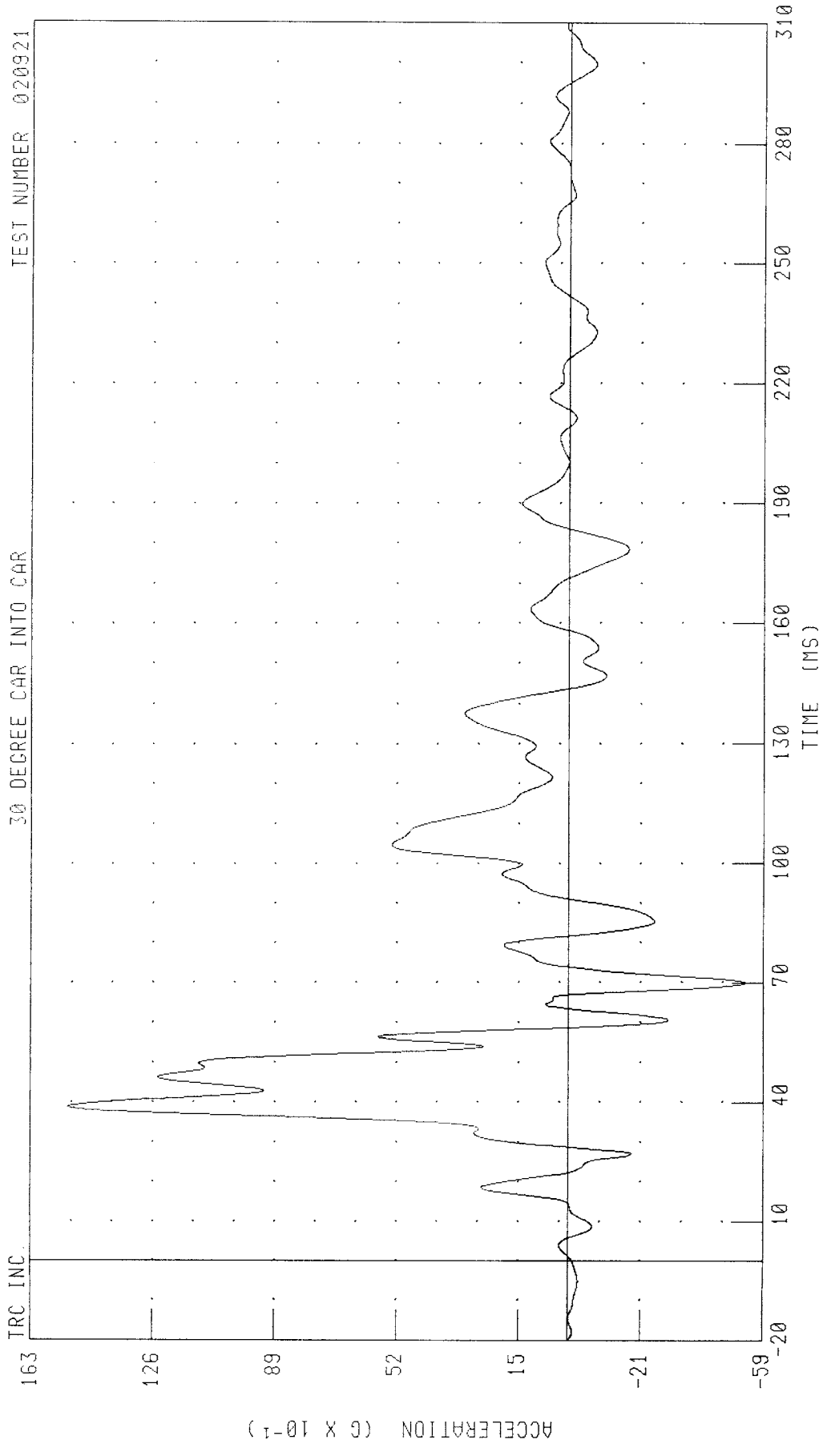
PEAK DATA: 15.87 G @ 49.04 MS; -16.08 G @ 67.28 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET LEFT REAR SILL X-AXIS ACCELERATION



CHANNEL: LRSXGA FILTER: CH. CLASS 60 PEAK DATA: 2.21 G @ 179.52 MS, -24.82 G @ 57.36 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET LEFT REAR SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

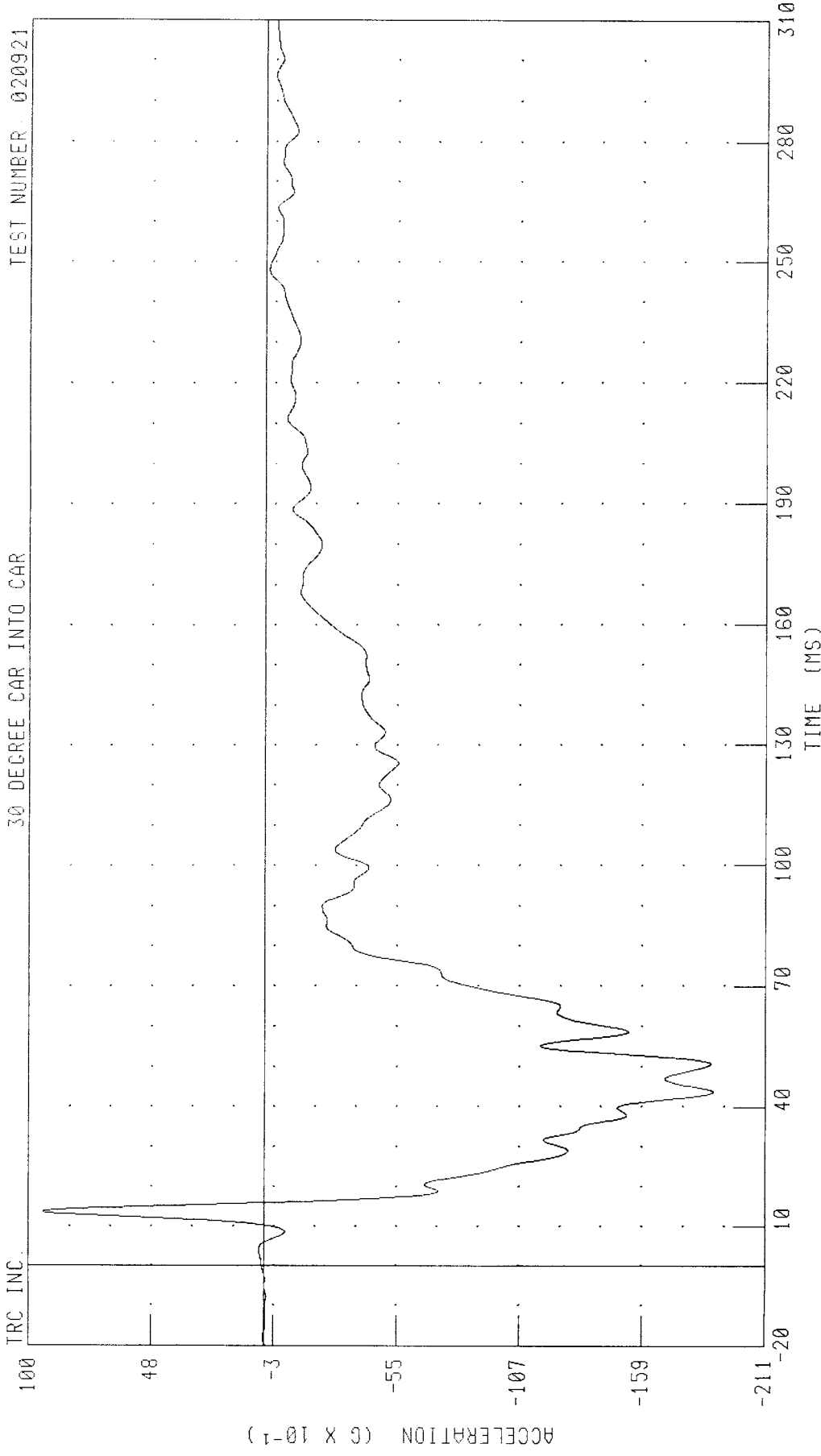


CHANNEL: LRSYGA FILTER: CH. CLASS 60 PEAK DATA: 15.17 G @ 38.96 MS; -5.37 G @ 69.92 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET RIGHT FRONT SILL X-AXIS ACCELERATION

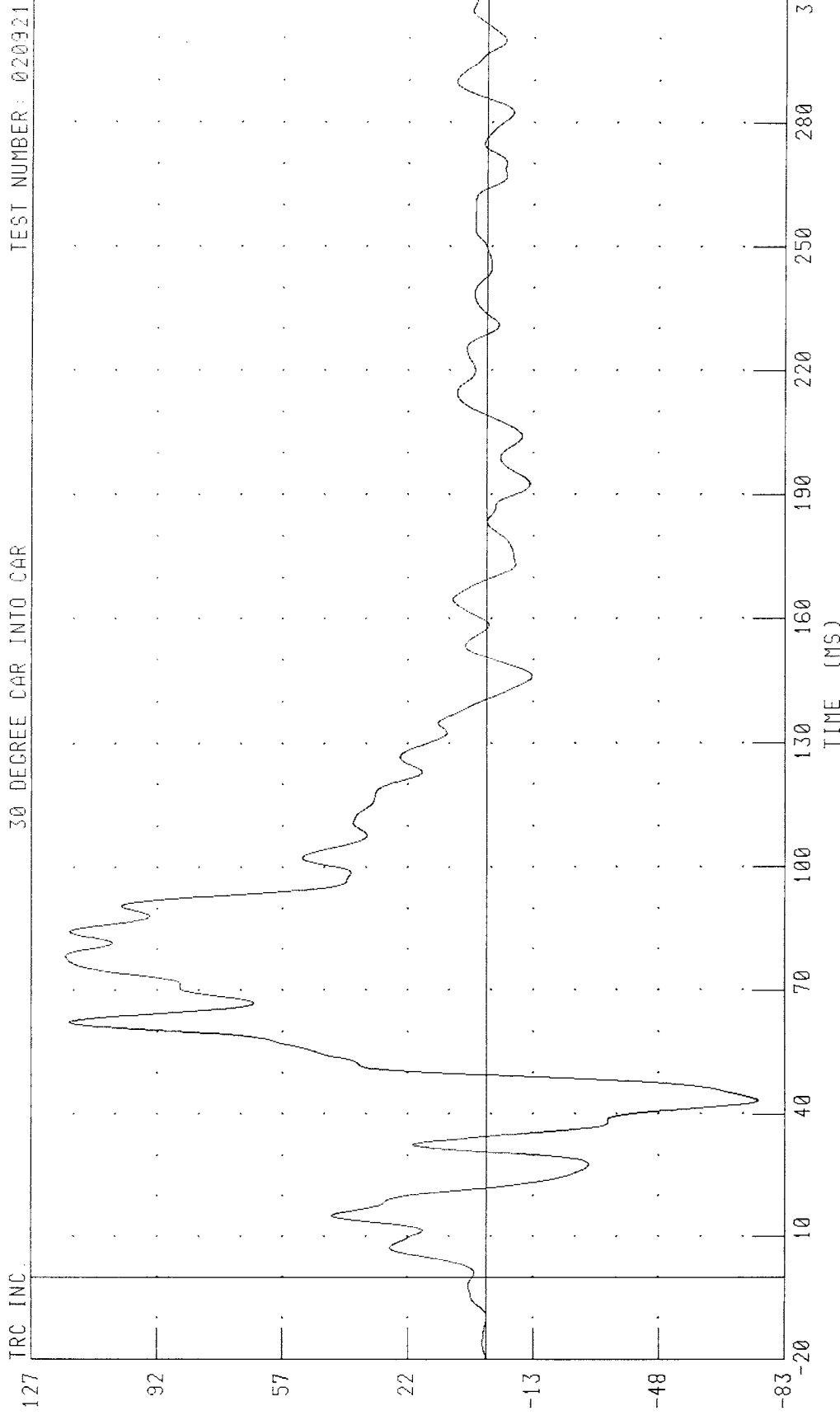
TRC INC. TEST NUMBER 020921



CHANNEL: RFSXGA FILTER: CH. CLASS 60

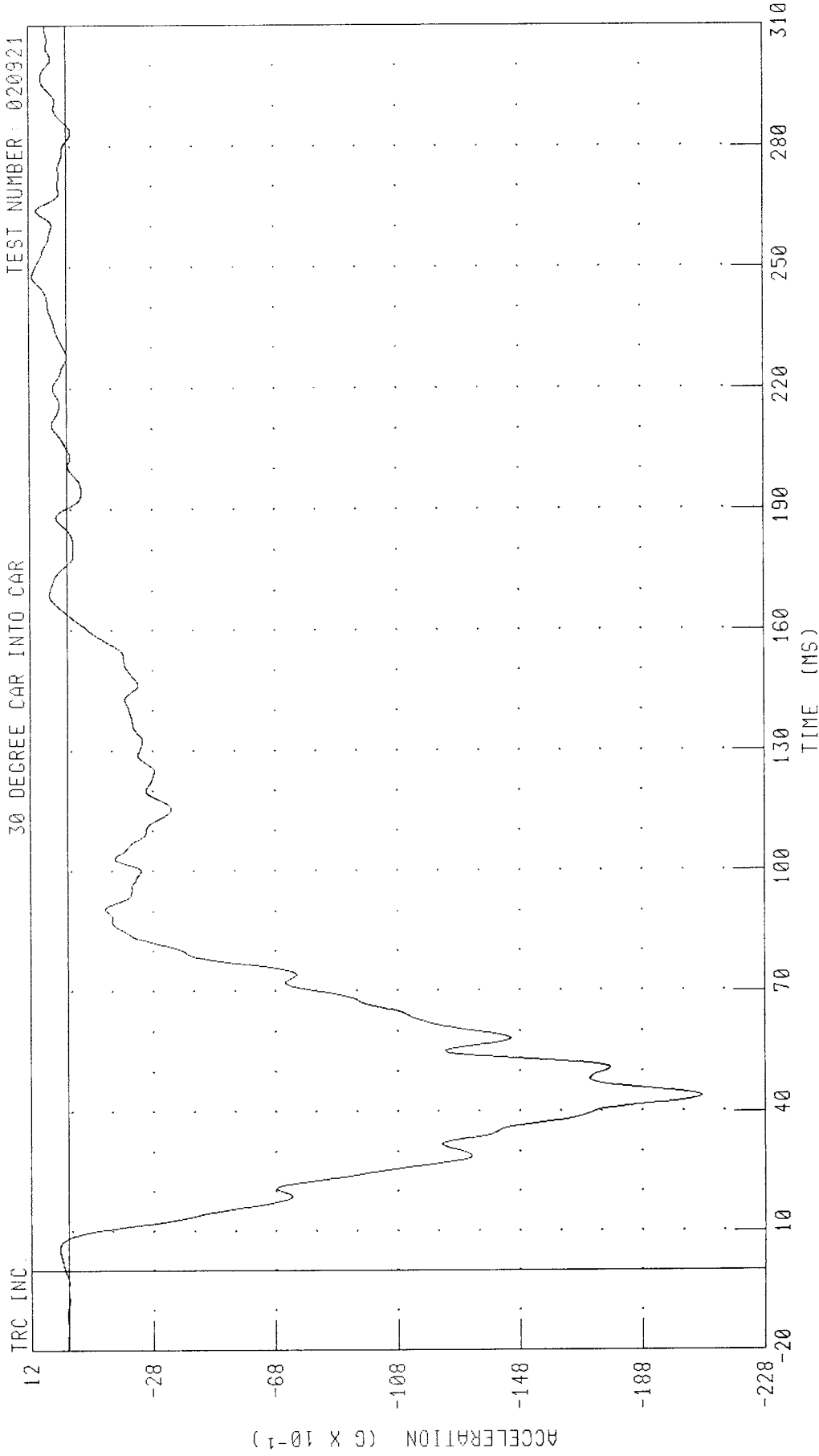
PEAK DATA: 9 39 G @ 13.84 MS; -19.01 G @ 43.68 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET RIGHT FRONT SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RFSYGA FILTER: CH. CLASS 60 PEAK DATA: 11.75 G @ 78.48 MS; -7.56 G @ 43.28 MS

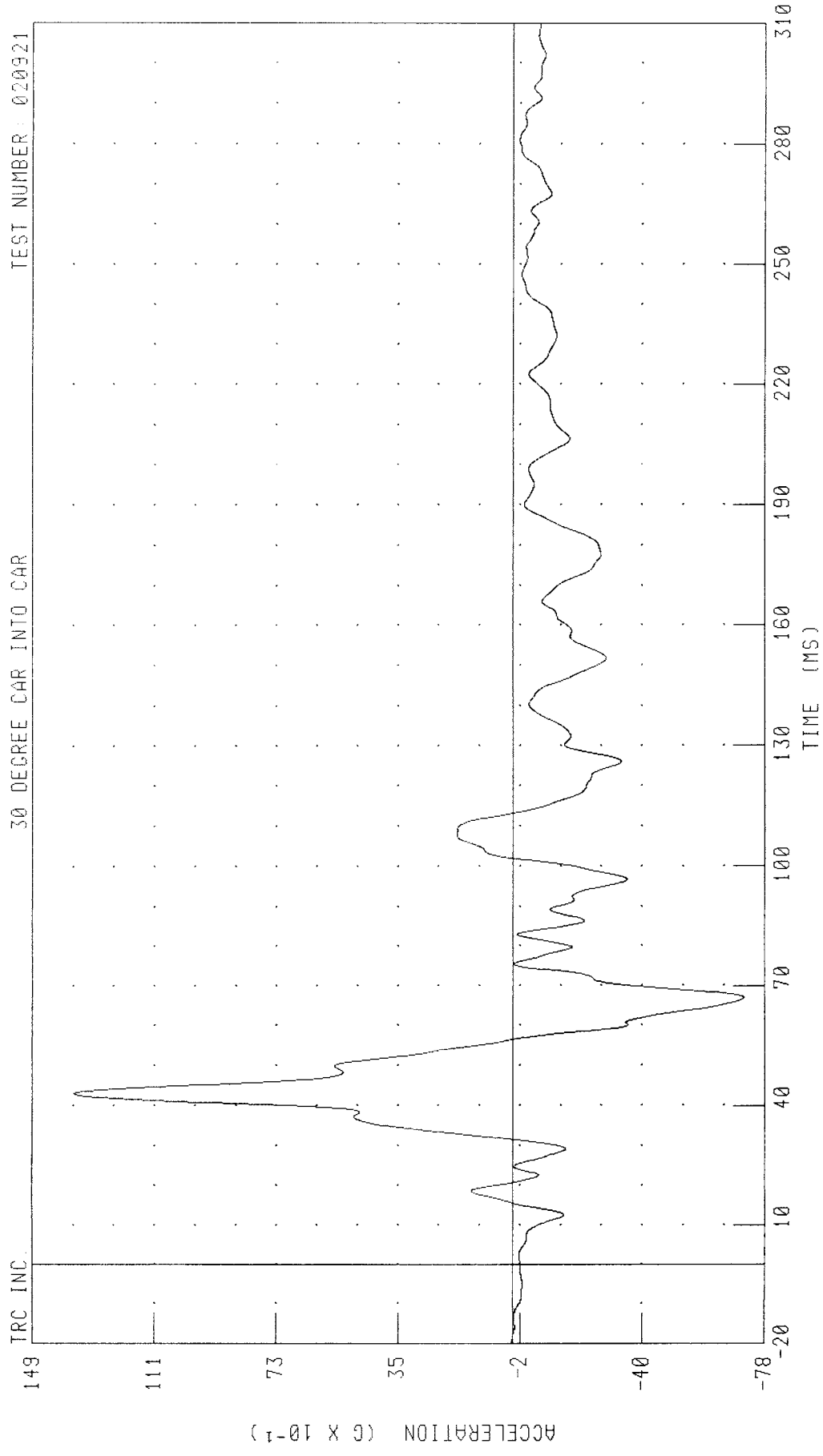
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET RIGHT REAR SILL X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



CHANNEL: RRSXGA FILTER: CH. CLASS 60 PEAK DATA: 1.10 G @ 247.92 MS; -20.74 G @ 43.84 MS

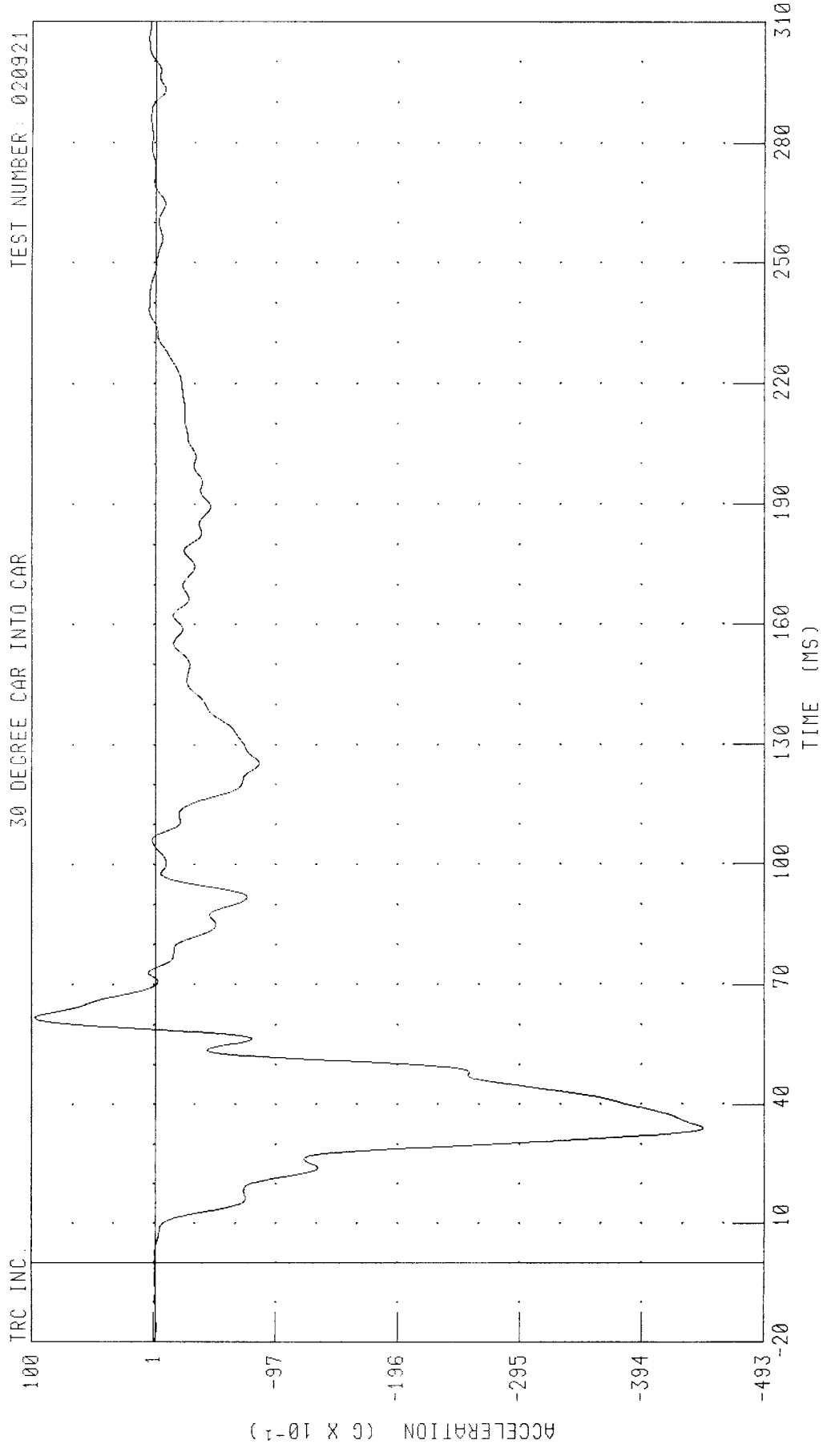
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET RIGHT REAR SILL Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: RRSYGA FILTER: CH. CLASS 60 PEAK DATA: 13.71 G @ 43.12 MS; -7.17 G @ 66.96 MS

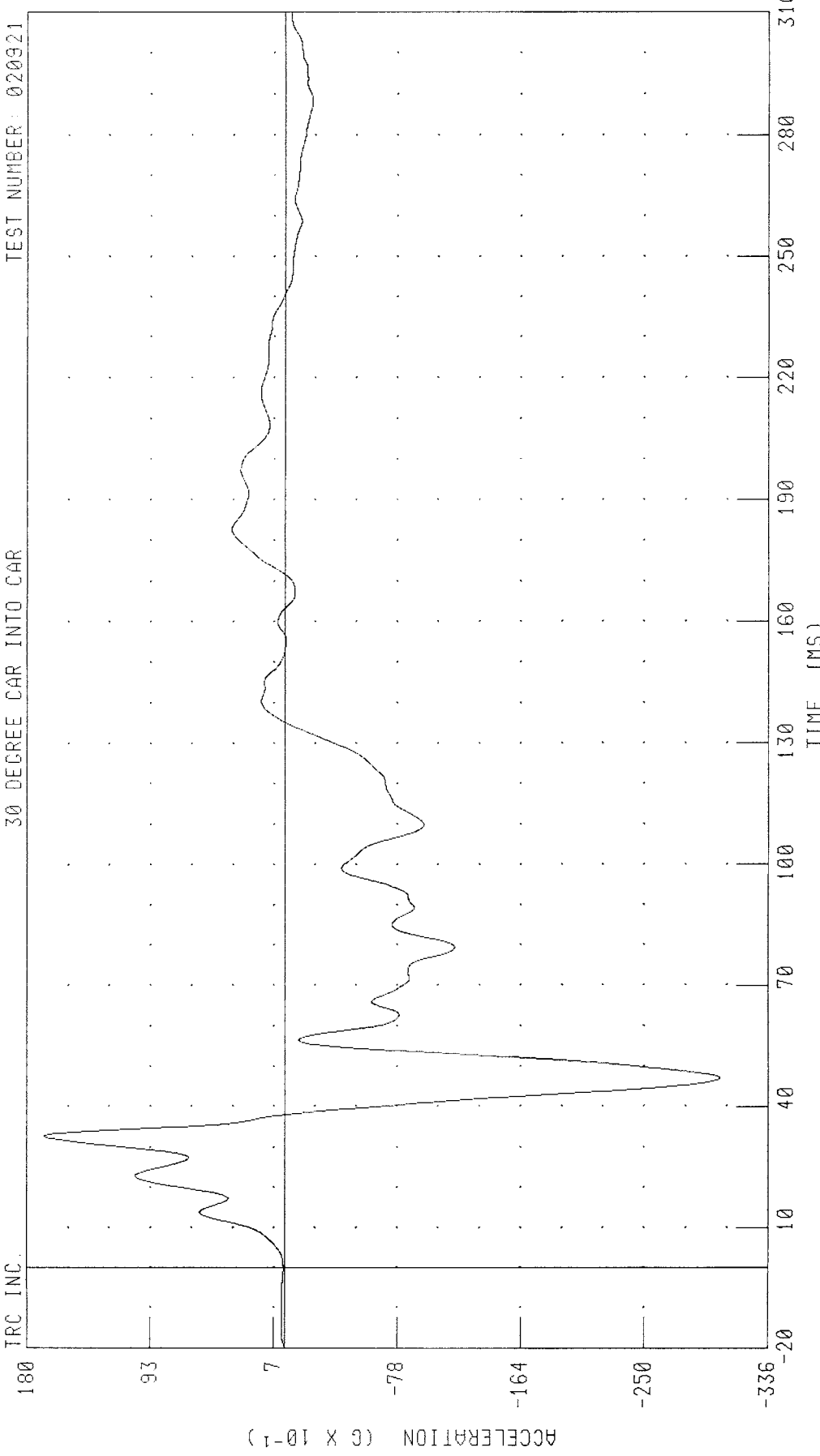
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET ENGINE TOP X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR TEST NUMBER: 020921



CHANNEL: ENCXGA FILTER: CH. CLASS 60 PEAK DATA: 9.73 G @ 61.92 MS, -44.48 G @ 34.08 MS

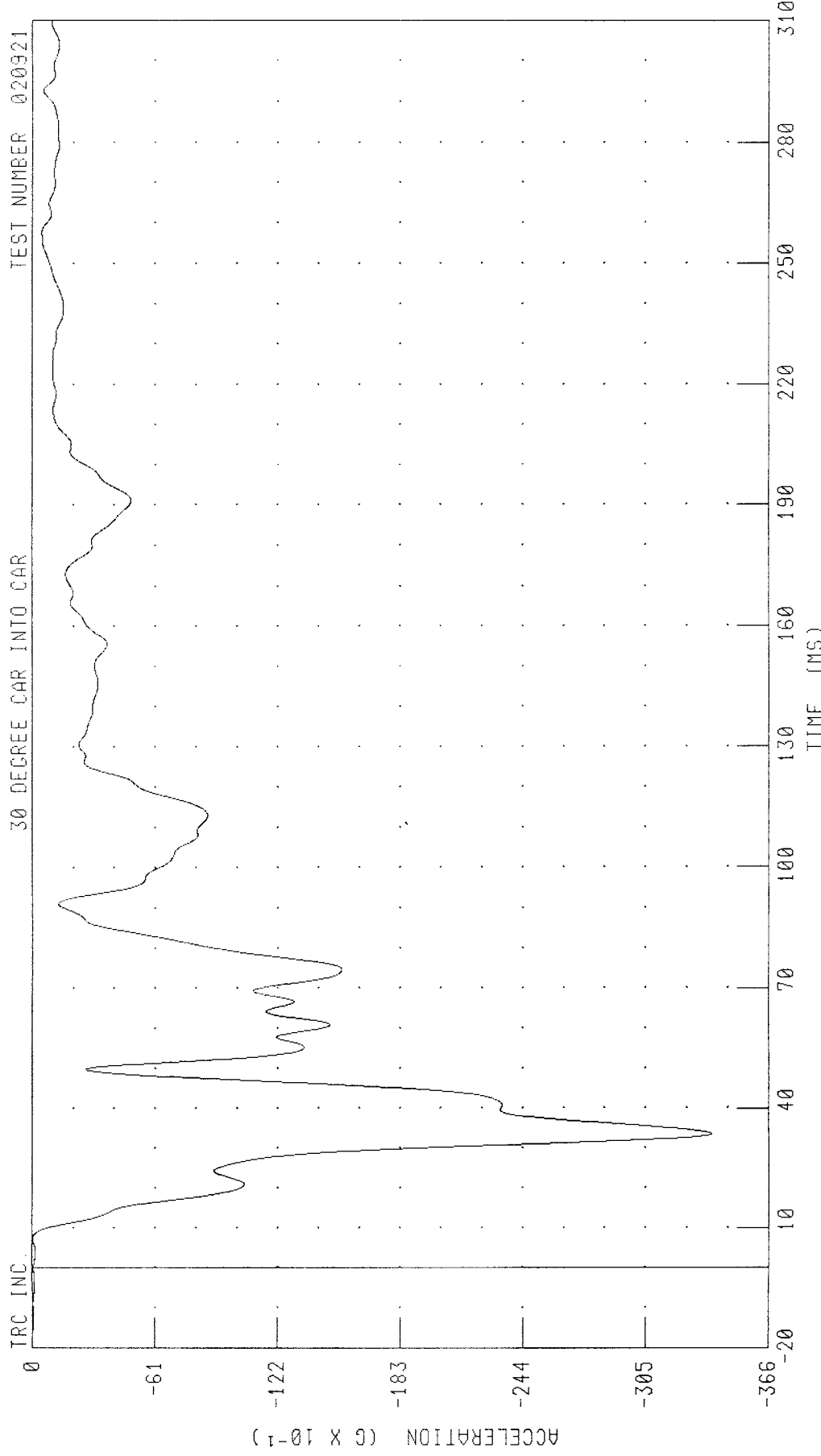
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET ENGINE TOP Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: ENCYGA FILTER: CH. CLASS 60 PEAK DATA: 16.79 G @ 32.88 MS; -30.26 G @ 47.04 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET ENGINE BOTTOM X-AXIS ACCELERATION
30 DEGREE CAR INTO CAR



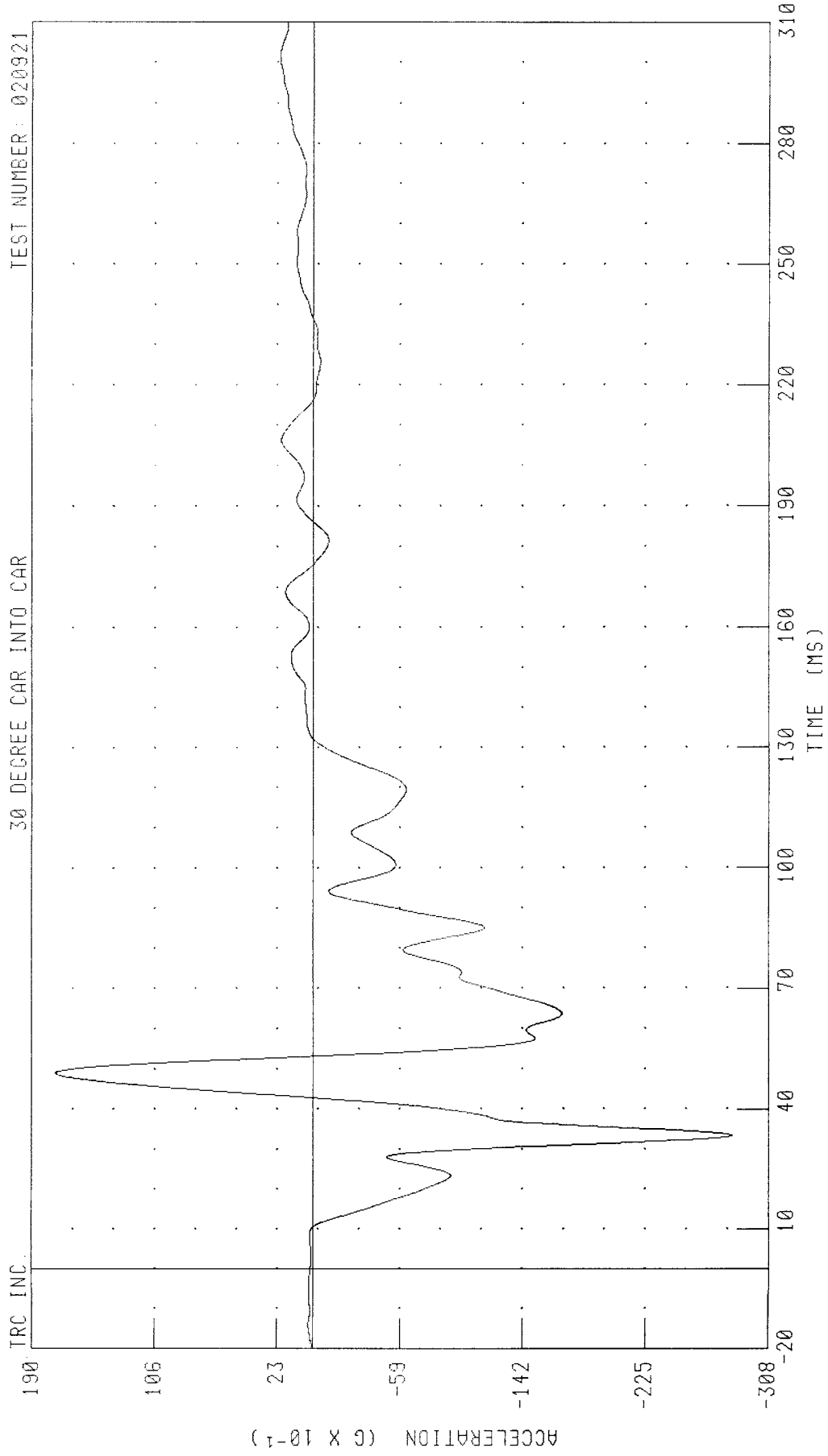
CHANNEL: ENXGB FILTER: CH. CLASS 60 PEAK DATA: 0.02 G @ -17.44 MS, -33.79 G @ 33.52 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET ENGINE BOTTOM Y-AXIS ACCELERATION

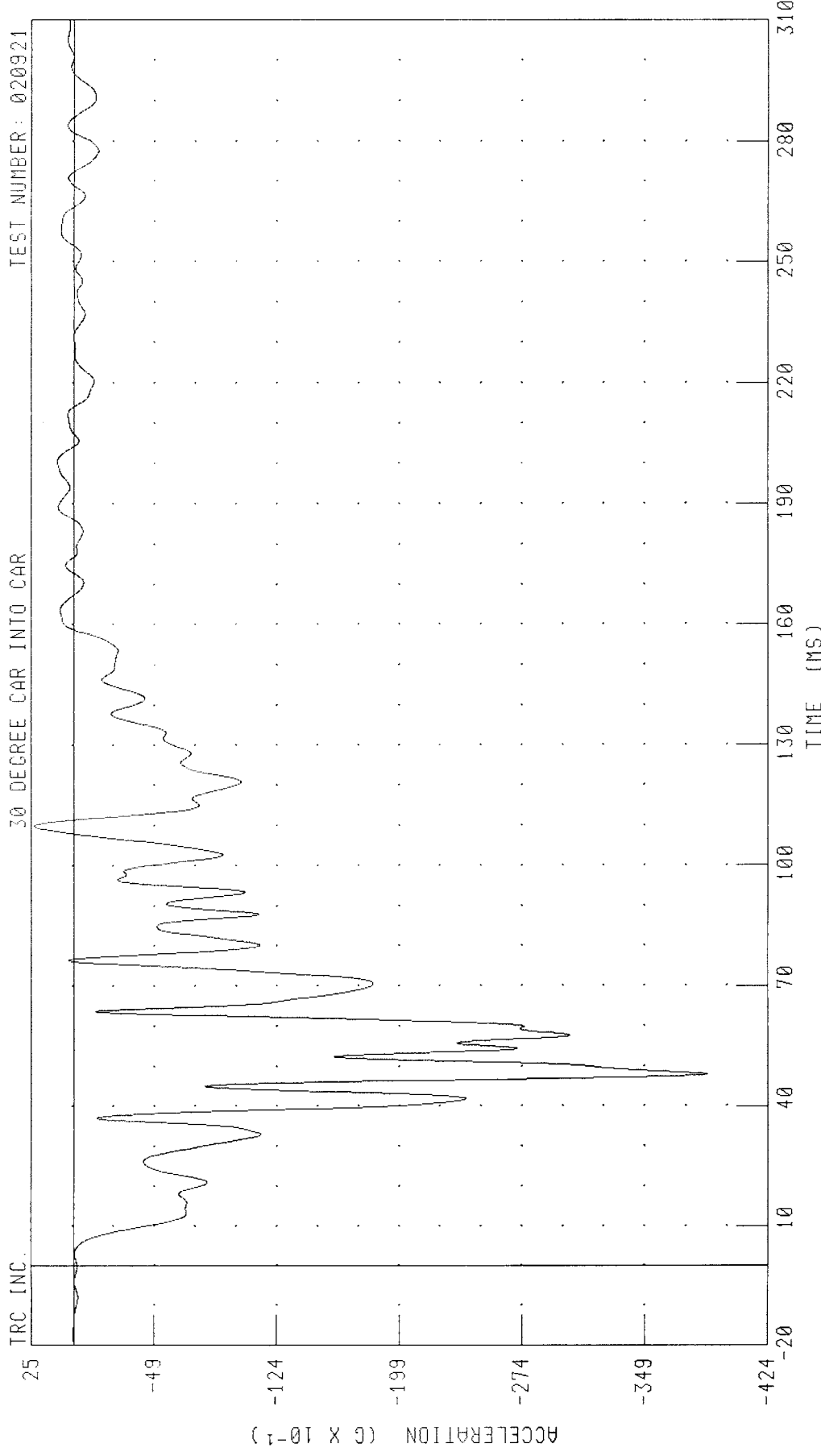
30 DEGREE CAR INTO CAR

TEST NUMBER: 020921



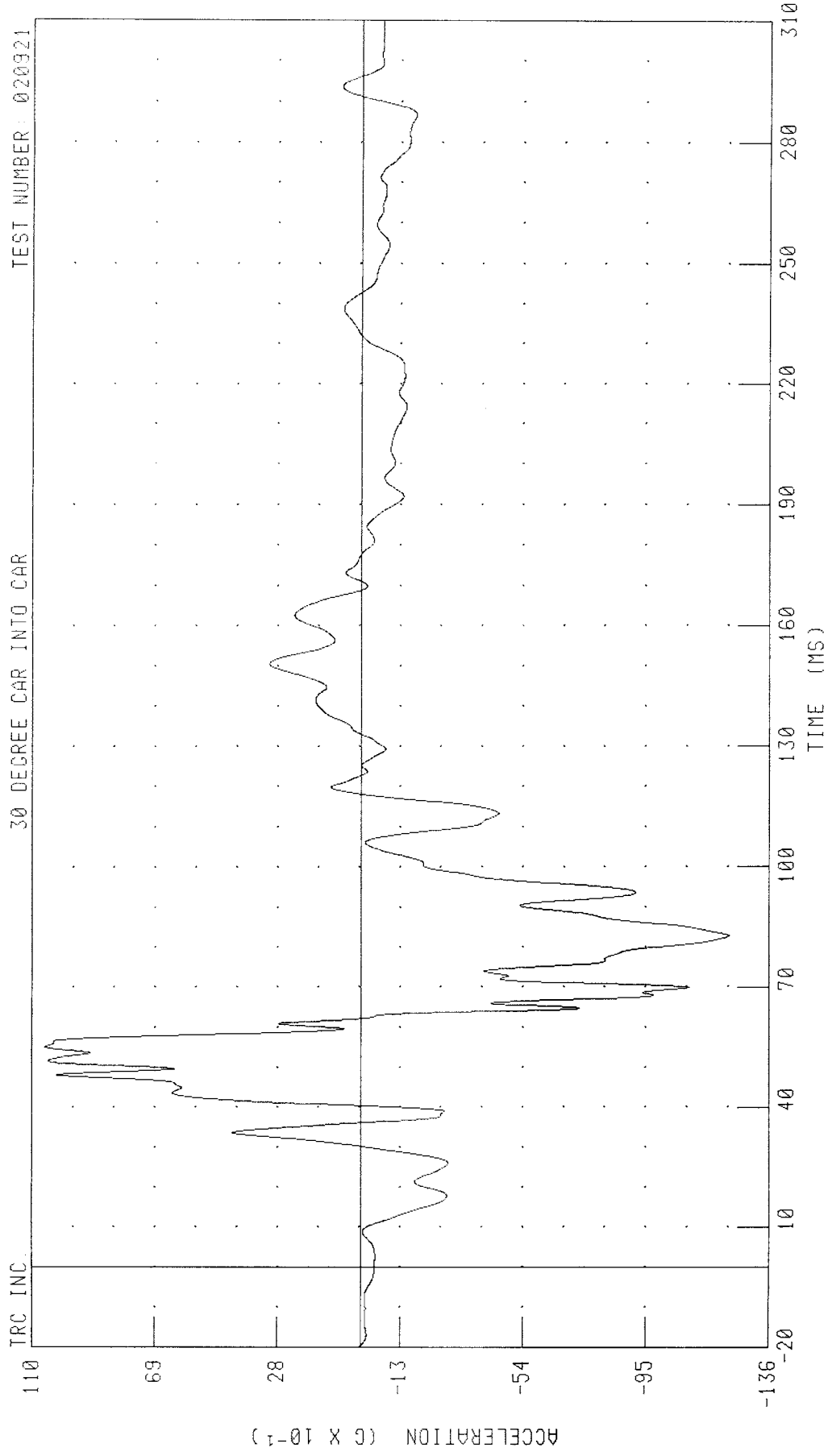
CHANNEL: ENCYGB FILTER: CH. CLASS 60 PEAK DATA: 17 40 G @ 49.20 MS; -28.37 G @ 33.44 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET INSTRUMENT PANEL CENTER X-AXIS ACCELERATION



CHANNEL: DPCXGA FILTER: CH. CLASS 60
PEAK DATA: 2.43 G @ 110.08 MS; -38.73 G @ 48.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET INSTRUMENT PANEL CENTER Y-AXIS ACCELERATION
30 DEGREE CAR INTO CAR

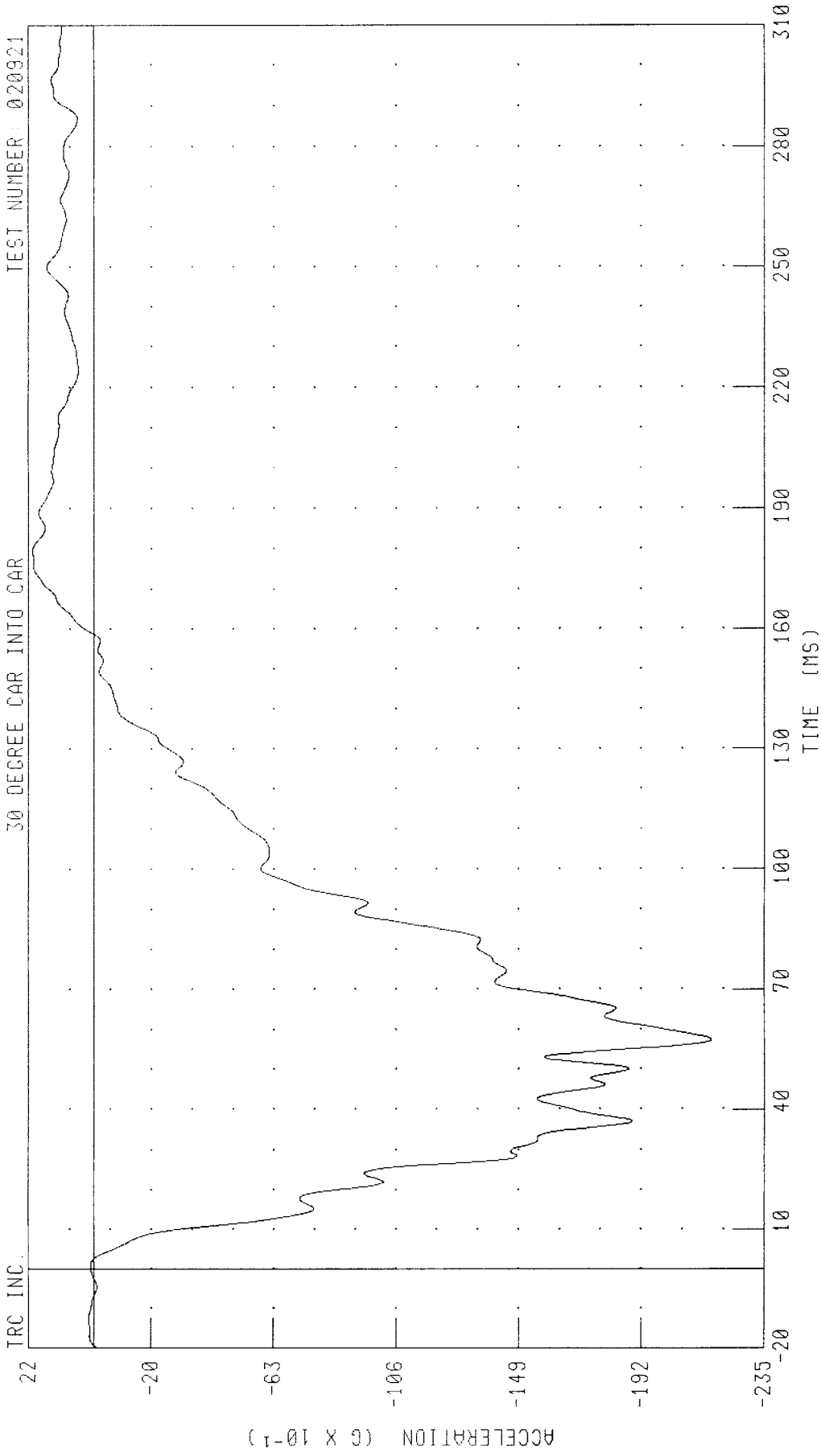


CHANNEL: DPCYGA FILTER: CH. CLASS 60
PEAK DATA: 10.58 G @ 55.20 MS; -12.28 G @ 82.96 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET LEFT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION

TRC INC. TEST NUMBER: 020921

30 DEGREE CAR INTO CAR

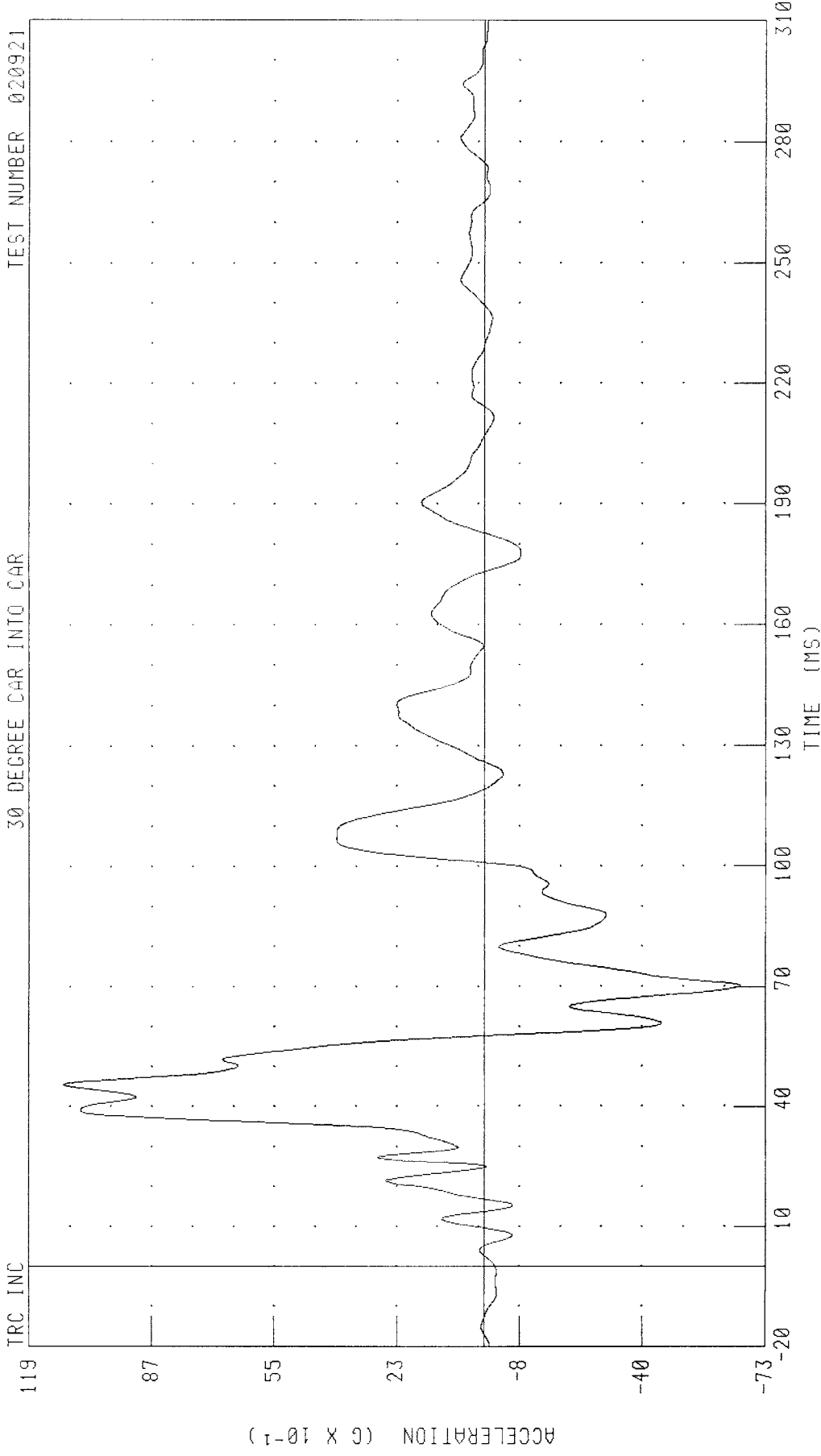


CHANNEL: LRXXGA FILTER: CH. CLASS 60 PEAK DATA: 2.16 G @ 179.76 MS; -21.64 G @ 57.44 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

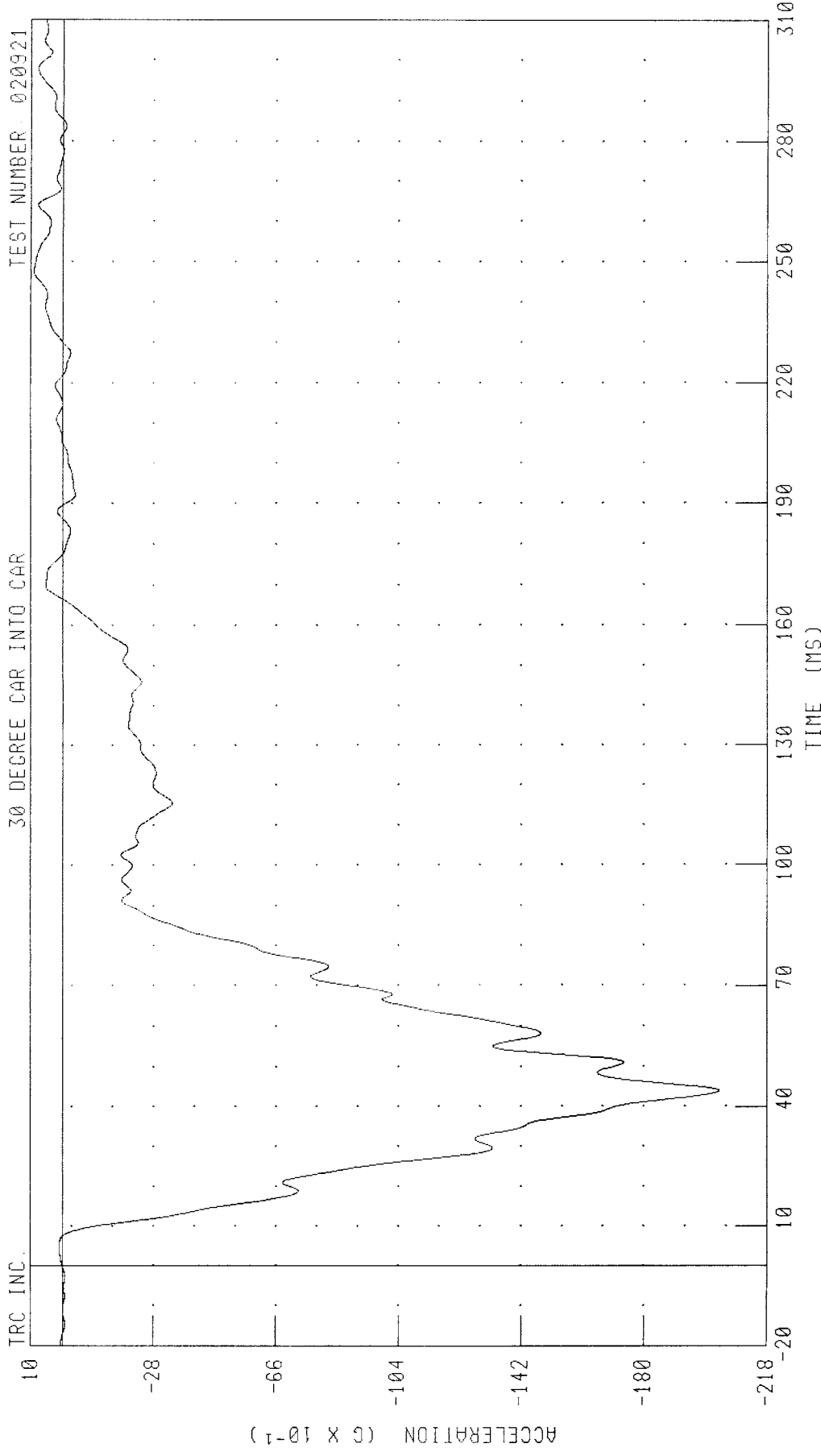
BULLET LEFT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION

TRC INC 30 DEGREE CAR INTO CAR TEST NUMBER 020921



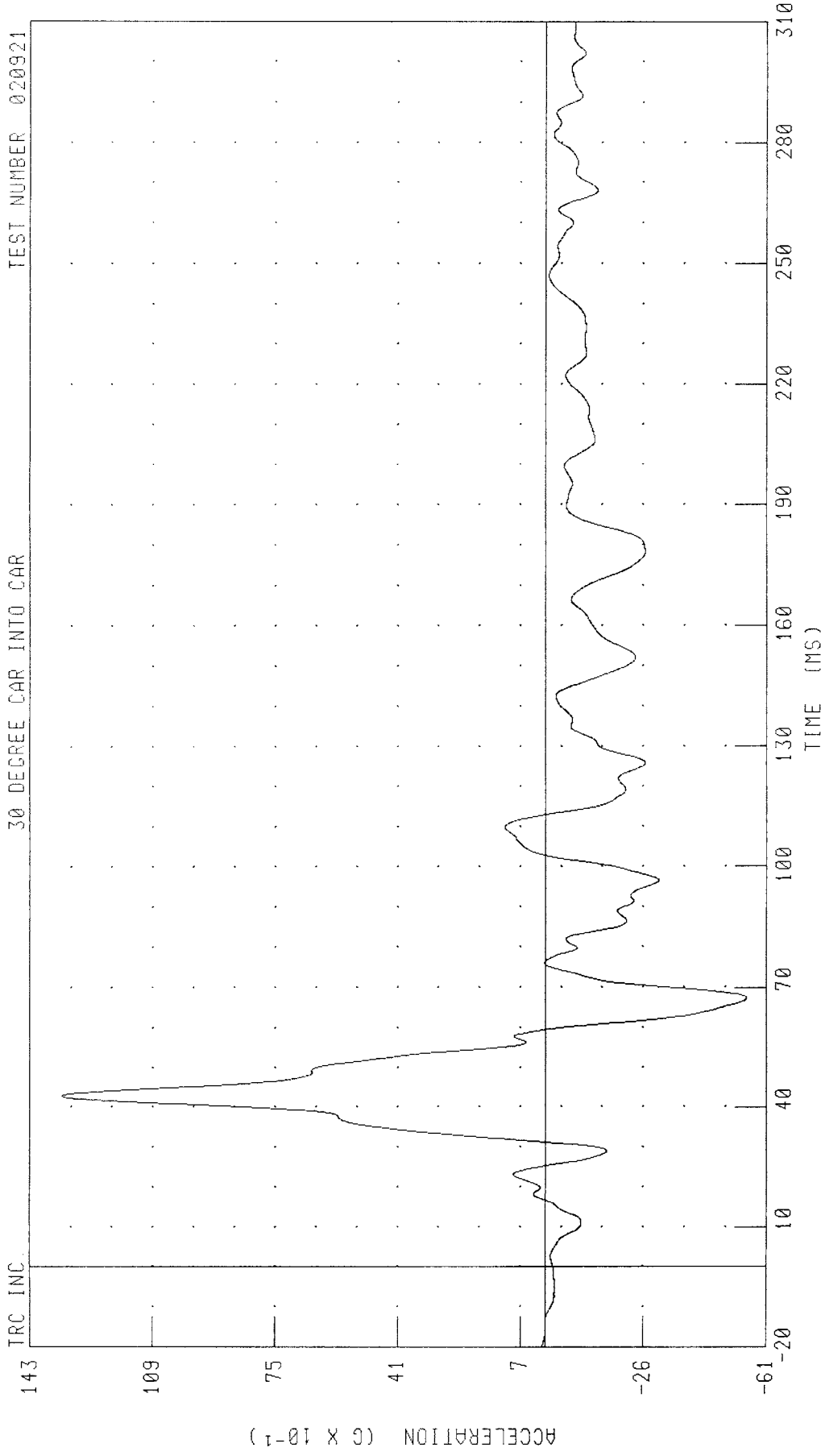
CHANNEL: LRXYGA FILTER: CH. CLASS 60 PEAK DATA: 11.00 G @ 45.60 MS; -6.66 G @ 70.16 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET RIGHT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION



CHANNEL: RRXXGA FILTER: CH. CLASS 60 PEAK DATA: 0.92 G @ 247.84 MS; -20.32 G @ 44.00 MS

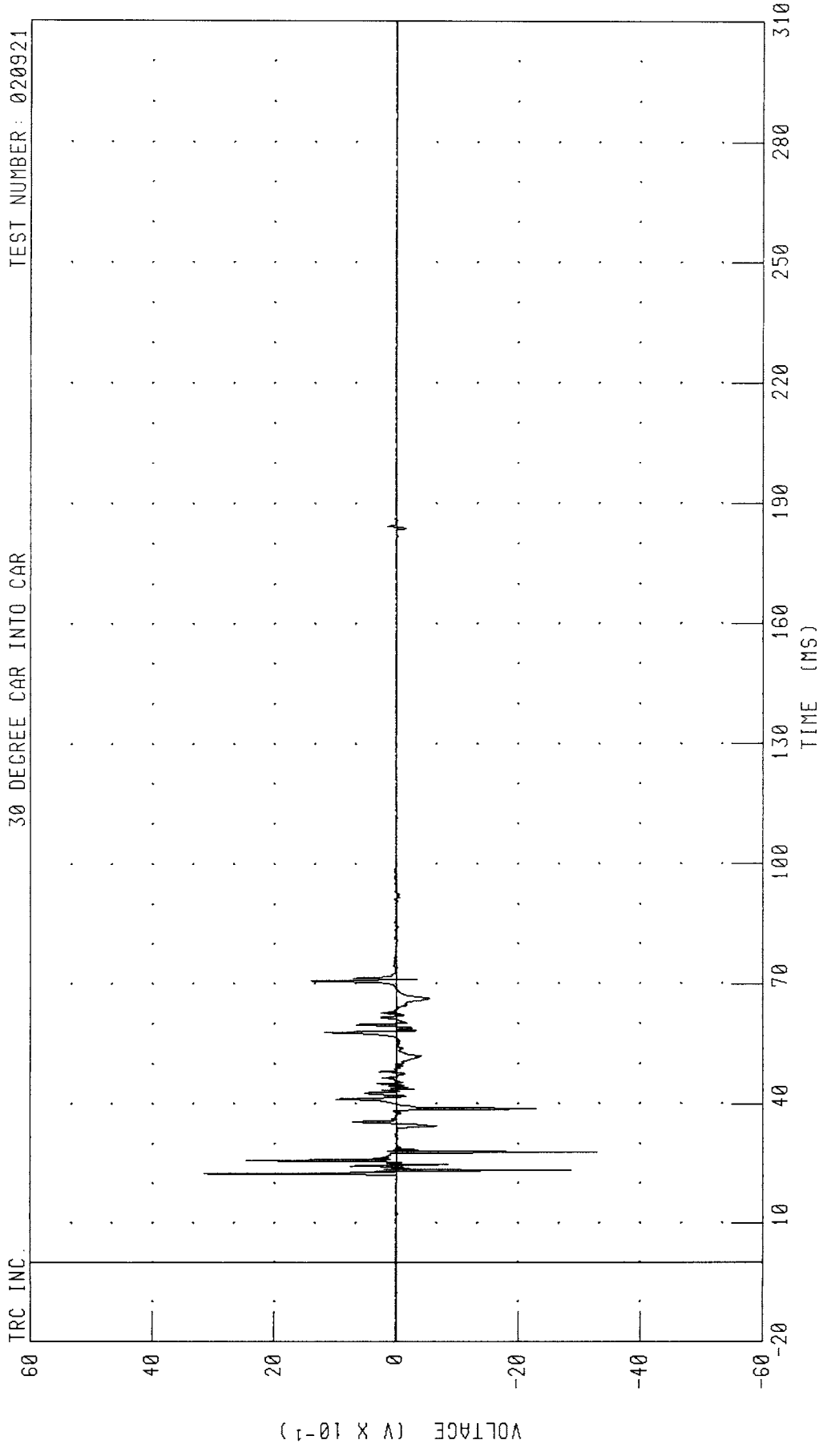
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET RIGHT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION



CHANNEL: RRYGA FILTER: CH. CLASS 60 PEAK DATA: 13.41 G @ 42.96 MS, -5.56 G @ 67.28 MS

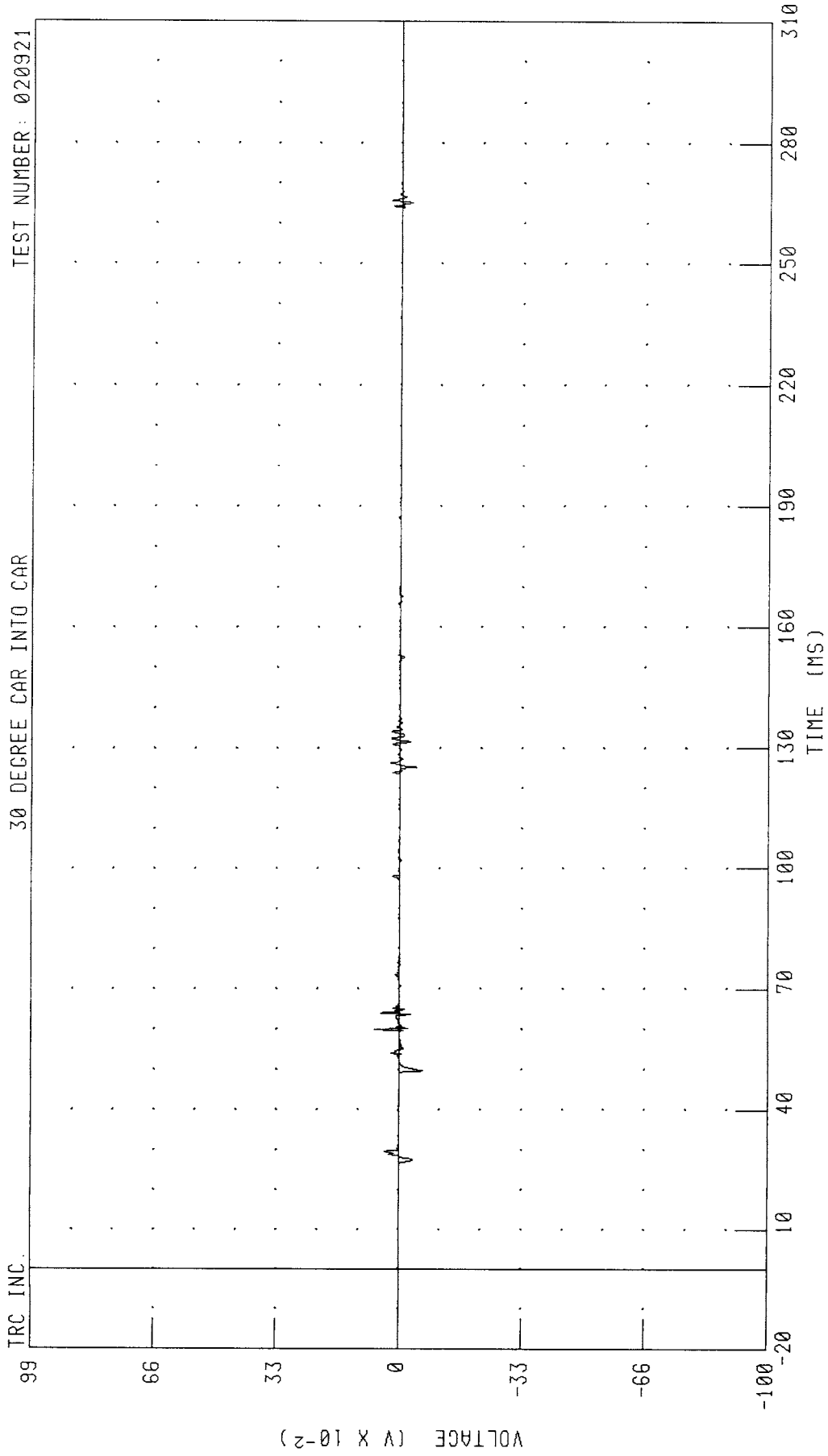
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER AIRBAG EVENT - WIRE A
30 DEGREE CAR INTO CAR

TRC INC. TEST NUMBER: 020921



CHANNEL: DABETA FILTER: CH. CLASS 1000 PEAK DATA: 3.16 V @ 22.56 MS; -3.29 V @ 28.00 MS

2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES
BULLET DRIVER AIRBAG EVENT - WIRE B



CHANNEL: DABETB FILTER: CH. CLASS 1000 PEAK DATA: 0.07 V @ 60.00 MS; -0.07 V @ 49.76 MS

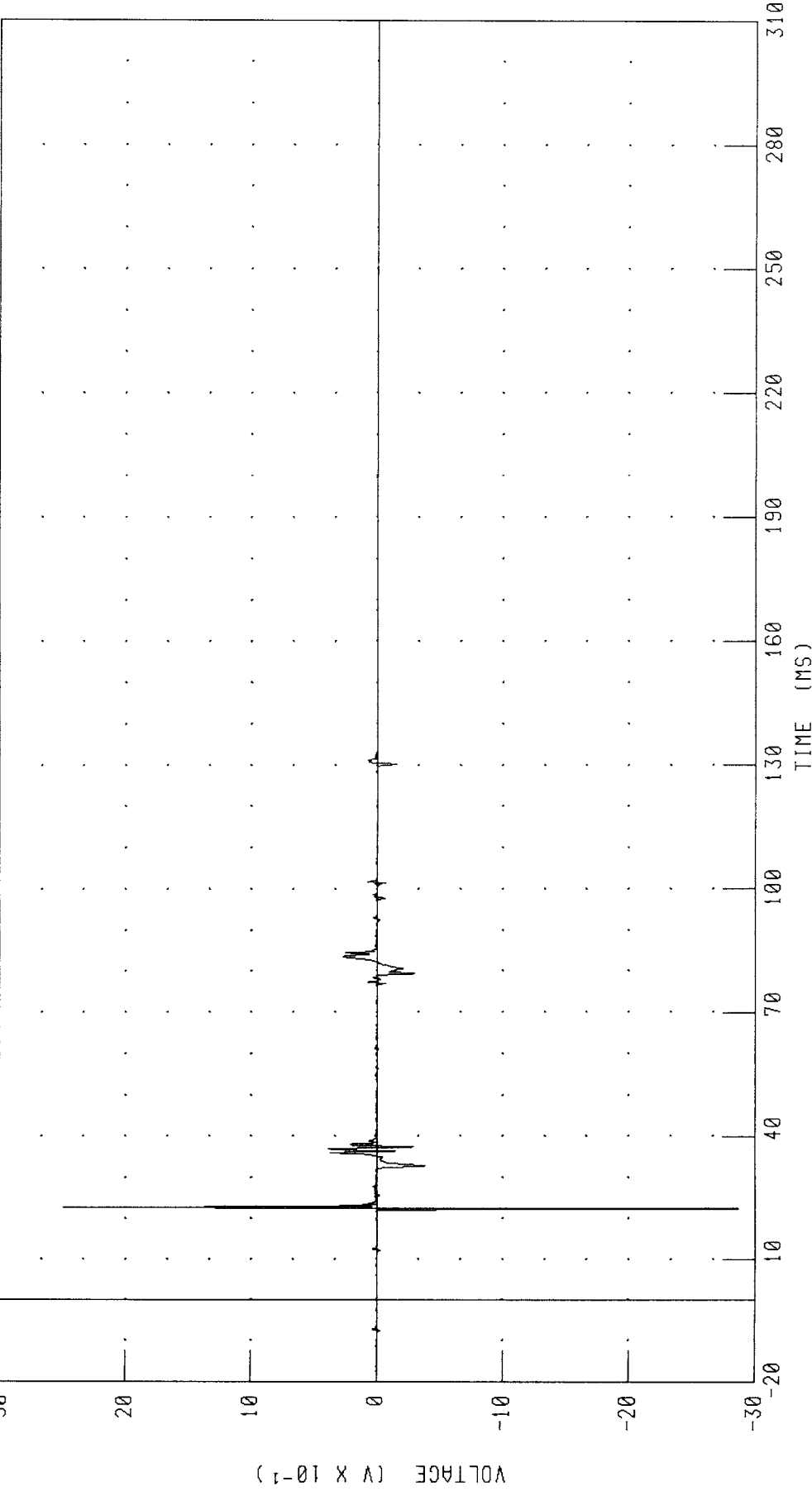
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET PASSENGER AIRBAG EVENT - WIRE A

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

TRC INC.



CHANNEL: PABETA FILTER: CH. CLASS 1000

PEAK DATA: 2.49 V @ 22.88 MS; -2.87 V @ 22.48 MS

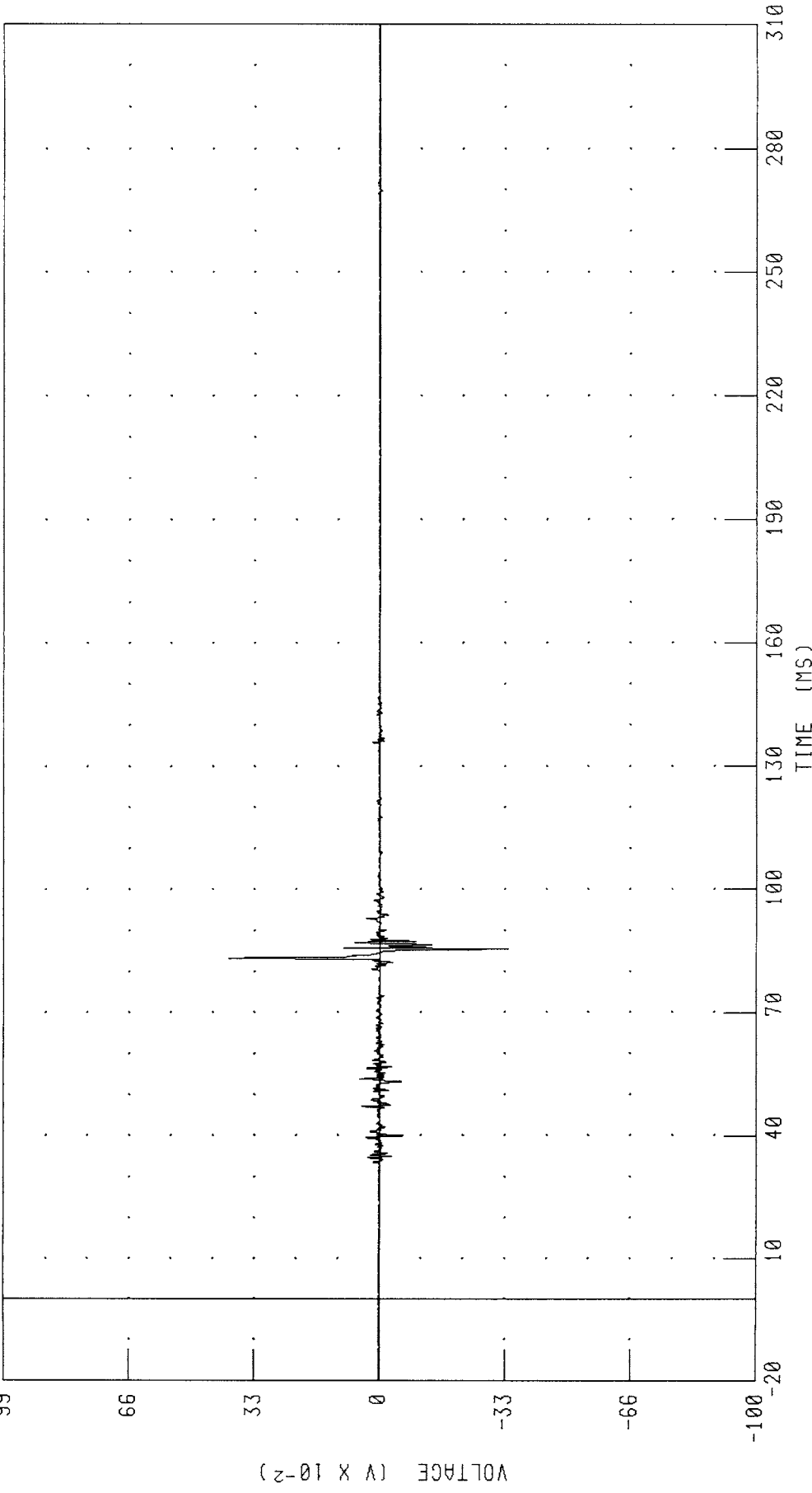
2001 MITSUBISHI MONTERO SPORT INTO LEFT FRONT OF 1997 HONDA ACCORD - OBLIQUE 30 DEGREES

BULLET PASSENGER AIRBAG EVENT - WIRE B

30 DEGREE CAR INTO CAR

TEST NUMBER: 020921

TRC INC.



CHANNEL: PABETB FILTER: CH. CLASS 1000

PEAK DATA: 0.40 V @ 83.44 MS; -0.34 V @ 85.60 MS

Appendix C

Dummy Configuration and Performance Verification Data

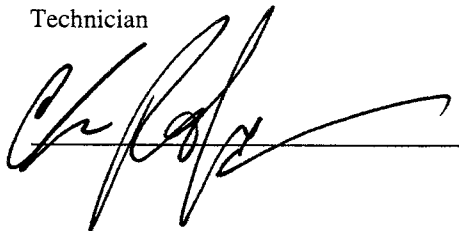
Pre-Test Dummy Configuration and Performance Verification Data

Target Vehicle Driver Dummy S/N: 168

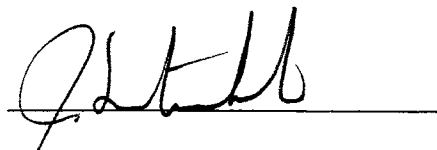
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 168 Calibration No. 16

| Test Parameter | Dimension | Specification | Results | Pass |
|----------------------------------|-----------|---------------|---------|------|
| Location For Chest Circumference | AA | 429 - 434 mm | 432 mm | Yes |
| Location For Waist Circumference | BB | 226 - 231 mm | 229 mm | Yes |
| Chest Circumference | Y | 970 - 1001 mm | 980 mm | Yes |
| Waist Circumference | Z | 836 - 866 mm | 854 mm | Yes |
| Chest Depth | O | 213 - 229 mm | 226 mm | Yes |
| H-Point Height | C | 84 - 89 mm | 87 mm | Yes |
| H-Point From Seatback | D | 135 - 140 mm | 136 mm | Yes |
| Skull Cap To Backline | H | 41 - 46 mm | 45 mm | Yes |
| Total Sitting Height | A | 879 - 889 mm | 885 mm | Yes |
| Thigh Clearance | F | 140 - 155 mm | 151 mm | Yes |
| Buttock Knee Length | K | 579 - 605 mm | 599 mm | Yes |
| Buttock Popliteal Length | N | 452 - 478 mm | 475 mm | Yes |
| Popliteal Height | L | 429 - 455 mm | 446 mm | Yes |
| Knee Pivot Height | M | 485 - 500 mm | 491 mm | Yes |
| Foot Length | P | 252 - 267 mm | 260 mm | Yes |
| Foot Breadth | W | 91 - 107 mm | 96 mm | Yes |
| Shoulder Pivot From Backline | E | 84 - 94 mm | 92 mm | Yes |
| Shoulder Breadth | V | 422 - 437 mm | 428 mm | Yes |
| Shoulder Pivot Height | B | 506 - 521 mm | 519 mm | Yes |
| Elbow Rest Height | J | 191 - 211 mm | 208 mm | Yes |
| Shoulder-Elbow Length | I | 330 - 345 mm | 338 mm | Yes |
| Back Of Elbow To Wrist Pivot | G | 290 - 305 mm | 296 mm | Yes |

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 9

Test Date 09/17/2002

| Test Parameter | Specification | Test Results | Pass |
|---------------------------------|----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 59 % | Yes |
| Peak Resultant Acceleration | 225 - 275 g | 259.4 g | Yes |
| Peak Lateral Acceleration | 15 g Max | 5.3 g | Yes |
| Is Acceleration Curve Unimodal? | Yes | Yes | Yes |

Comments:

Technician



Approved

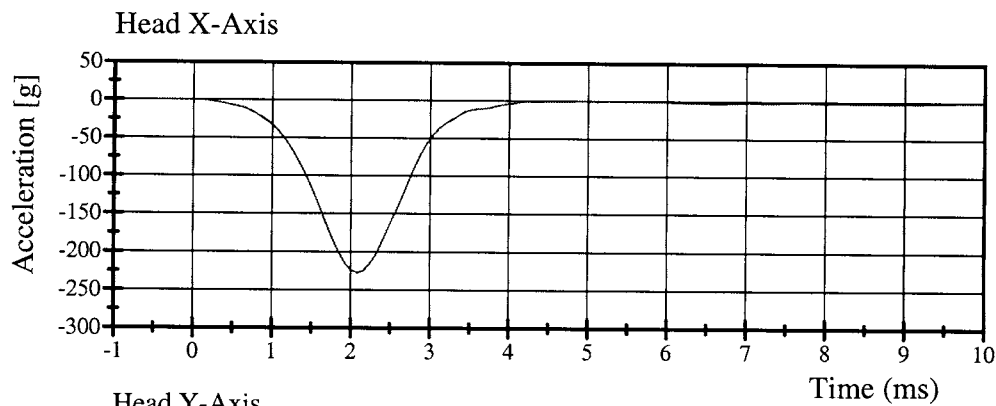


Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 9

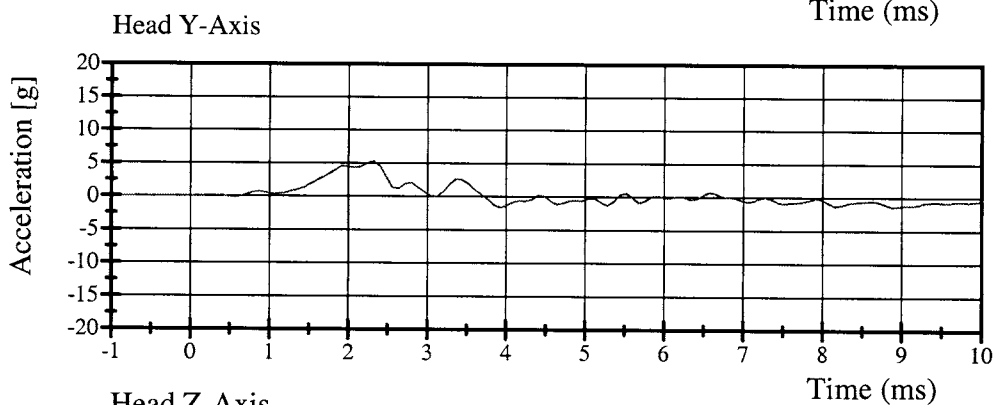
Test Date 09/17/2002



Filter Class: 1000

Max: -0.0 g at 0.0 ms

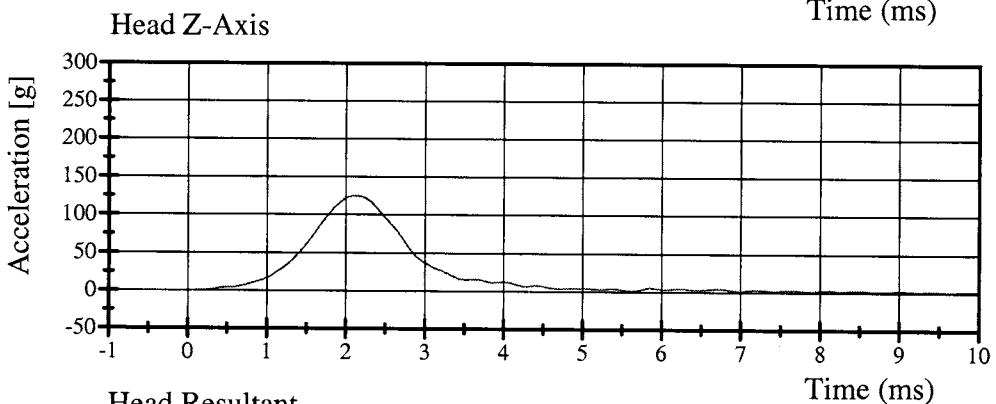
Min: -227.4 g at 2.1 ms



Filter Class: 1000

Max: 5.3 g at 2.3 ms

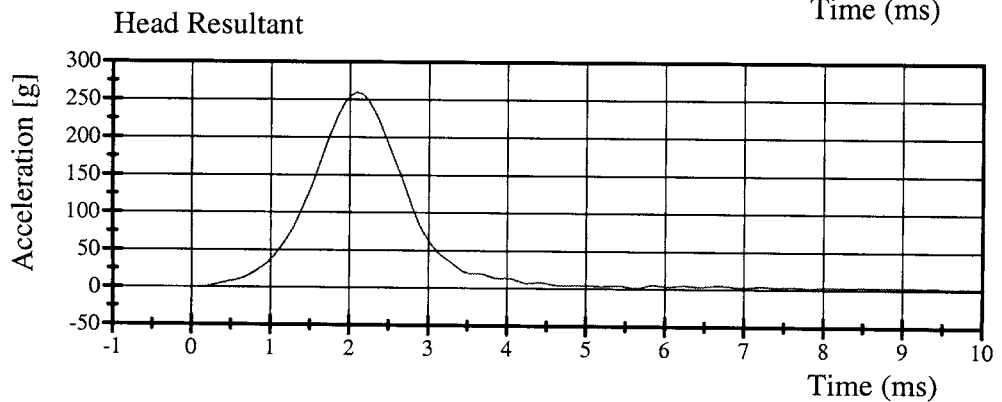
Min: -1.6 g at 3.9 ms



Filter Class: 1000

Max: 124.8 g at 2.2 ms

Min: 0.0 g at 0.1 ms



Filter Class: 1000

Max: 259.4 g at 2.1 ms

Min: 0.0 g at 1.0 ms

Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

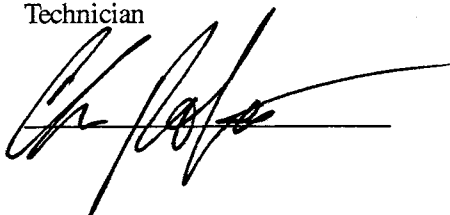
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

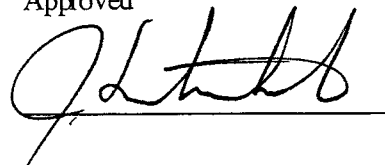
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Impact Velocity | 6.89 - 7.13 m/s | 7.06 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 22.50 - 27.50 g | 25.40 g | Yes |
| 20 ms | 17.60 - 22.60 g | 22.05 g | Yes |
| 30 ms | 12.50 - 18.50 g | 17.75 g | Yes |
| Max Pendulum Deceleration | 29.00 g | 26.01 g | Yes |
| Max Pendulum Deceleration After 30 ms | 29.00 g | 17.65 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 34 - 42 ms | 37.04 ms | Yes |
| D Plane Rotation | | | |
| Max | 64 - 78 ° | 65.75 ° | Yes |
| Time | 57 - 64 ms | 58.96 ms | Yes |
| Moment About Occipital Condyle | | | |
| Max | 88.2 - 108.4 N·m | 96.59 N·m | Yes |
| Time | 47 - 58 ms | 50.40 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 113 - 128 ms | 116.24 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 97 - 107 ms | 100.48 ms | Yes |

Comments:

Technician



Approved



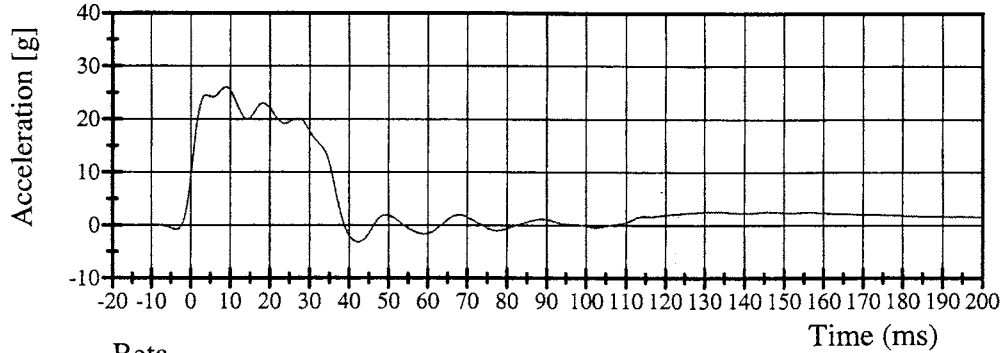
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

Pendulum Deceleration

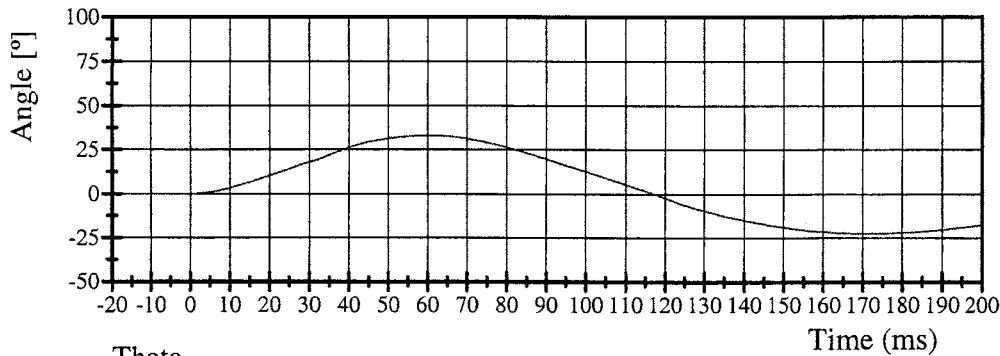


Filter Class: 60

Max: 26.0 g at 8.9 ms

Min: -3.1 g at 42.3 ms

Beta

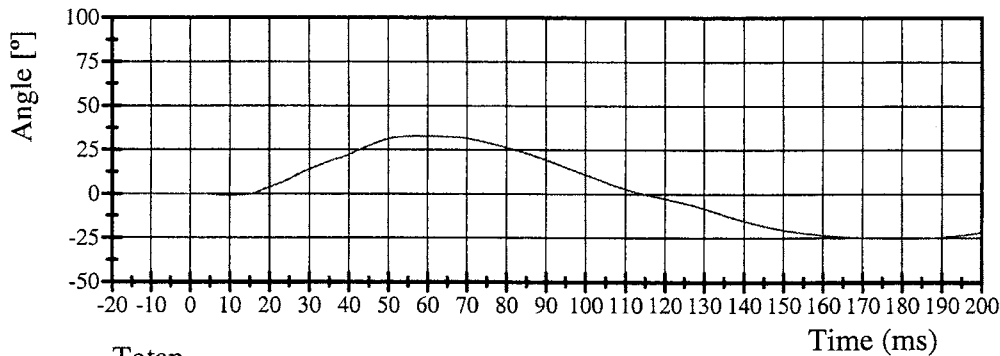


Filter Class: 60

Max: 33.0 ° at 60.3 ms

Min: -22.3 ° at 171.1 ms

Theta

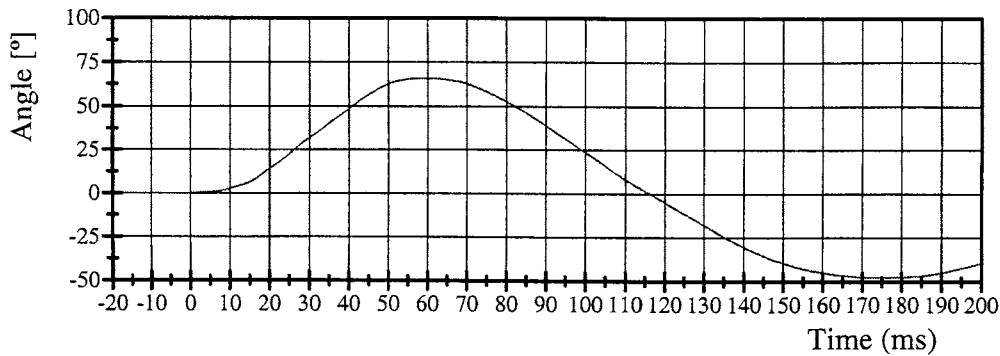


Filter Class: 60

Max: 32.8 ° at 57.0 ms

Min: -25.3 ° at 179.4 ms

Totan



Filter Class: 60

Max: 65.8 ° at 59.0 ms

Min: -47.6 ° at 175.7 ms

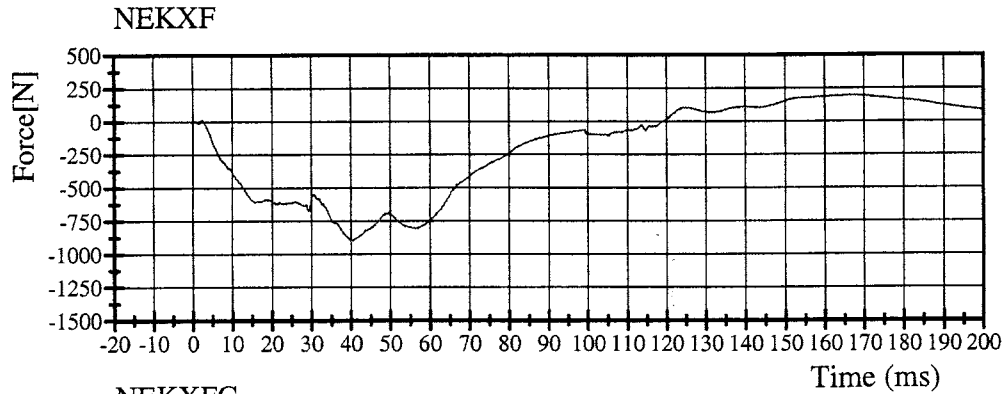


Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

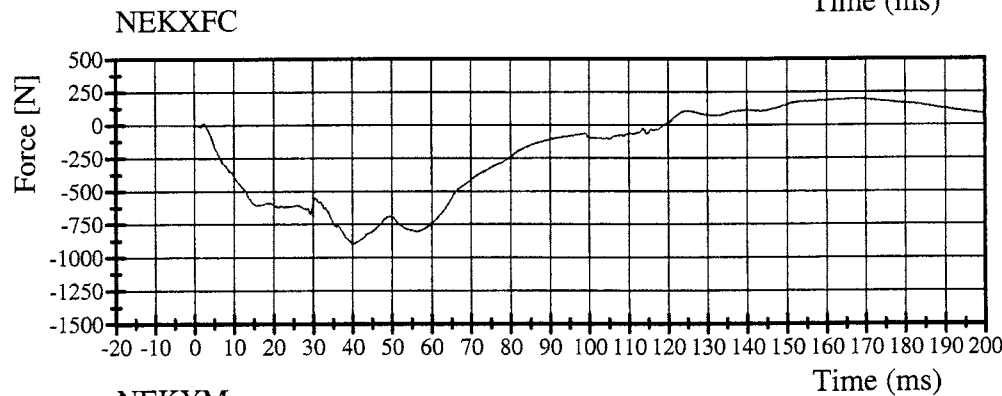
Test Date 07/18/2002



Filter Class: 1000

Max: 195.7 N at 166.6 ms

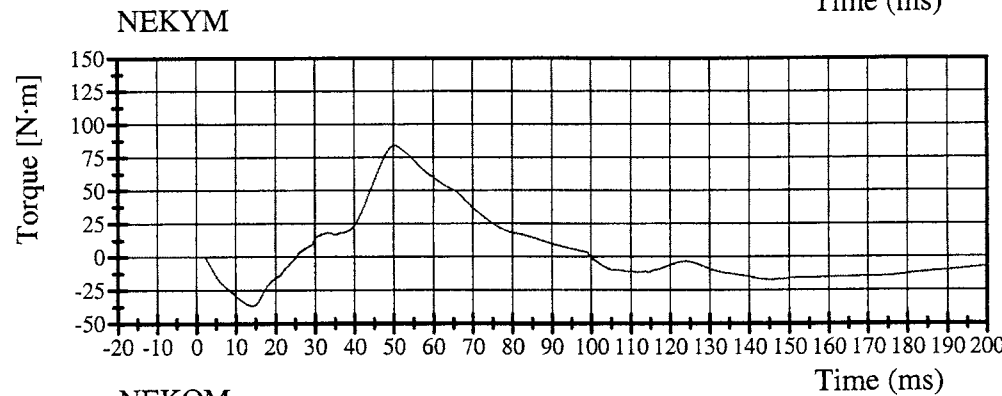
Min: -898.8 N at 40.1 ms



Filter Class: 600

Max: 195.4 N at 166.7 ms

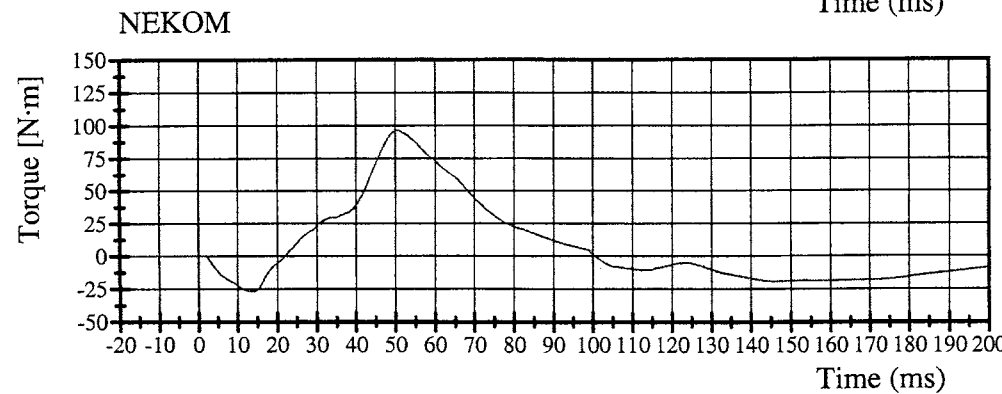
Min: -898.6 N at 40.2 ms



Filter Class: 600

Max: 84.2 N·m at 50.2 ms

Min: -36.7 N·m at 14.2 ms



Filter Class: 600

Max: 96.6 N·m at 50.4 ms

Min: -26.9 N·m at 13.4 ms

Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

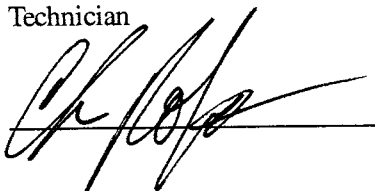
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

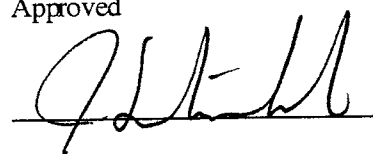
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|---------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Impact Velocity | 5.95 - 6.19 m/s | 6.11 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 17.20 - 21.20 g | 20.82 g | Yes |
| 20 ms | 14.00 - 19.00 g | 18.90 g | Yes |
| 30 ms | 11.00 - 16.00 g | 14.99 g | Yes |
| Max Pendulum Deceleration | 22.00 g | 21.01 g | Yes |
| Max Pendulum Deceleration After 30 ms | 22.00 g | 14.91 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 38 - 46 ms | 39.60 ms | Yes |
| D Plane Rotation | | | |
| Max | 81 - 106 ° | 94.61 ° | Yes |
| Time | 72 - 82 ms | 76.40 ms | Yes |
| Moment About Occipital Condyle | | | |
| Min | -80.0 - (-52.9) N·m | -65.45 N·m | Yes |
| Time | 65 - 79 ms | 71.76 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 147 - 174 ms | 154.72 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 120 - 148 ms | 142.08 ms | Yes |

Comments:

Technician



Approved



07.18.2002 13:45:41 552

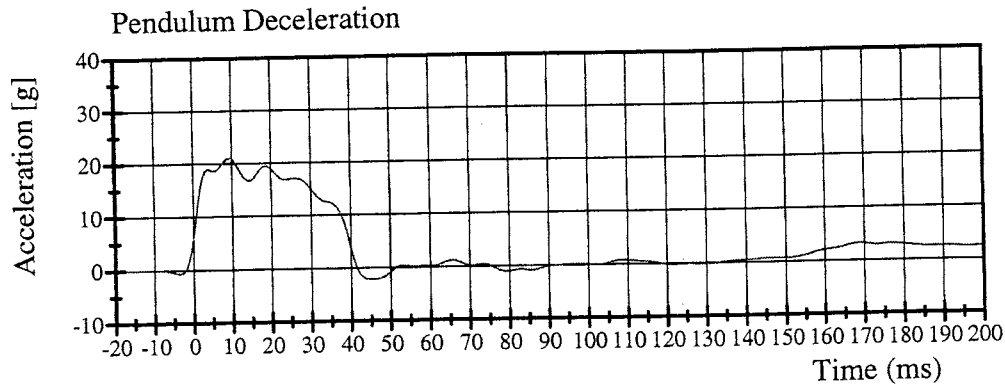


Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

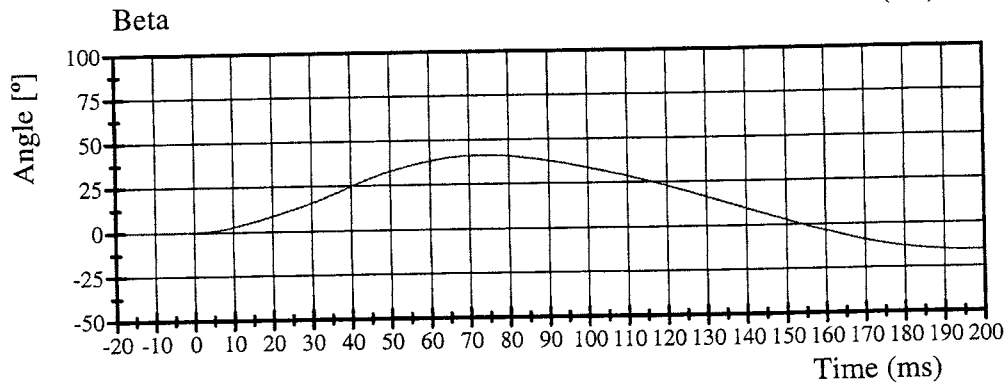
Test Date 07/18/2002



Filter Class: 60

Max: 21.0 g at 9.4 ms

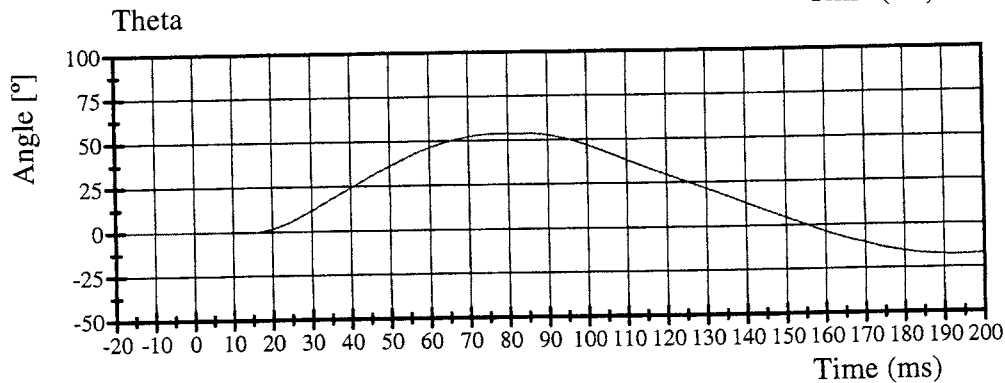
Min: -2.1 g at 45.3 ms



Filter Class: 60

Max: 41.1 ° at 73.7 ms

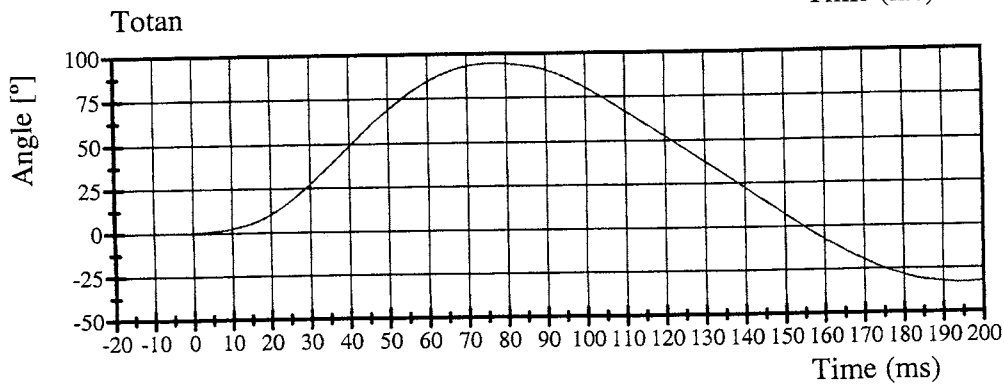
Min: -15.5 ° at 197.4 ms



Filter Class: 60

Max: 53.7 ° at 78.6 ms

Min: -17.6 ° at 192.8 ms



Filter Class: 60

Max: 94.6 ° at 76.4 ms

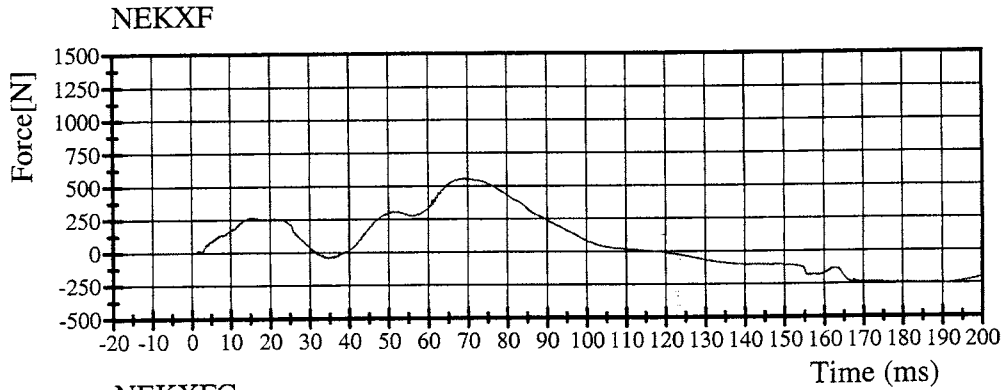
Min: -33.0 ° at 194.4 ms

Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

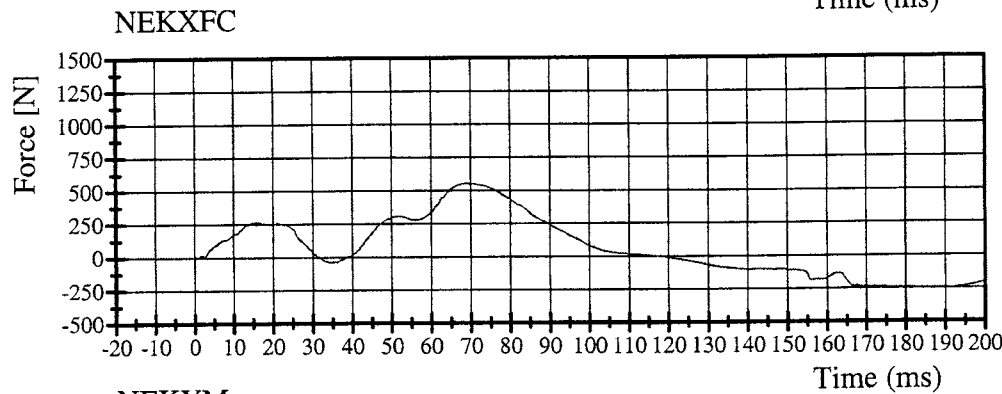
Test Date 07/18/2002



Filter Class: 1000

Max: 555.4 N at 69.3 ms

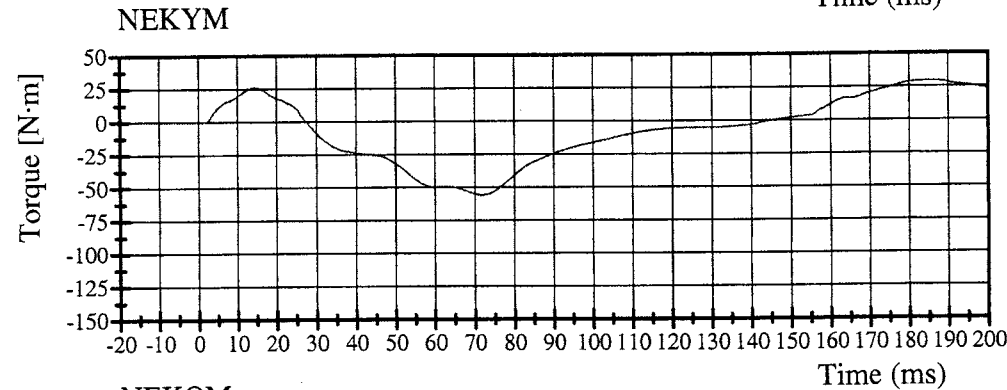
Min: -251.6 N at 190.9 ms



Filter Class: 600

Max: 554.6 N at 69.2 ms

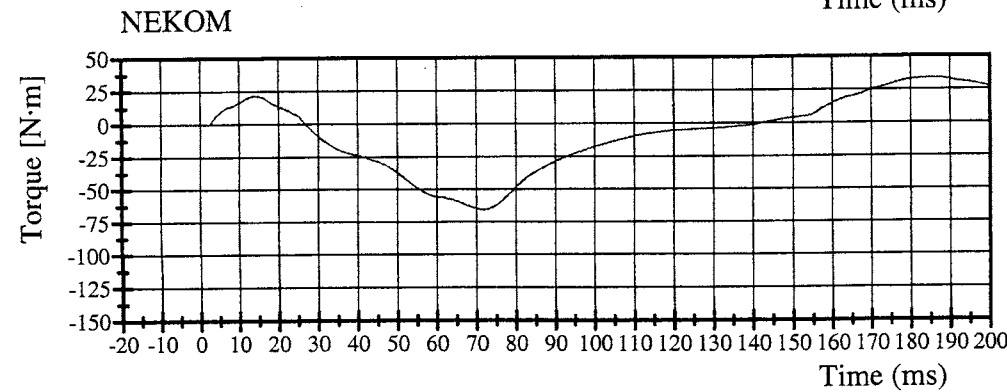
Min: -251.5 N at 191.6 ms



Filter Class: 600

Max: 29.2 N·m at 186.4 ms

Min: -55.8 N·m at 72.0 ms



Filter Class: 600

Max: 33.6 N·m at 186.4 ms

Min: -65.5 N·m at 71.8 ms

Transportation Research Center Inc.

572E Thorax Test

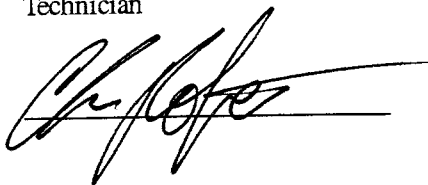
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/22/2002

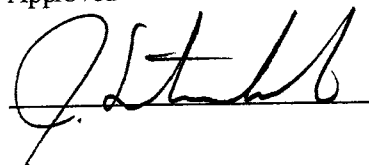
| Test Parameter | Specification | Test Results | Pass |
|--------------------------|--------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 57 % | Yes |
| Pendulum Velocity | 6.59 - 6.83 m/s | 6.66 m/s | Yes |
| Maximum Chest Deflection | -72.6 - (-63.5) mm | -65.4 mm | Yes |
| Maximum Resistive Force | 5159 - 5894 N | 5756 N | Yes |
| Internal Hysteresis | 69 - 85 % | 73 % | Yes |

Comments:

Technician



Approved



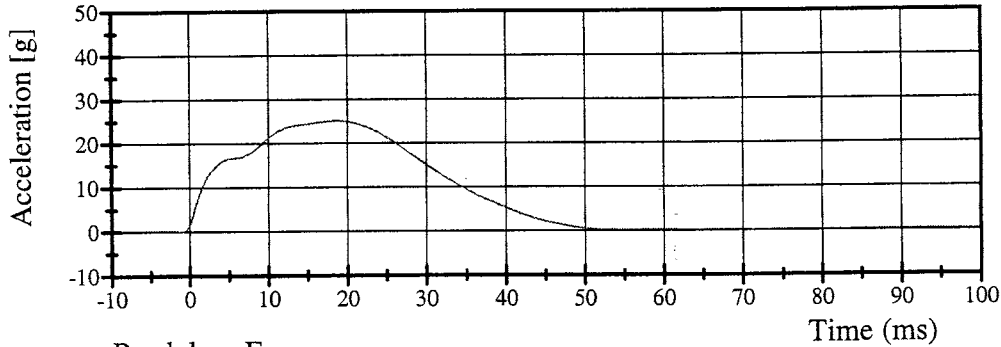
Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/22/2002

Pendulum Deceleration

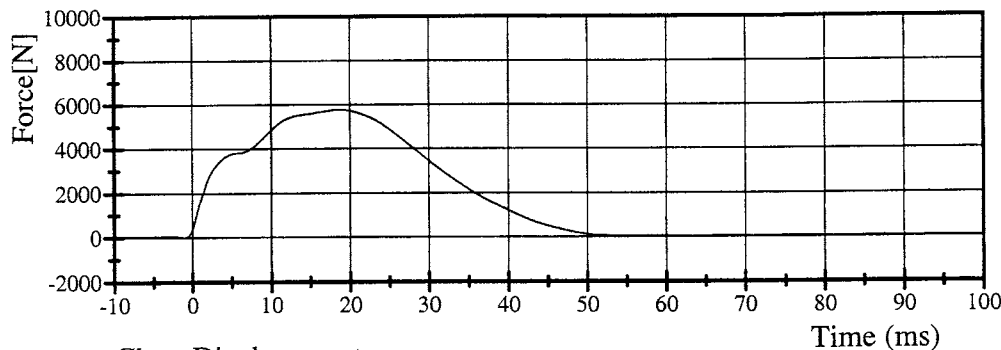


Filter Class: 180

Max: 25.1 g at 18.6 ms

Min: -0.0 g at -77.0 ms

Pendulum Force

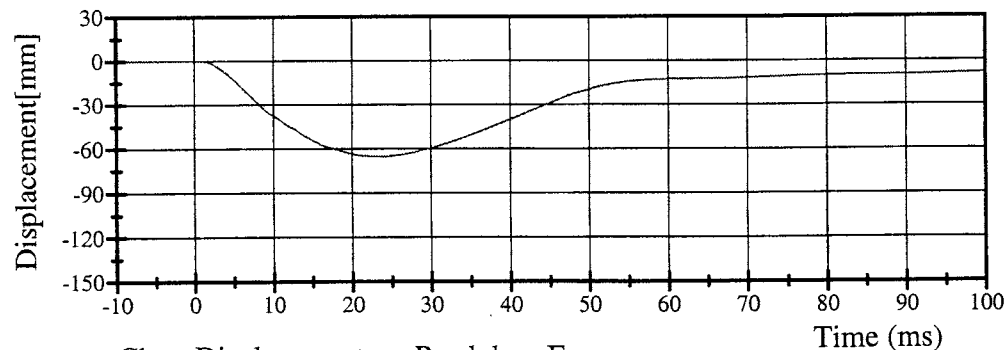


Filter Class: 180

Max: 5756.2 N at 18.6 ms

Min: -9.1 N at -77.0 ms

Chest Displacement

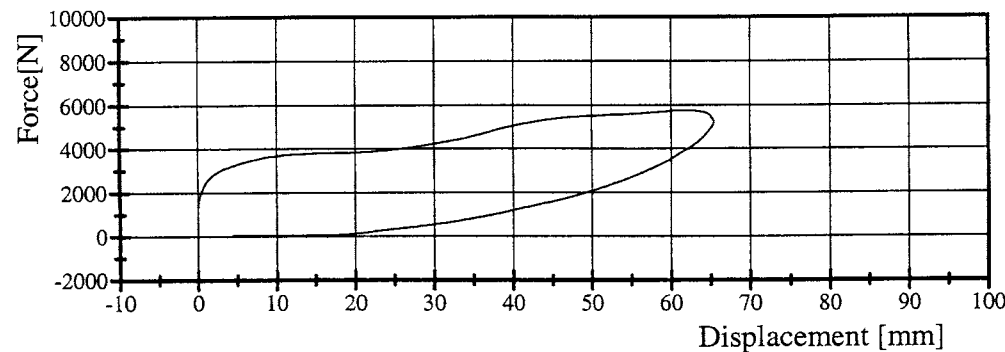


Filter Class: 180

Max: 0.0 mm at 0.2 ms

Min: -65.4 mm at 23.6 ms

Chest Displacement vs. Pendulum Force



Transportation Research Center Inc

Hybrid III Hip Range of Motion

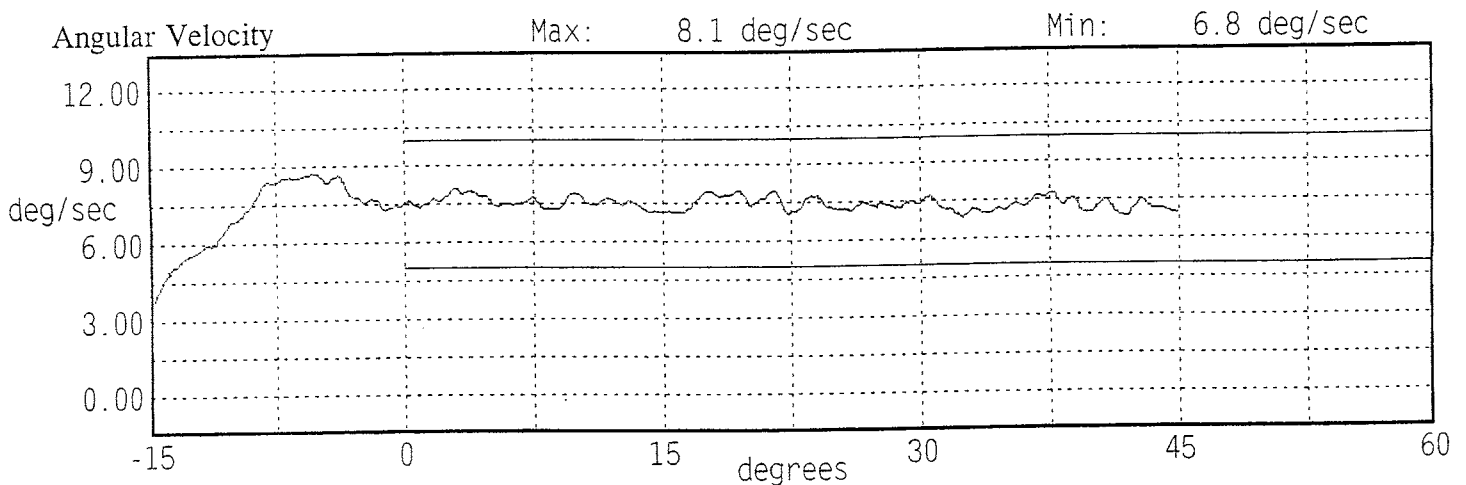
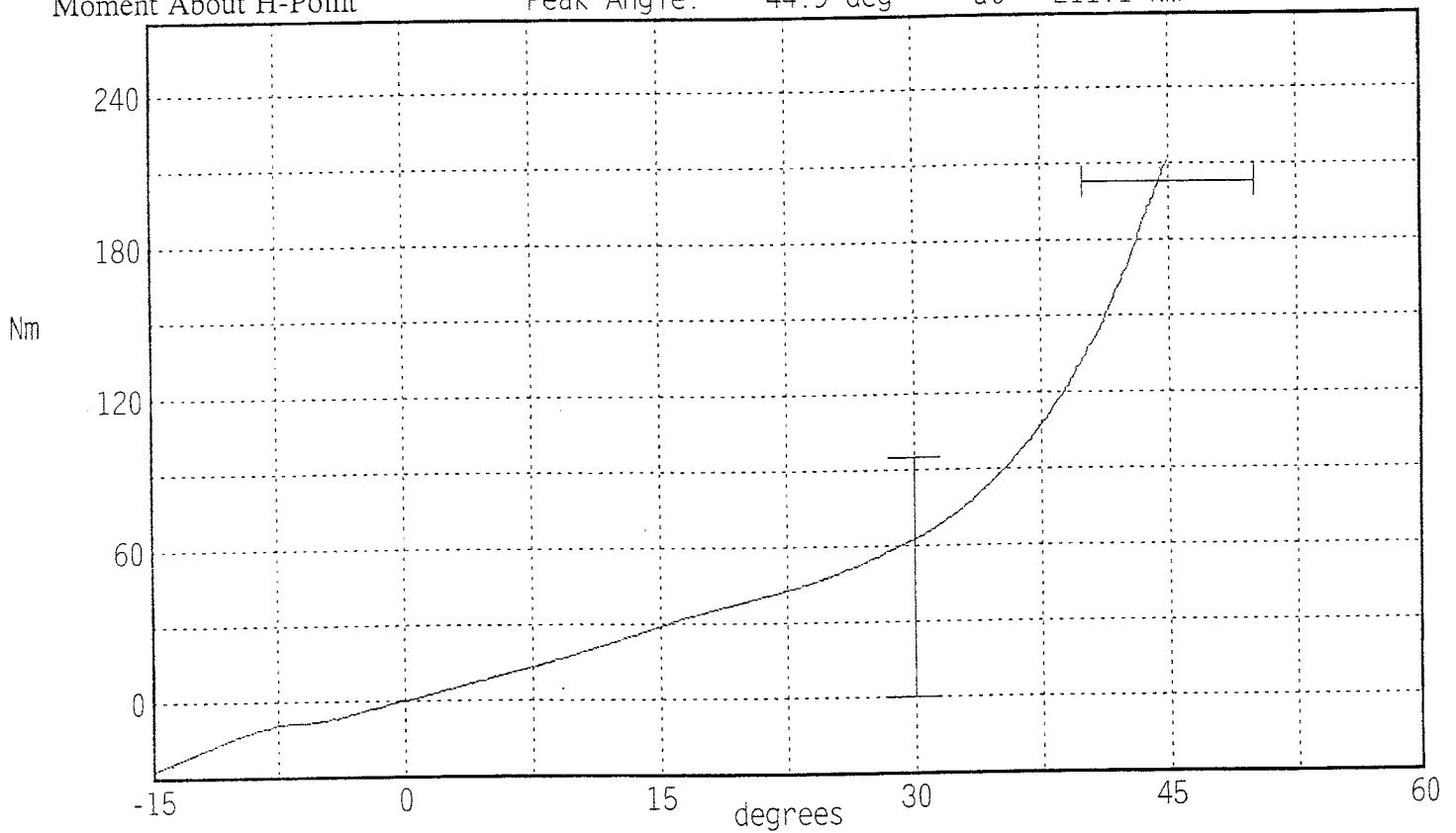
Serial Number: 168L
Test Number: 168C16

Date: 07/18/2002
Time: 12:26

Comments:

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.7 °C | Pass |
| Humidity | 10 - 70 | 55 % | Pass |
| Moment at 30 deg | <= 94.9 | 62.9 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 44.5 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.4 deg/sec | Pass |

Moment About H-Point
Peak Moment: 211.1 Nm at 44.9 deg
Peak Angle: 44.9 deg at 211.1 Nm



Transportation Research Center Inc

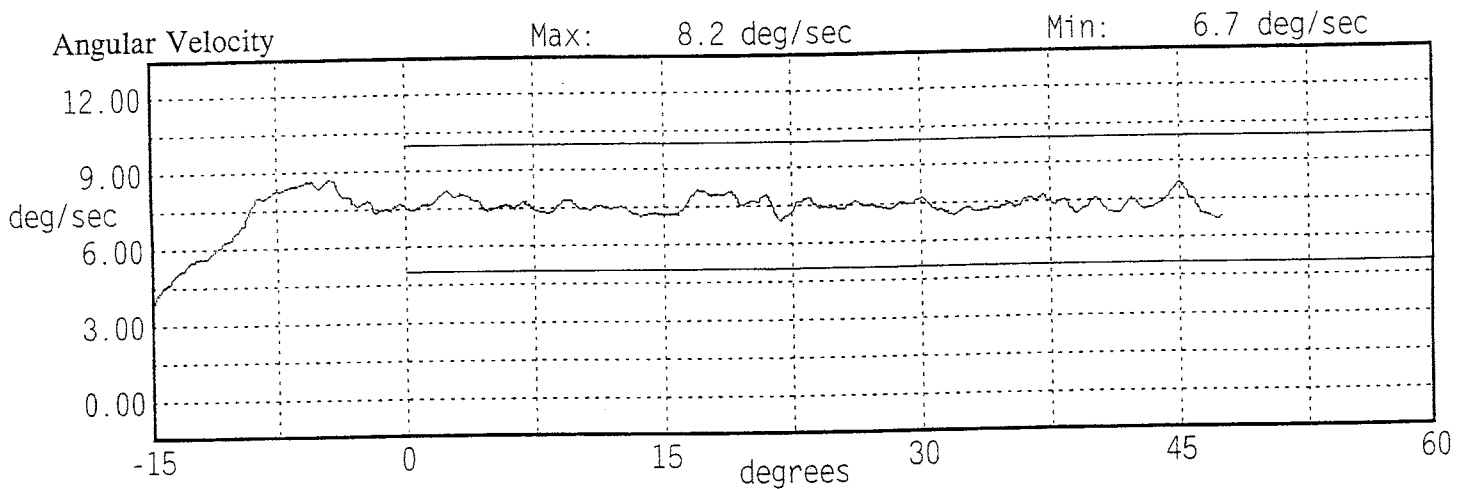
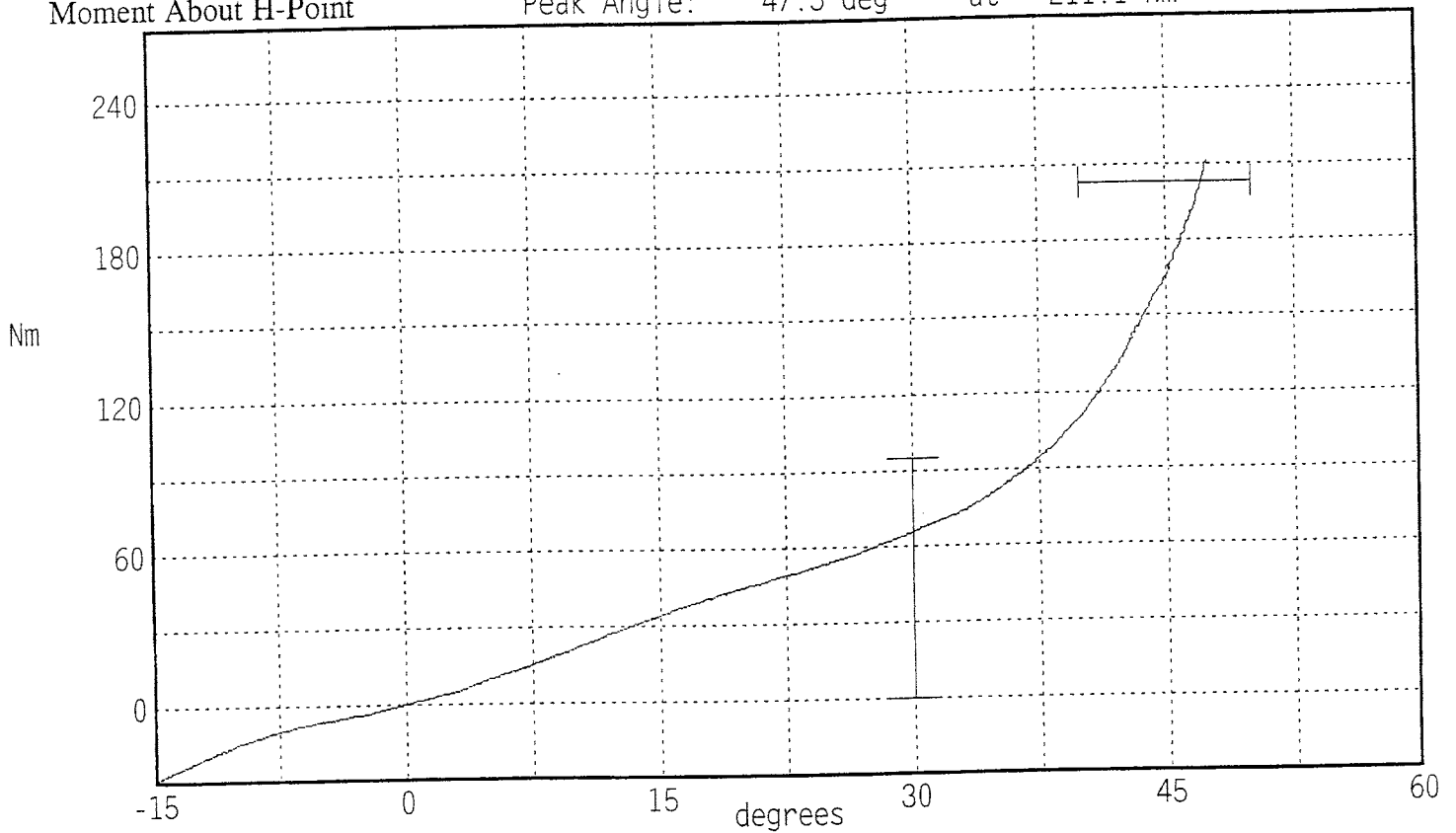
Hybrid III Hip Range of Motion

Serial Number: 168R
Test Number: 168C16
Comments:

Date: 07/18/2002
Time: 12:20

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.7 °C | Pass |
| Humidity | 10 - 70 | 55 % | Pass |
| Moment at 30 deg | <= 94.9 | 65.8 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 47.1 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec | Pass |

Moment About H-Point
Peak Moment: 211.1 Nm at 47.5 deg
Peak Angle: 47.5 deg at 211.1 Nm



Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 8

Test Date 08/22/2002

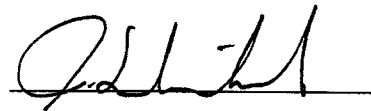
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 59 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.77 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1424 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2973 N | Yes |

Comments:

Technician



Approved

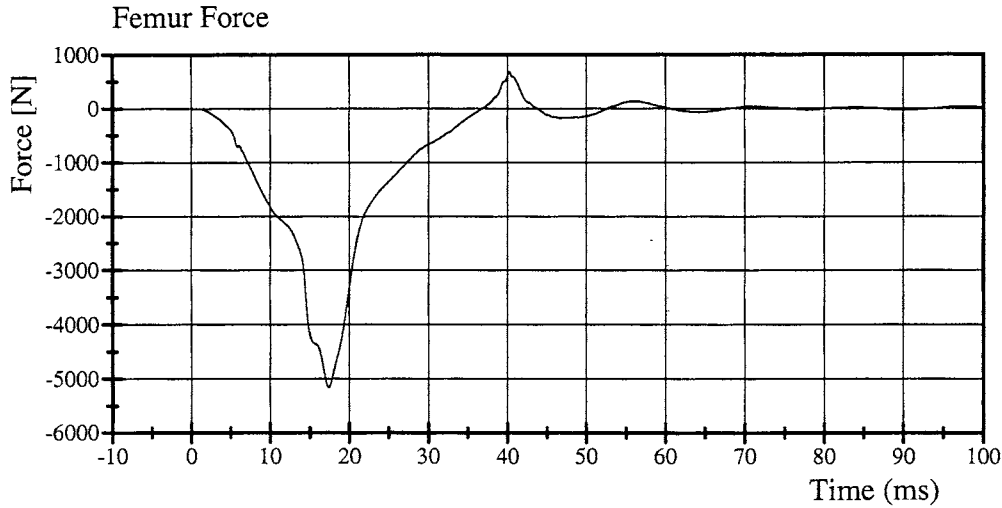


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 8

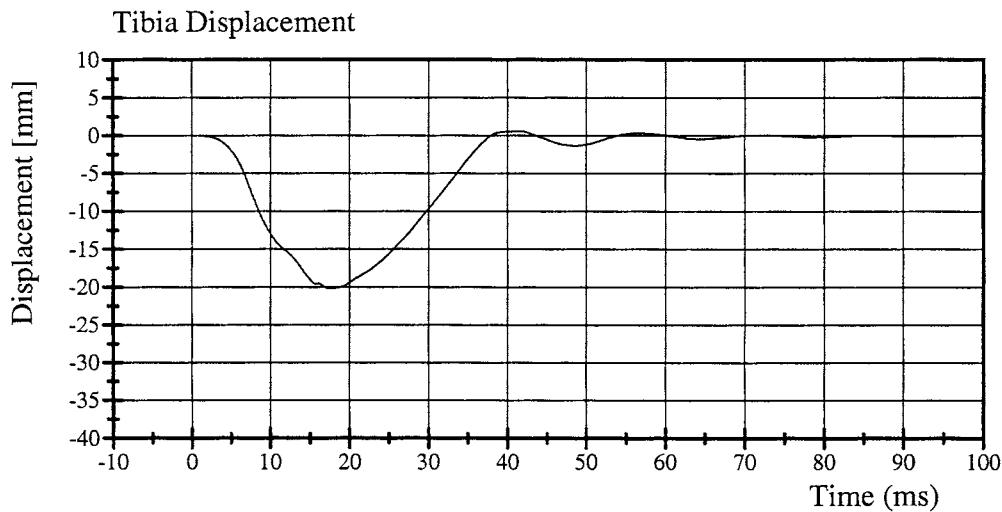
Test Date 08/22/2002



Filter Class: 600

Max: 687.9 N at 40.2 ms

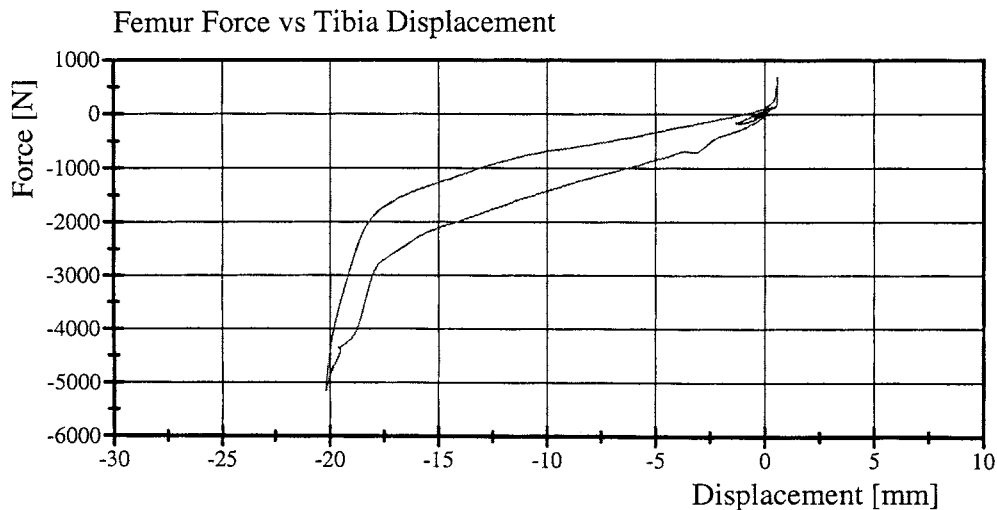
Min: -5158.8 N at 17.4 ms



Filter Class: 600

Max: 0.6 mm at 40.7 ms

Min: -20.2 mm at 17.5 ms



Transportation Research Center Inc.

572E Right Knee Slider Test

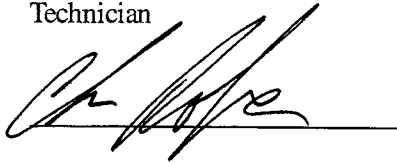
HIII 50th Male Serial No. 168 Calibration No. 16 - 2

Test Date 08/22/2002

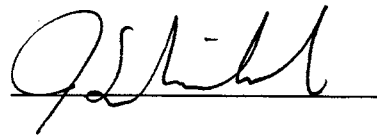
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 59 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.71 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1372 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2531 N | Yes |

Comments:

Technician



Approved

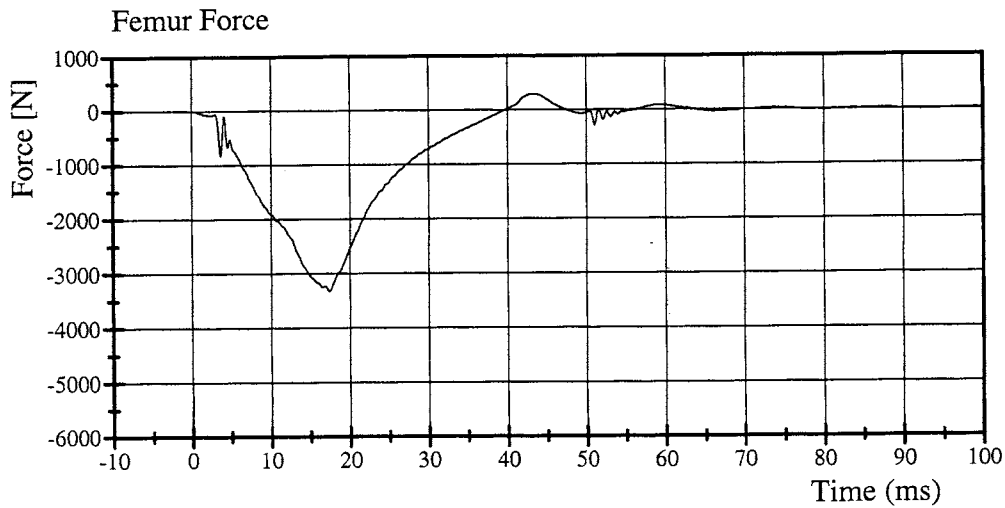


Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

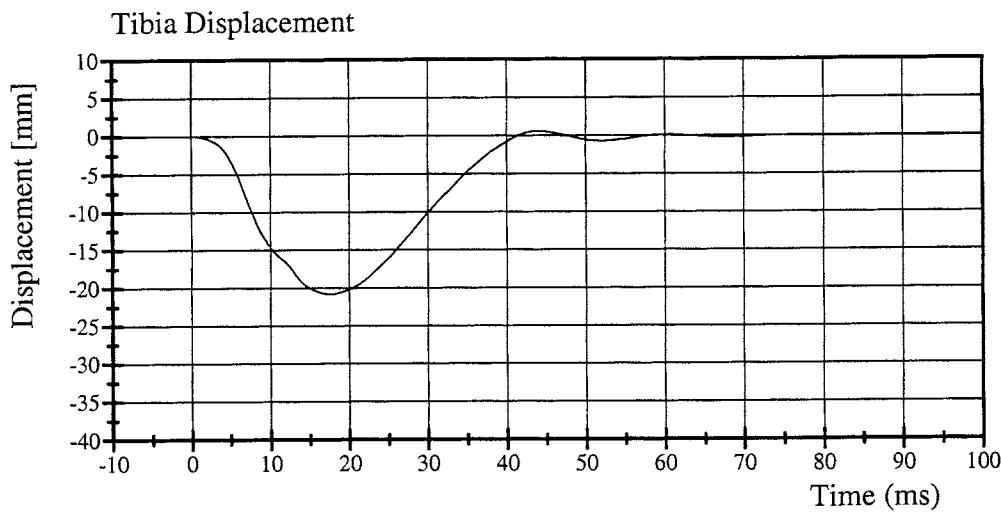
Test Date 08/22/2002



Filter Class: 600

Max: 288.2 N at 43.0 ms

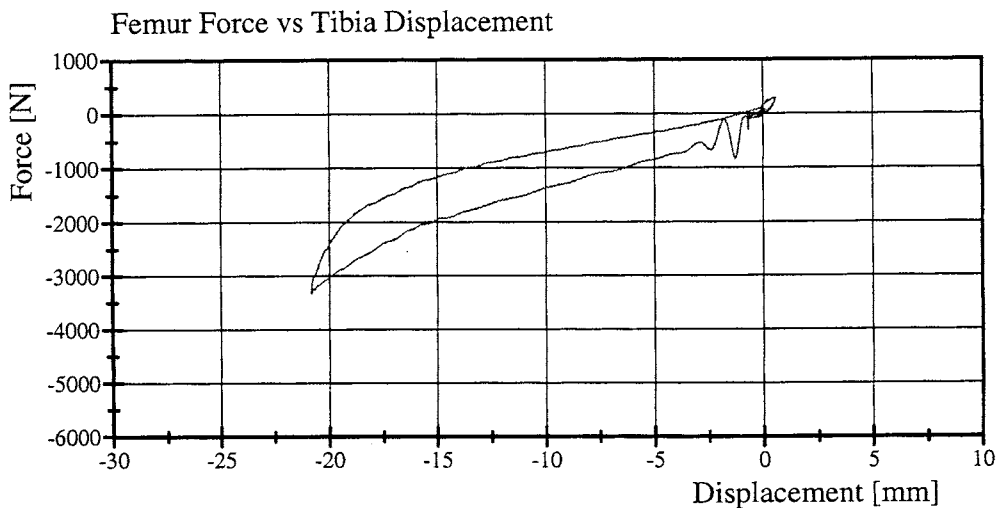
Min: -3329.8 N at 17.4 ms



Filter Class: 600

Max: 0.6 mm at 44.1 ms

Min: -20.8 mm at 17.6 ms



Transportation Research Center Inc.

572E Left Knee Test

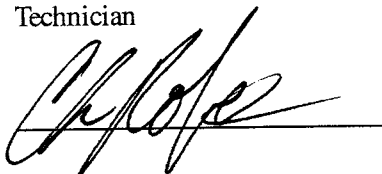
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/09/2002

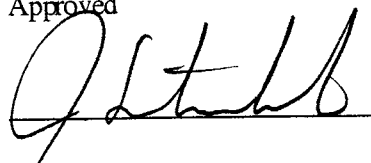
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.08 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5306 N | Yes |

Comments:

Technician



Approved



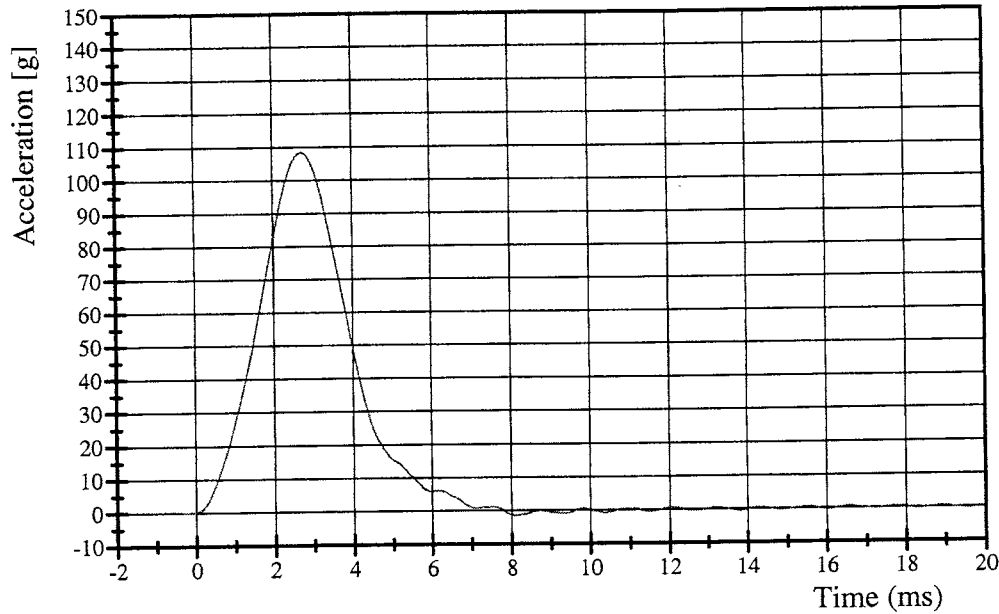
Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/09/2002

Pendulum Deceleration

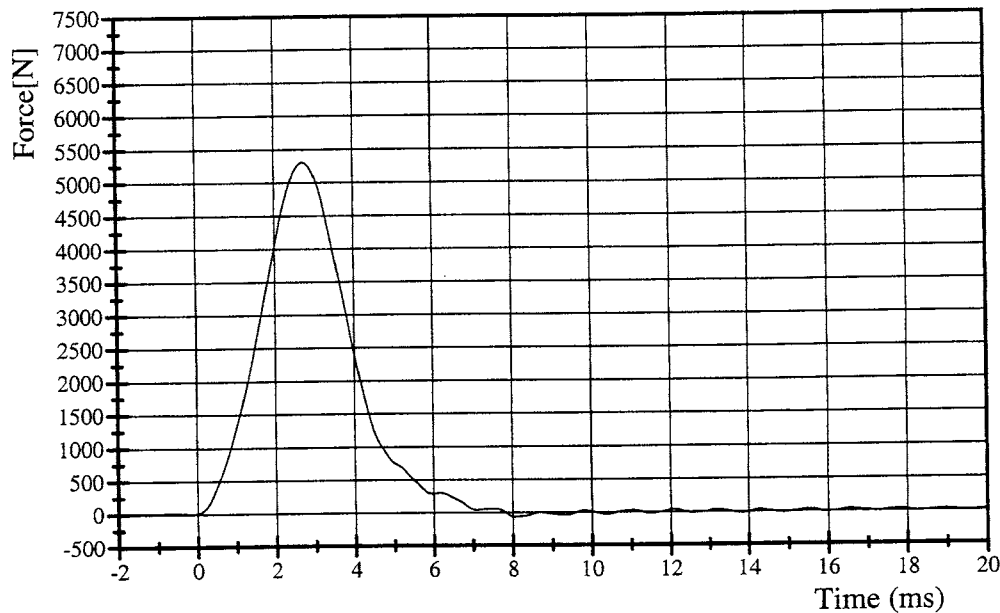


Filter Class: 600

Max: 108.4 g at 2.7 ms

Min: -1.5 g at 8.1 ms

Pendulum Force



Filter Class: 600

Max: 5305.7 N at 2.7 ms

Min: -73.0 N at 8.1 ms

Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

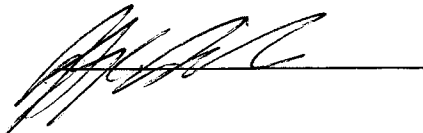
Test Date 08/22/2002

| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 60 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.09 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 4970 N | Yes |

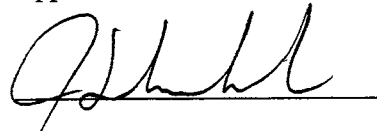
Comments:

Replaced Old Knee Skin and Knee Insert Due To Damaga Done To Knee During 020703's Crash Test.

Technician



Approved



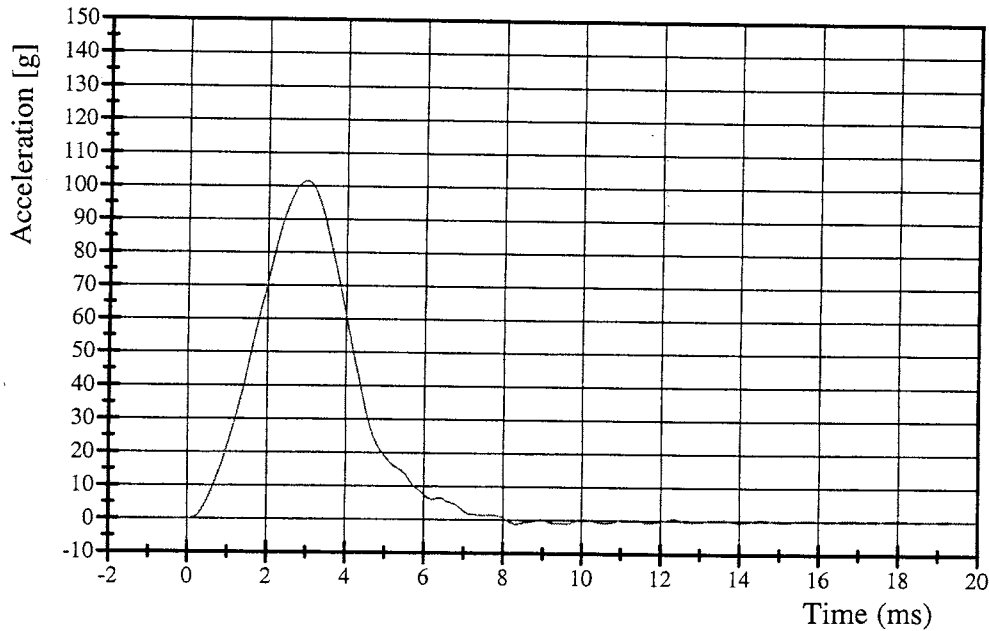
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

Test Date 08/22/2002

Pendulum Deceleration

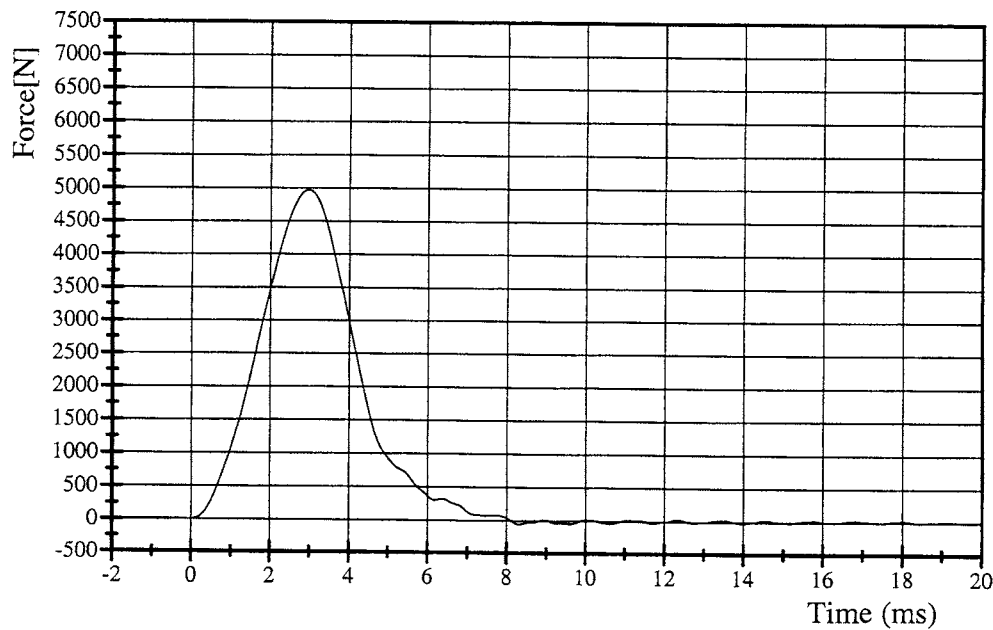


Filter Class: 600

Max: 101.6 g at 3.0 ms

Min: -1.2 g at 8.3 ms

Pendulum Force



Filter Class: 600

Max: 4969.9 N at 3.0 ms

Min: -56.8 N at 8.3 ms

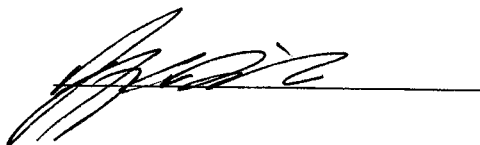
Post-Test Dummy Configuration and Performance Verification Data

Target Vehicle Driver Dummy S/N: 168

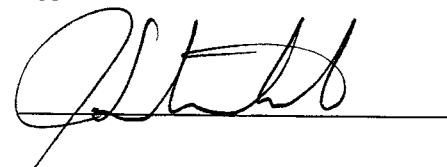
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 168 Calibration No. 17

| Test Parameter | Dimension | Specification | Results | Pass |
|----------------------------------|-----------|---------------|---------|------|
| Location For Chest Circumference | AA | 429 - 434 mm | 432 mm | Yes |
| Location For Waist Circumference | BB | 226 - 231 mm | 229 mm | Yes |
| Chest Circumference | Y | 970 - 1001 mm | 983 mm | Yes |
| Waist Circumference | Z | 836 - 866 mm | 855 mm | Yes |
| Chest Depth | O | 213 - 229 mm | 225 mm | Yes |
| H-Point Height | C | 84 - 89 mm | 85 mm | Yes |
| H-Point From Seatback | D | 135 - 140 mm | 137 mm | Yes |
| Skull Cap To Backline | H | 41 - 46 mm | 45 mm | Yes |
| Total Sitting Height | A | 879 - 889 mm | 883 mm | Yes |
| Thigh Clearance | F | 140 - 155 mm | 150 mm | Yes |
| Buttock Knee Length | K | 579 - 605 mm | 597 mm | Yes |
| Buttock Popliteal Length | N | 452 - 478 mm | 472 mm | Yes |
| Popliteal Height | L | 429 - 455 mm | 445 mm | Yes |
| Knee Pivot Height | M | 485 - 500 mm | 493 mm | Yes |
| Foot Length | P | 252 - 267 mm | 262 mm | Yes |
| Foot Breadth | W | 91 - 107 mm | 102 mm | Yes |
| Shoulder Pivot From Backline | E | 84 - 94 mm | 90 mm | Yes |
| Shoulder Breadth | V | 422 - 437 mm | 431 mm | Yes |
| Shoulder Pivot Height | B | 506 - 521 mm | 515 mm | Yes |
| Elbow Rest Height | J | 191 - 211 mm | 207 mm | Yes |
| Shoulder-Elbow Length | I | 330 - 345 mm | 339 mm | Yes |
| Back Of Elbow To Wrist Pivot | G | 290 - 305 mm | 297 mm | Yes |

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

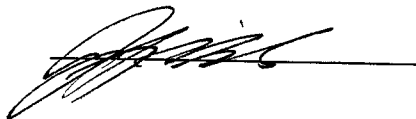
HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/24/2002

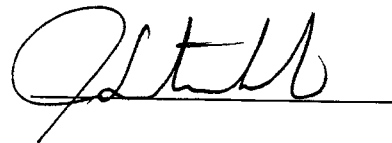
| Test Parameter | Specification | Test Results | Pass |
|---------------------------------|----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 47 % | Yes |
| Peak Resultant Acceleration | 225 - 275 g | 247.2 g | Yes |
| Peak Lateral Acceleration | 15 g Max | 8.3 g | Yes |
| Is Acceleration Curve Unimodal? | Yes | Yes | Yes |

Comments:

Technician



Approved

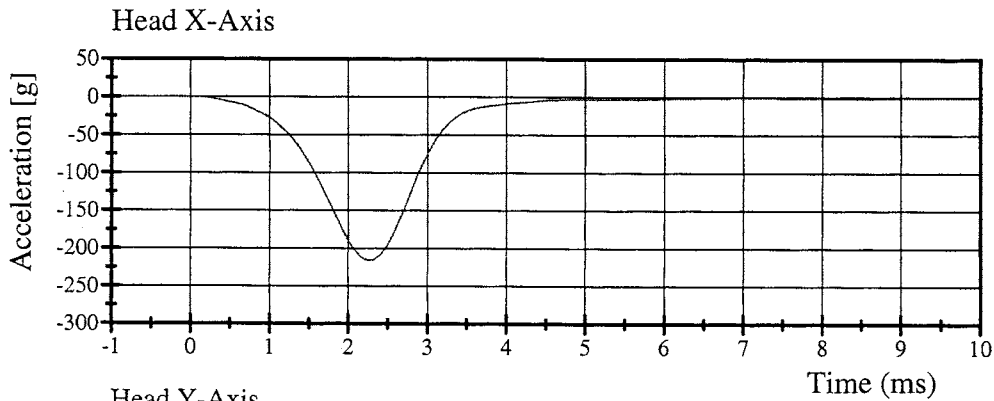


Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

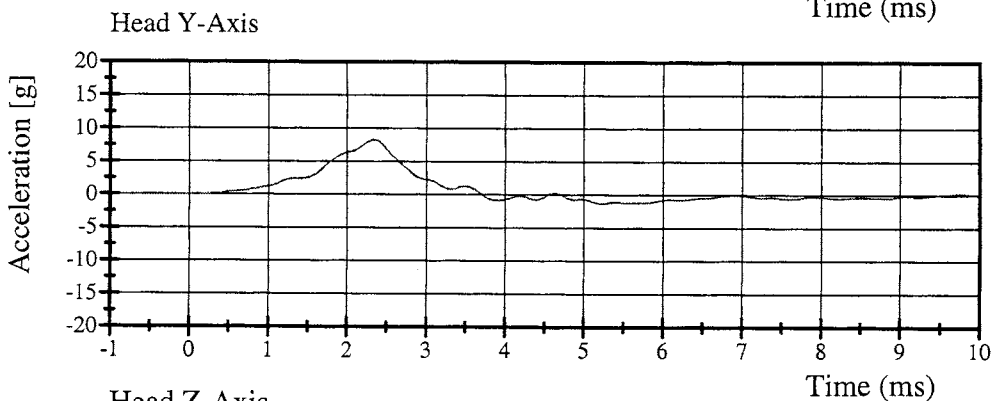
Test Date 09/24/2002



Filter Class: 1000

Max: -0.0 g at 0.0 ms

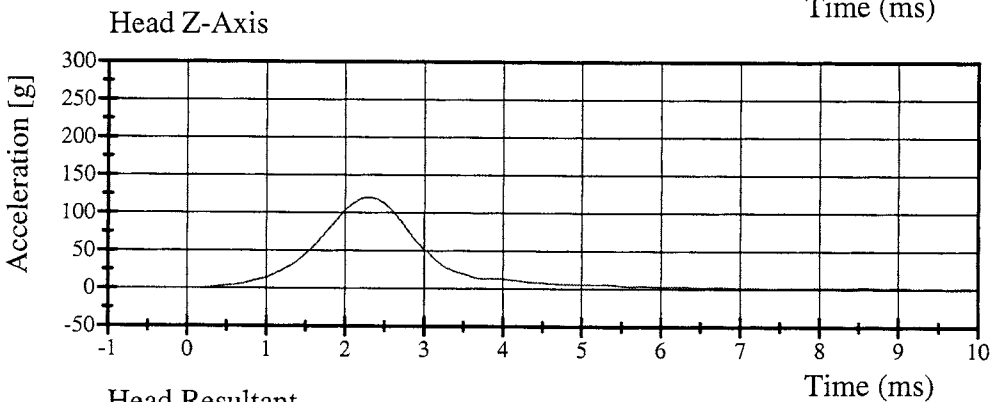
Min: -215.9 g at 2.2 ms



Filter Class: 1000

Max: 8.3 g at 2.3 ms

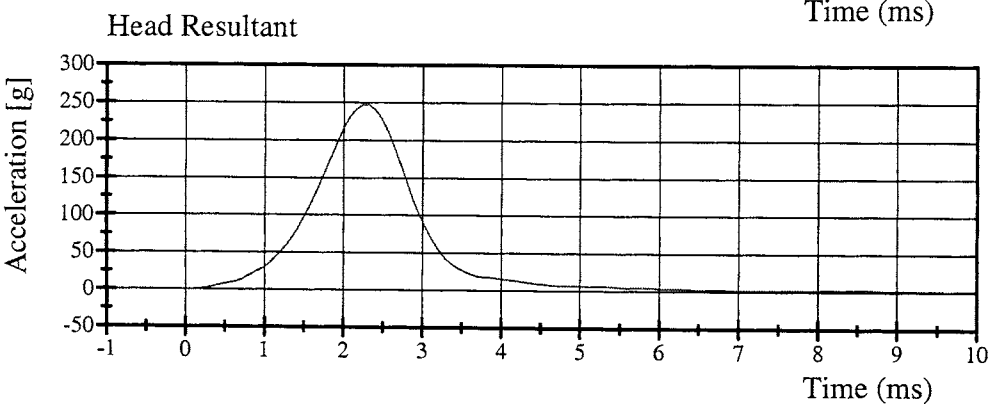
Min: -1.3 g at 5.2 ms



Filter Class: 1000

Max: 120.7 g at 2.3 ms

Min: 0.0 g at 0.0 ms



Filter Class: 1000

Max: 247.2 g at 2.2 ms

Min: 0.0 g at 1.1 ms

Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

HIH 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 44 % | Yes |
| Impact Velocity | 6.89 - 7.13 m/s | 7.01 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 22.50 - 27.50 g | 25.99 g | Yes |
| 20 ms | 17.60 - 22.60 g | 21.59 g | Yes |
| 30 ms | 12.50 - 18.50 g | 16.91 g | Yes |
| Max Pendulum Deceleration | 29.00 g | 26.42 g | Yes |
| Max Pendulum Deceleration After 30 ms | 29.00 g | 16.87 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 34 - 42 ms | 37.12 ms | Yes |
| D Plane Rotation | | | |
| Max | 64 - 78 ° | 69.09 ° | Yes |
| Time | 57 - 64 ms | 57.68 ms | Yes |
| Moment About Occipital Condyle | | | |
| Max | 88.2 - 108.4 N·m | 105.78 N·m | Yes |
| Time | 47 - 58 ms | 49.60 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 113 - 128 ms | 113.84 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 97 - 107 ms | 97.60 ms | Yes |

Comments:

Technician



Approved



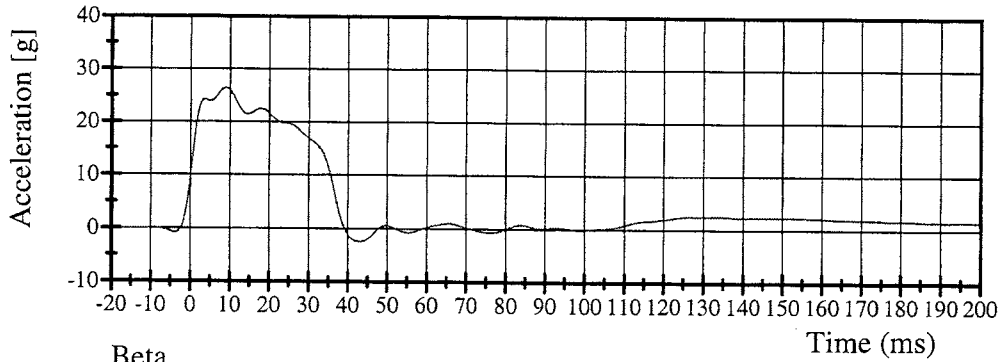
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

Pendulum Deceleration

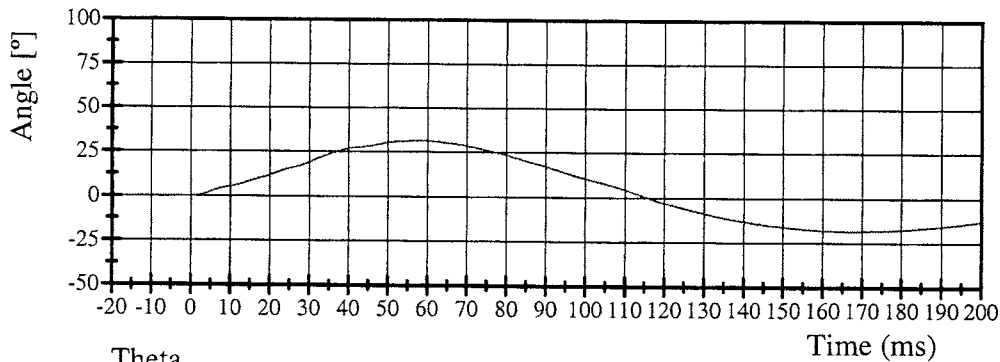


Filter Class: 60

Max: 26.4 g at 9.0 ms

Min: -2.4 g at 43.0 ms

Beta

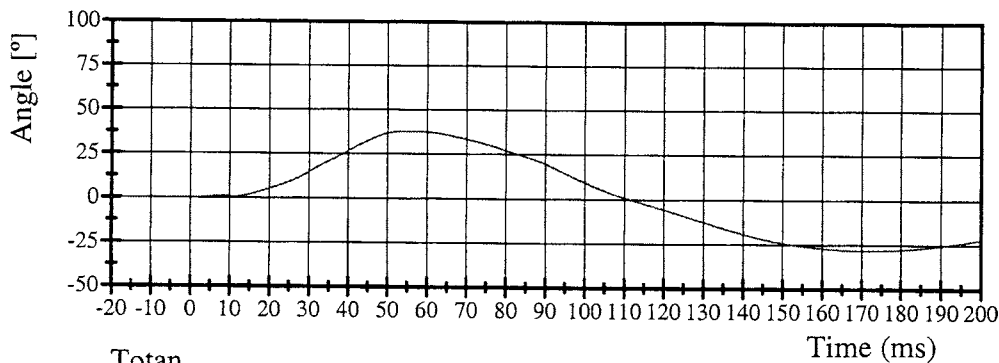


Filter Class: 60

Max: 31.4 ° at 58.5 ms

Min: -18.3 ° at 167.4 ms

Theta

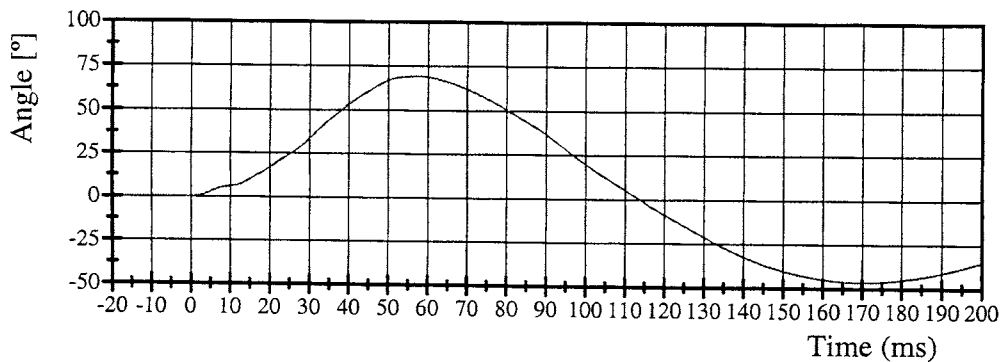


Filter Class: 60

Max: 37.7 ° at 56.2 ms

Min: -28.1 ° at 171.1 ms

Totan



Filter Class: 60

Max: 69.1 ° at 57.7 ms

Min: -46.4 ° at 169.8 ms

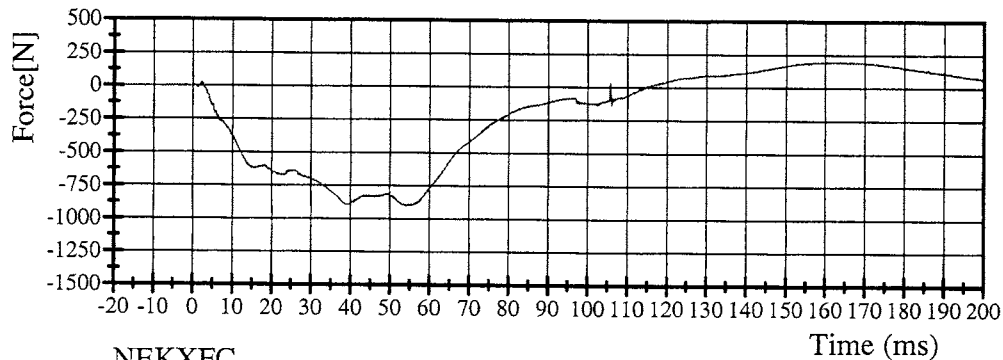
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

NEKXF

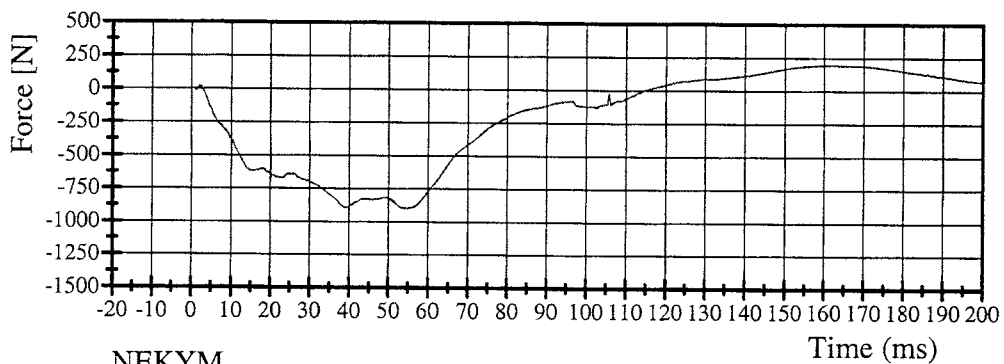


Filter Class: 1000

Max: 195.5 N at 161.8 ms

Min: -896.8 N at 54.2 ms

NEKXFC

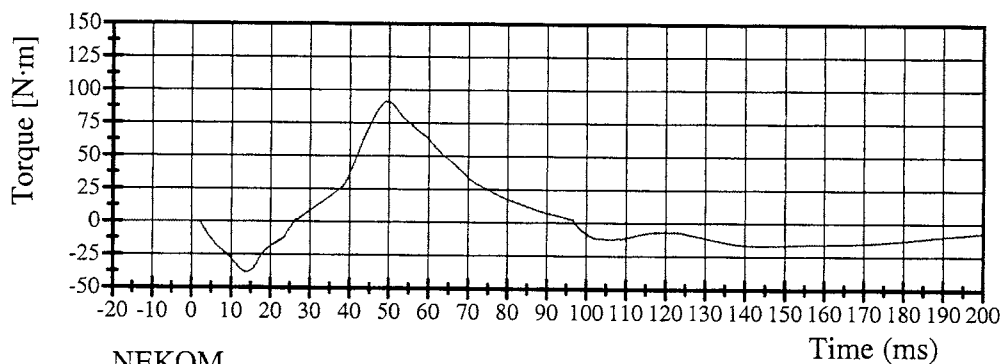


Filter Class: 600

Max: 195.1 N at 161.8 ms

Min: -896.6 N at 54.3 ms

NEKYM

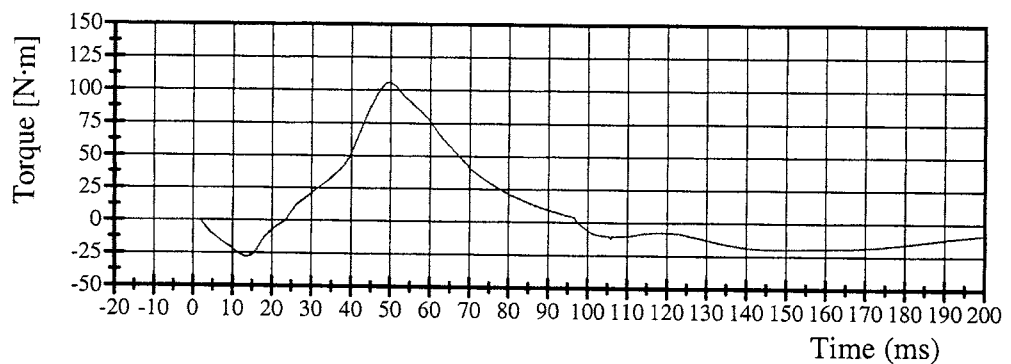


Filter Class: 600

Max: 91.3 N·m at 49.5 ms

Min: -38.3 N·m at 13.9 ms

NEKOM



Filter Class: 600

Max: 105.8 N·m at 49.6 ms

Min: -27.9 N·m at 13.6 ms

Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

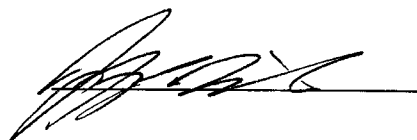
HIII 50th Male Serial No. 168 Calibration No. 17 - 2

Test Date 09/24/2002

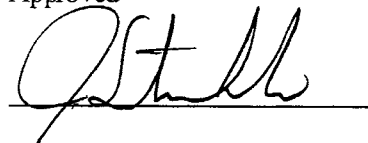
| Test Parameter | Specification | Test Results | Pass |
|------------------------------------------|---------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 40 % | Yes |
| Impact Velocity | 5.95 - 6.19 m/s | 6.11 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 17.20 - 21.20 g | 18.51 g | Yes |
| 20 ms | 14.00 - 19.00 g | 17.01 g | Yes |
| 30 ms | 11.00 - 16.00 g | 15.37 g | Yes |
| Max Pendulum Deceleration | 22.00 g | 18.84 g | Yes |
| Max Pendulum Deceleration After 30 ms | 22.00 g | 15.35 g | Yes |
| Deceleration-Time Curve | | | |
| Decay Time To 5g | 38 - 46 ms | 42.64 ms | Yes |
| D Plane Rotation | | | |
| Max | 81 - 106 ° | 91.96 ° | Yes |
| Time | 72 - 82 ms | 76.24 ms | Yes |
| Moment About Occipital Condyle | | | |
| Min | -80.0 - (-52.9) N·m | -68.70 N·m | Yes |
| Time | 65 - 79 ms | 70.96 ms | Yes |
| Rotation Angle-Time Curve | | | |
| Decay Time To Zero | 147 - 174 ms | 154.16 ms | Yes |
| Positive Moment-Time Curve | | | |
| Decay Time To Zero | 120 - 148 ms | 141.52 ms | Yes |

Comments:

Technician



Approved



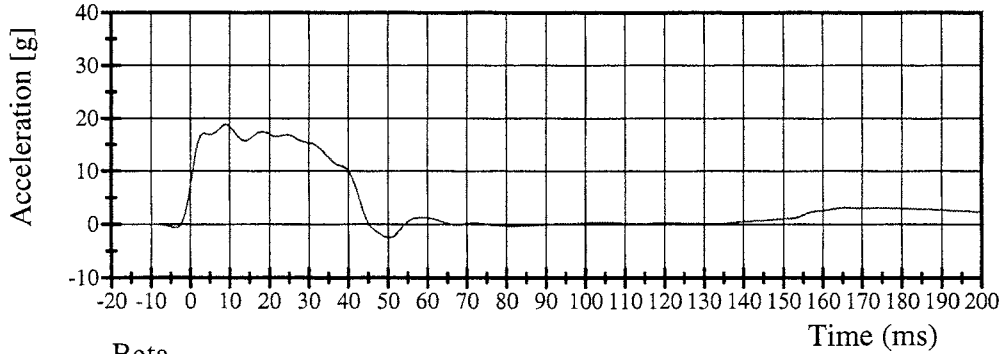
Transportation Research Center Inc.

572E Neck Extension Test

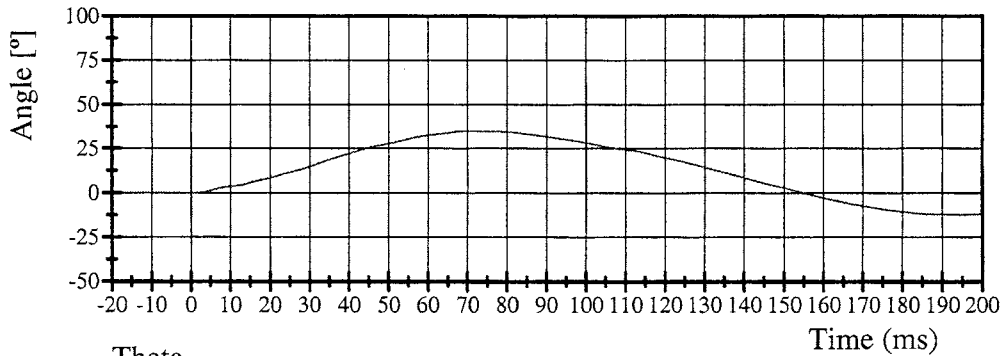
HIII 50th Male Serial No. 168 Calibration No. 17 - 2

Test Date 09/24/2002

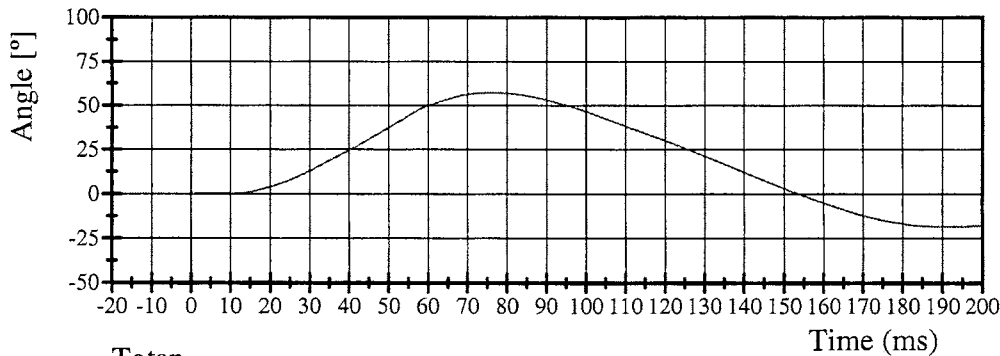
Pendulum Deceleration



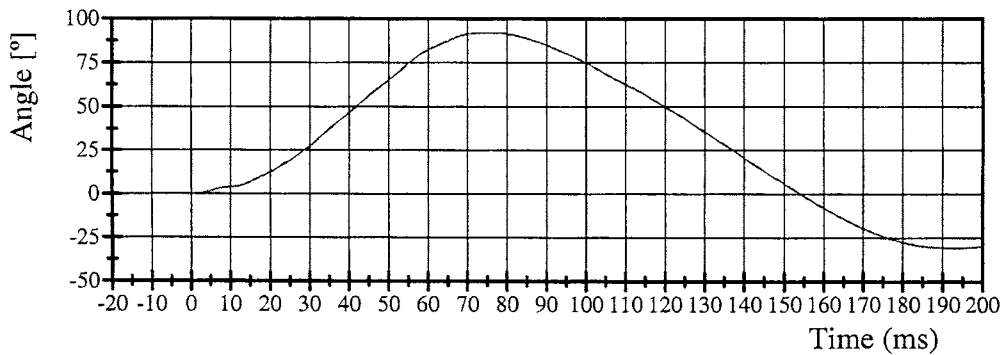
Beta



Theta



Totan

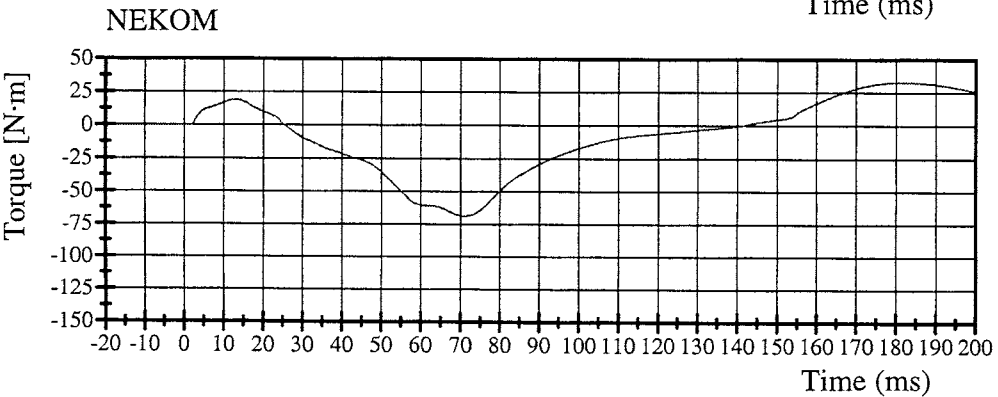
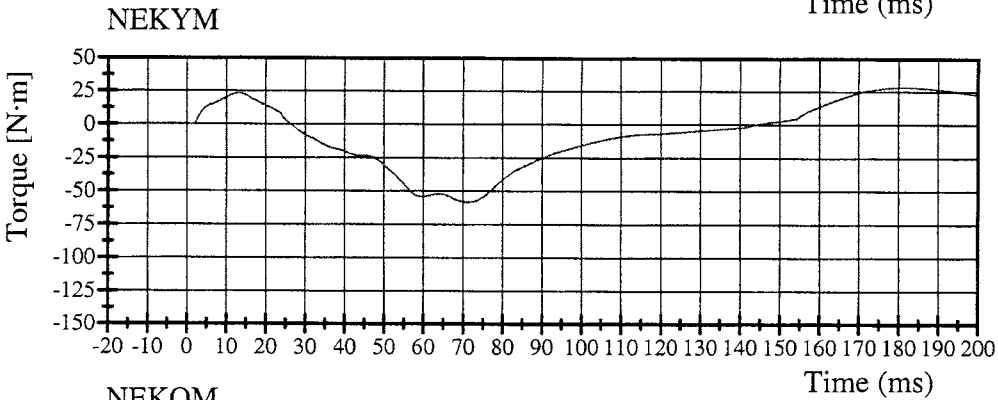
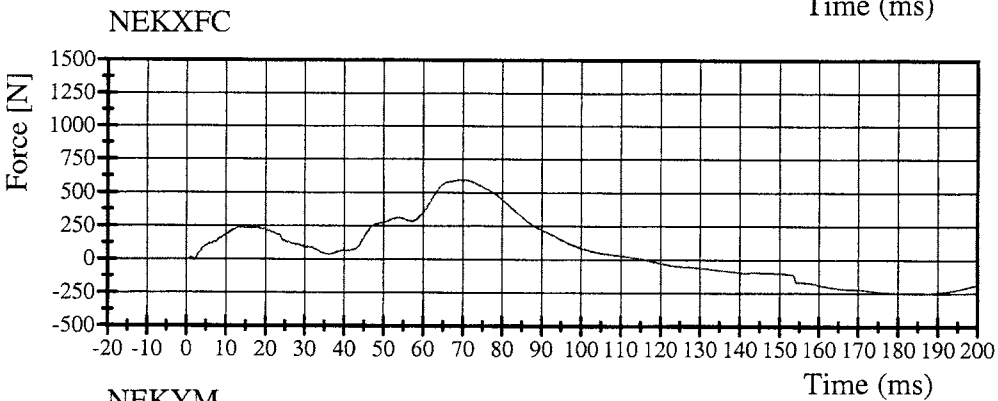
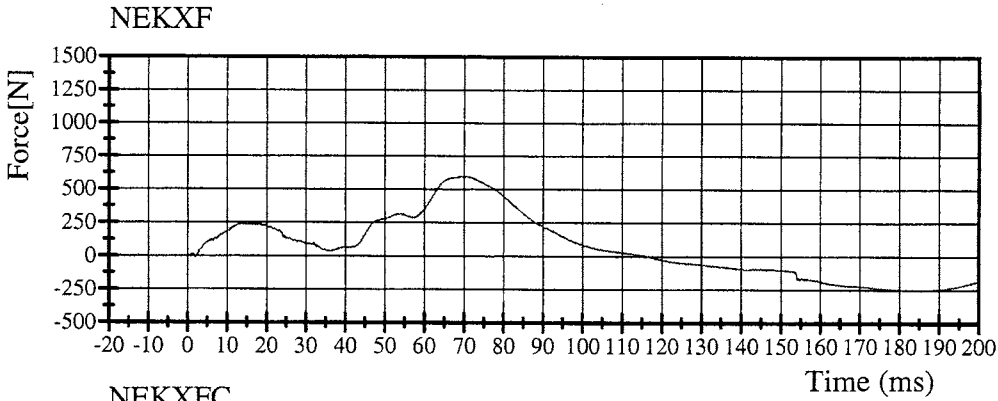


Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 2

Test Date 09/24/2002



Transportation Research Center Inc.

572E Thorax Test

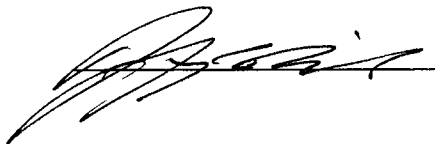
HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

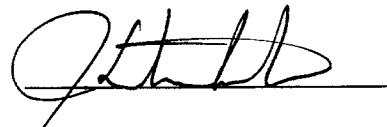
| Test Parameter | Specification | Test Results | Pass |
|--------------------------|--------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 45 % | Yes |
| Pendulum Velocity | 6.59 - 6.83 m/s | 6.68 m/s | Yes |
| Maximum Chest Deflection | -72.6 - (-63.5) mm | -67.4 mm | Yes |
| Maximum Resistive Force | 5159 - 5894 N | 5694 N | Yes |
| Internal Hysteresis | 69 - 85 % | 71 % | Yes |

Comments:

Technician



Approved

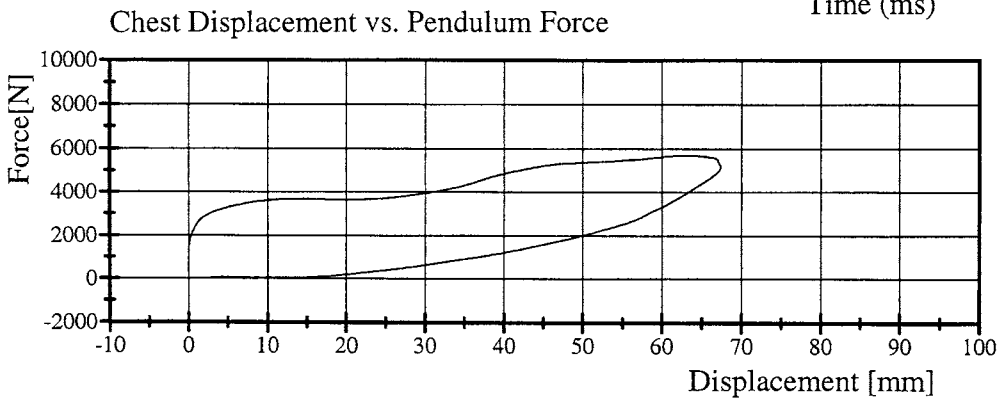
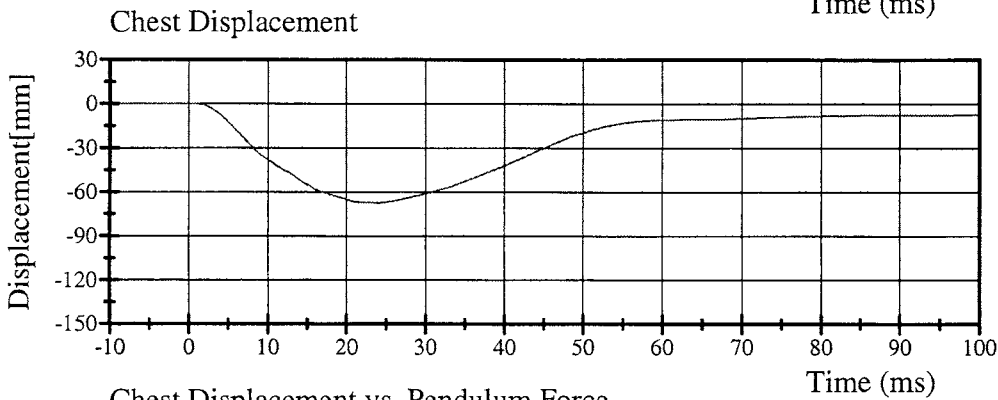
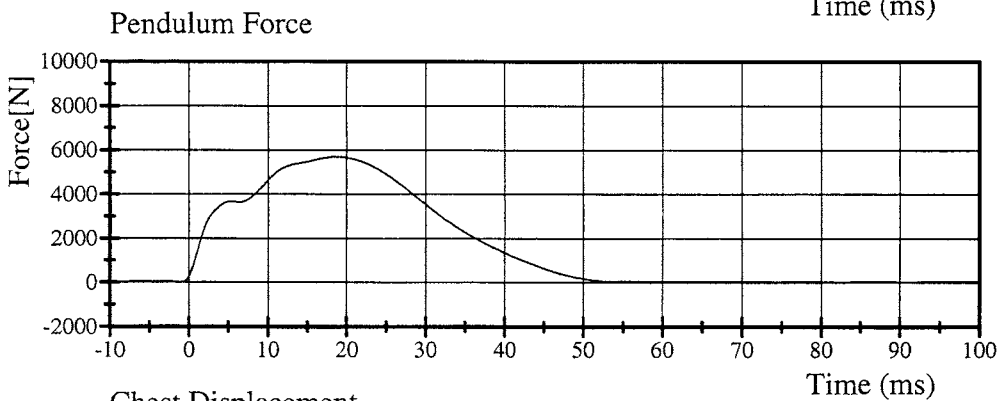
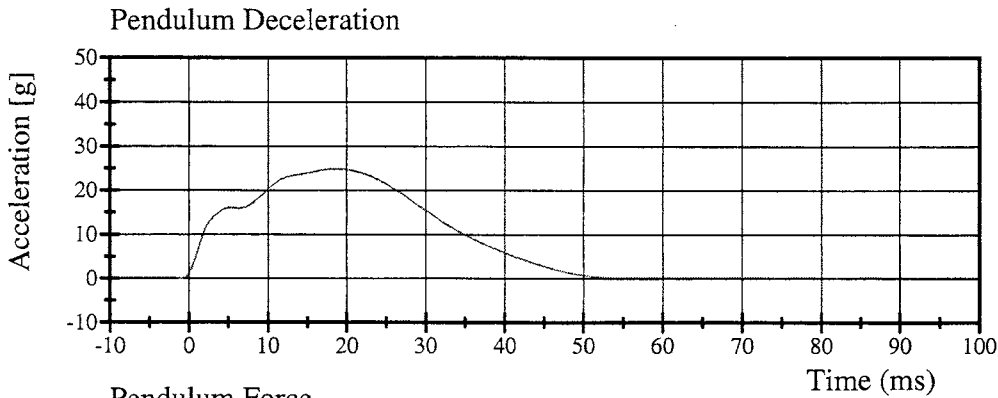


Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002



Transportation Research Center Inc

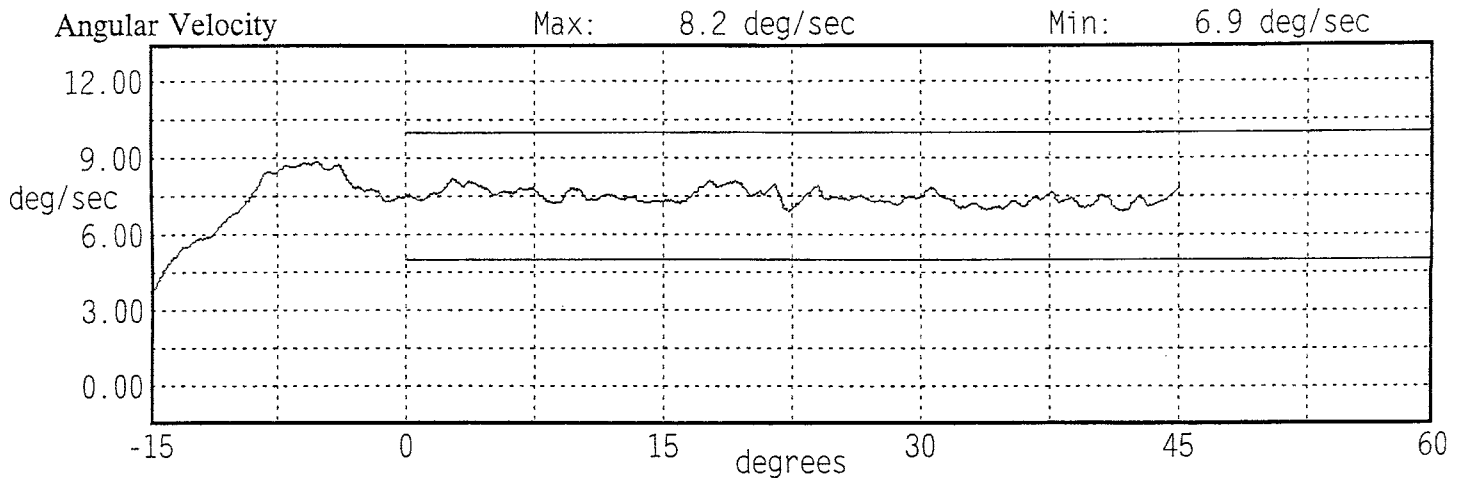
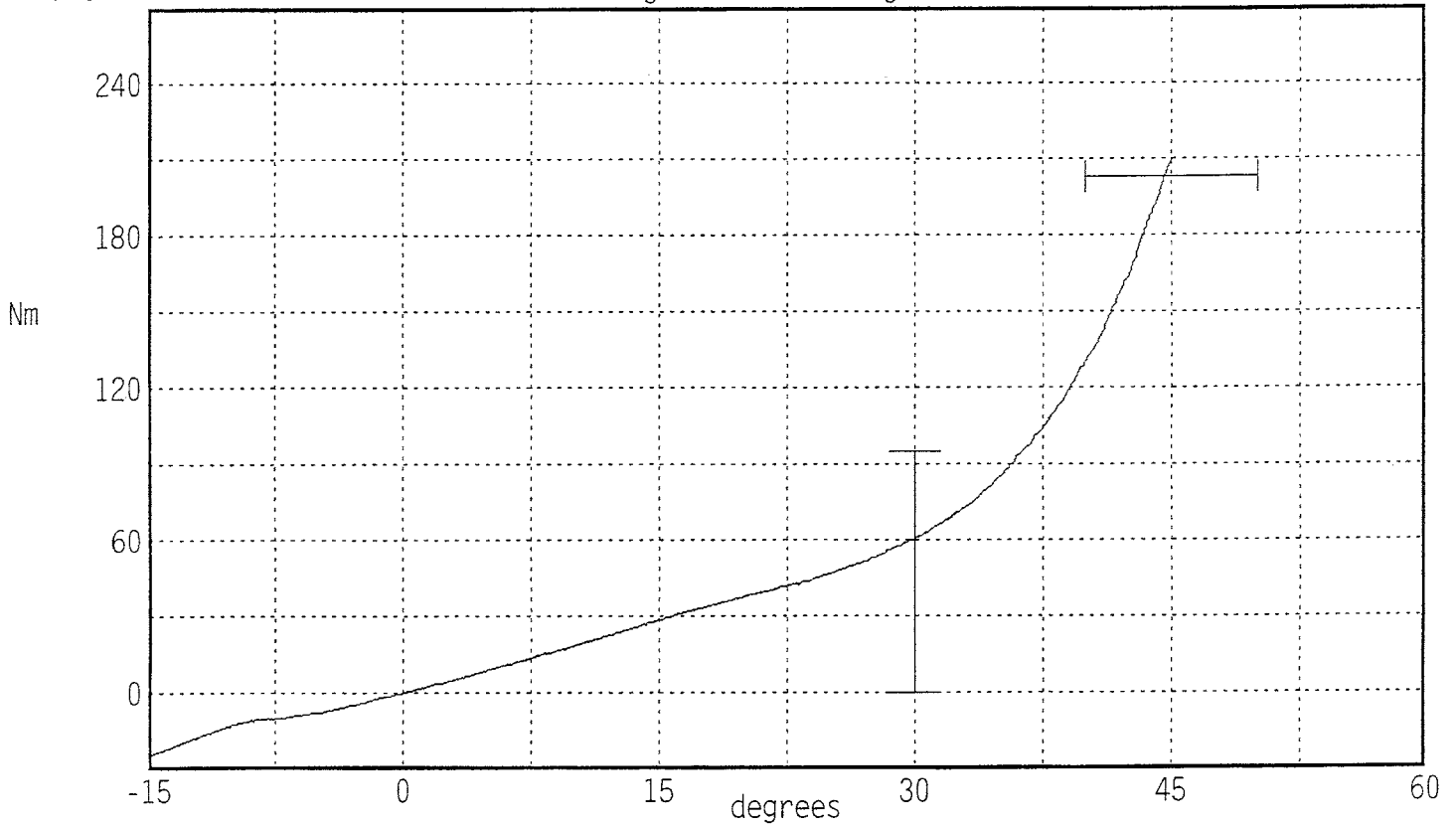
Hybrid III Hip Range of Motion

Serial Number: 168L
Test Number: 168C17
Comments:

Date: 09/23/2002
Time: 15:26

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.1 °C | Pass |
| Humidity | 10 - 70 | 45 % | Pass |
| Moment at 30 deg | <= 94.9 | 60.9 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 44.7 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec | Pass |

Moment About H-Point
Peak Moment: 210.2 Nm at 45.0 deg
Peak Angle: 45.0 deg at 210.2 Nm



Transportation Research Center Inc

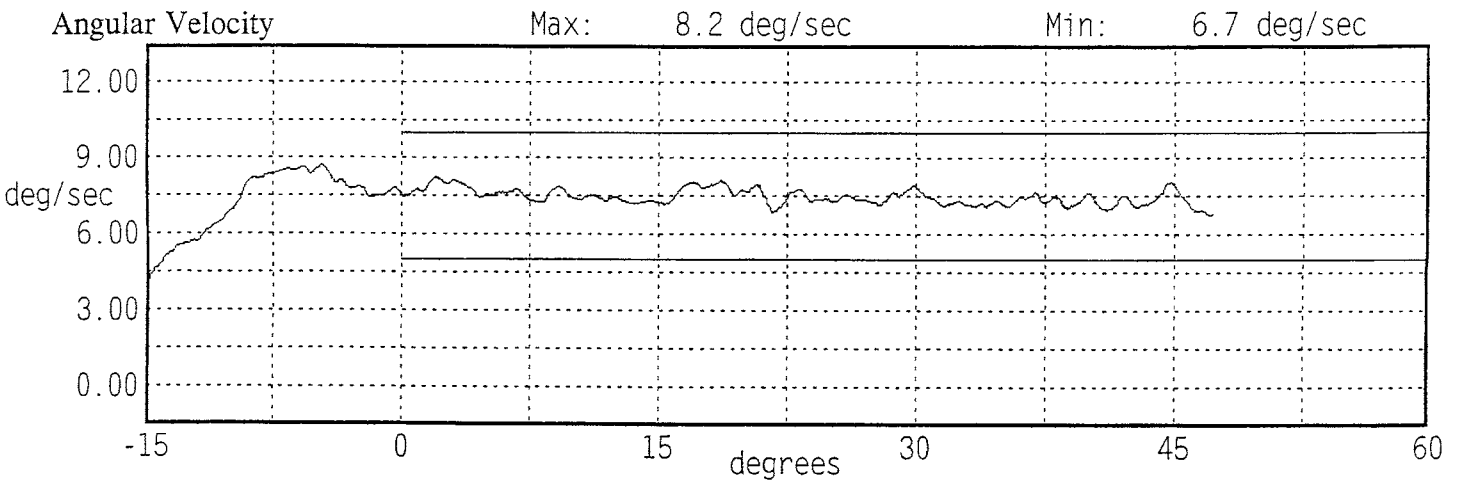
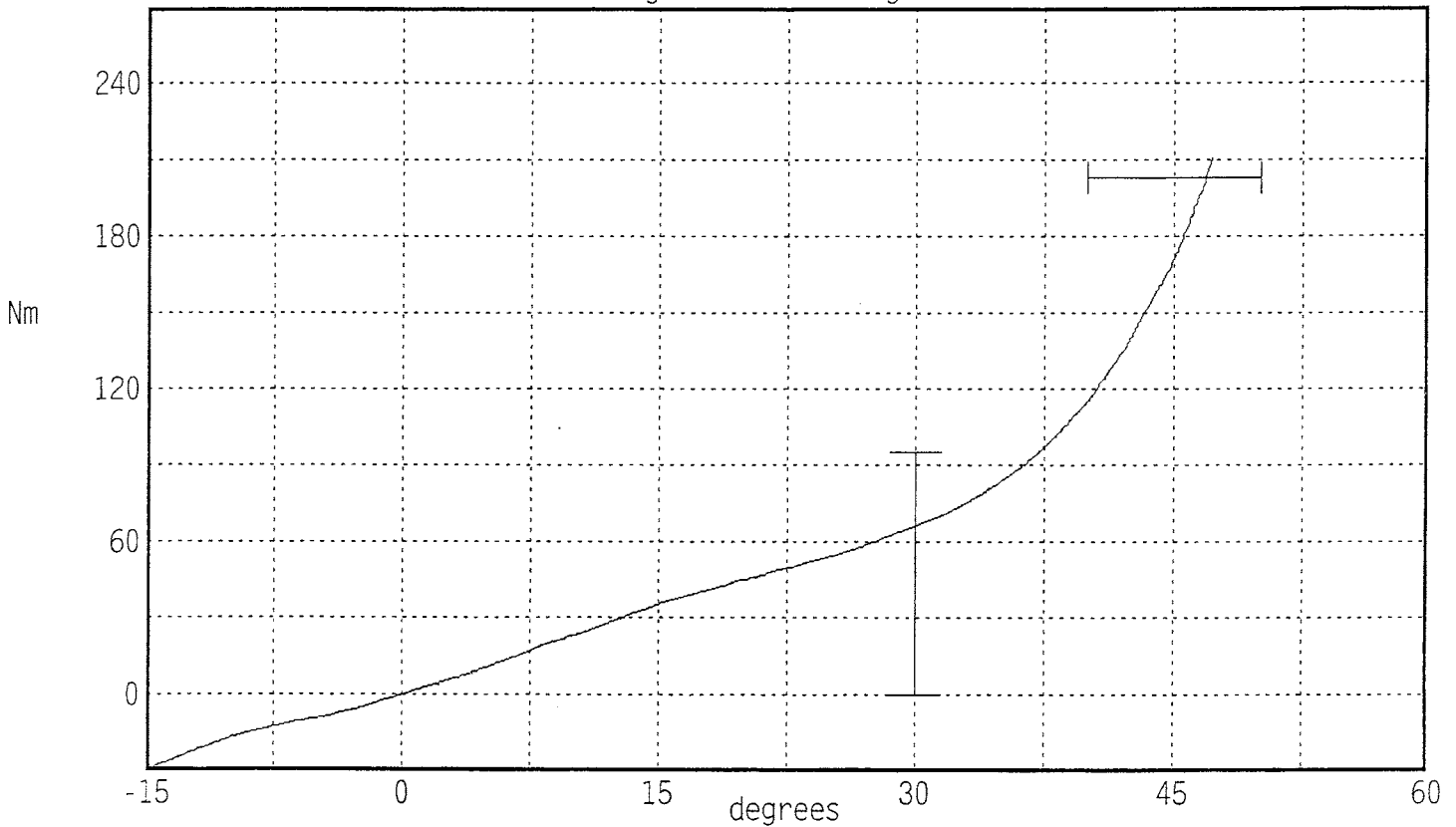
Hybrid III Hip Range of Motion

Serial Number: 168R
Test Number: 168C17
Comments:

Date: 09/23/2002
Time: 15:29

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.1 °C | Pass |
| Humidity | 10 - 70 | 45 % | Pass |
| Moment at 30 deg | <= 94.9 | 66.4 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 46.9 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.4 deg/sec | Pass |

Moment About H-Point
Peak Moment: 210.3 Nm at 47.2 deg
Peak Angle: 47.2 deg at 210.3 Nm



Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

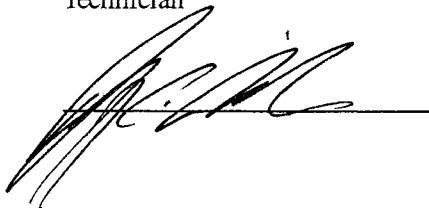
Test Date 09/24/2002

| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 47 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.74 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1458 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -3282 N | No |

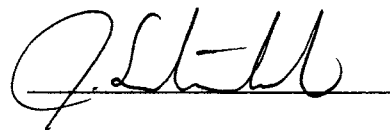
Comments:

Will Replace Left Knee Slider Prior To More Crash Testing.

Technician



Approved

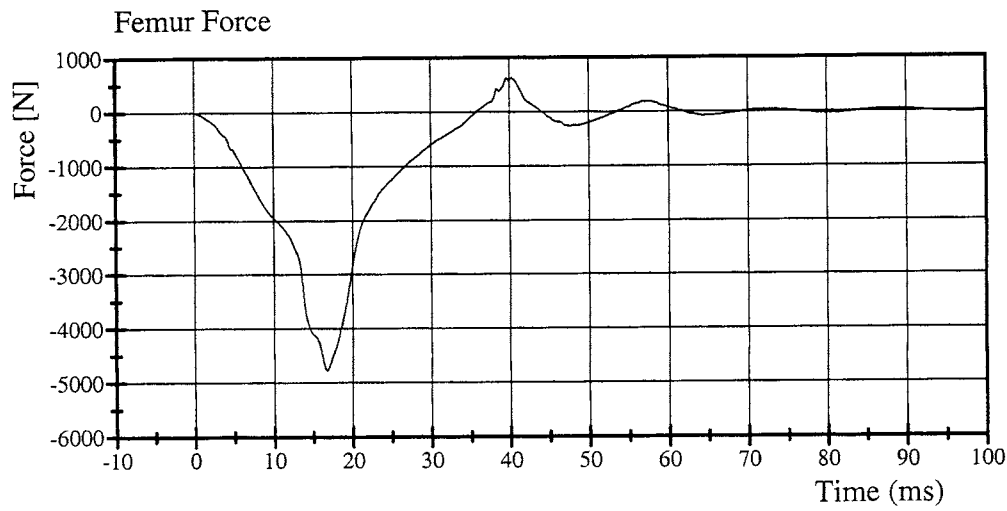


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

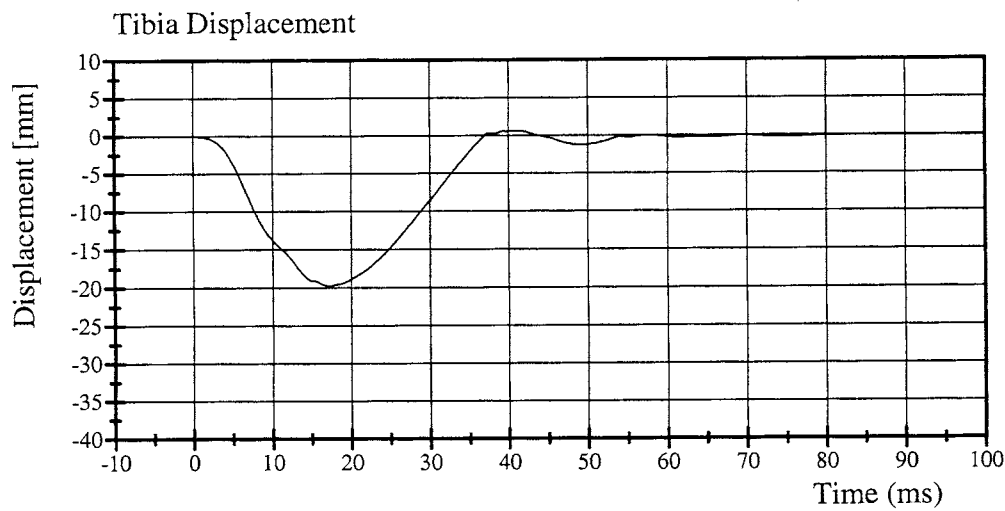
Test Date 09/24/2002



Filter Class: 600

Max: 621.3 N at 40.2 ms

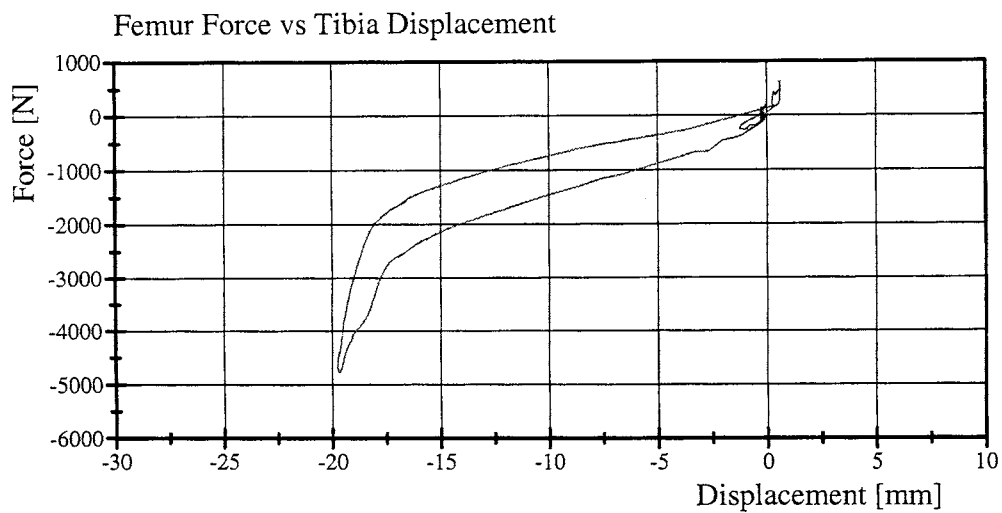
Min: -4774.5 N at 16.7 ms



Filter Class: 600

Max: 0.6 mm at 40.2 ms

Min: -19.8 mm at 17.2 ms



Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 2

Test Date 09/24/2002

| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 46 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.71 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1459 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -3361 N | No |

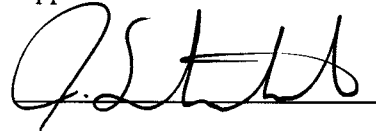
Comments:

Knee slider to be replaced prior to next dummy use.

Technician



Approved

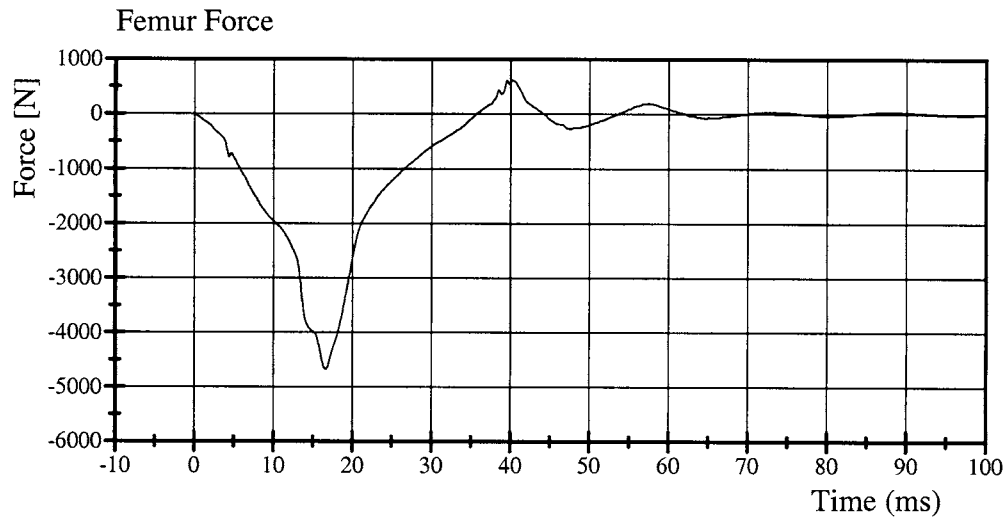


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 2

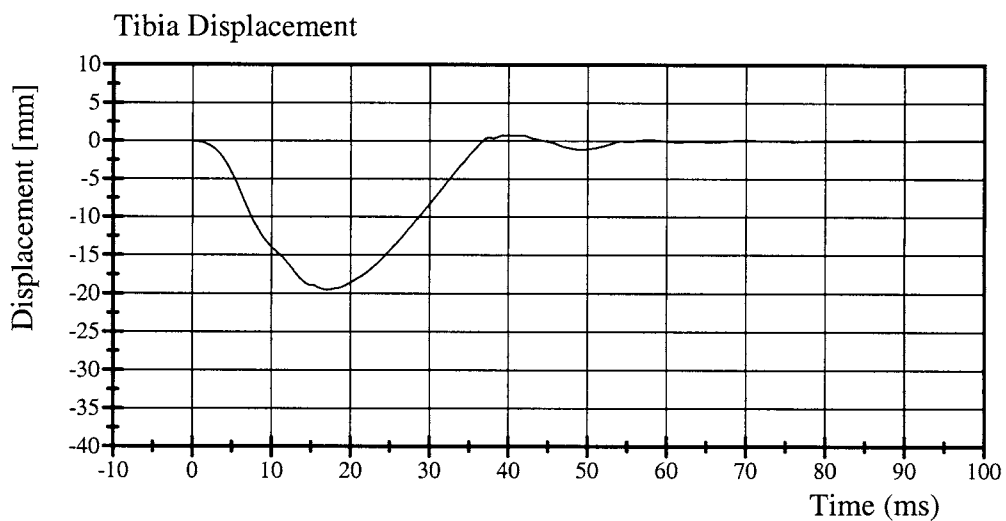
Test Date 09/24/2002



Filter Class: 600

Max: 611.8 N at 40.2 ms

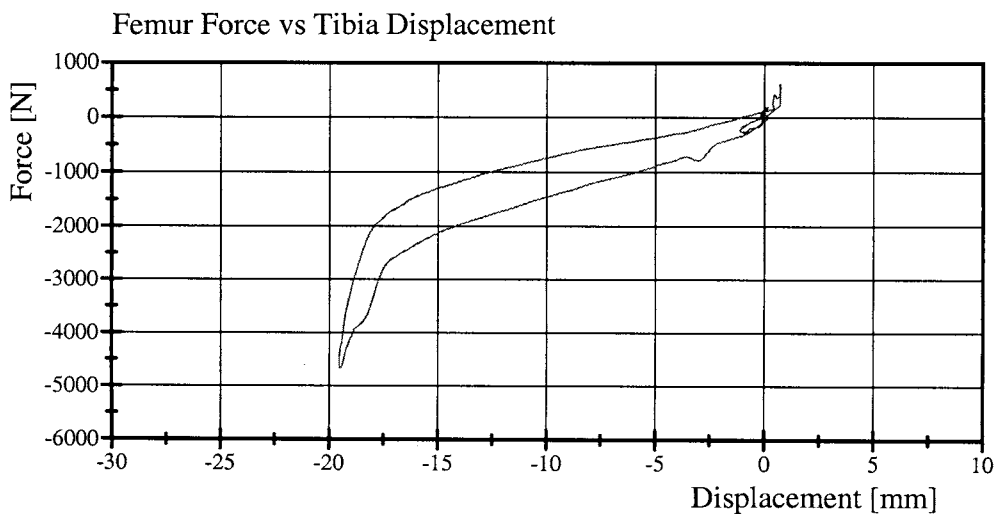
Min: -4672.3 N at 16.6 ms



Filter Class: 600

Max: 0.7 mm at 40.1 ms

Min: -19.5 mm at 17.0 ms



Transportation Research Center Inc.

572E Right Knee Slider Test

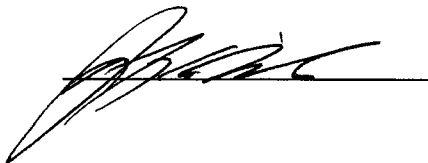
HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/24/2002

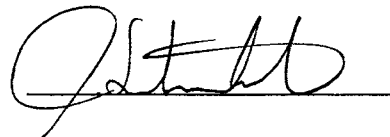
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 48 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.77 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1374 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2353 N | Yes |

Comments:

Technician



Approved

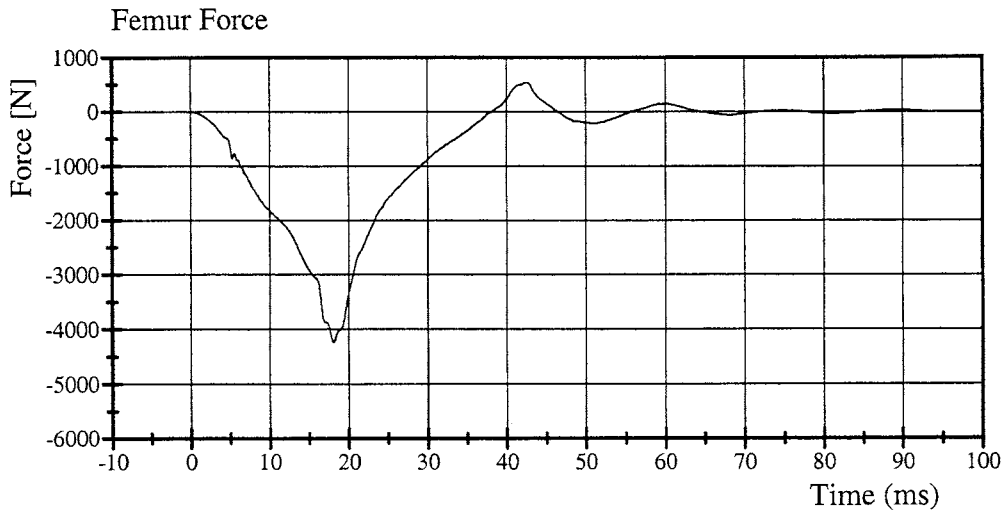


Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

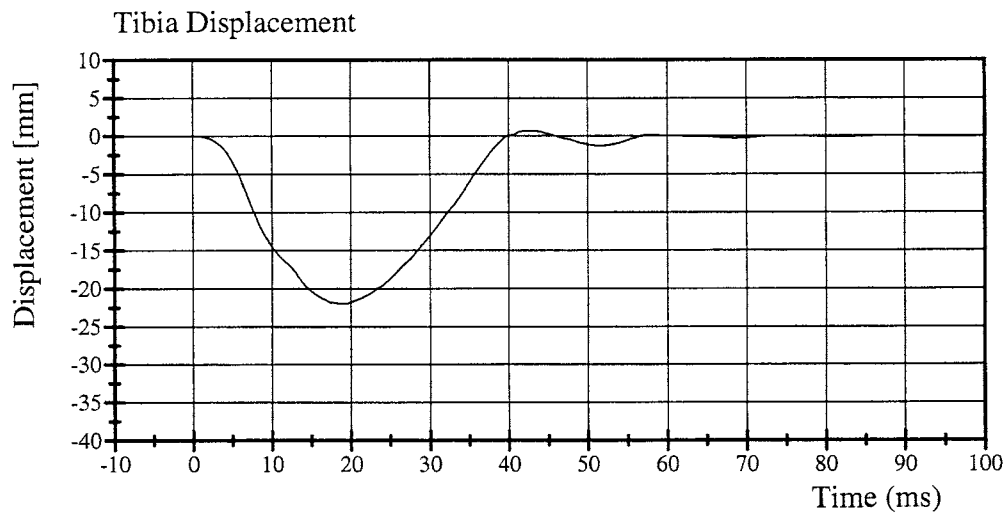
Test Date 09/24/2002



Filter Class: 600

Max: 536.1 N at 42.4 ms

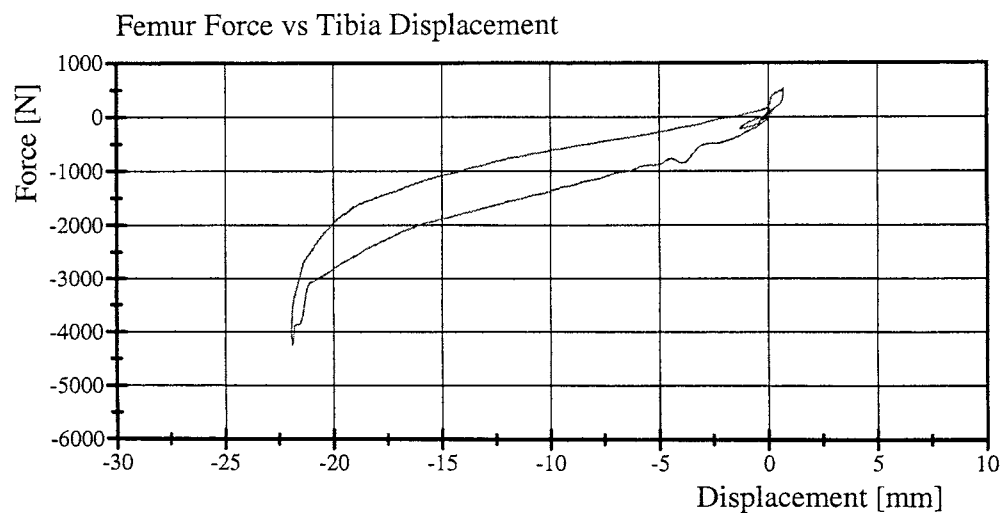
Min: -4236.3 N at 18.1 ms



Filter Class: 600

Max: 0.7 mm at 42.4 ms

Min: -22.0 mm at 18.9 ms



Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

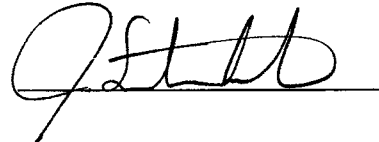
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 43 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.11 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5066 N | Yes |

Comments:

Technician



Approved



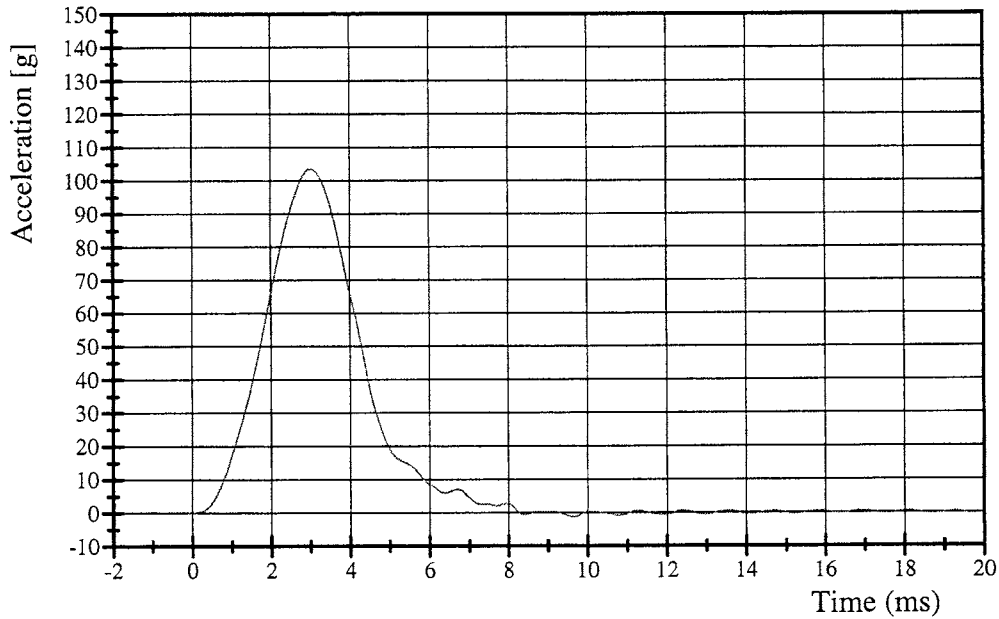
Transportation Research Center Inc.

572E Left Knee Test

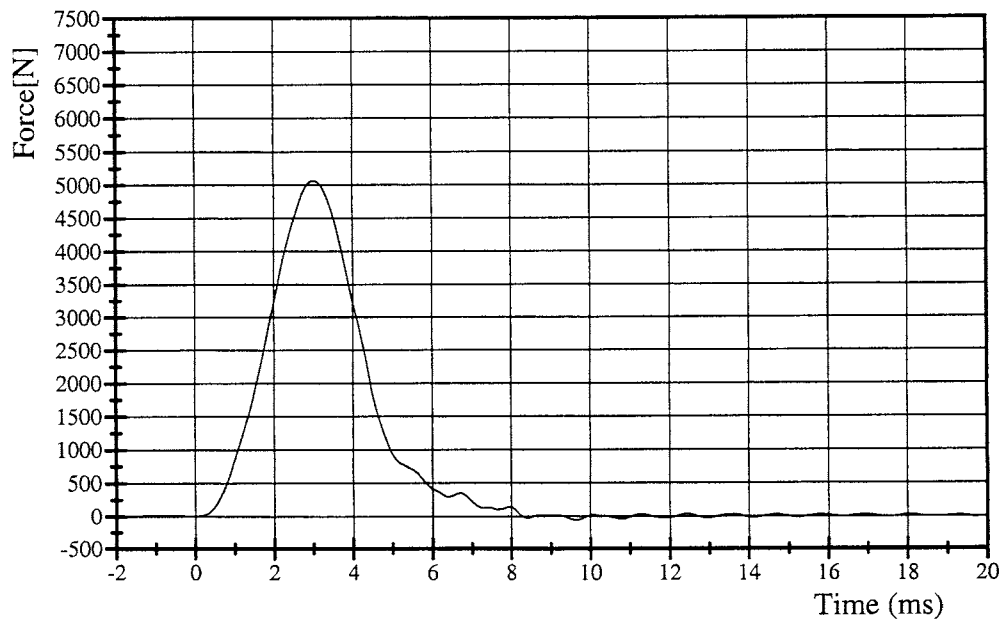
HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

Pendulum Deceleration



Pendulum Force



Transportation Research Center Inc.

572E Right Knee Test

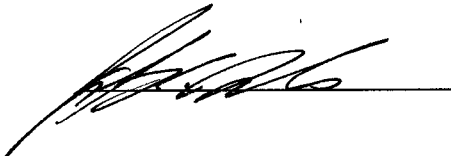
HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

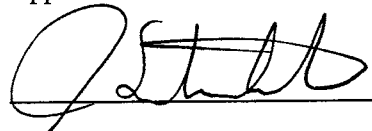
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 43 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.11 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5070 N | Yes |

Comments:

Technician



Approved



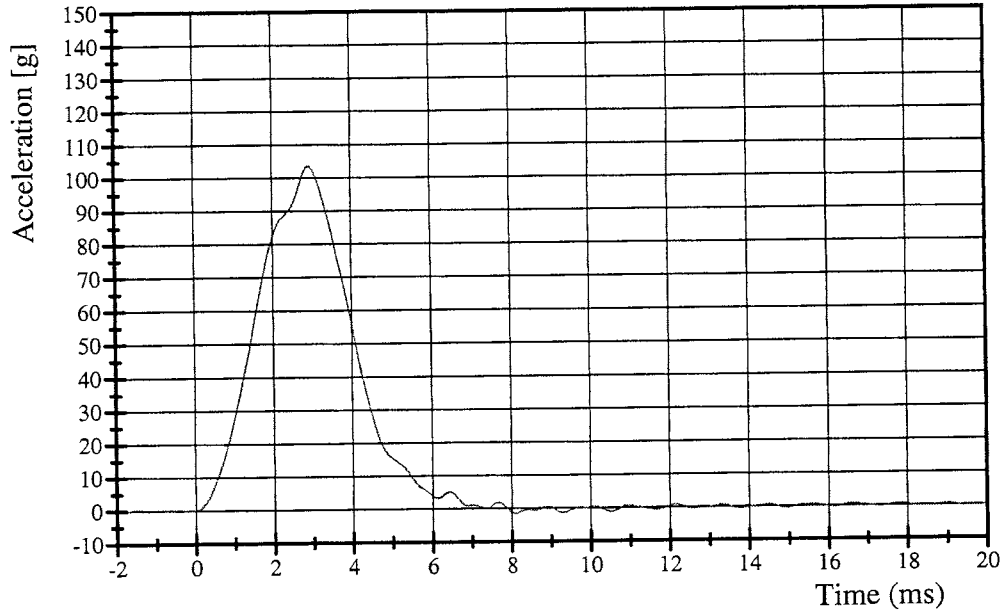
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 168 Calibration No. 17 - 1

Test Date 09/23/2002

Pendulum Deceleration

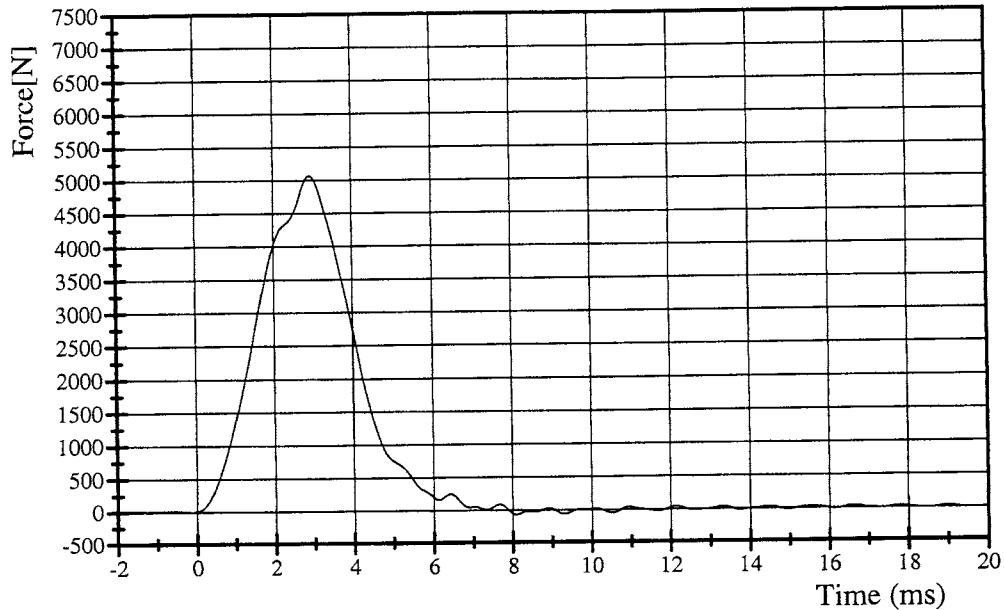


Filter Class: 600

Max: 103.6 g at 3.0 ms

Min: -1.6 g at 8.1 ms

Pendulum Force



Filter Class: 600

Max: 5070.4 N at 3.0 ms

Min: -76.7 N at 8.1 ms

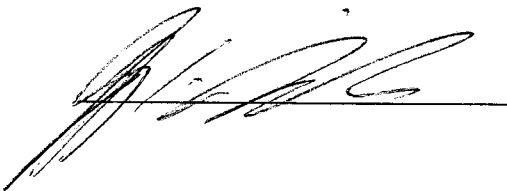
Pre-Test Dummy Configuration and Performance Verification Data

Target Vehicle Passenger Dummy S/N: 169

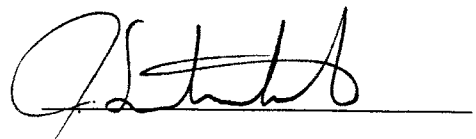
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 169 Calibration No. 14

| Test Parameter | Dimension | Specification | Results | Pass |
|----------------------------------|-----------|---------------|---------|------|
| Location For Chest Circumference | AA | 429 - 434 mm | 432 mm | Yes |
| Location For Waist Circumference | BB | 226 - 231 mm | 229 mm | Yes |
| Chest Circumference | Y | 970 - 1001 mm | 995 mm | Yes |
| Waist Circumference | Z | 836 - 866 mm | 859 mm | Yes |
| Chest Depth | O | 213 - 229 mm | 225 mm | Yes |
| H-Point Height | C | 84 - 89 mm | 85 mm | Yes |
| H-Point From Seatback | D | 135 - 140 mm | 137 mm | Yes |
| Skull Cap To Backline | H | 41 - 46 mm | 43 mm | Yes |
| Total Sitting Height | A | 879 - 889 mm | 880 mm | Yes |
| Thigh Clearance | F | 140 - 155 mm | 146 mm | Yes |
| Buttock Knee Length | K | 579 - 605 mm | 594 mm | Yes |
| Buttock Popliteal Length | N | 452 - 478 mm | 473 mm | Yes |
| Popliteal Height | L | 429 - 455 mm | 436 mm | Yes |
| Knee Pivot Height | M | 485 - 500 mm | 489 mm | Yes |
| Foot Length | P | 252 - 267 mm | 260 mm | Yes |
| Foot Breadth | W | 91 - 107 mm | 96 mm | Yes |
| Shoulder Pivot From Backline | E | 84 - 94 mm | 89 mm | Yes |
| Shoulder Breadth | V | 422 - 437 mm | 429 mm | Yes |
| Shoulder Pivot Height | B | 506 - 521 mm | 519 mm | Yes |
| Elbow Rest Height | J | 191 - 211 mm | 205 mm | Yes |
| Shoulder-Elbow Length | I | 330 - 345 mm | 343 mm | Yes |
| Back Of Elbow To Wrist Pivot | G | 290 - 305 mm | 297 mm | Yes |

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

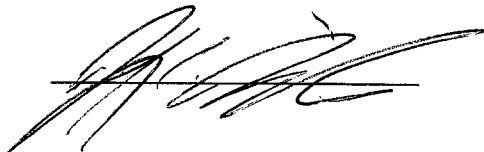
HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/19/2002

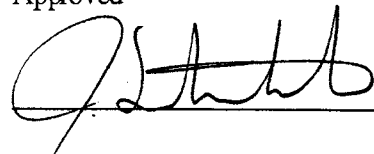
| Test Parameter | Specification | Test Results | Pass |
|---------------------------------|----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Peak Resultant Acceleration | 225 - 275 g | 239.0 g | Yes |
| Peak Lateral Acceleration | 15 g Max | -4.6 g | Yes |
| Is Acceleration Curve Unimodal? | Yes | Yes | Yes |

Comments:

Technician



Approved

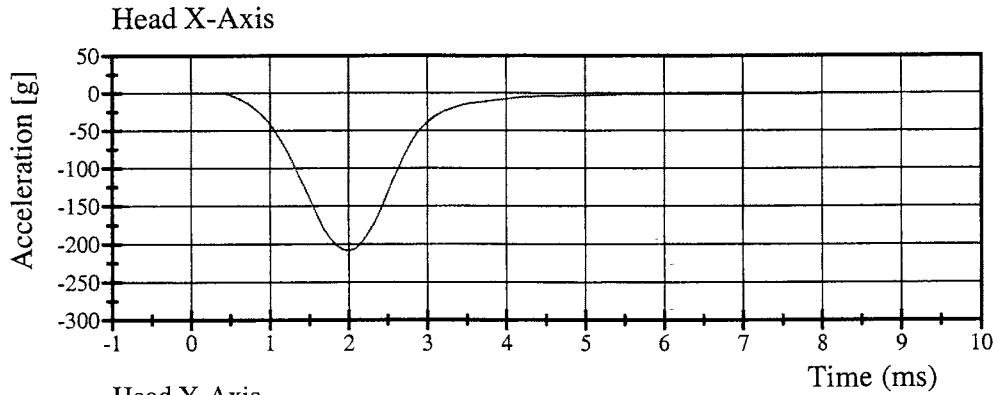


Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

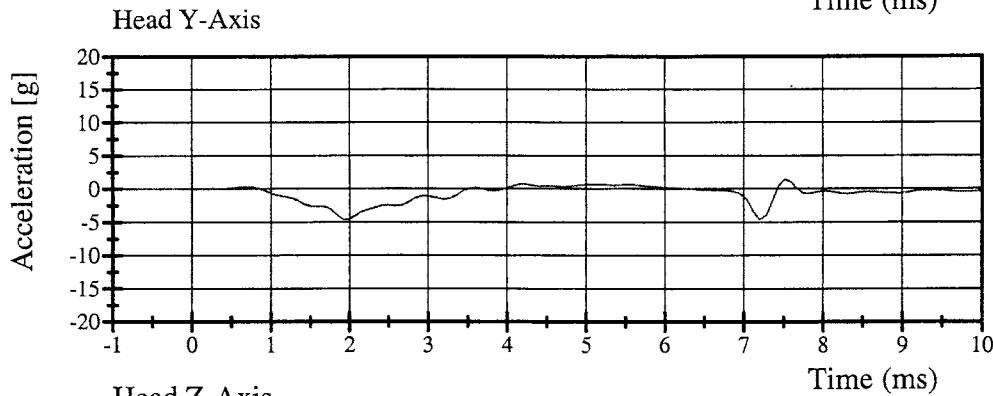
Test Date 07/19/2002



Filter Class: 1000

Max: 0.5 g at 0.3 ms

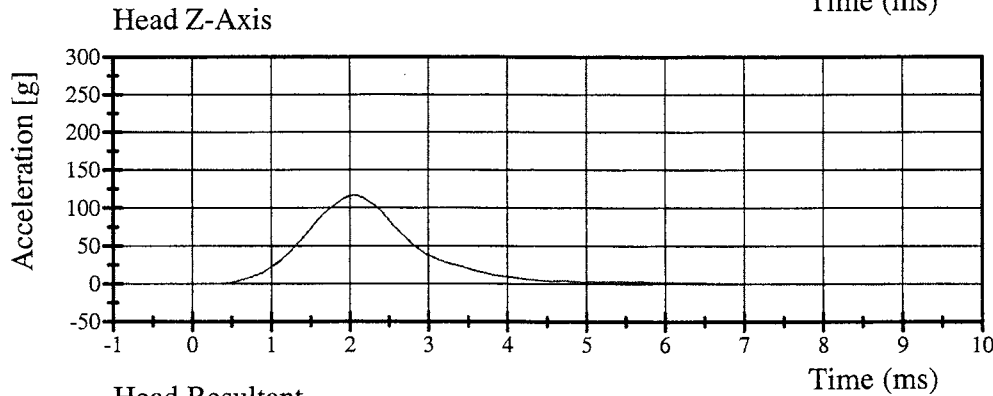
Min: -208.8 g at 2.0 ms



Filter Class: 1000

Max: 1.4 g at 7.5 ms

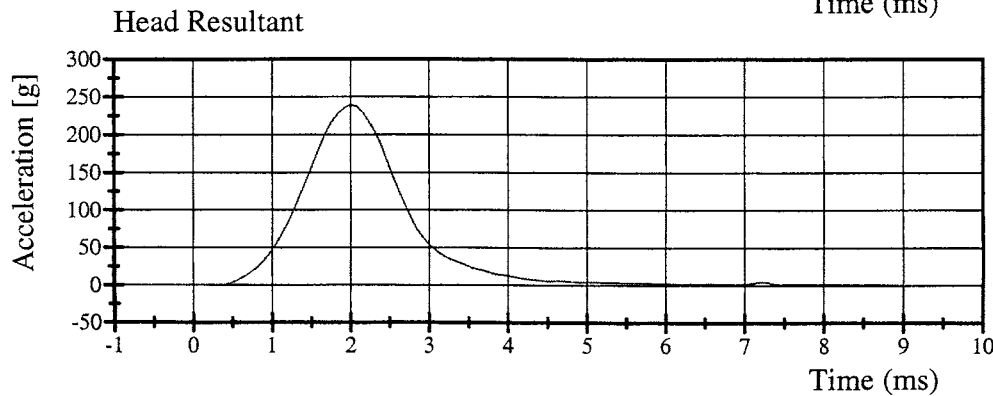
Min: -4.6 g at 1.9 ms



Filter Class: 1000

Max: 116.8 g at 2.1 ms

Min: -0.7 g at 8.7 ms



Filter Class: 1000

Max: 239.0 g at 2.0 ms

Min: 0.0 g at 0.9 ms

Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

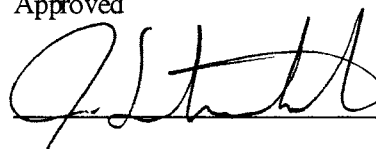
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 57 % | Yes |
| Impact Velocity | 6.89 - 7.13 m/s | 7.01 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 22.50 - 27.50 g | 25.57 g | Yes |
| 20 ms | 17.60 - 22.60 g | 22.32 g | Yes |
| 30 ms | 12.50 - 18.50 g | 16.24 g | Yes |
| Max Pendulum Deceleration | 29.00 g | 26.01 g | Yes |
| Max Pendulum Deceleration After 30 ms | 29.00 g | 16.21 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 34 - 42 ms | 37.52 ms | Yes |
| D Plane Rotation | | | |
| Max | 64 - 78 ° | 73.52 ° | Yes |
| Time | 57 - 64 ms | 60.08 ms | Yes |
| Moment About Occipital Condyle | | | |
| Max | 88.2 - 108.4 N·m | 94.76 N·m | Yes |
| Time | 47 - 58 ms | 51.12 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 113 - 128 ms | 115.84 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 97 - 107 ms | 100.96 ms | Yes |

Comments:

Technician



Approved



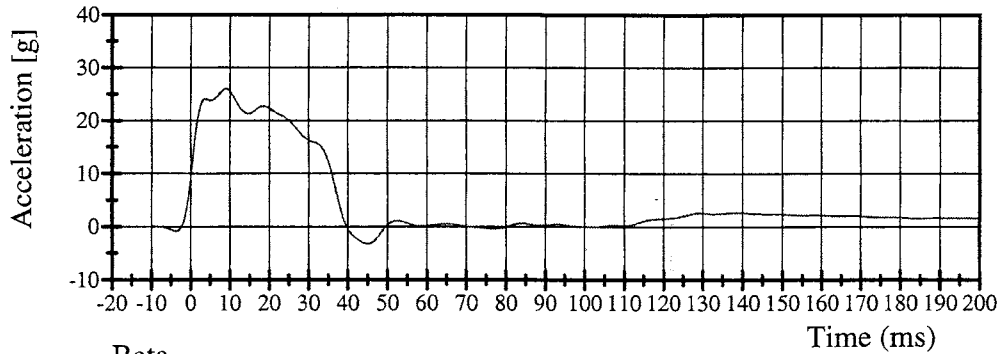
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

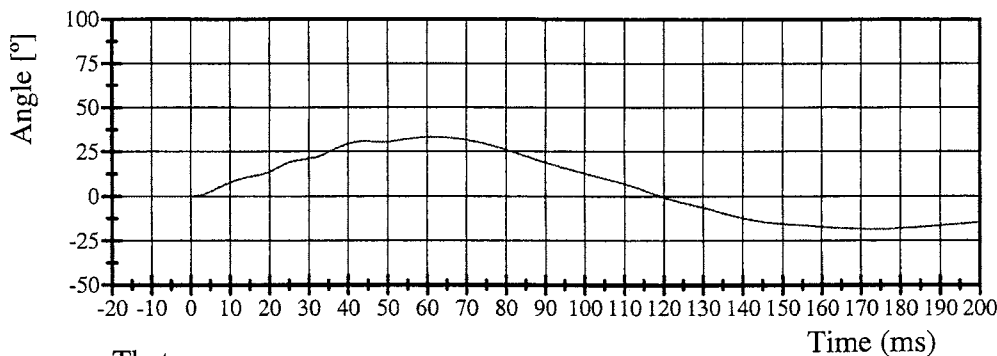


Filter Class: 60

Max: 26.0 g at 9.0 ms

Min: -3.2 g at 45.0 ms

Beta

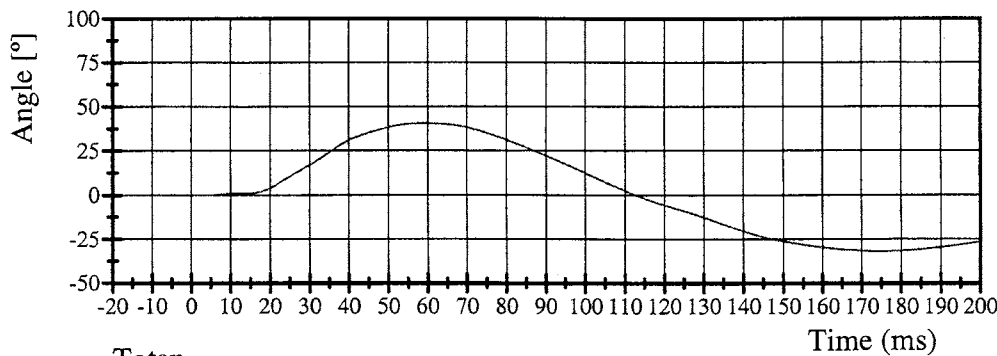


Filter Class: 60

Max: 33.1 ° at 61.4 ms

Min: -18.7 ° at 174.6 ms

Theta

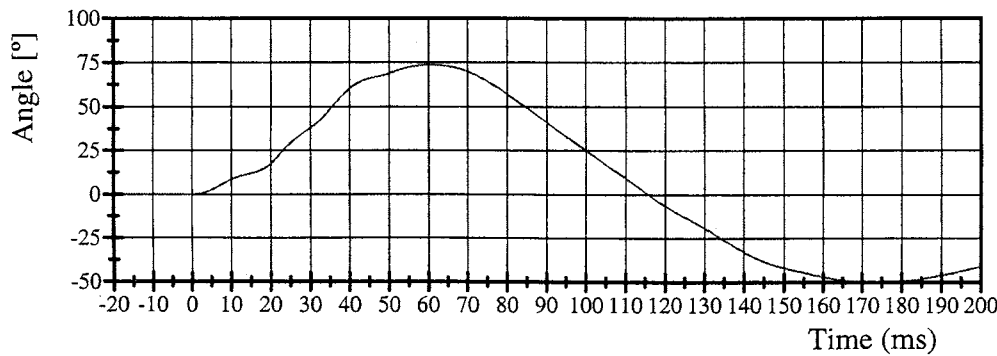


Filter Class: 60

Max: 40.5 ° at 58.9 ms

Min: -31.8 ° at 174.8 ms

Totan



Filter Class: 60

Max: 73.5 ° at 60.1 ms

Min: -50.5 ° at 174.7 ms

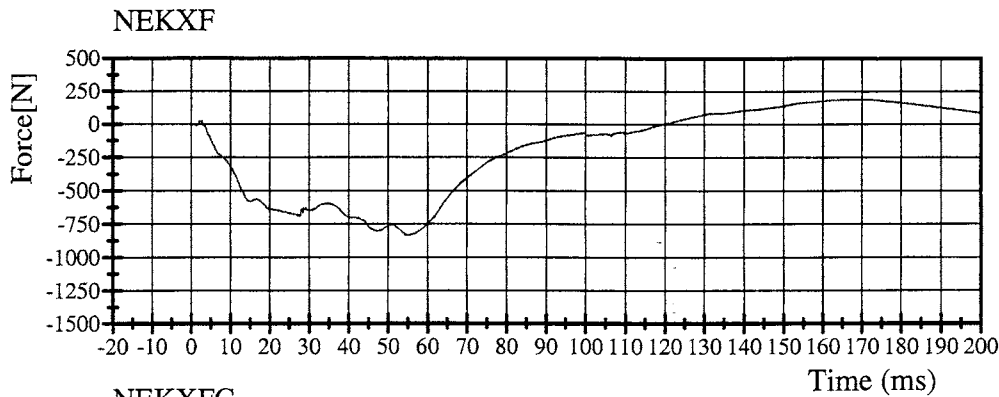


Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

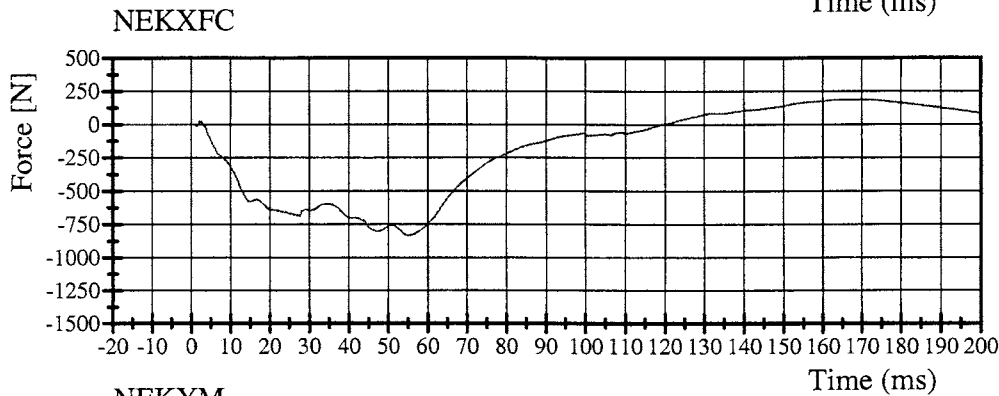
Test Date 07/22/2002



Filter Class: 1000

Max: 186.9 N at 169.6 ms

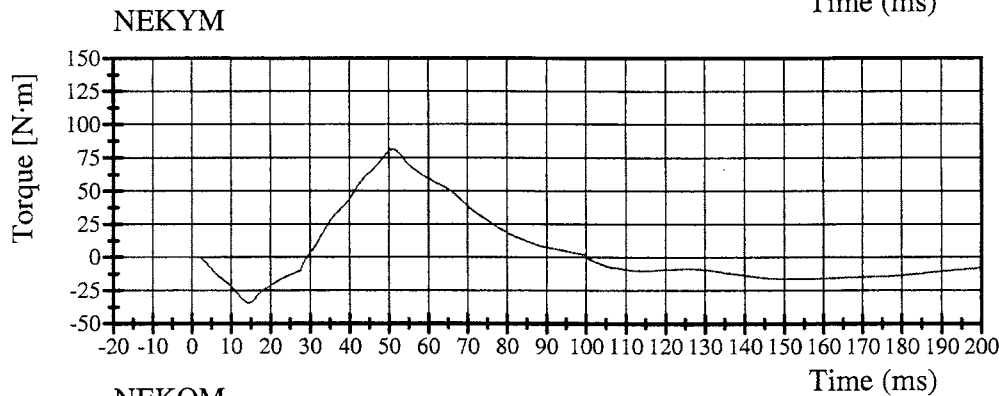
Min: -834.5 N at 54.9 ms



Filter Class: 600

Max: 186.7 N at 169.7 ms

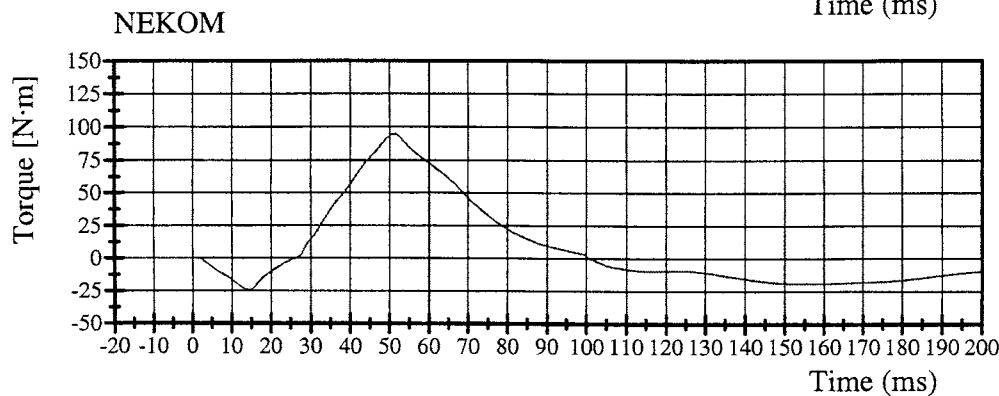
Min: -834.1 N at 55.0 ms



Filter Class: 600

Max: 81.4 N·m at 51.0 ms

Min: -34.4 N·m at 14.5 ms



Filter Class: 600

Max: 94.8 N·m at 51.1 ms

Min: -24.3 N·m at 14.3 ms

Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

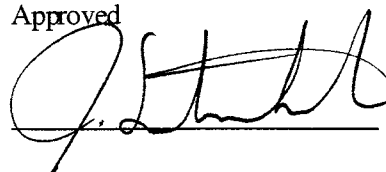
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|---------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 57 % | Yes |
| Impact Velocity | 5.95 - 6.19 m/s | 6.11 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 17.20 - 21.20 g | 19.13 g | Yes |
| 20 ms | 14.00 - 19.00 g | 17.36 g | Yes |
| 30 ms | 11.00 - 16.00 g | 13.68 g | Yes |
| Max Pendulum Deceleration | 22.00 g | 19.51 g | Yes |
| Max Pendulum Deceleration After 30 ms | 22.00 g | 13.64 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 38 - 46 ms | 44.00 ms | Yes |
| D Plane Rotation | | | |
| Max | 81 - 106 ° | 105.32 ° | Yes |
| Time | 72 - 82 ms | 77.04 ms | Yes |
| Moment About Occipital Condyle | | | |
| Min | -80.0 - (-52.9) N·m | -64.67 N·m | Yes |
| Time | 65 - 79 ms | 71.52 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 147 - 174 ms | 157.76 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 120 - 148 ms | 146.00 ms | Yes |

Comments:

Technician



Approved



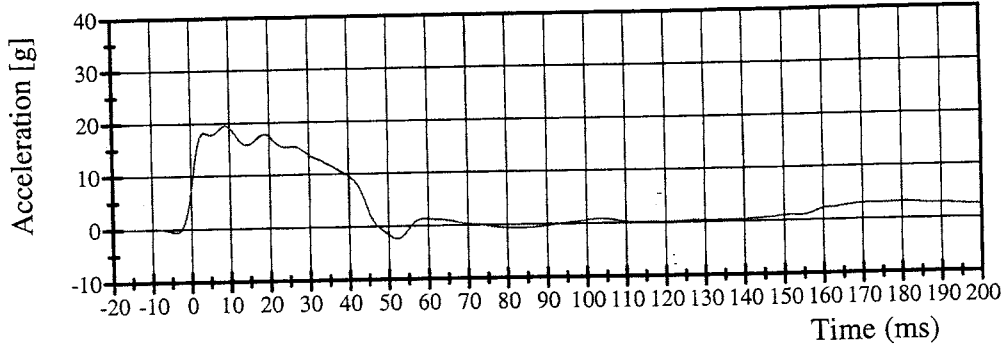
Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

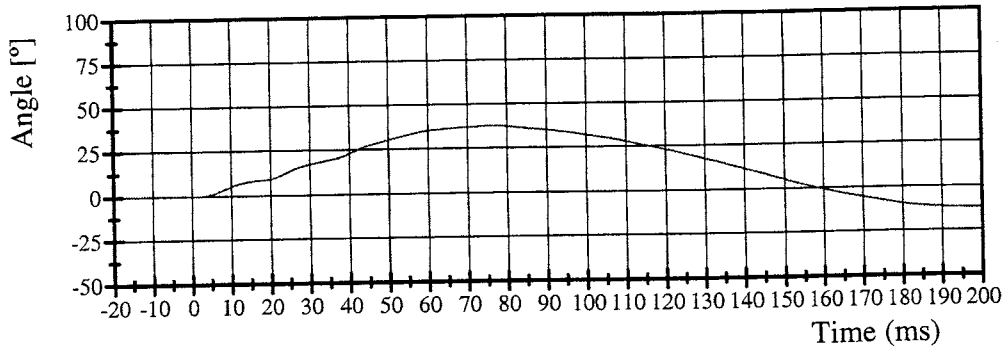


Filter Class: 60

Max: 19.5 g at 9.0 ms

Min: -2.3 g at 52.1 ms

Beta

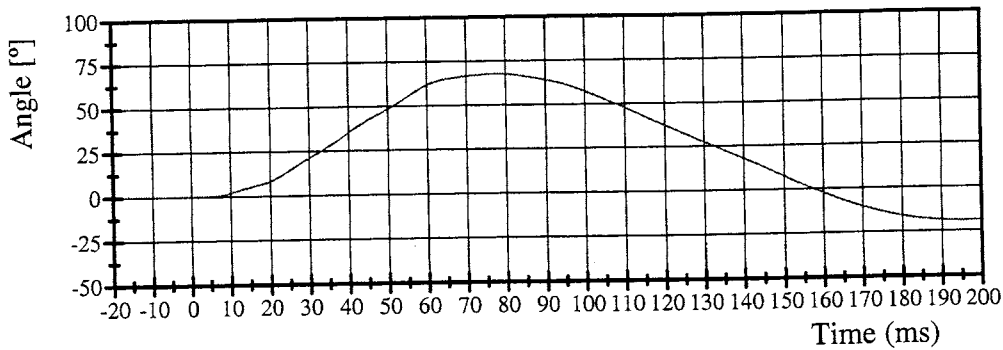


Filter Class: 60

Max: 37.7 ° at 76.6 ms

Min: -12.3 ° at 198.6 ms

Theta

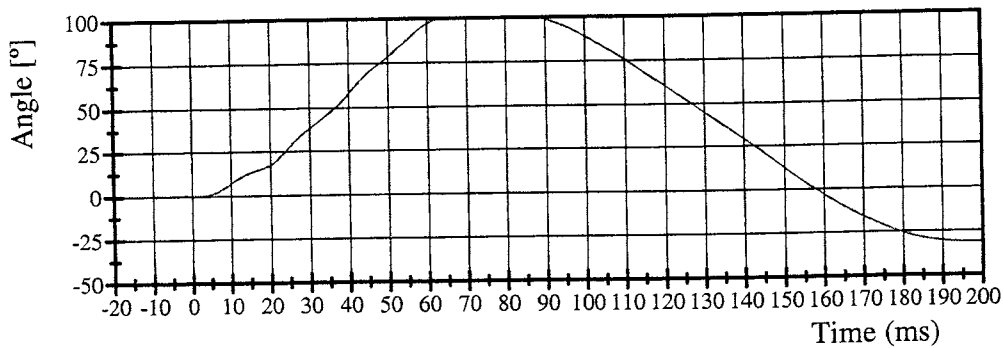


Filter Class: 60

Max: 67.6 ° at 77.6 ms

Min: -19.0 ° at 195.3 ms

Totan



Filter Class: 60

Max: 105.3 ° at 77.0 ms

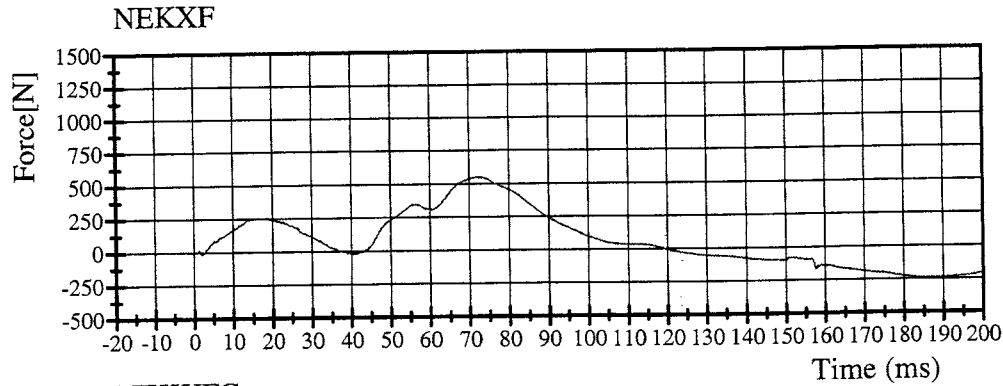
Min: -31.3 ° at 196.9 ms

Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

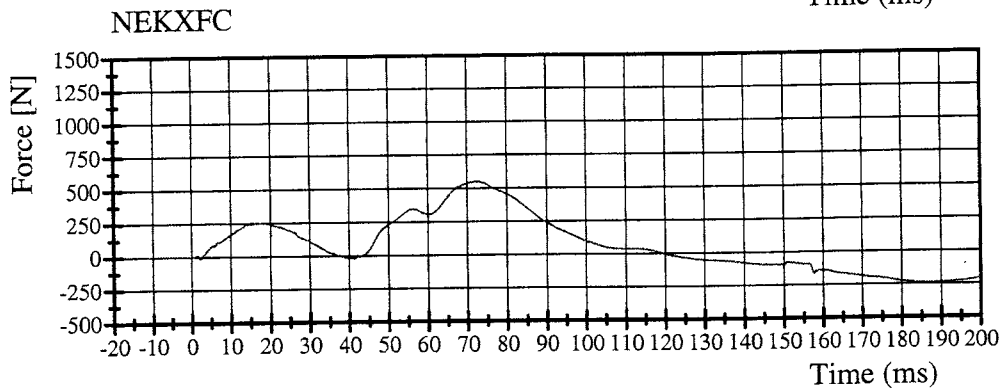
Test Date 07/22/2002



Filter Class: 1000

Max: 549.2 N at 71.9 ms

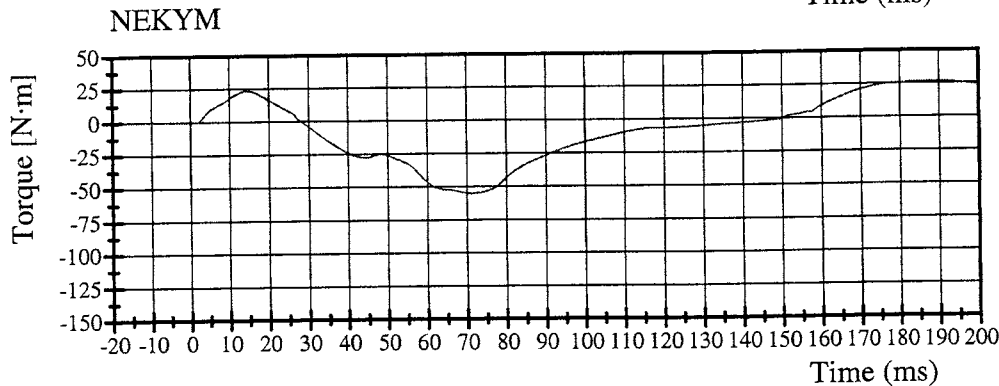
Min: -240.8 N at 186.9 ms



Filter Class: 600

Max: 549.0 N at 72.0 ms

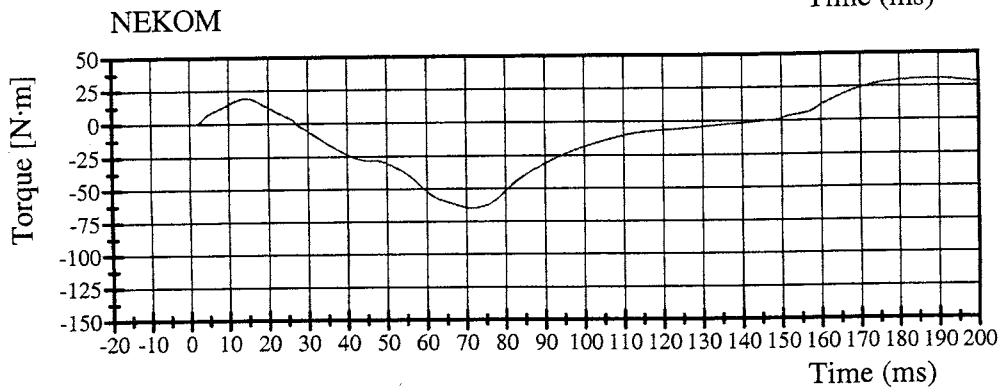
Min: -240.6 N at 188.1 ms



Filter Class: 600

Max: 26.4 N·m at 187.9 ms

Min: -55.0 N·m at 71.2 ms



Filter Class: 600

Max: 30.6 N·m at 187.9 ms

Min: -64.7 N·m at 71.5 ms

Transportation Research Center Inc.

572E Thorax Test

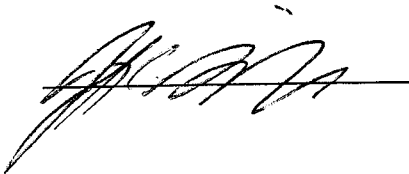
HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

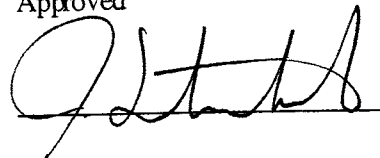
| Test Parameter | Specification | Test Results | Pass |
|--------------------------|--------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Pendulum Velocity | 6.59 - 6.83 m/s | 6.68 m/s | Yes |
| Maximum Chest Deflection | -72.6 - (-63.5) mm | -72.1 mm | Yes |
| Maximum Resistive Force | 5159 - 5894 N | 5394 N | Yes |
| Internal Hysteresis | 69 - 85 % | 71 % | Yes |

Comments:

Technician



Approved



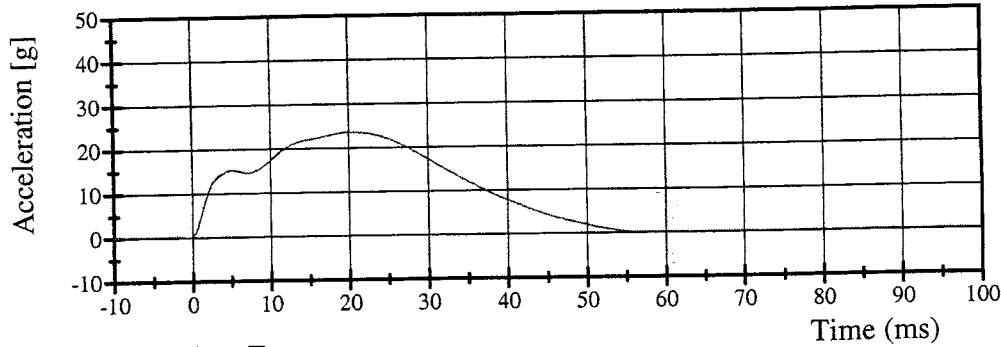
Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

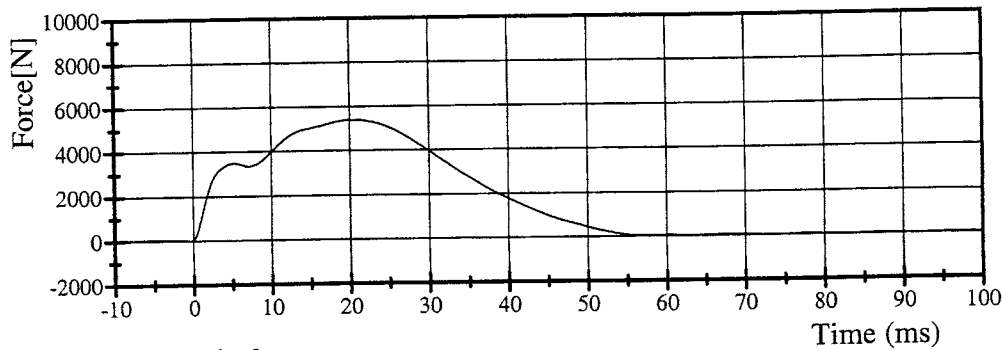


Filter Class: 180

Max: 23.5 g at 20.3 ms

Min: -0.0 g at -75.8 ms

Pendulum Force

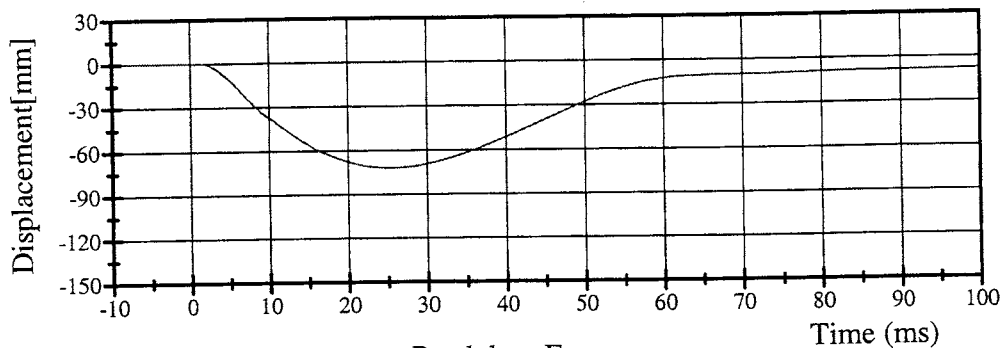


Filter Class: 180

Max: 5394.3 N at 20.3 ms

Min: -8.2 N at -75.8 ms

Chest Displacement

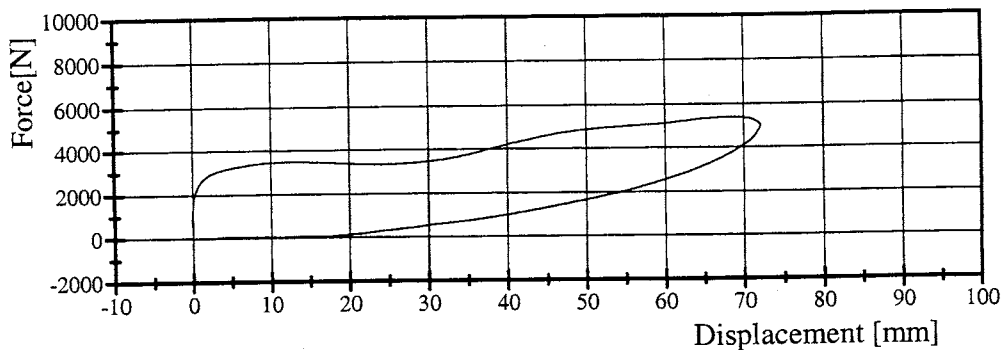


Filter Class: 180

Max: 0.1 mm at 0.9 ms

Min: -72.1 mm at 25.3 ms

Chest Displacement vs. Pendulum Force



Transportation Research Center Inc

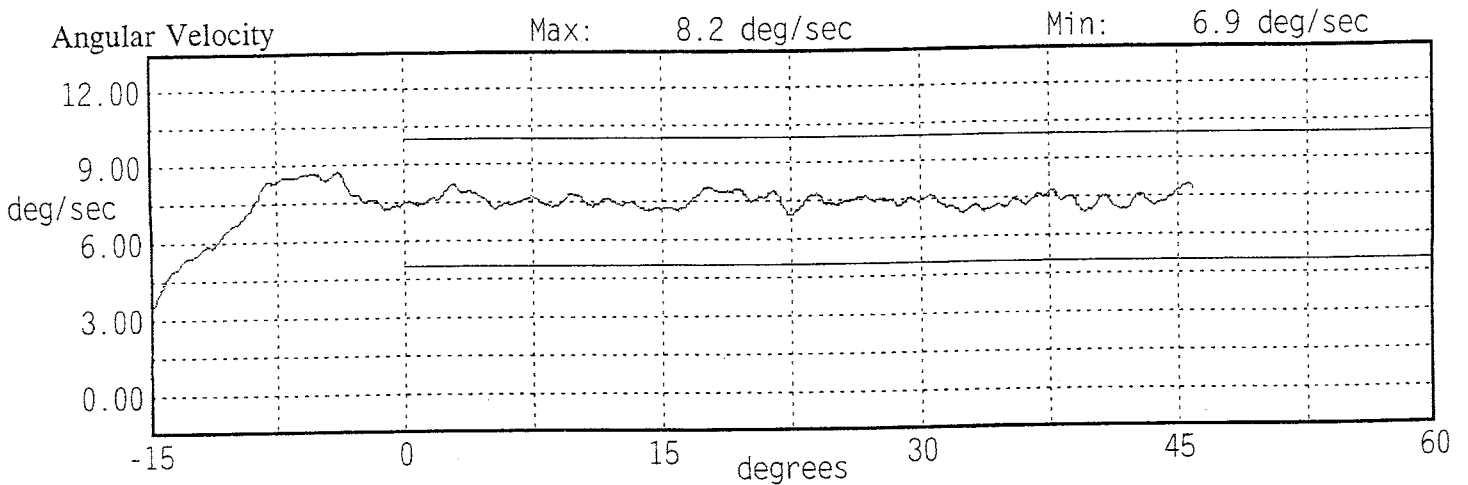
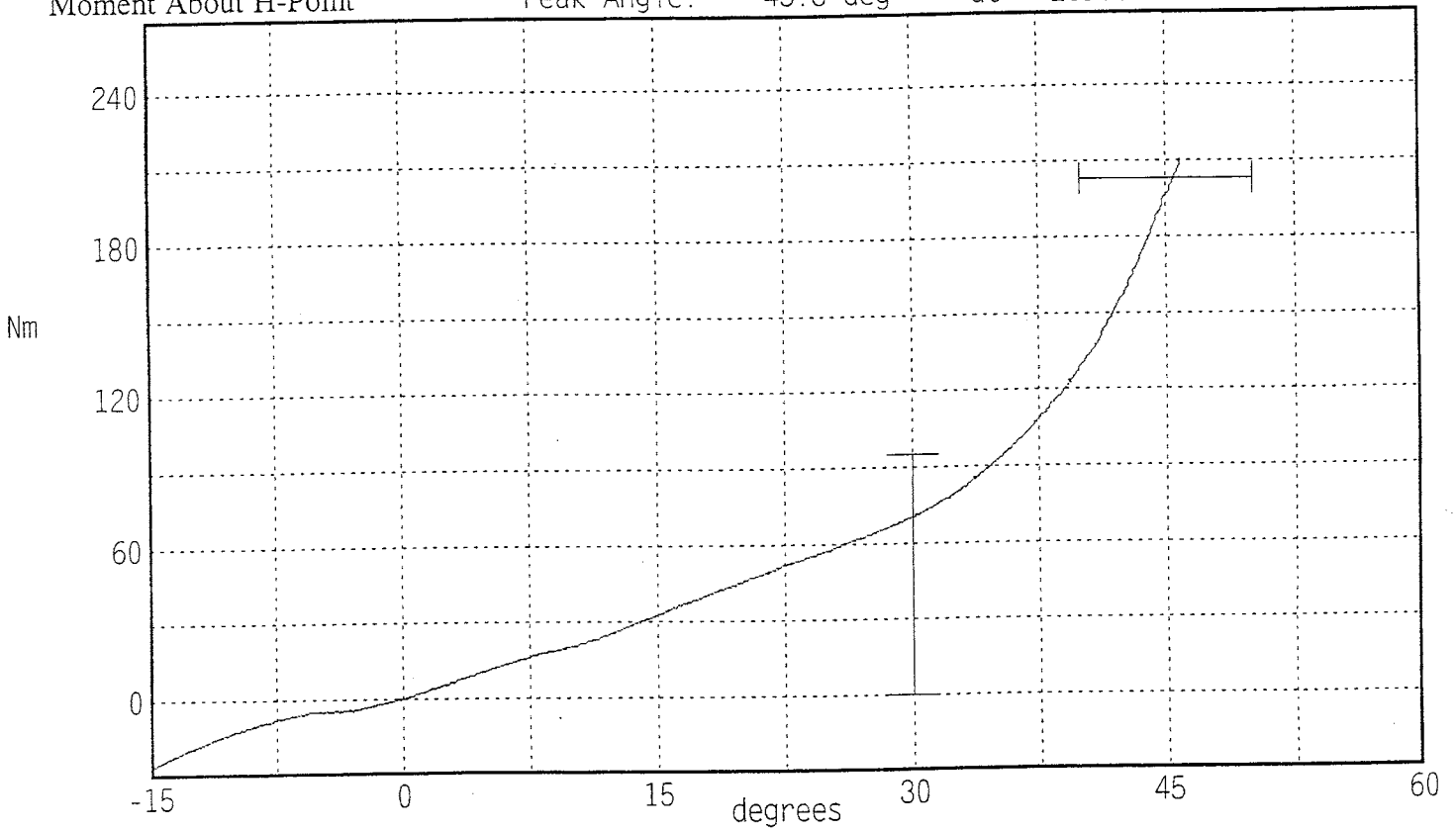
Hybrid III Hip Range of Motion

Serial Number: 169L
 Test Number: 169C14
 Comments:

Date: 07/22/2002
 Time: 08:52

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.7 °C | Pass |
| Humidity | 10 - 70 | 57 % | Pass |
| Moment at 30 deg | <= 94.9 | 70.7 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 45.6 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec | Pass |

Moment About H-Point
 Peak Moment: 210.3 Nm at 45.8 deg
 Peak Angle: 45.8 deg at 209.5 Nm



Transportation Research Center Inc

Hybrid III Hip Range of Motion

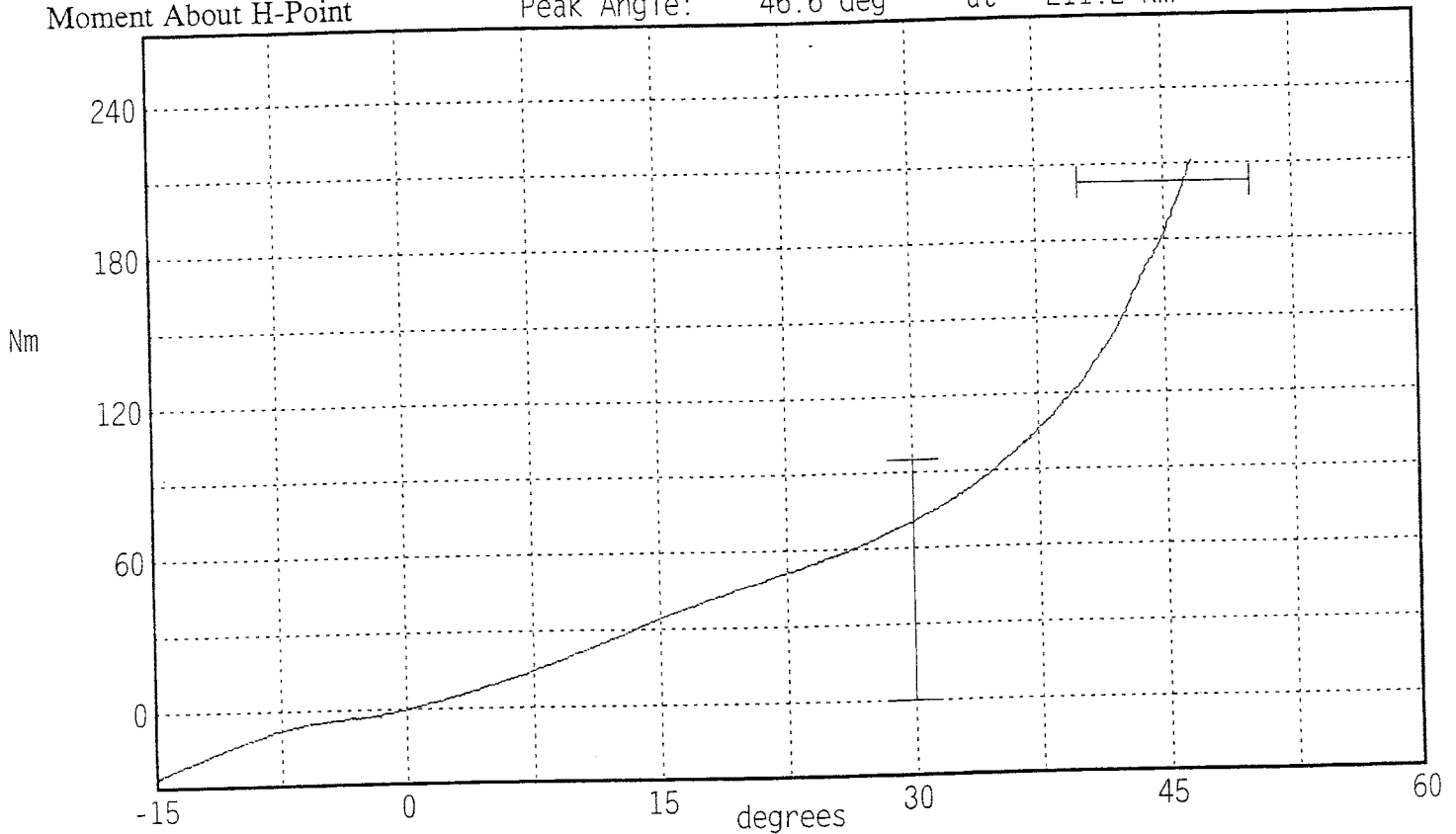
Serial Number: 169R
 Test Number: 169C14
 Comments:

Date: 07/22/2002
 Time: 09:12

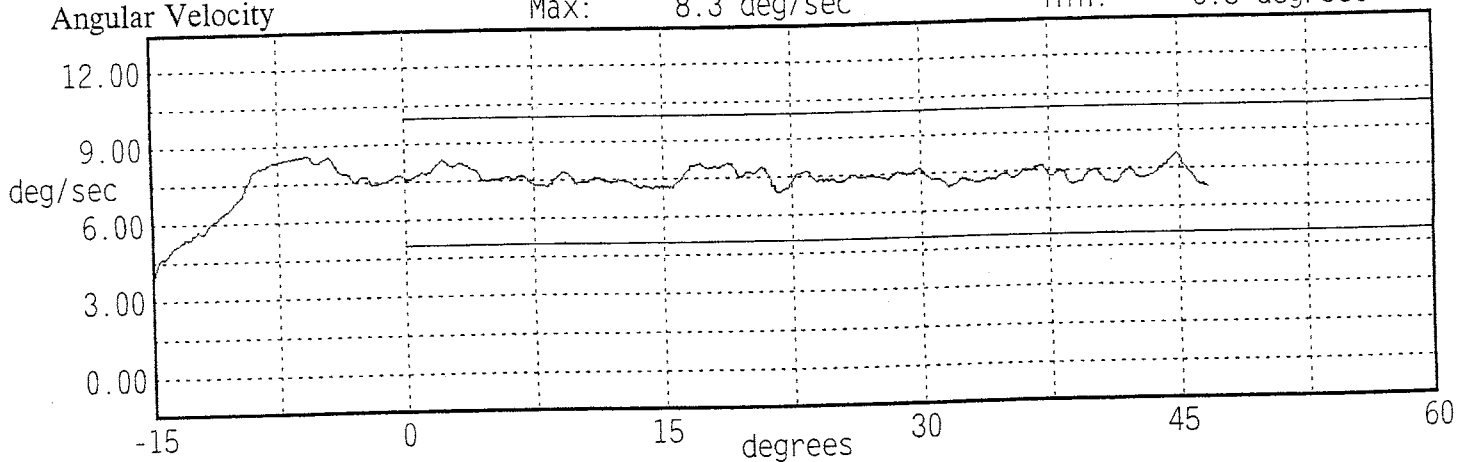
| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.7 °C | Pass |
| Humidity | 10 - 70 | 57 % | Pass |
| Moment at 30 deg | <= 94.9 | 70.7 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 46.2 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec | Pass |

Peak Moment: 211.2 Nm at 46.6 deg
 Peak Angle: 46.6 deg at 211.2 Nm

Moment About H-Point



Angular Velocity Max: 8.3 deg/sec Min: 6.8 deg/sec



Transportation Research Center Inc.

572E Left Knee Slider Test

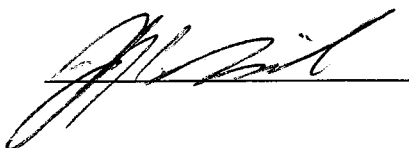
HIII 50th Male Serial No. 169 Calibration No. 14 - 2

Test Date 07/09/2002

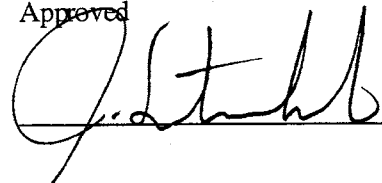
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.73 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1309 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -3070 N | Yes |

Comments:

Technician



Approved

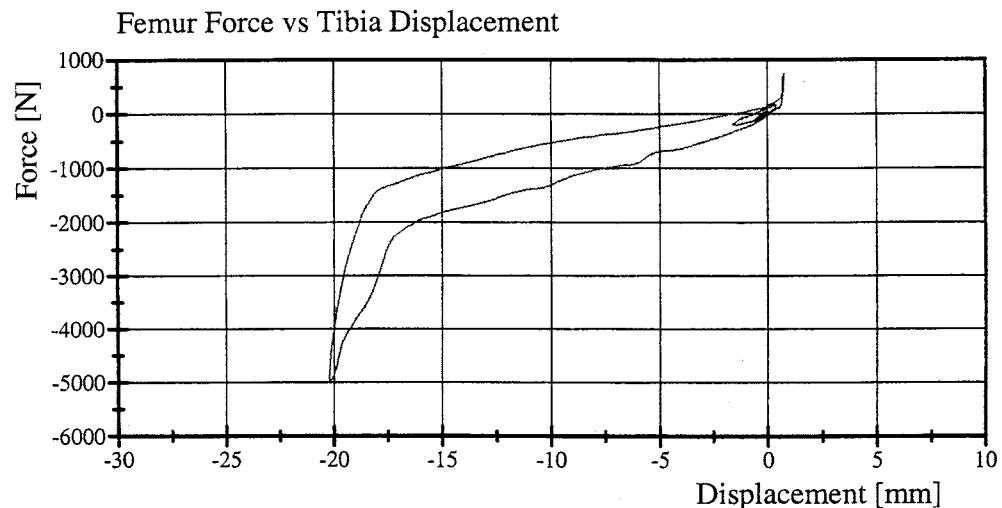
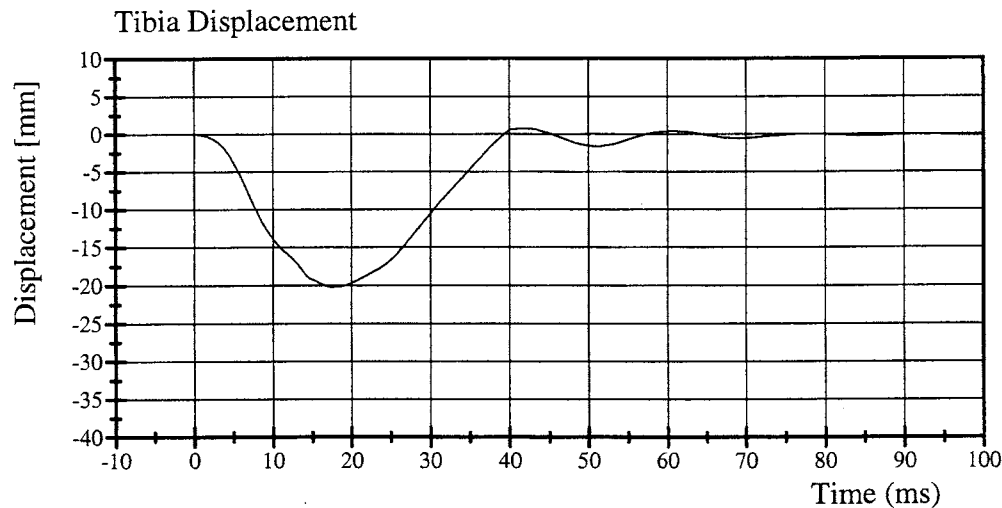
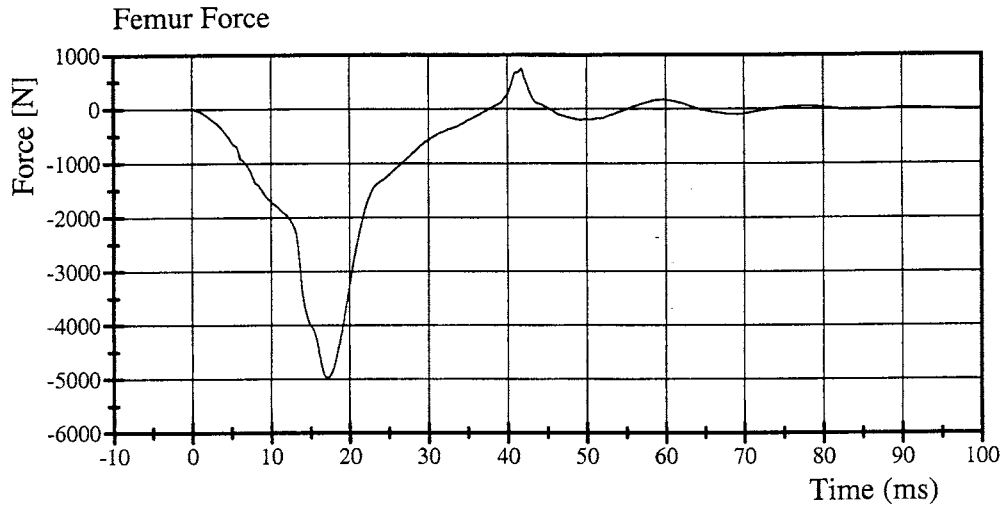


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 2

Test Date 07/09/2002



Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

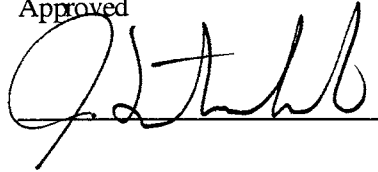
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 57 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.74 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1361 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2429 N | Yes |

Comments:

Technician



Approved

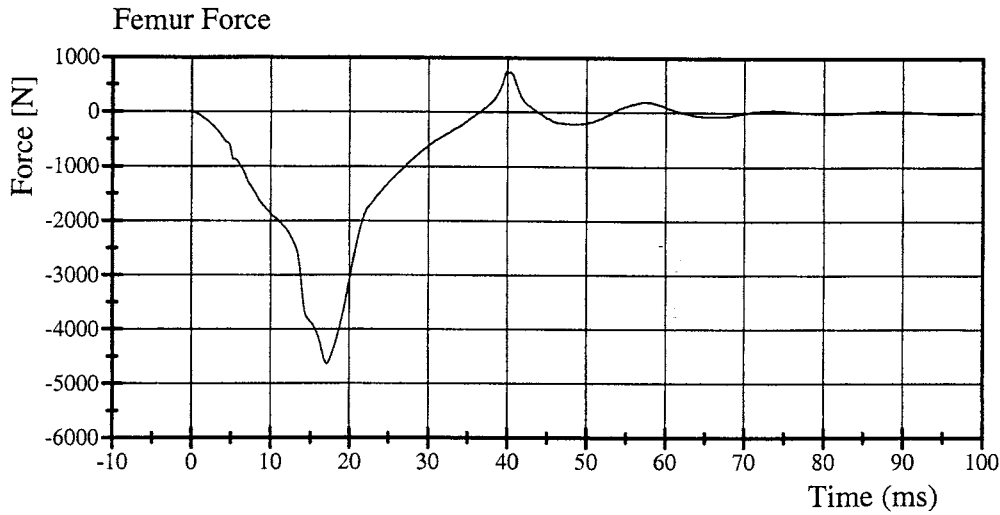


Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

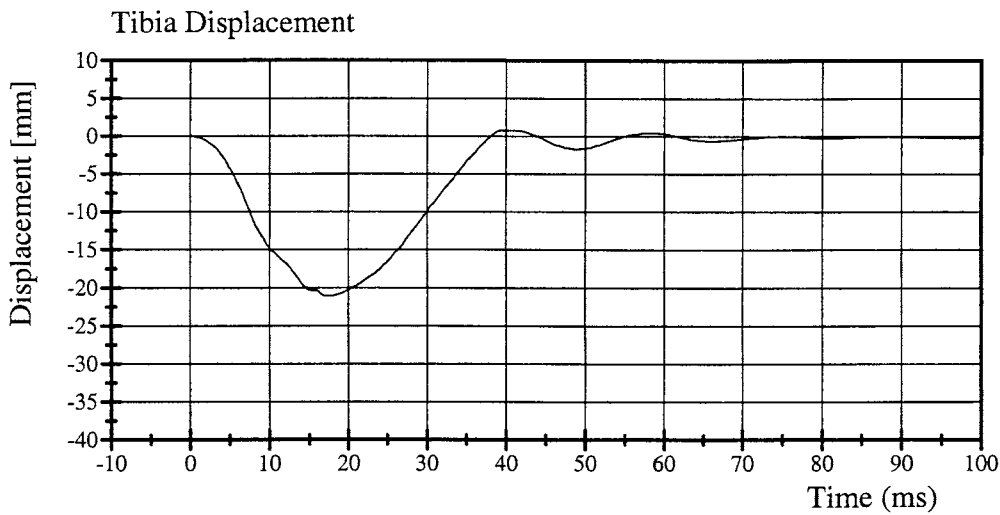
Test Date 07/09/2002



Filter Class: 600

Max: 737.9 N at 39.8 ms

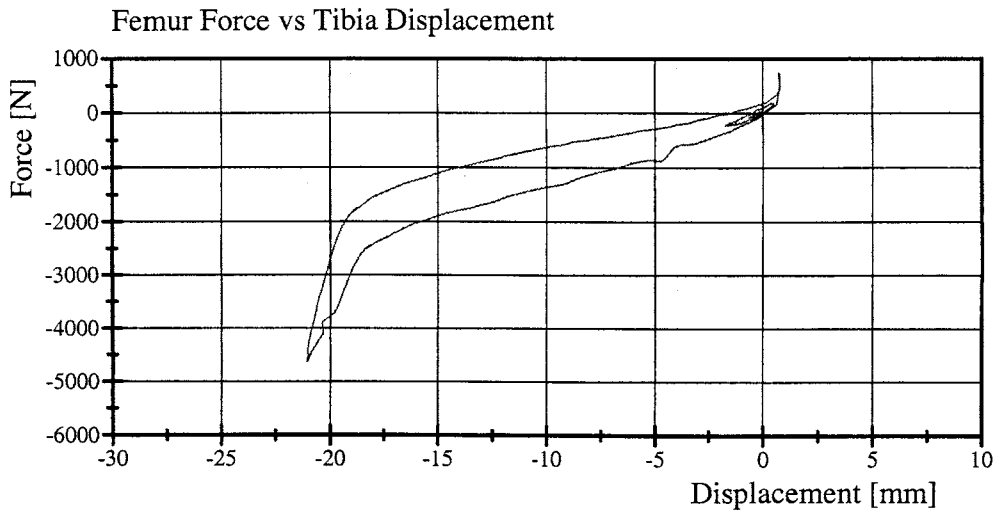
Min: -4637.7 N at 17.1 ms



Filter Class: 600

Max: 0.8 mm at 39.3 ms

Min: -21.1 mm at 17.1 ms



Transportation Research Center Inc.

572E Left Knee Test

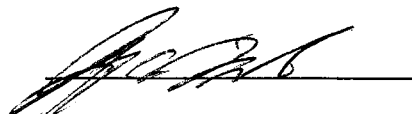
HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

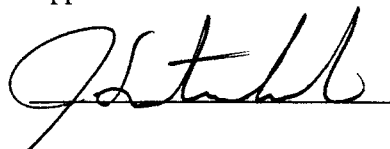
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.09 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5018 N | Yes |

Comments:

Technician



Approved

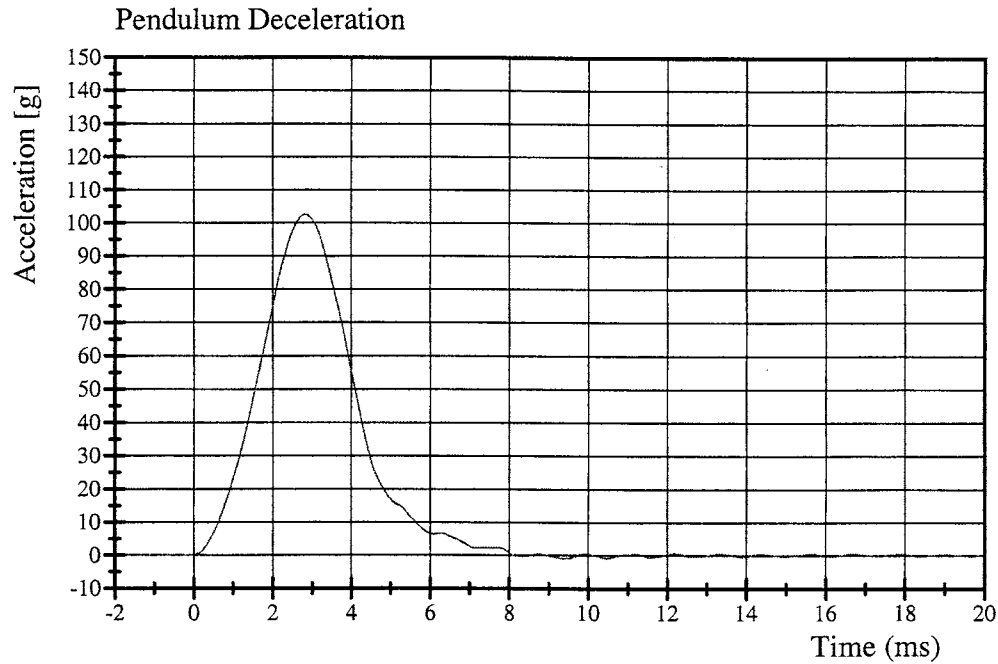


Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

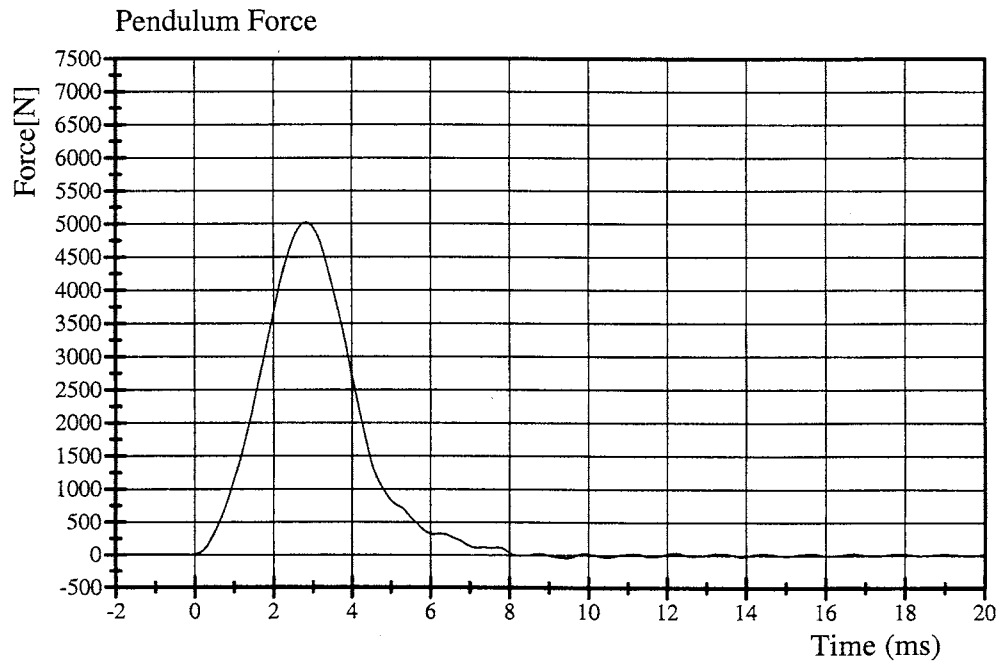
Test Date 07/09/2002



Filter Class: 600

Max: 102.5 g at 2.8 ms

Min: -1.0 g at 9.4 ms



Filter Class: 600

Max: 5017.8 N at 2.8 ms

Min: -47.2 N at 9.4 ms

Transportation Research Center Inc.

572E Right Knee Test

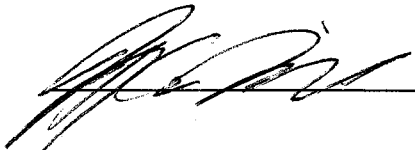
HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

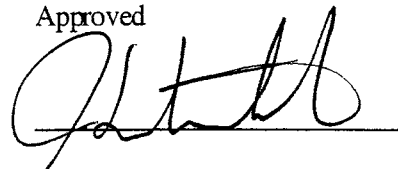
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 55 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.09 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5506 N | Yes |

Comments:

Technician



Approved



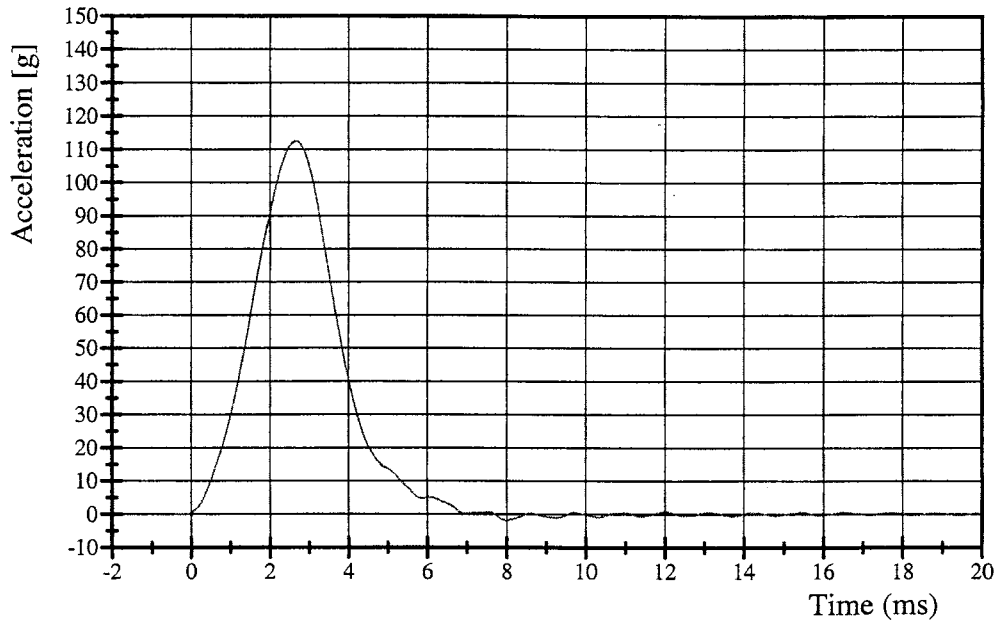
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

Pendulum Deceleration

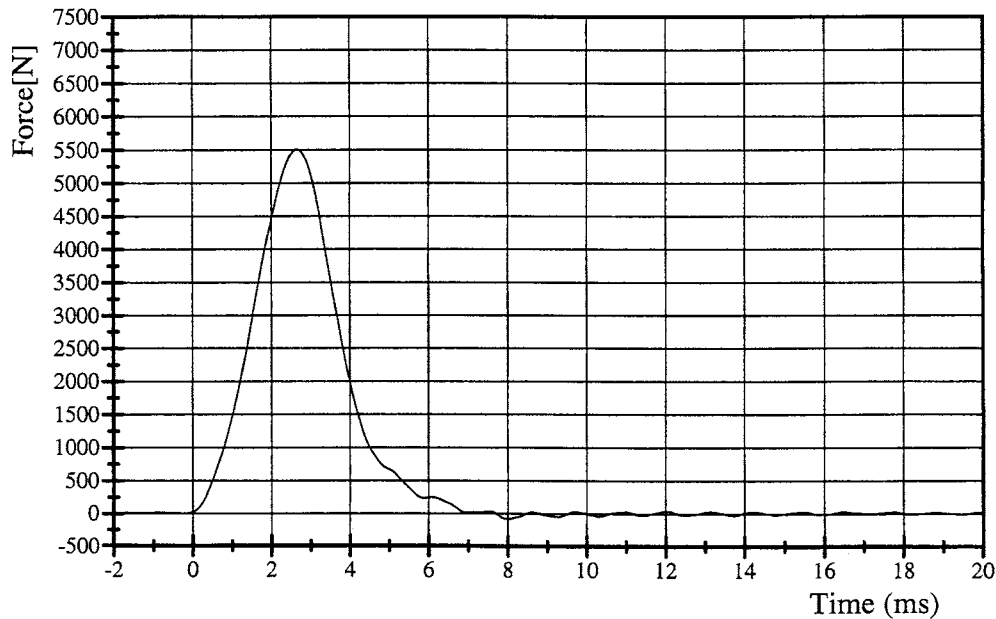


Filter Class: 600

Max: 112.5 g at 2.6 ms

Min: -1.7 g at 8.0 ms

Pendulum Force



Filter Class: 600

Max: 5506.1 N at 2.6 ms

Min: -84.1 N at 8.0 ms

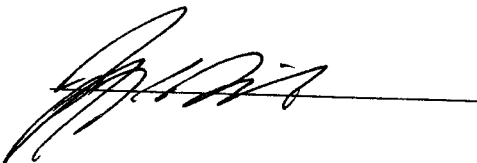
Post-Test Dummy Configuration and Performance Verification Data

Target Vehicle Passenger Dummy S/N: 169

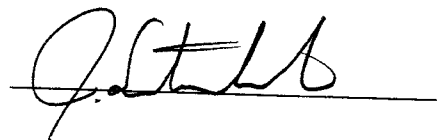
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 169 Calibration No. 15

| Test Parameter | Dimension | Specification | Results | Pass |
|----------------------------------|-----------|---------------|---------|------|
| Location For Chest Circumference | AA | 429 - 434 mm | 432 mm | Yes |
| Location For Waist Circumference | BB | 226 - 231 mm | 229 mm | Yes |
| Chest Circumference | Y | 970 - 1001 mm | 994 mm | Yes |
| Waist Circumference | Z | 836 - 866 mm | 862 mm | Yes |
| Chest Depth | O | 213 - 229 mm | 223 mm | Yes |
| H-Point Height | C | 84 - 89 mm | 86 mm | Yes |
| H-Point From Seatback | D | 135 - 140 mm | 136 mm | Yes |
| Skull Cap To Backline | H | 41 - 46 mm | 45 mm | Yes |
| Total Sitting Height | A | 879 - 889 mm | 882 mm | Yes |
| Thigh Clearance | F | 140 - 155 mm | 147 mm | Yes |
| Buttock Knee Length | K | 579 - 605 mm | 591 mm | Yes |
| Buttock Popliteal Length | N | 452 - 478 mm | 470 mm | Yes |
| Popliteal Height | L | 429 - 455 mm | 438 mm | Yes |
| Knee Pivot Height | M | 485 - 500 mm | 488 mm | Yes |
| Foot Length | P | 252 - 267 mm | 254 mm | Yes |
| Foot Breadth | W | 91 - 107 mm | 102 mm | Yes |
| Shoulder Pivot From Backline | E | 84 - 94 mm | 90 mm | Yes |
| Shoulder Breadth | V | 422 - 437 mm | 428 mm | Yes |
| Shoulder Pivot Height | B | 506 - 521 mm | 517 mm | Yes |
| Elbow Rest Height | J | 191 - 211 mm | 206 mm | Yes |
| Shoulder-Elbow Length | I | 330 - 345 mm | 342 mm | Yes |
| Back Of Elbow To Wrist Pivot | G | 290 - 305 mm | 298 mm | Yes |

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

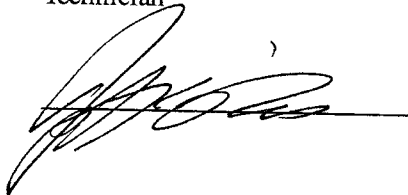
HIII 50th Male Serial No. 169 Calibration No. 15 - 2

Test Date 09/23/2002

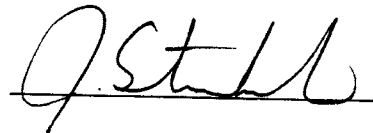
| Test Parameter | Specification | Test Results | Pass |
|---------------------------------|----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 44 % | Yes |
| Peak Resultant Acceleration | 225 - 275 g | 260.2 g | Yes |
| Peak Lateral Acceleration | 15 g Max | 3.3 g | Yes |
| Is Acceleration Curve Unimodal? | Yes | Yes | Yes |

Comments:

Technician



Approved

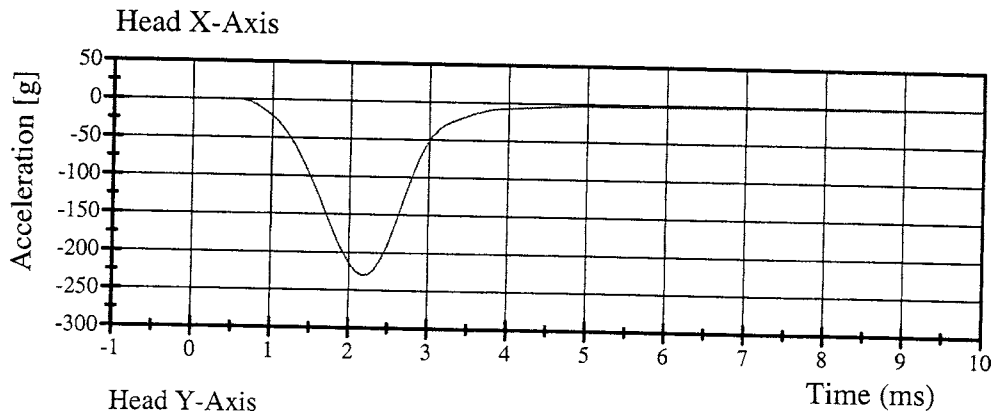


Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 2

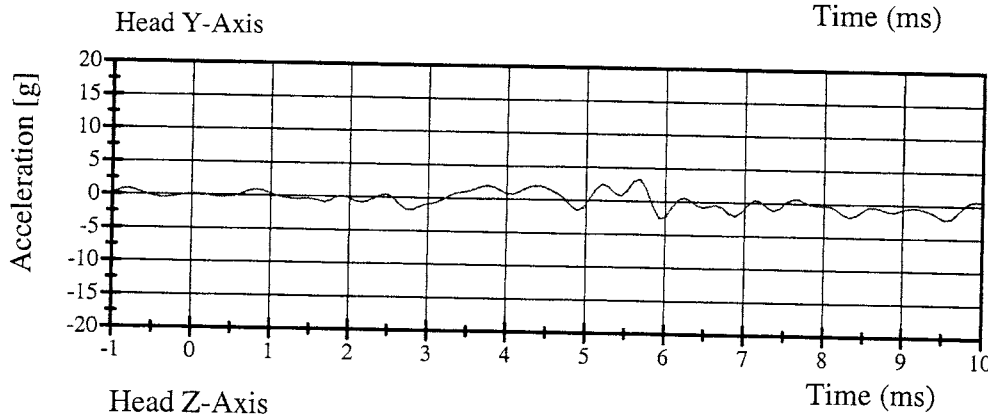
Test Date 09/23/2002



Filter Class: 1000

Max: 0.2 g at 9.9 ms

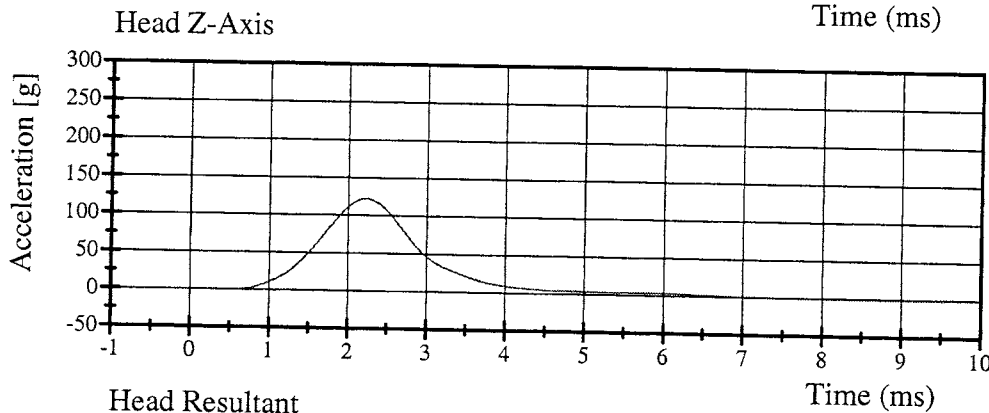
Min: -229.9 g at 2.2 ms



Filter Class: 1000

Max: 3.3 g at 5.7 ms

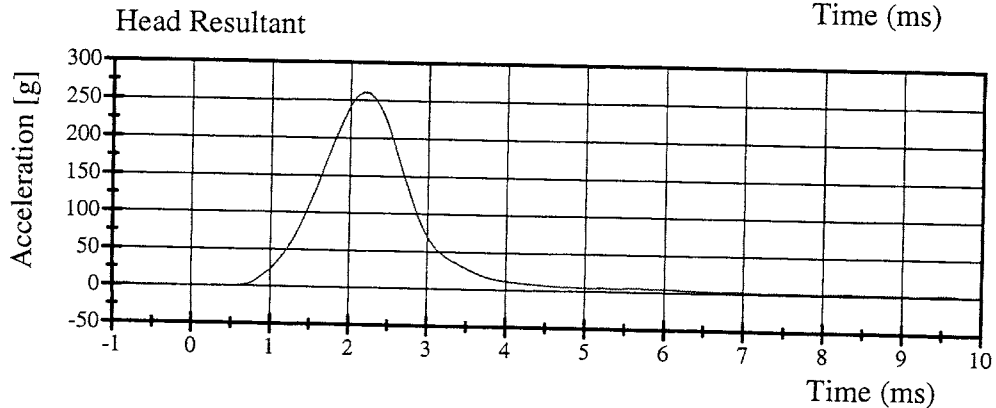
Min: -2.5 g at 5.9 ms



Filter Class: 1000

Max: 122.6 g at 2.2 ms

Min: -0.8 g at 8.9 ms



Filter Class: 1000

Max: 260.2 g at 2.2 ms

Min: 0.0 g at 2.6 ms

Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

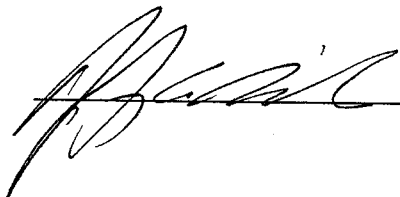
HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

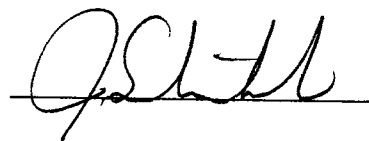
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 45 % | Yes |
| Impact Velocity | 6.89 - 7.13 m/s | 7.06 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 22.50 - 27.50 g | 24.32 g | Yes |
| 20 ms | 17.60 - 22.60 g | 22.09 g | Yes |
| 30 ms | 12.50 - 18.50 g | 16.90 g | Yes |
| Max Pendulum Deceleration | 29.00 g | 25.01 g | Yes |
| Max Pendulum Deceleration After 30 ms | 29.00 g | 16.88 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 34 - 42 ms | 38.32 ms | Yes |
| D Plane Rotation | | | |
| Max | 64 - 78 ° | 71.42 ° | Yes |
| Time | 57 - 64 ms | 57.44 ms | Yes |
| Moment About Occipital Condyle | | | |
| Max | 88.2 - 108.4 N·m | 96.14 N·m | Yes |
| Time | 47 - 58 ms | 51.44 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 113 - 128 ms | 114.88 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 97 - 107 ms | 101.36 ms | Yes |

Comments:

Technician



Approved



09.23.2002 09:04:38 461



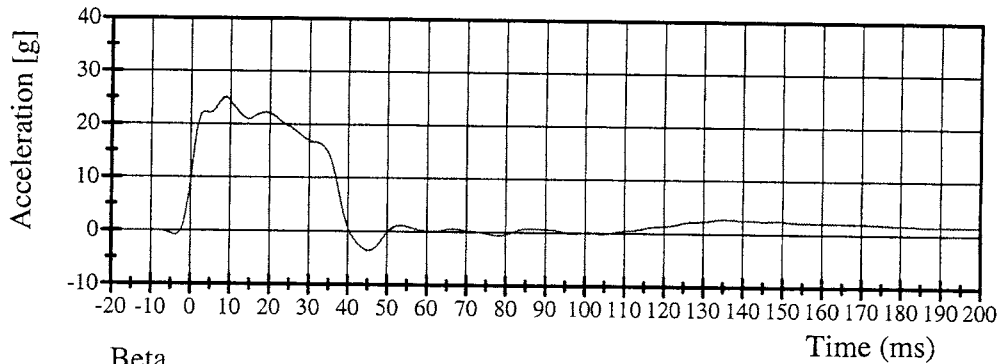
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

Pendulum Deceleration

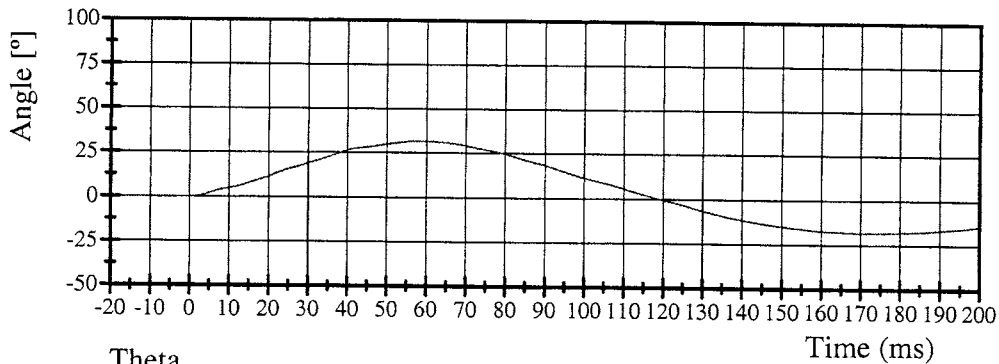


Filter Class: 60

Max: 25.0 g at 8.7 ms

Min: -3.6 g at 45.3 ms

Beta

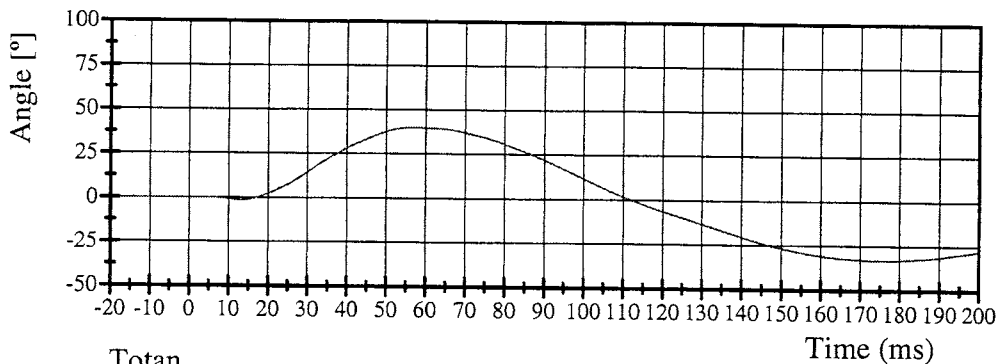


Filter Class: 60

Max: 31.6° at 58.0 ms

Min: -18.1° at 171.8 ms

Theta

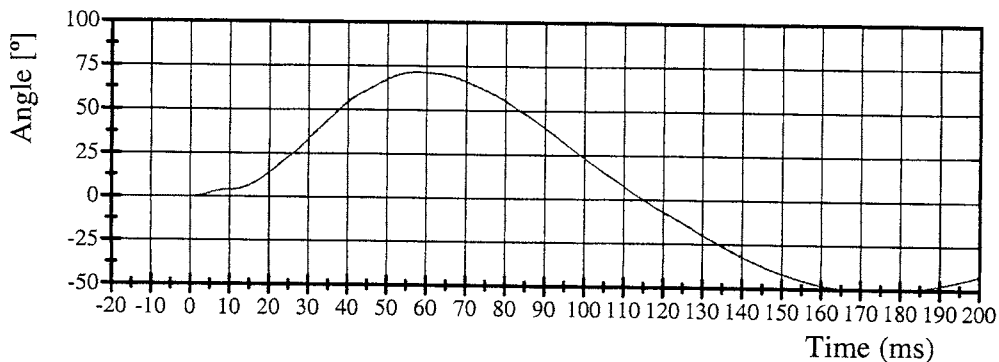


Filter Class: 60

Max: 39.8° at 56.7 ms

Min: -33.1° at 175.2 ms

Totan



Filter Class: 60

Max: 71.4° at 57.4 ms

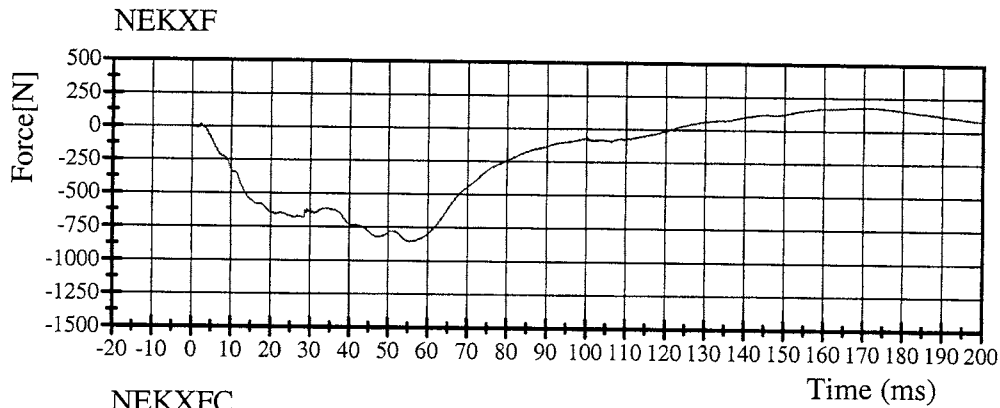
Min: -51.2° at 174.1 ms

Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

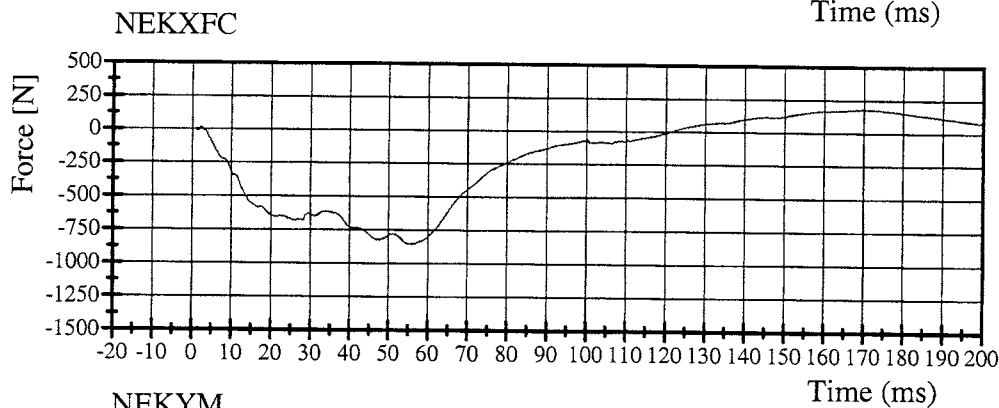
Test Date 09/23/2002



Filter Class: 1000

Max: 180.0 N at 170.4 ms

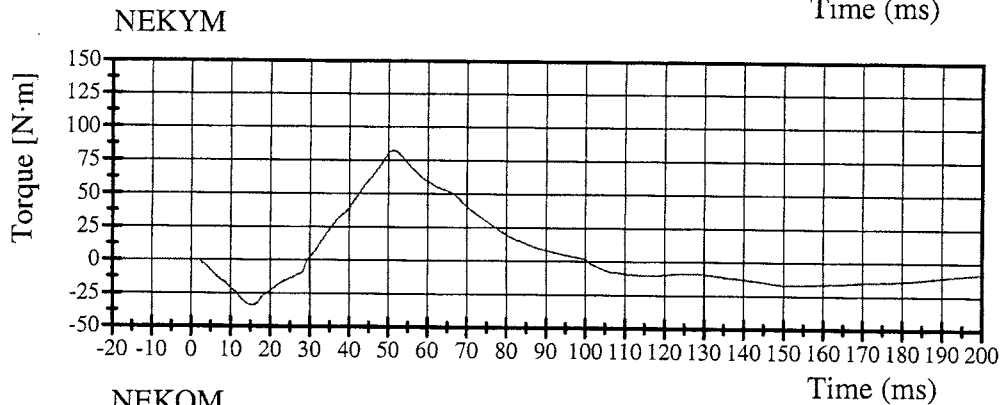
Min: -855.0 N at 55.4 ms



Filter Class: 600

Max: 179.5 N at 170.3 ms

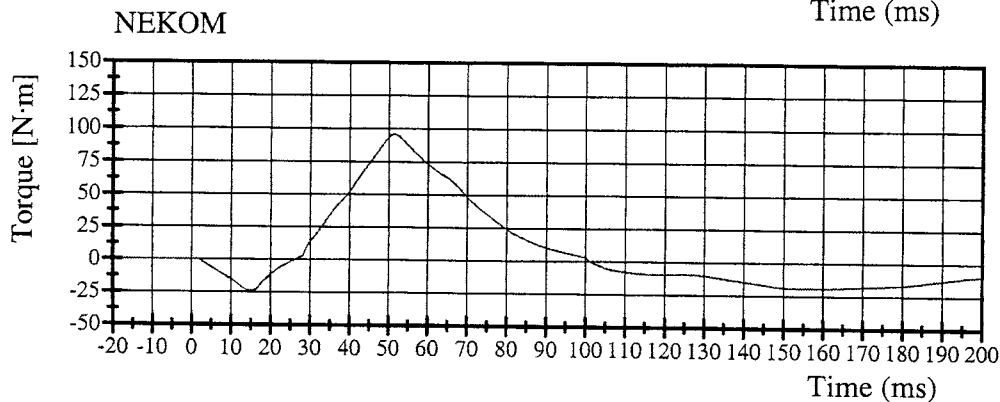
Min: -854.6 N at 55.5 ms



Filter Class: 600

Max: 82.3 N·m at 51.4 ms

Min: -33.9 N·m at 15.4 ms



Filter Class: 600

Max: 96.1 N·m at 51.4 ms

Min: -24.0 N·m at 15.1 ms

Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

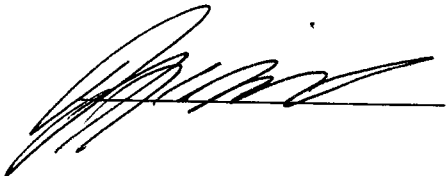
HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

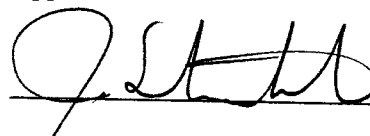
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------|---------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 47 % | Yes |
| Impact Velocity | 5.95 - 6.19 m/s | 6.11 m/s | Yes |
| Pendulum Deceleration | | | |
| 10 ms | 17.20 - 21.20 g | 18.68 g | Yes |
| 20 ms | 14.00 - 19.00 g | 17.66 g | Yes |
| 30 ms | 11.00 - 16.00 g | 15.96 g | Yes |
| Max Pendulum Deceleration | 22.00 g | 18.81 g | Yes |
| Max Pendulum Deceleration After 30 ms | 22.00 g | 15.93 g | Yes |
| Deceleration-Time Curve Decay Time To 5g | 38 - 46 ms | 41.76 ms | Yes |
| D Plane Rotation | | | |
| Max | 81 - 106 ° | 97.95 ° | Yes |
| Time | 72 - 82 ms | 74.88 ms | Yes |
| Moment About Occipital Condyle | | | |
| Min | -80.0 - (-52.9) N·m | -65.87 N·m | Yes |
| Time | 65 - 79 ms | 72.08 ms | Yes |
| Rotation Angle-Time Curve Decay Time To Zero | 147 - 174 ms | 155.52 ms | Yes |
| Positive Moment-Time Curve Decay Time To Zero | 120 - 148 ms | 143.68 ms | Yes |

Comments:

Technician



Approved

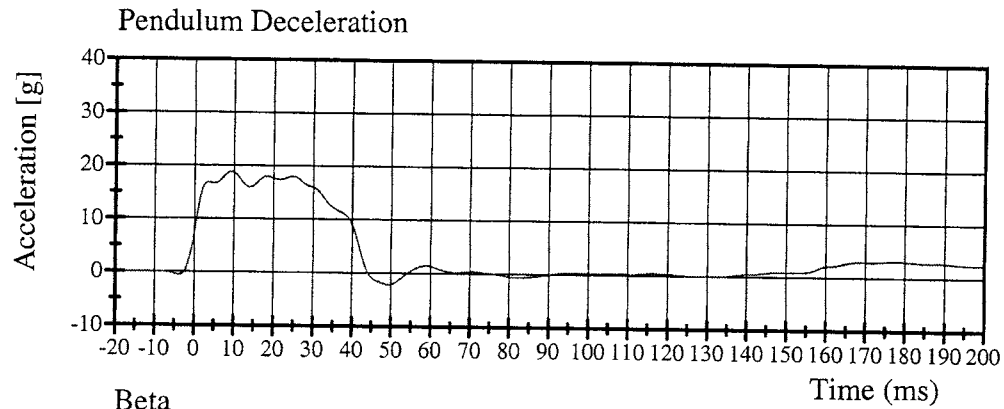


Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

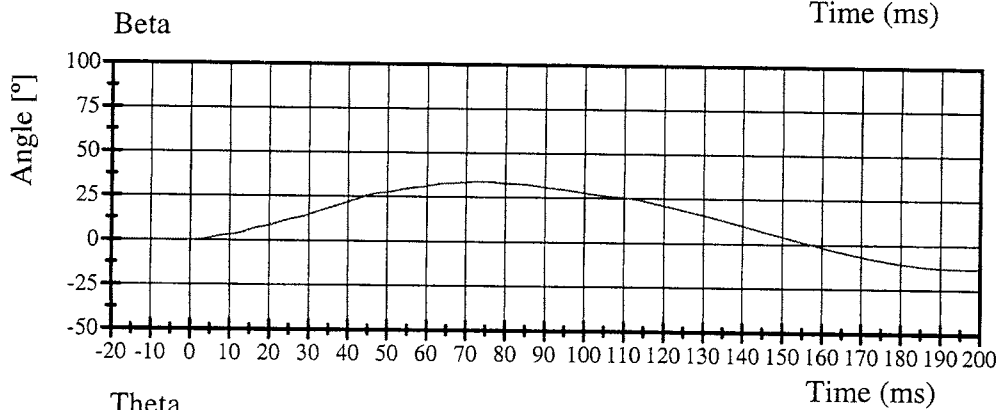
Test Date 09/23/2002



Filter Class: 60

Max: 18.8 g at 9.4 ms

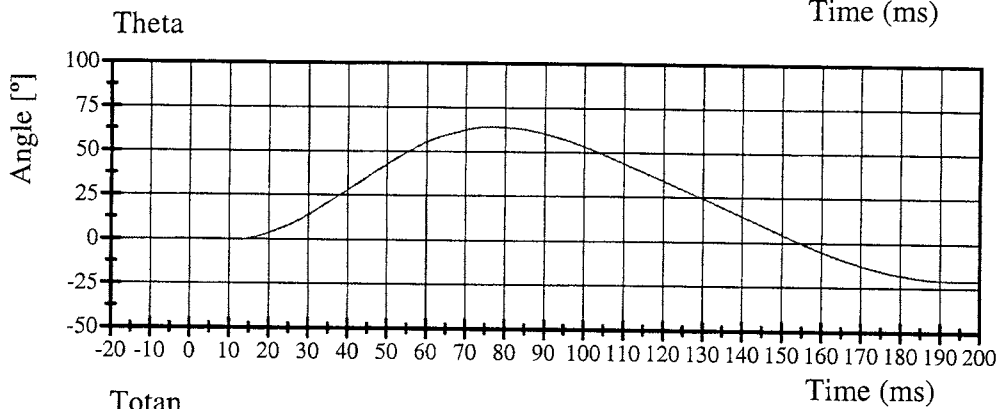
Min: -2.2 g at 49.4 ms



Filter Class: 60

Max: 33.9 ° at 73.8 ms

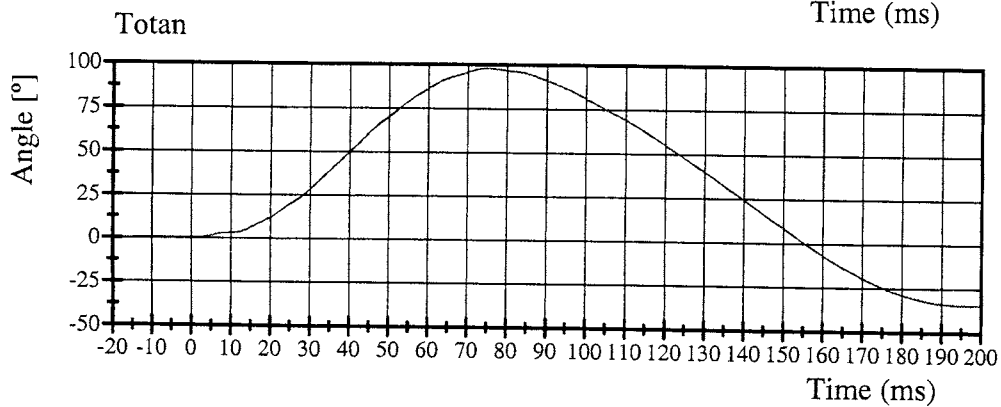
Min: -13.3 ° at 197.7 ms



Filter Class: 60

Max: 64.2 ° at 75.8 ms

Min: -21.0 ° at 196.2 ms



Filter Class: 60

Max: 98.0 ° at 74.9 ms

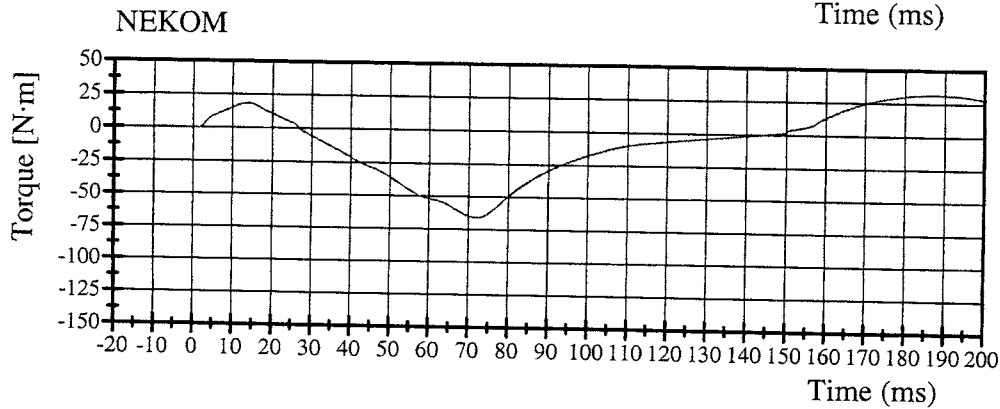
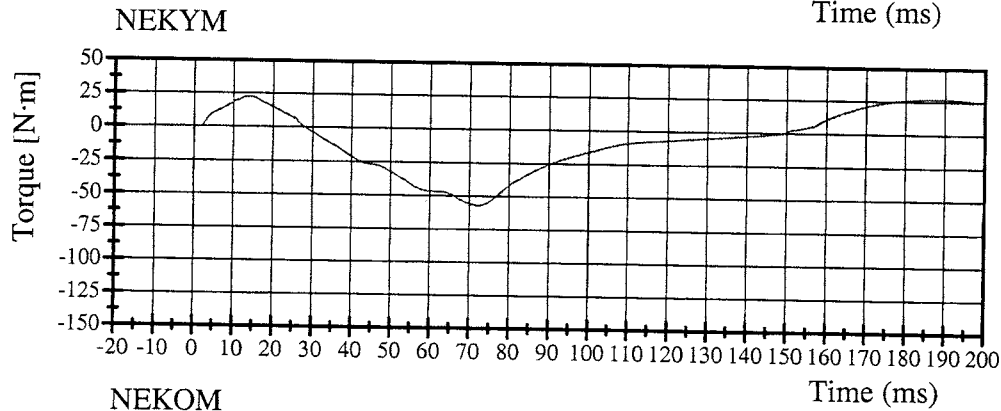
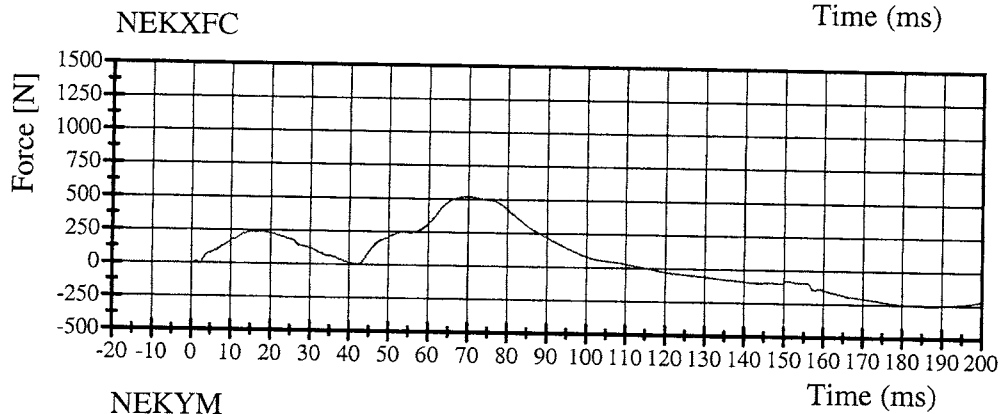
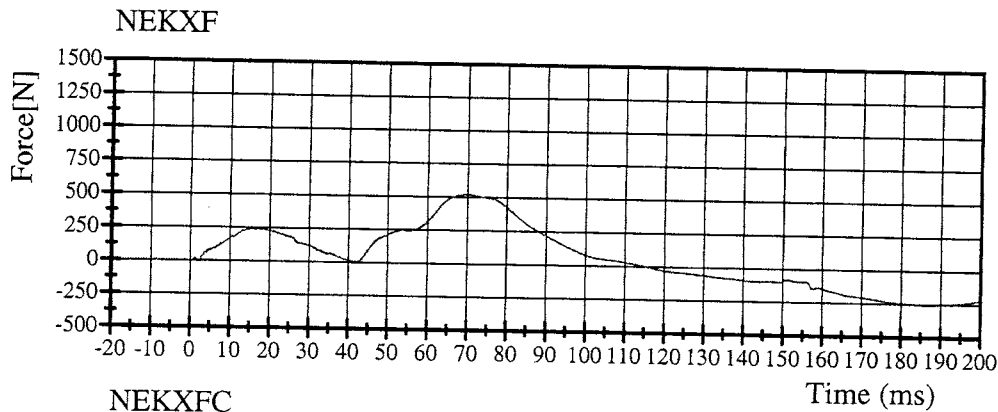
Min: -34.3 ° at 197.0 ms

Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002



Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

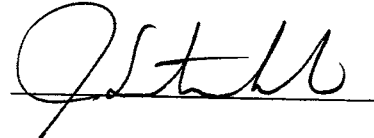
| Test Parameter | Specification | Test Results | Pass |
|--------------------------|--------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 44 % | Yes |
| Pendulum Velocity | 6.59 - 6.83 m/s | 6.66 m/s | Yes |
| Maximum Chest Deflection | -72.6 - (-63.5) mm | -68.3 mm | Yes |
| Maximum Resistive Force | 5159 - 5894 N | 5504 N | Yes |
| Internal Hysteresis | 69 - 85 % | 72 % | Yes |

Comments:

Technician



Approved

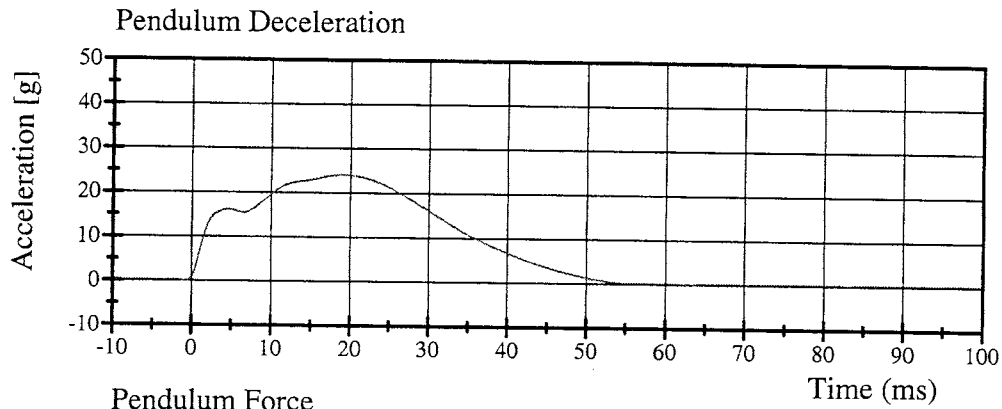


Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

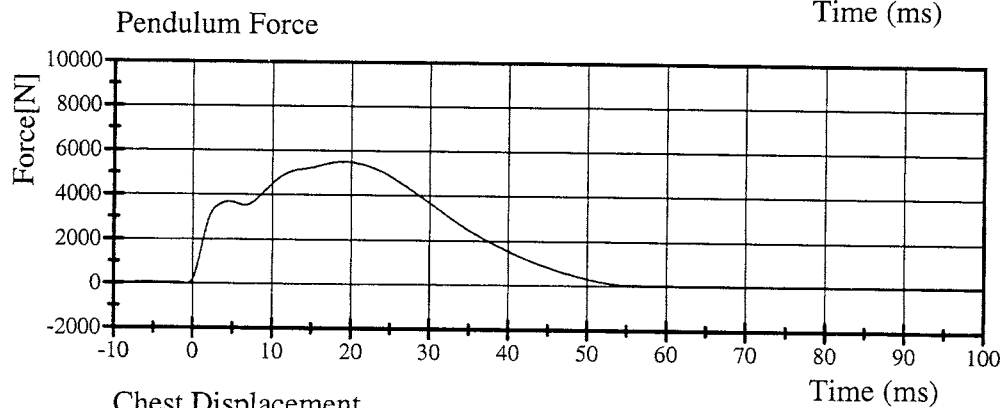
Test Date 09/23/2002



Filter Class: 180

Max: 24.0 g at 19.0 ms

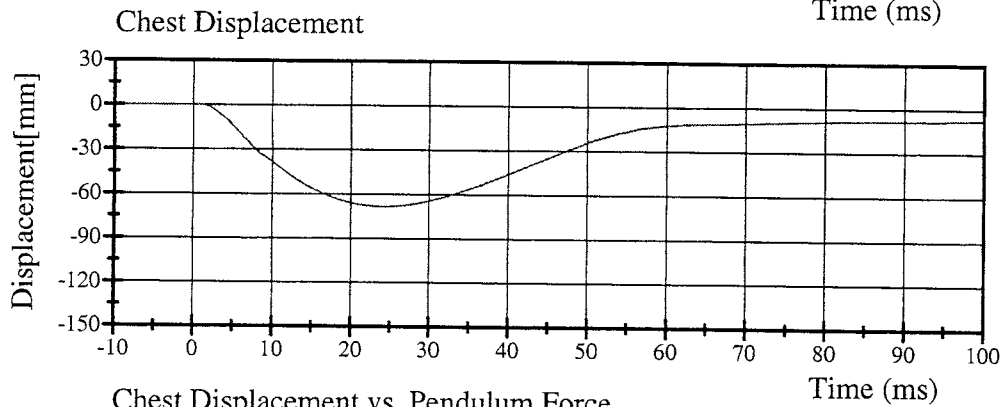
Min: -0.0 g at -0.7 ms



Filter Class: 180

Max: 5503.7 N at 19.0 ms

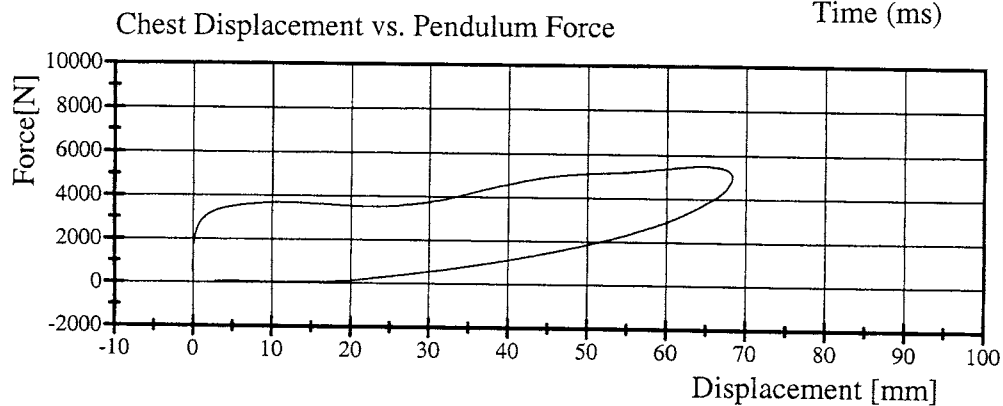
Min: -10.2 N at -0.7 ms



Filter Class: 180

Max: 0.1 mm at 0.6 ms

Min: -68.3 mm at 24.2 ms



Transportation Research Center Inc

Hybrid III Hip Range of Motion

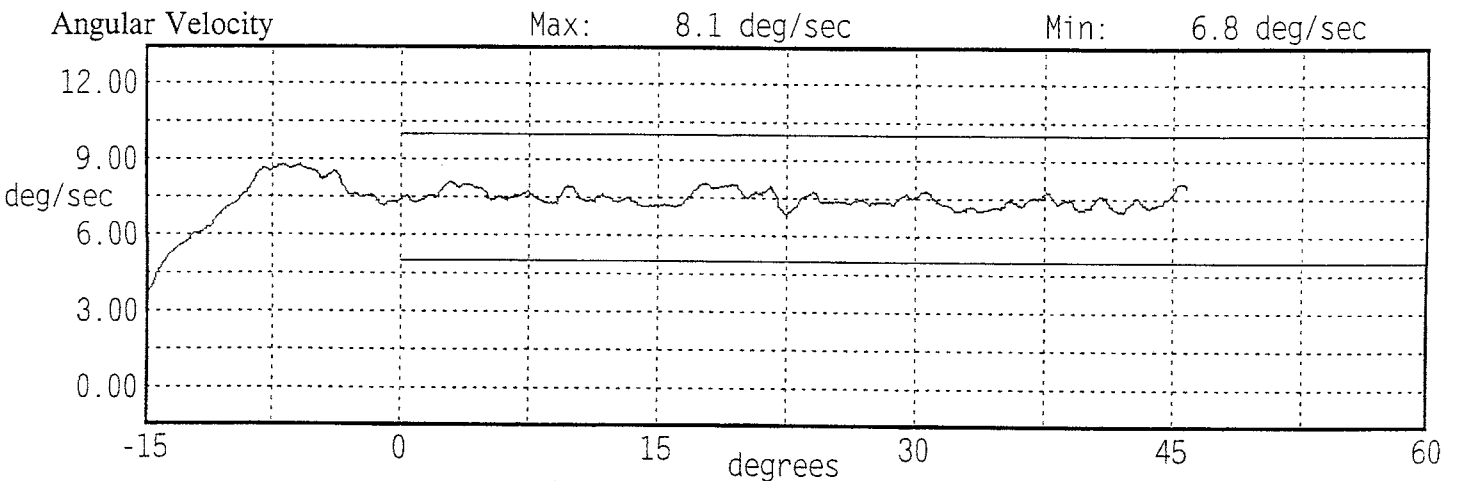
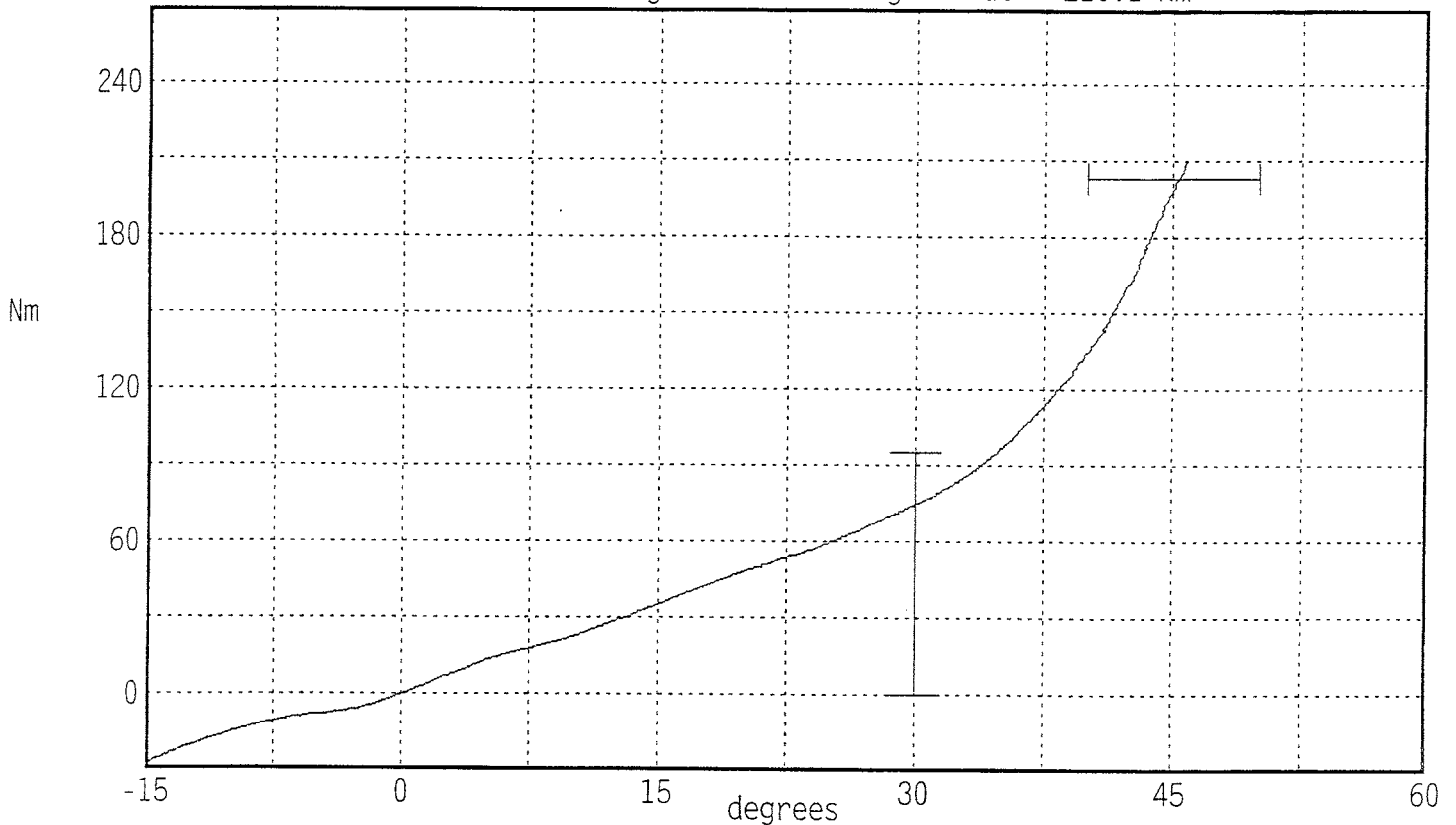
Serial Number: 169L
Test Number: 169C15

Date: 09/23/2002
Time: 09:27

Comments:

| TEST PARAMETER | SPECIFICATION | TEST RESULTS | |
|------------------|---------------|--------------|------|
| Temperature | 18.9 - 25.6 | 21.1 °C | Pass |
| Humidity | 10 - 70 | 45 % | Pass |
| Moment at 30 deg | <= 94.9 | 74.8 Nm | Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 45.4 deg | Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec | Pass |

Moment About H-Point
Peak Moment: 210.1 Nm at 45.9 deg
Peak Angle: 45.9 deg at 210.1 Nm



Transportation Research Center Inc

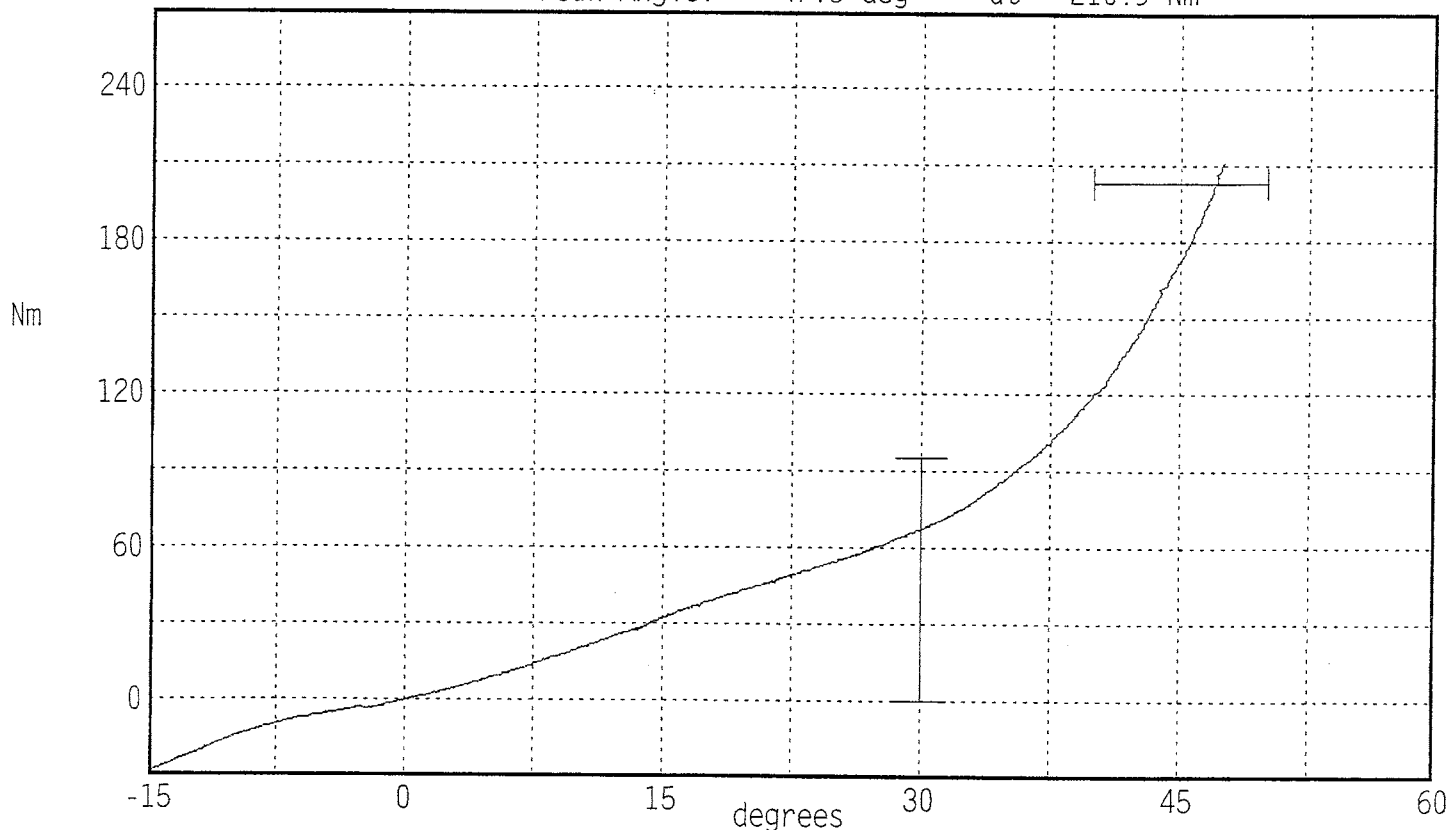
Hybrid III Hip Range of Motion

Serial Number: 169R
Test Number: 169C15
Comments:

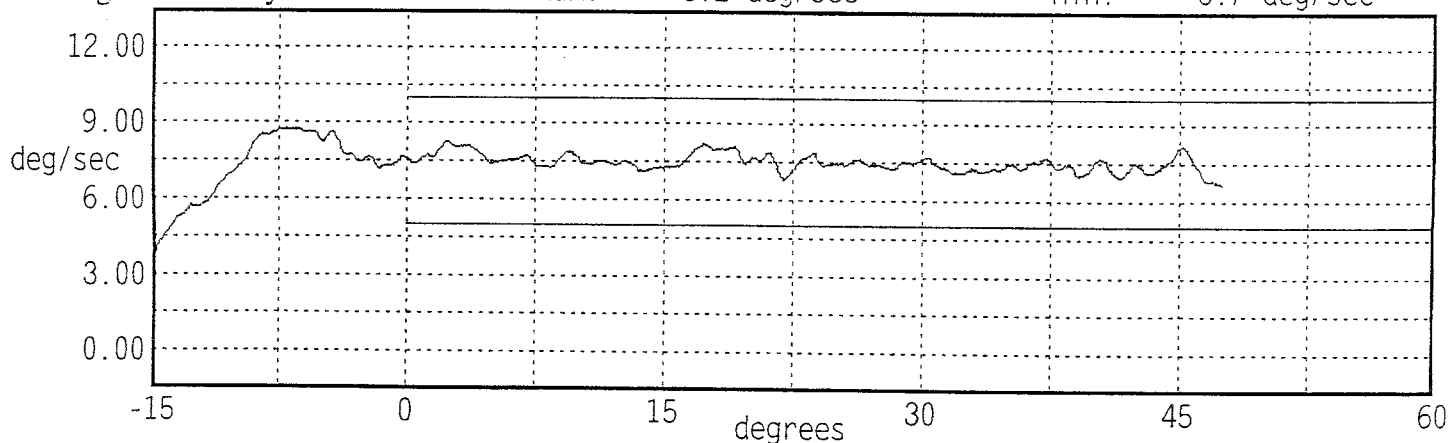
Date: 09/23/2002
Time: 09:20

| TEST PARAMETER | SPECIFICATION | TEST RESULTS |
|------------------|---------------|------------------|
| Temperature | 18.9 - 25.6 | 21.1 °C Pass |
| Humidity | 10 - 70 | 45 % Pass |
| Moment at 30 deg | <= 94.9 | 67.3 Nm Pass |
| Angle at 203 Nm | 40.0 - 50.0 | 47.1 deg Pass |
| Average Velocity | 5.0 - 10.0 | 7.5 deg/sec Pass |

Moment About H-Point
Peak Moment: 210.9 Nm at 47.5 deg
Peak Angle: 47.5 deg at 210.9 Nm



Angular Velocity Max: 8.2 deg/sec Min: 6.7 deg/sec



Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/25/2002

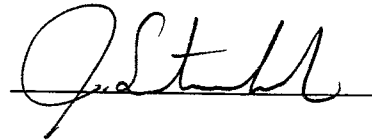
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 42 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.71 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1390 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2916 N | Yes |

Comments:

Technician



Approved

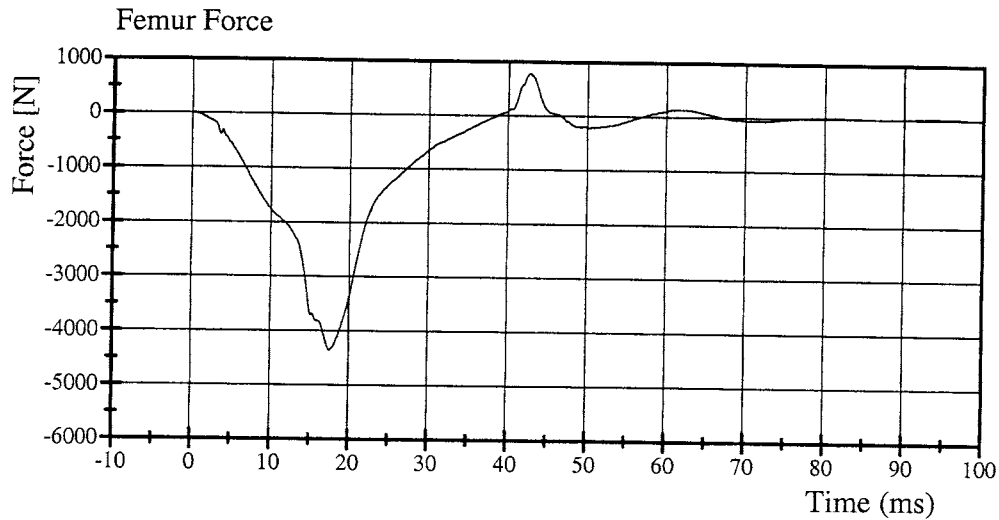


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

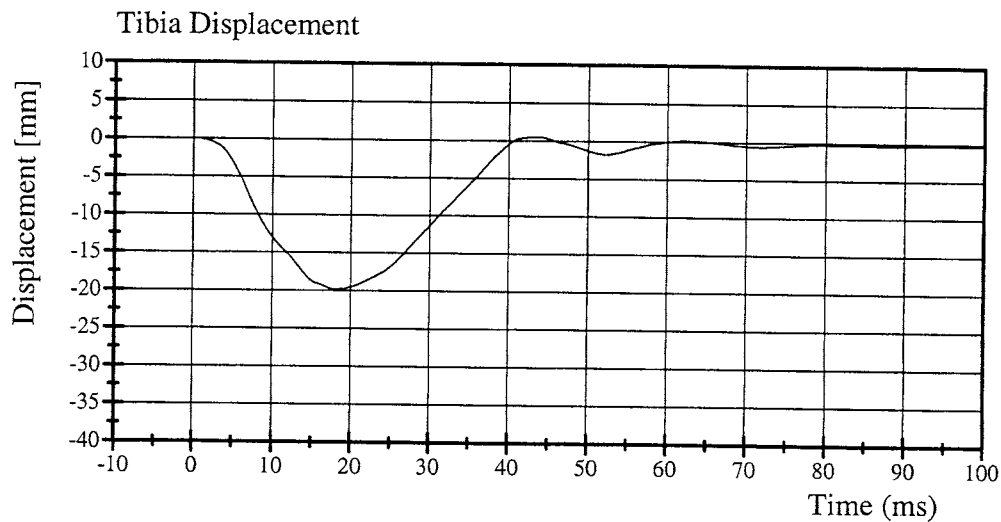
Test Date 09/25/2002



Filter Class: 600

Max: 781.0 N at 42.7 ms

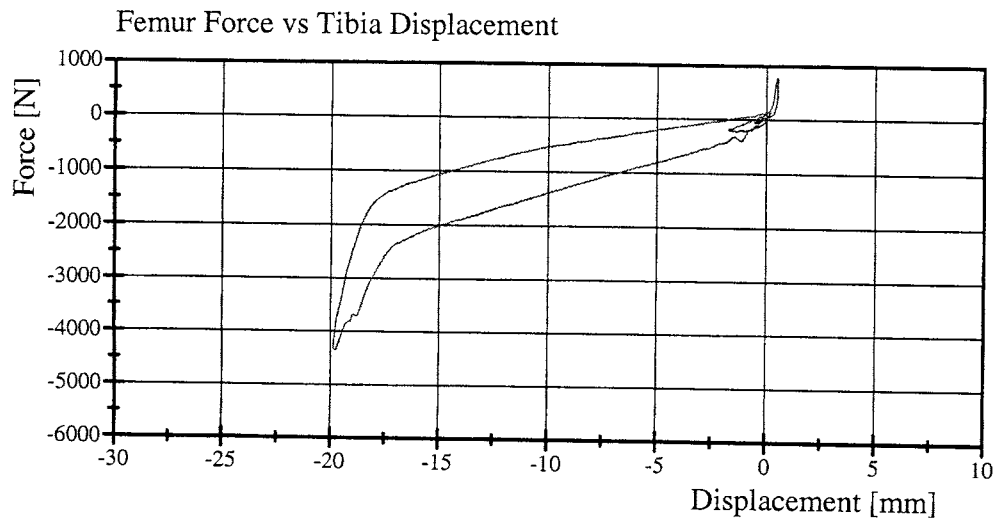
Min: -4354.1 N at 17.5 ms



Filter Class: 600

Max: 0.5 mm at 43.0 ms

Min: -19.9 mm at 18.1 ms



Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/25/2002

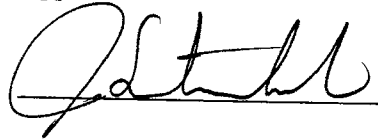
| Test Parameter | Specification | Test Results | Pass |
|-----------------------------|-------------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.7 °C | Yes |
| Relative Humidity | 10 - 70 % | 42 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.70 m/s | Yes |
| Force At 10 mm Displacement | -1259 - (-1721) N | -1467 N | Yes |
| Force At 18 mm Displacement | -2268 - (-3096) N | -2644 N | Yes |

Comments:

Technician



Approved

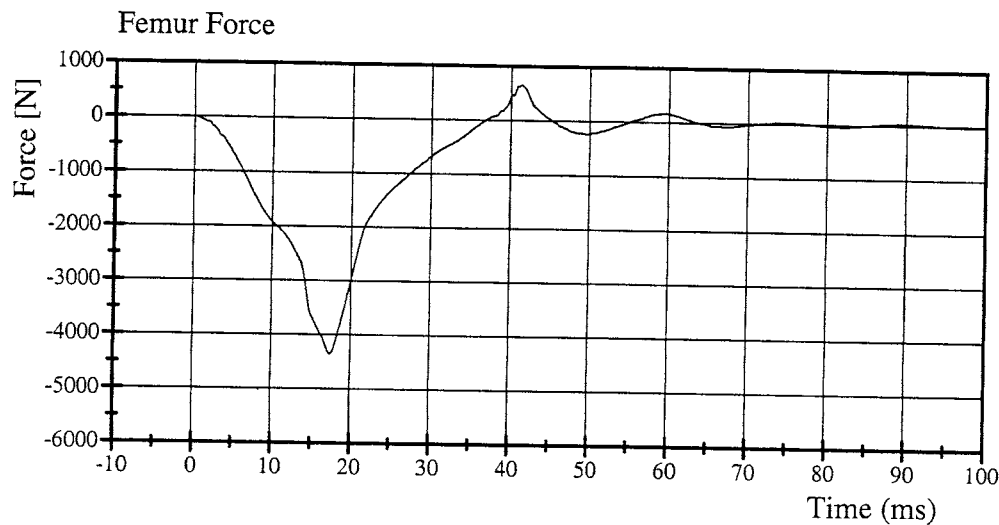


Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

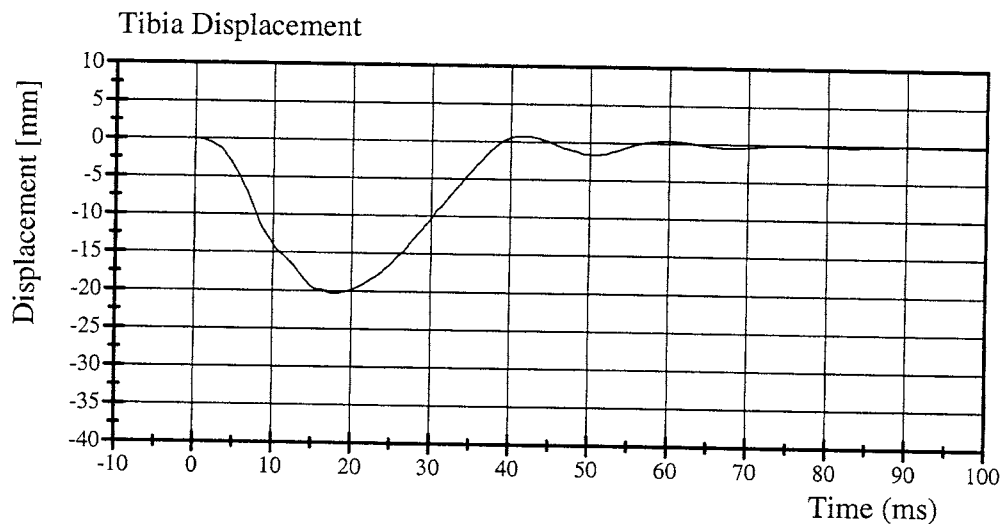
Test Date 09/25/2002



Filter Class: 600

Max: 650.3 N at 41.4 ms

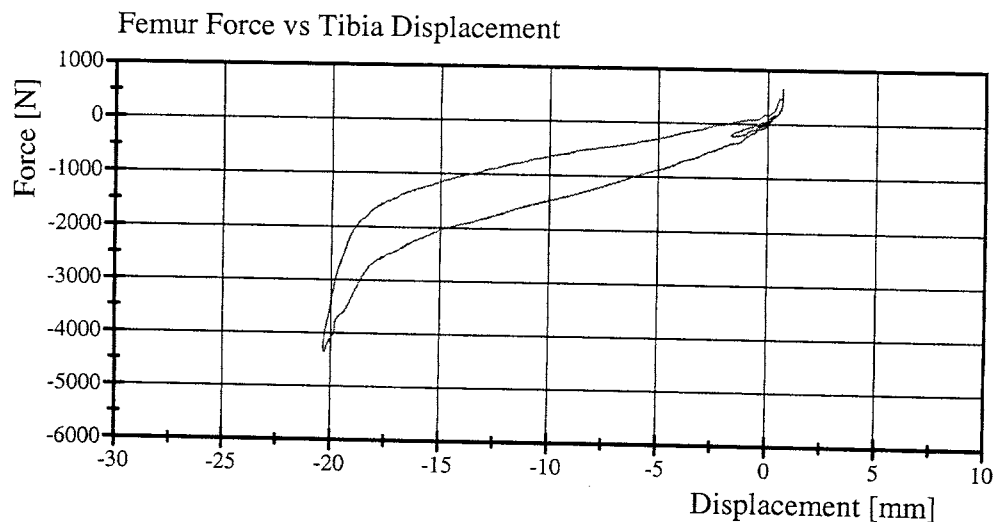
Min: -4352.1 N at 17.4 ms



Filter Class: 600

Max: 0.7 mm at 41.5 ms

Min: -20.3 mm at 17.8 ms



Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

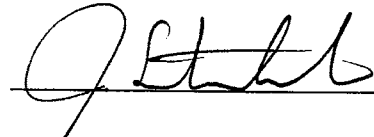
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 43 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.11 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5328 N | Yes |

Comments:

Technician



Approved



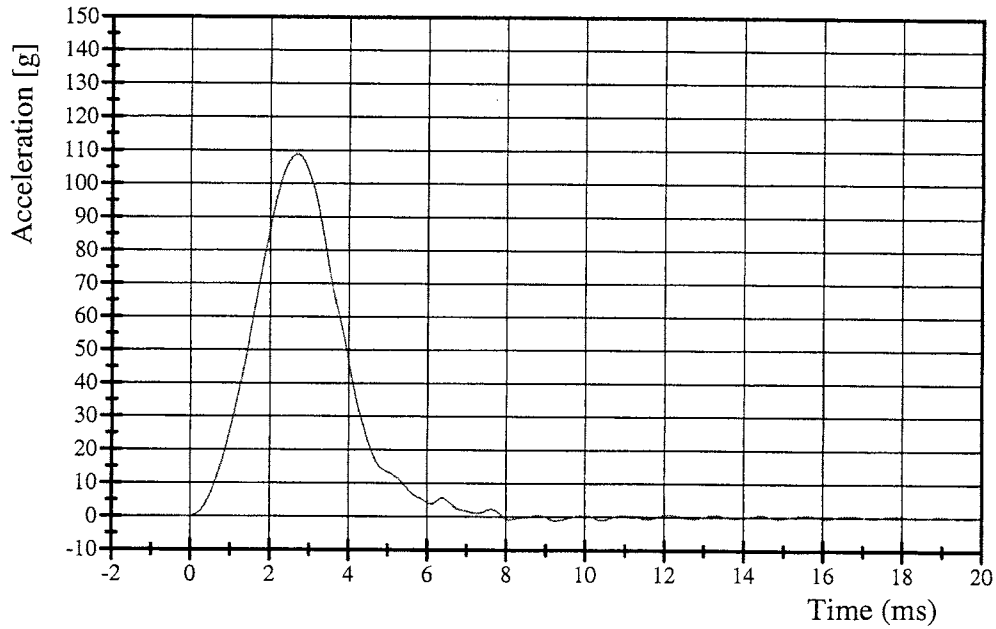
Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

Pendulum Deceleration

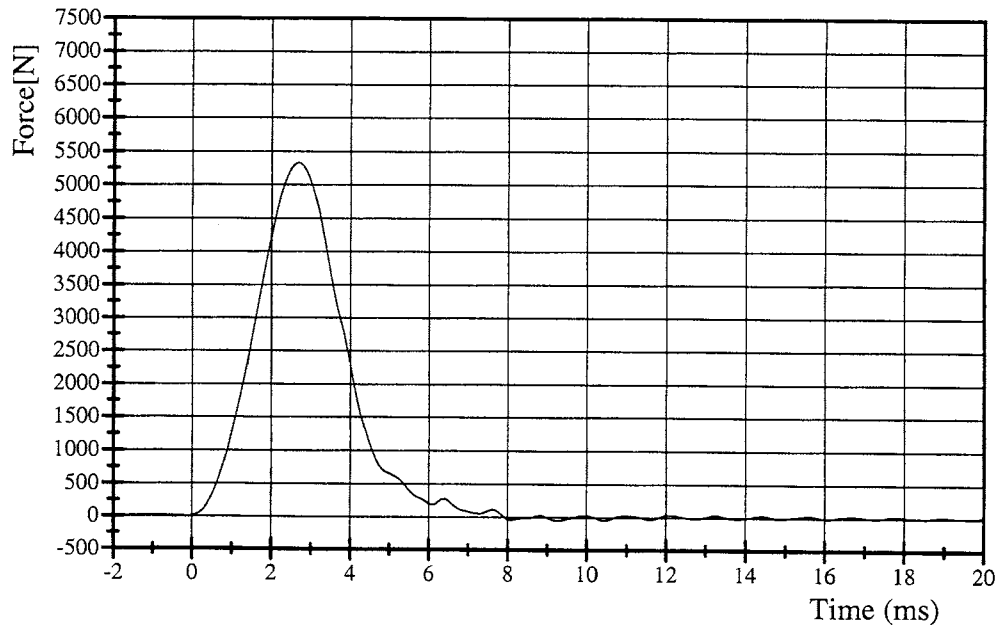


Filter Class: 600

Max: 108.9 g at 2.6 ms

Min: -1.1 g at 9.3 ms

Pendulum Force



Filter Class: 600

Max: 5328.1 N at 2.6 ms

Min: -52.9 N at 9.3 ms

Transportation Research Center Inc.

572E Right Knee Test


HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 43 % | Yes |
| Pendulum Velocity | 2.08 - 2.13 m/s | 2.11 m/s | Yes |
| Maximum Pendulum Force | 4716 - 5782 N | 5005 N | Yes |

Comments:

Technician



Approved



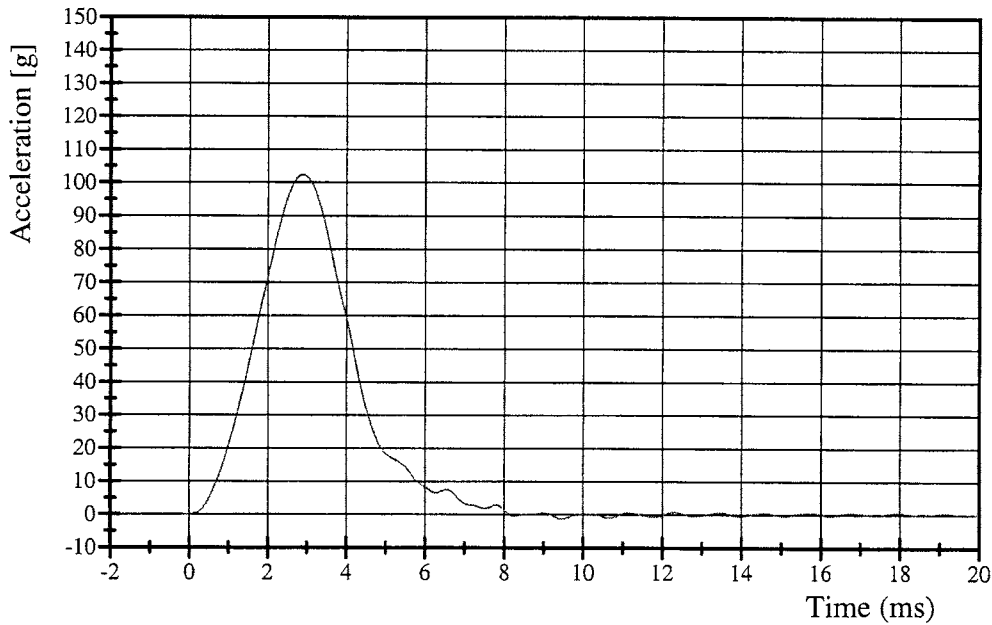
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 169 Calibration No. 15 - 1

Test Date 09/23/2002

Pendulum Deceleration

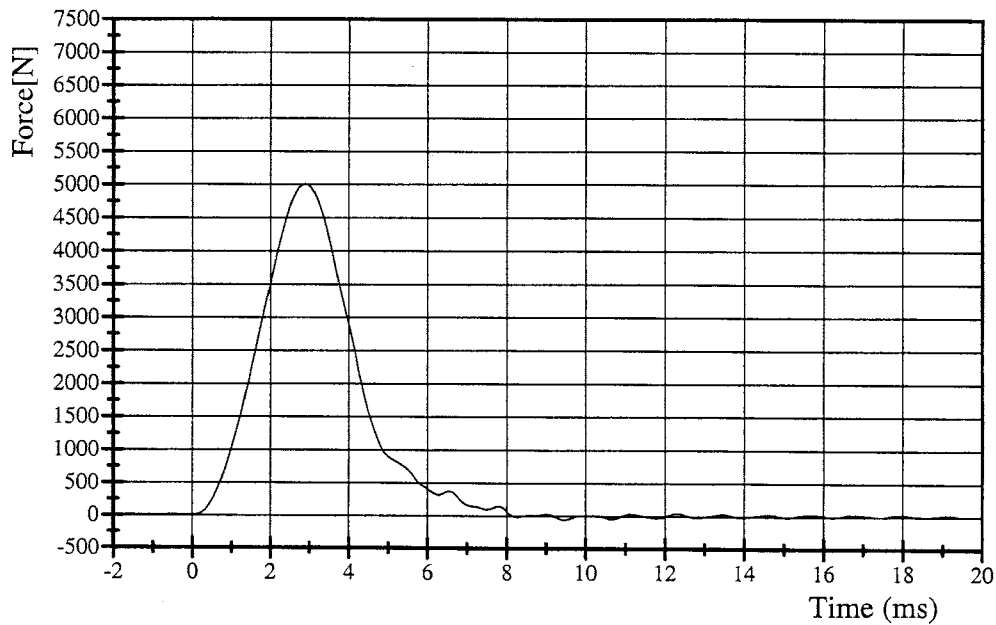


Filter Class: 600

Max: 102.3 g at 2.9 ms

Min: -1.2 g at 9.4 ms

Pendulum Force



Filter Class: 600

Max: 5005.4 N at 2.9 ms

Min: -60.8 N at 9.4 ms

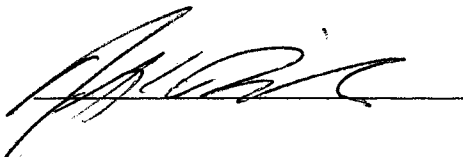
Pre-Test Dummy Configuration and Performance Verification Data

Bullet Vehicle Passenger Dummy S/N: 421

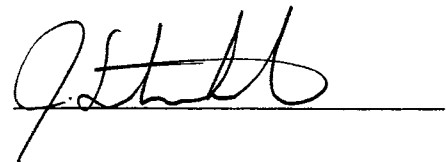
Transportation Research Center Inc.
572F HIII 5th Dummy
External Dimensions
Serial No. 421 Calibration No. 10

| Test Parameter | Dimension | Specification | Results | Pass |
|--------------------------------------------|-----------|------------------|---------|------|
| Total Sitting Height | A | 774.7 - 800.1 mm | 793 mm | Yes |
| Shoulder Pivot Height | B | 431.8 - 457.2 mm | 450 mm | Yes |
| Hip Pivot Height | C | 81.3 - 86.3 mm | 84 mm | Yes |
| Hip Pivot from Backline | D | 144.8 - 149.8 mm | 147 mm | Yes |
| Shoulder Pivot from Backline | E | 68.6 - 83.8 mm | 81 mm | Yes |
| Thigh Clearance | F | 119.4 - 134.6 mm | 127 mm | Yes |
| Back of Elbow to Wrist Pivot | G | 243.9 - 259.0 mm | 253 mm | Yes |
| Head Back to Backline | H | 40.7 - 45.7 mm | 45 mm | Yes |
| Shoulder to Elbow Length | I | 276.9 - 297.1 mm | 289 mm | Yes |
| Elbow Rest Height | J | 182.9 - 203.2 mm | 200 mm | Yes |
| Buttock Knee Length | K | 520.7 - 546.1 mm | 532 mm | Yes |
| Popliteal Height | L | 355.6 - 375.9 mm | 369 mm | Yes |
| Knee Pivot Height | M | 393.7 - 419.1 mm | 413 mm | Yes |
| Buttock Popliteal Height | N | 414.1 - 439.4 mm | 421 mm | Yes |
| Chest Depth without Jacket | O | 175.3 - 190.5 mm | 185 mm | Yes |
| Foot Length | P | 218.5 - 233.6 mm | 226 mm | Yes |
| Buttock to Knee Pivot Length | R | 457.2 - 482.6 mm | 481 mm | Yes |
| Head Breadth | S | 137.2 - 147.3 mm | 140 mm | Yes |
| Head Depth | T | 177.8 - 187.9 mm | 183 mm | Yes |
| Hip Breadth | U | 299.8 - 314.9 mm | 310 mm | Yes |
| Shoulder Breadth | V | 350.6 - 365.7 mm | 354 mm | Yes |
| Foot Breadth | W | 78.8 - 93.9 mm | 87 mm | Yes |
| Head Circumference | X | 528.4 - 548.6 mm | 540 mm | Yes |
| Chest Circumference with Jacket | Y | 850.9 - 881.3 mm | 879 mm | Yes |
| Waist Circumference | Z | 759.5 - 789.9 mm | 774 mm | Yes |
| Reference Location for Chest Circumference | AA | 299.8 - 309.8 mm | 305 mm | Yes |
| Reference Location for Waist Circumference | BB | 160.1 - 170.1 mm | 165 mm | Yes |

Technician



Approved




Transportation Research Center Inc.

5720 Head Drop Test

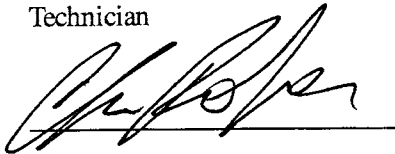
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/26/2002

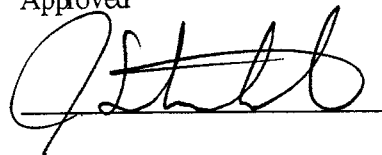
| Test Parameter | Specification | Test Results | Pass |
|---------------------------------|----------------|--------------|------|
| Temperature | 18.9 - 25.5 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 64 % | Yes |
| Peak Resultant Acceleration | 250 - 300 g | 264.1 g | Yes |
| Peak Lateral Acceleration | 15 g Max | 6.1 g | Yes |
| Is Acceleration Curve Unimodal? | Yes | Yes | Yes |

Comments:

Technician



Approved

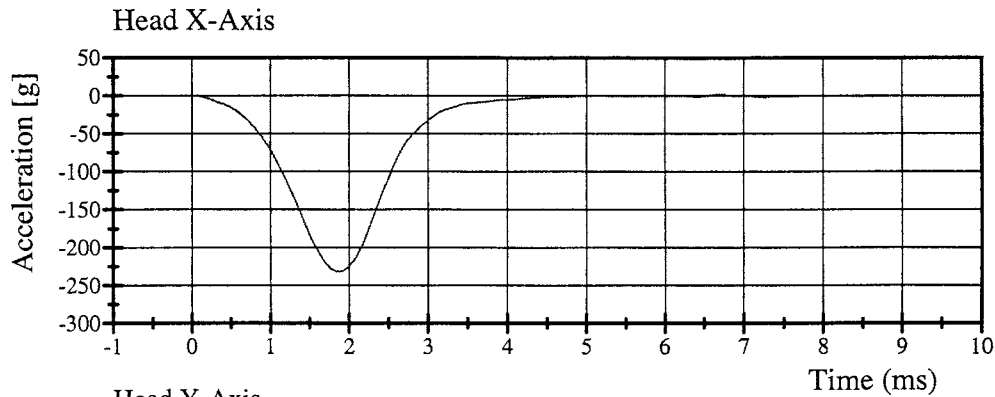


Transportation Research Center Inc.

5720 Head Drop Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

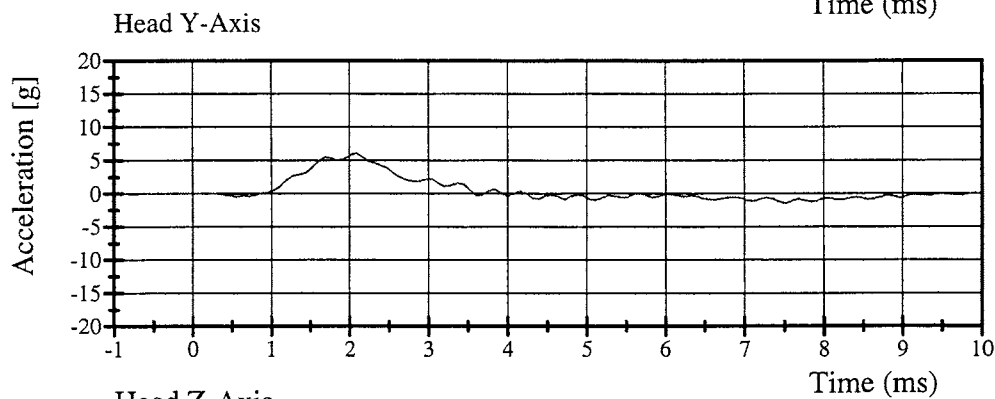
Test Date 08/26/2002



Filter Class: 1000

Max: 1.5 g at 6.7 ms

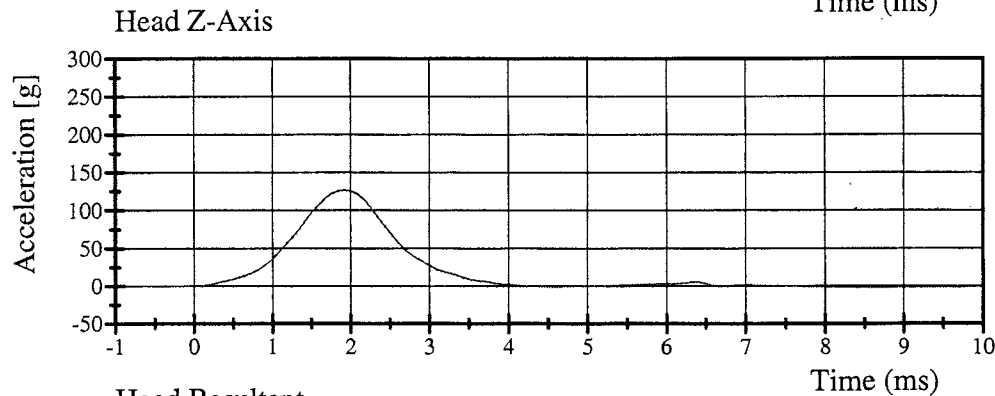
Min: -232.1 g at 1.8 ms



Filter Class: 1000

Max: 6.1 g at 2.1 ms

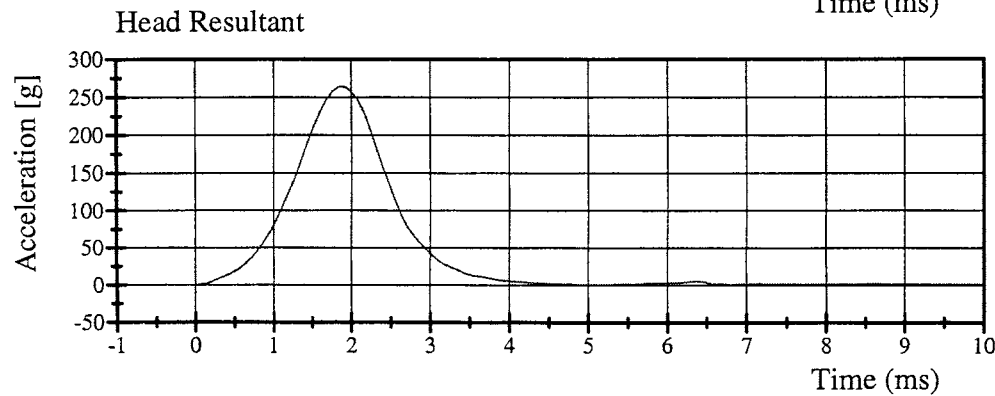
Min: -1.5 g at 7.5 ms



Filter Class: 1000

Max: 127.1 g at 1.9 ms

Min: -1.8 g at 8.6 ms



Filter Class: 1000

Max: 264.1 g at 1.8 ms

Min: 0.0 g at 1.6 ms

Transportation Research Center Inc.

5720 Neck Flexion Test - 6 Channel Transducer

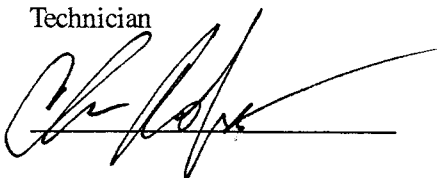
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

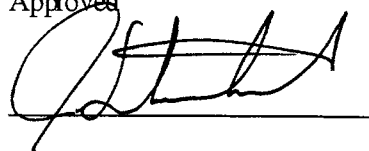
| Test Parameter | Specification | Test Results | Pass |
|-------------------------------------------------------------------------------------------------------------|-----------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 56 % | Yes |
| Impact Velocity | 6.89 - 7.13 m/s | 7.10 m/s | Yes |
| Integrated Pendulum Velocity | | | |
| 10 ms | 2.10 - 2.50 m/s | 2.33 m/s | Yes |
| 20 ms | 4.00 - 5.00 m/s | 4.68 m/s | Yes |
| 30 ms | 5.80 - 7.00 m/s | 6.85 m/s | Yes |
| Peak D Plane Rotation | 77 - 91 ° | 81.3 ° | Yes |
| Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors) | 69.0 - 83.0 N·m | 77.15 N·m | Yes |
| Positive Moment Decay Time To 10 N·m | 80 - 100 ms | 88.32 ms | Yes |

Comments:

Technician



Approved



08.28.2002 12:29:18 456



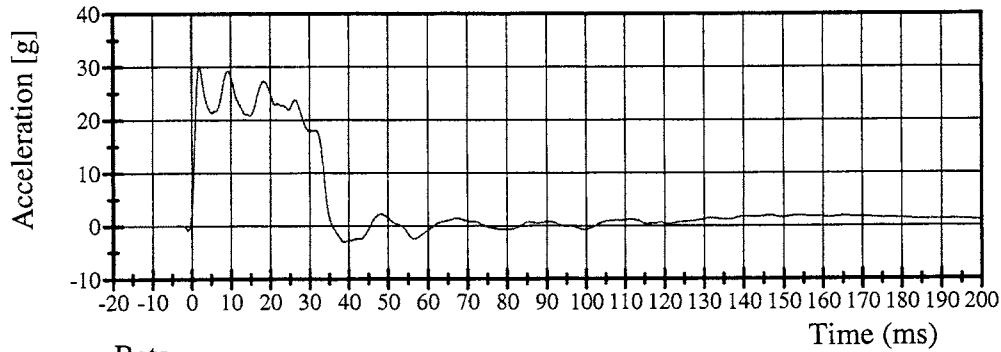
Transportation Research Center Inc.

5720 Neck Flexion Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

Pendulum Deceleration

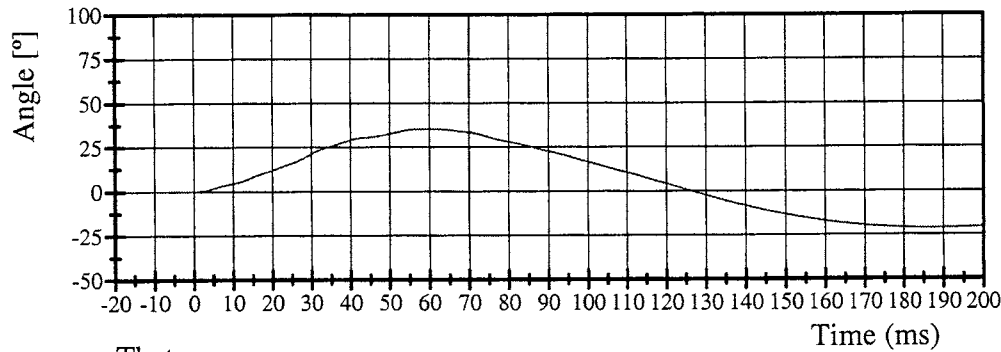


Filter Class: 180

Max: 30.2 g at 1.9 ms

Min: -3.0 g at 38.8 ms

Beta

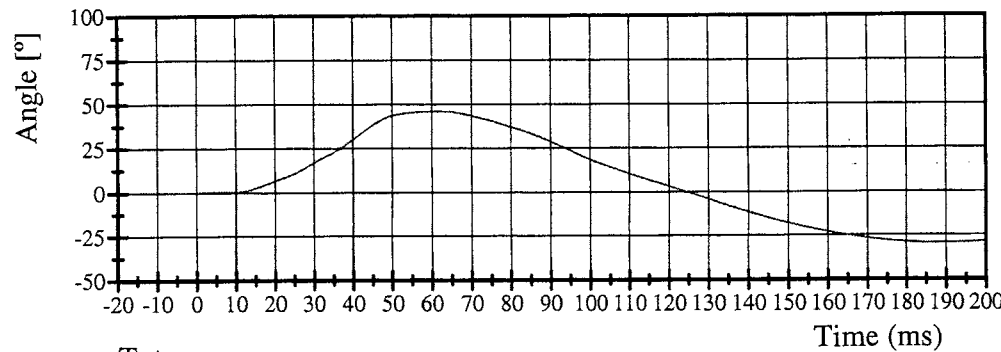


Filter Class: 60

Max: 35.4 ° at 58.7 ms

Min: -21.2 ° at 185.6 ms

Theta

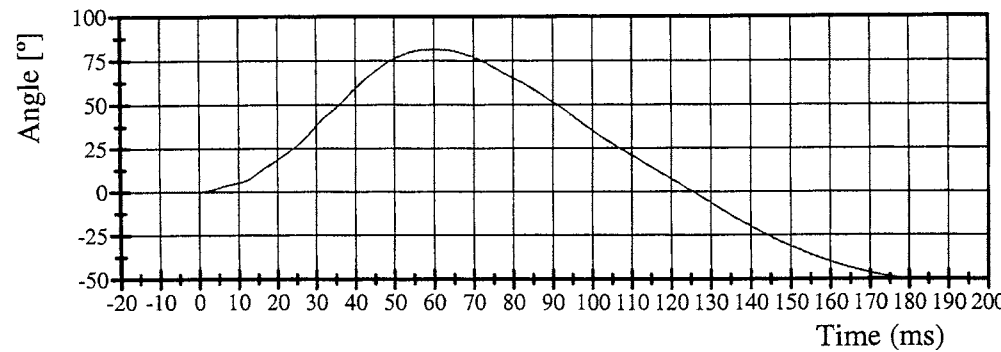


Filter Class: 60

Max: 45.9 ° at 61.0 ms

Min: -29.5 ° at 188.1 ms

Totan



Filter Class: 60

Max: 81.3 ° at 60.4 ms

Min: -50.7 ° at 187.2 ms

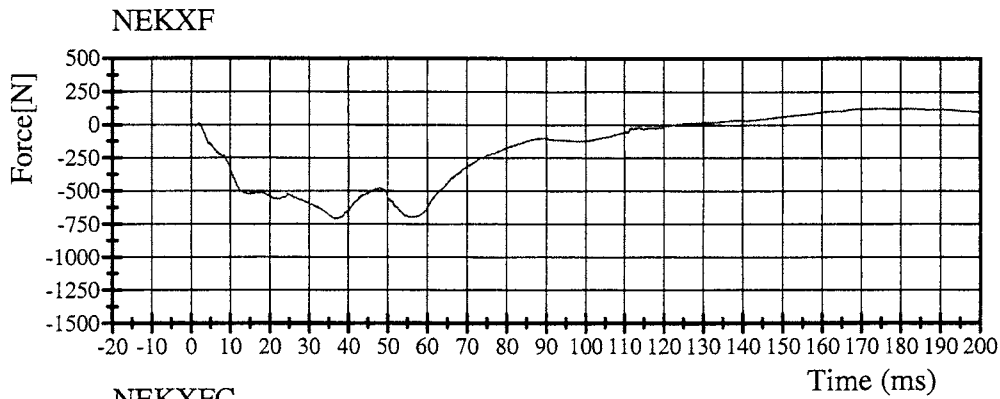


Transportation Research Center Inc.

5720 Neck Flexion Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

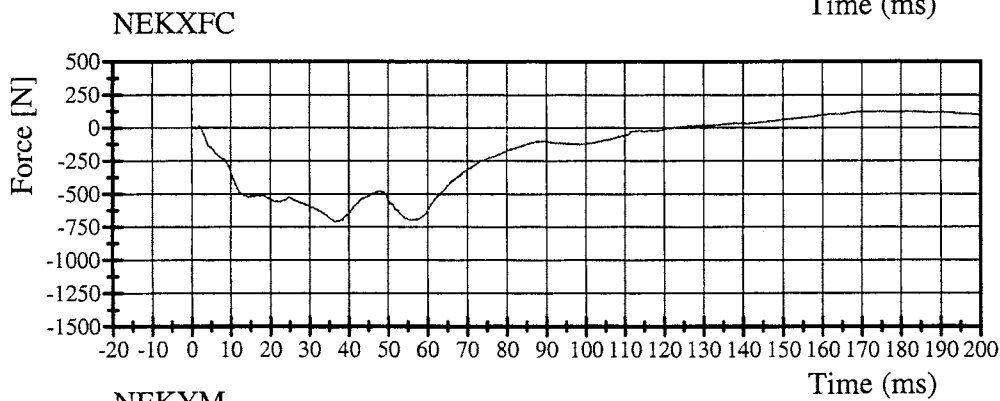
Test Date 08/28/2002



Filter Class: 1000

Max: 124.7 N at 182.8 ms

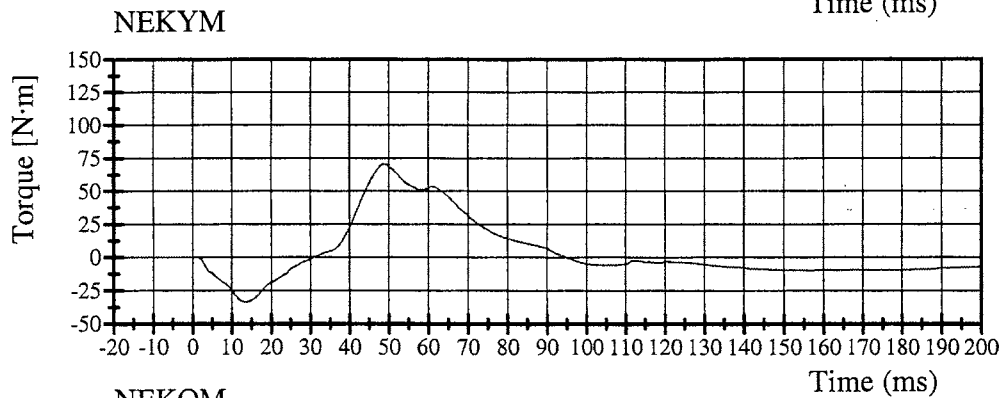
Min: -709.5 N at 36.7 ms



Filter Class: 600

Max: 124.1 N at 182.7 ms

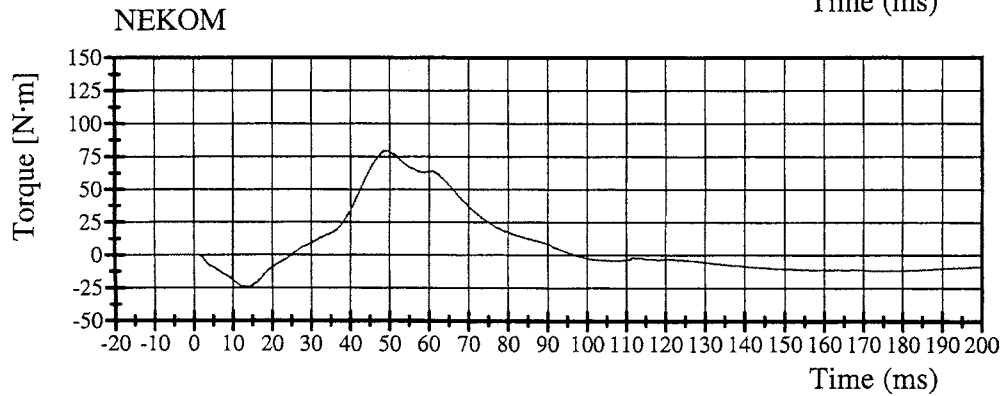
Min: -708.3 N at 36.7 ms



Filter Class: 600

Max: 70.8 N·m at 48.8 ms

Min: -33.5 N·m at 13.5 ms



Filter Class: 600

Max: 79.5 N·m at 49.0 ms

Min: -24.4 N·m at 13.4 ms

Transportation Research Center Inc.

5720 Neck Extension Test - 6 Channel Transducer

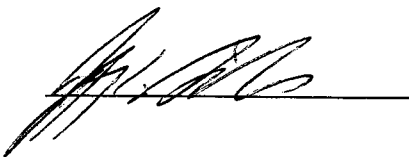
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

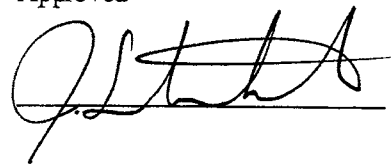
| Test Parameter | Specification | Test Results | Pass |
|-------------------------------------------------------------------------------------------------------------|---------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 55 % | Yes |
| Impact Velocity | 5.95 - 6.19 m/s | 6.18 m/s | Yes |
| Integrated Pendulum Velocity | | | |
| 10 ms | 1.50 - 1.90 m/s | 1.64 m/s | Yes |
| 20 ms | 3.10 - 3.90 m/s | 3.30 m/s | Yes |
| 30 ms | 4.60 - 5.60 m/s | 4.95 m/s | Yes |
| Peak D Plane Rotation | 99 - 114 ° | 104.9 ° | Yes |
| Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors) | -65.0 - (-53.0) N·m | -54.53 N·m | Yes |
| Positive Moment Decay Time To -10 N·m | 94 - 114 ms | 106.40 ms | Yes |

Comments:

Technician



Approved



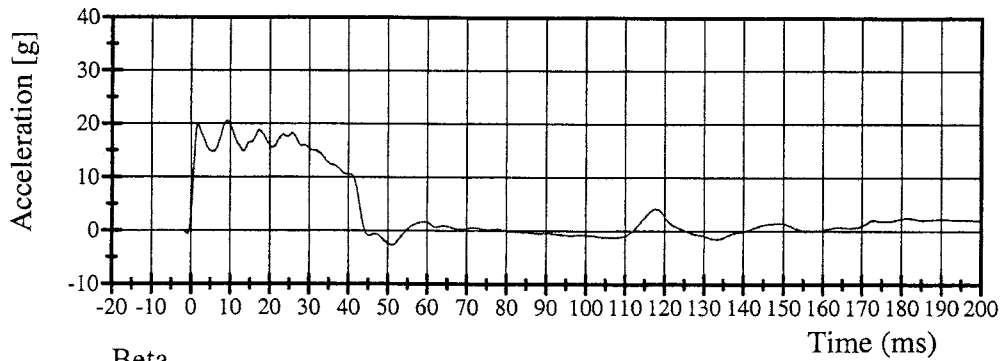
Transportation Research Center Inc.

5720 Neck Extension Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

Pendulum Deceleration

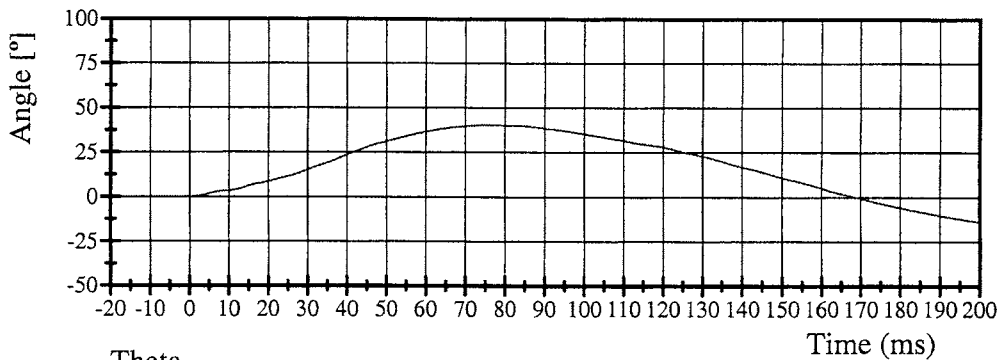


Filter Class: 180

Max: 20.5 g at 9.2 ms

Min: -2.7 g at 51.0 ms

Beta

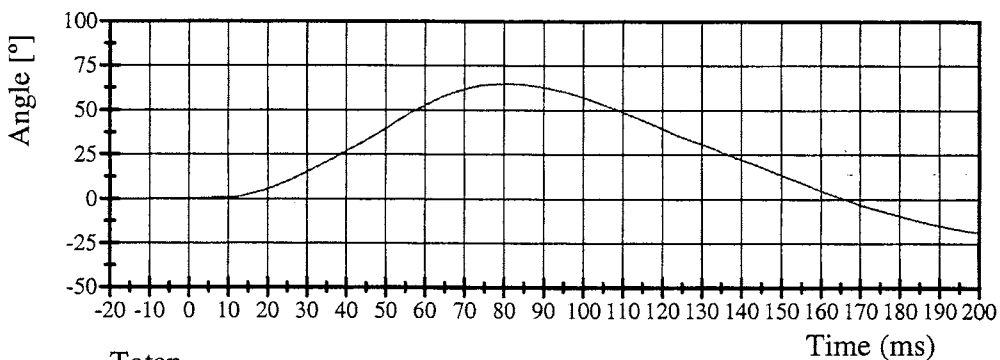


Filter Class: 60

Max: 40.3 ° at 74.8 ms

Min: -16.4 ° at 213.4 ms

Theta

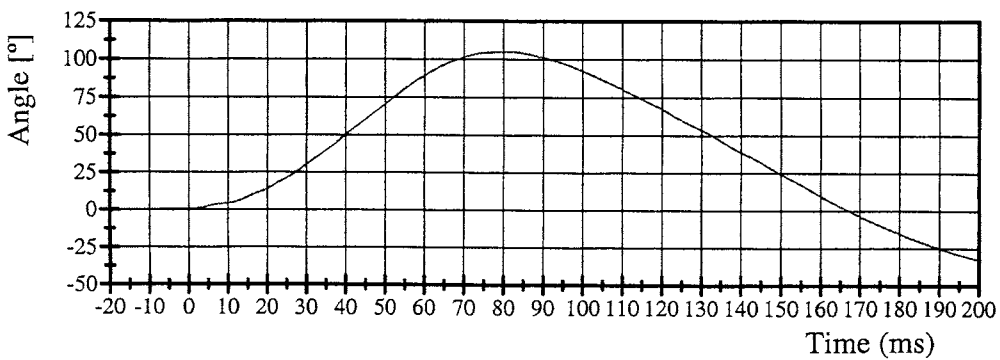


Filter Class: 60

Max: 64.8 ° at 81.4 ms

Min: -20.6 ° at 213.1 ms

Totan



Filter Class: 60

Max: 104.9 ° at 81.2 ms

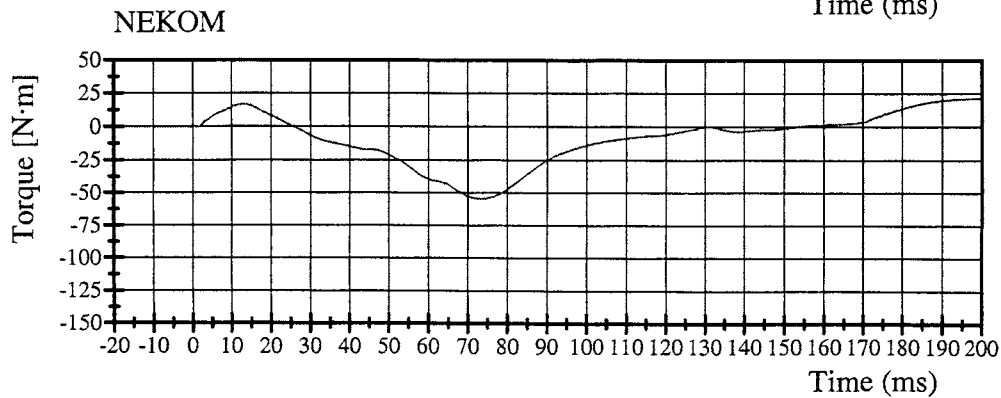
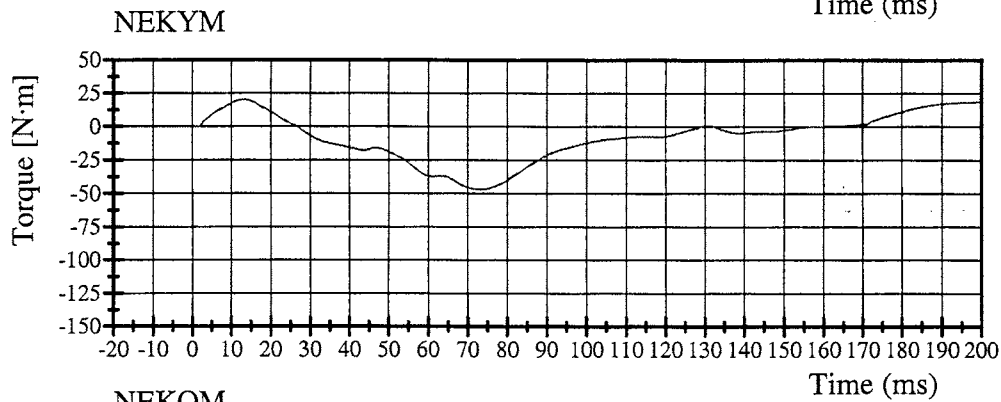
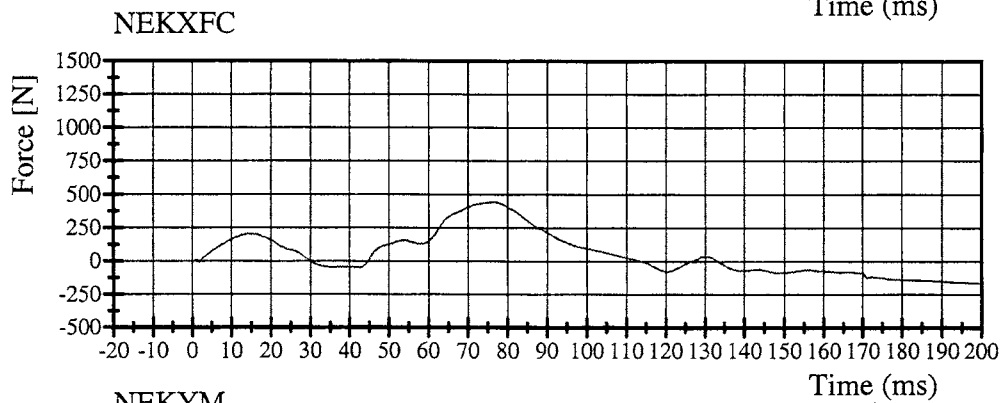
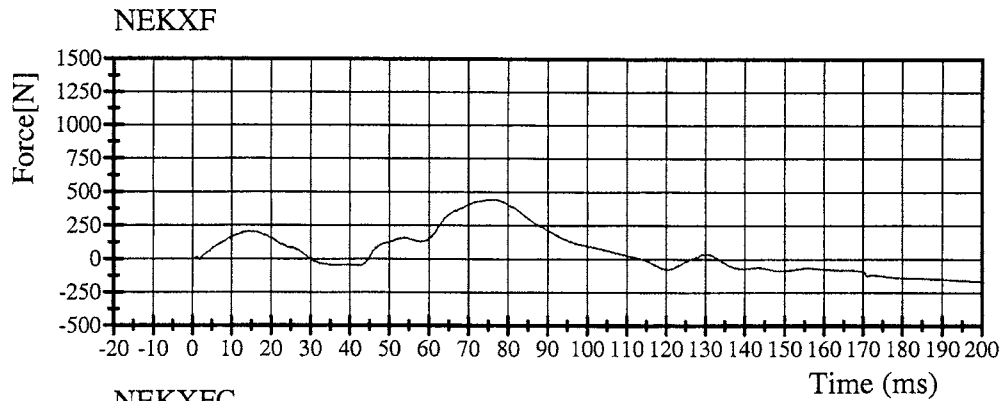
Min: -36.9 ° at 213.3 ms

Transportation Research Center Inc.

5720 Neck Extension Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002



Transportation Research Center Inc.

5720 Thorax Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 09/10/2002

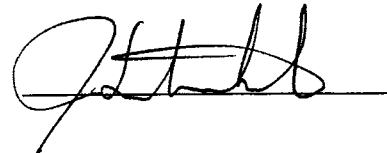
| Test Parameter | Specification | Test Results | Pass |
|--------------------------------------------------------|--------------------|--------------|------|
| Temperature | 20.6 - 22.2 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 55 % | Yes |
| Pendulum Velocity | 6.59 - 6.83 m/s | 6.63 m/s | Yes |
| Maximum Chest Deflection | -58.0 - (-50.0) mm | -52.8 mm | Yes |
| Peak Impact Probe Force Within Compression Corridor | 3900 - 4400 N | 4106 N | Yes |
| Internal Hysteresis | 105 % Max. | 100 % | Yes |
| Internal Hysteresis | 69 - 85 % | 72 % | Yes |

Comments:

Technician



Approved



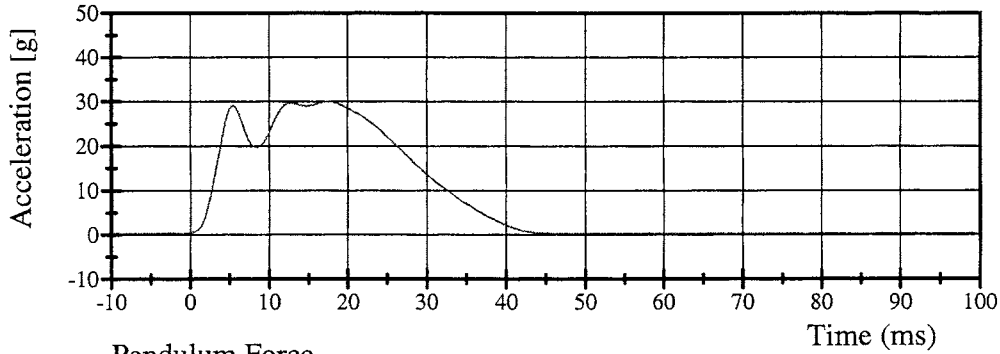
Transportation Research Center Inc.

5720 Thorax Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 09/10/2002

Pendulum Deceleration

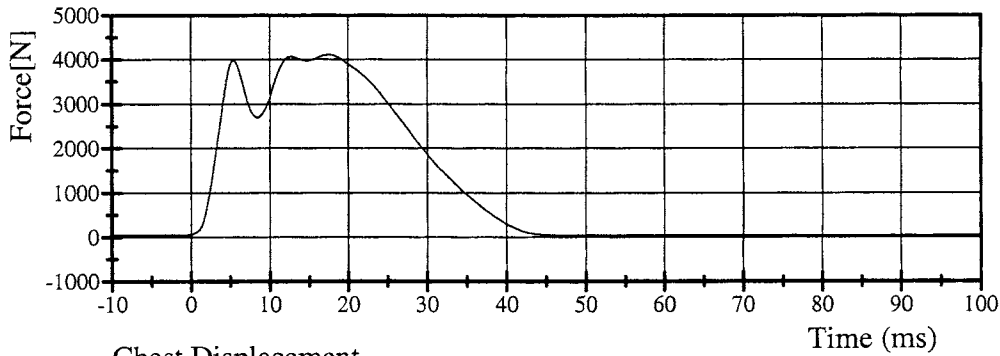


Filter Class: 180

Max: 30.0 g at 17.5 ms

Min: -0.0 g at -135.8 ms

Pendulum Force

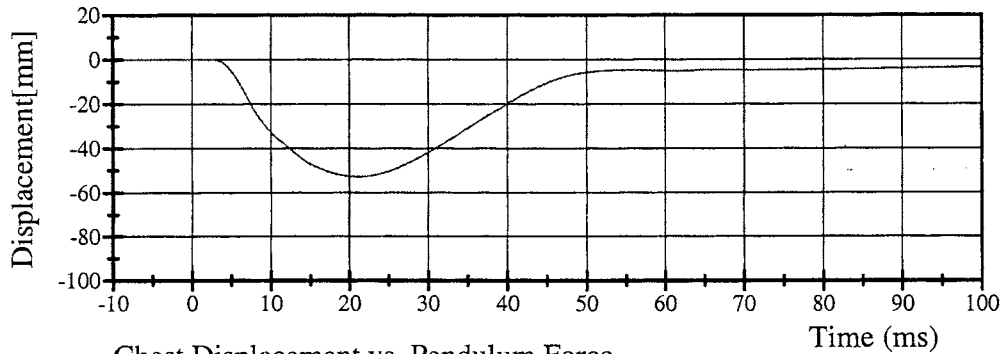


Filter Class: 180

Max: 4106.2 N at 17.5 ms

Min: -2.0 N at -135.8 ms

Chest Displacement

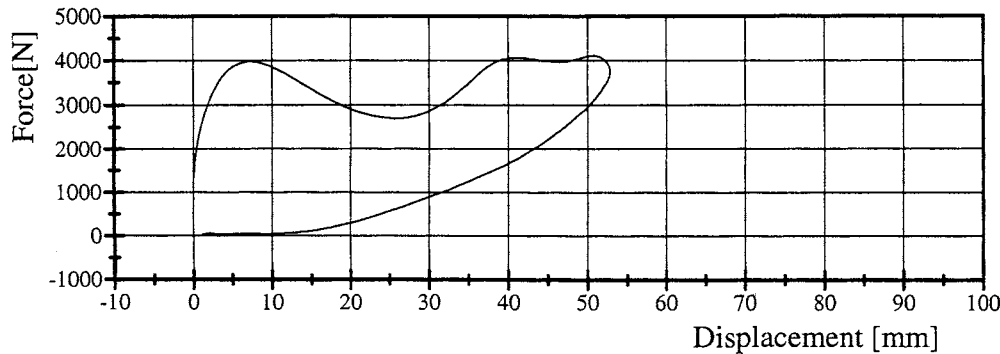


Filter Class: 180

Max: 0.0 mm at 2.0 ms

Min: -52.8 mm at 21.1 ms

Chest Displacement vs. Pendulum Force



TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

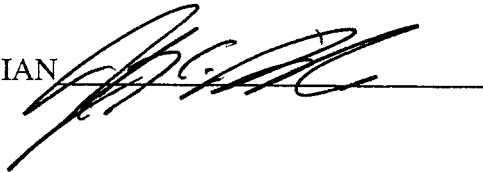
CAL DATE: 06-Sep-02

TRC, INC. TEST NO: 421C10TF1 572 O SN421 TORSO FLEX CAL 10

| TEST PARAMETER | SPECIFICATION | TEST RESULTS |
|-----------------------------------------------------|-----------------------------------------|--------------|
| TEMPERATURE | 20.6 – 22.2 DEG. C | 21.1 DEG. C |
| RELATIVE HUMIDITY | 10 – 70 % | 55 % |
| INITIAL ANGLE OF UNSUPPORTED DUMMY | <= 20 DEG. REFERENCED TO VERTICAL | 14.8 DEG. |
| MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD | 320 – 390 N | 323.70 N |
| RETURN ANGLE | | 19.8 DEG. |
| DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE | +/- 8 DEG. OF INTIAL ANGLE | 5.0 DEG. |

TEST MEETS SPECIFICATIONS

TECHNICIAN



Transportation Research Center Inc.

5720 Left Knee Slider Test

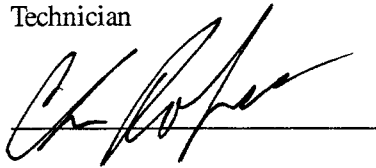
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/26/2002

| Test Parameter | Specification | Test Results | Pass |
|-------------------|--------------------|--------------|------|
| Temperature | 18.9 - 25.6 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 59 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.74 m/s | Yes |
| Knee Displacement | -15.5 - (-12.7) mm | -14.6 mm | Yes |

Comments:

Technician



Approved

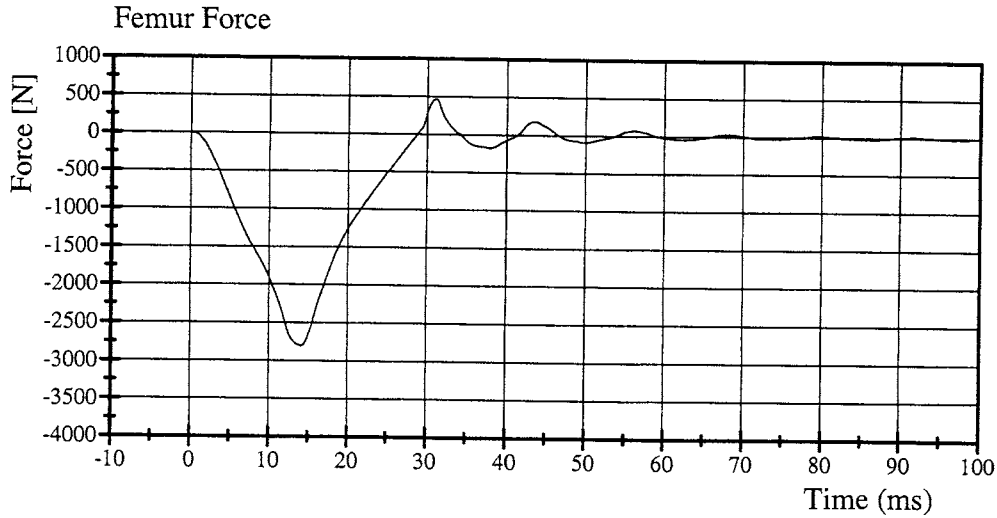


Transportation Research Center Inc.

5720 Left Knee Slider Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

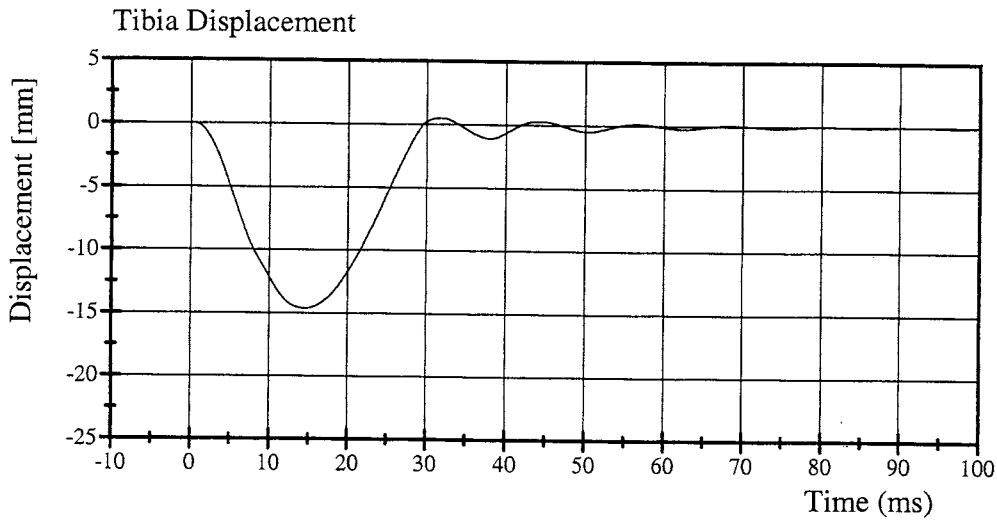
Test Date 08/26/2002



Filter Class: 600

Max: 465.7 N at 31.0 ms

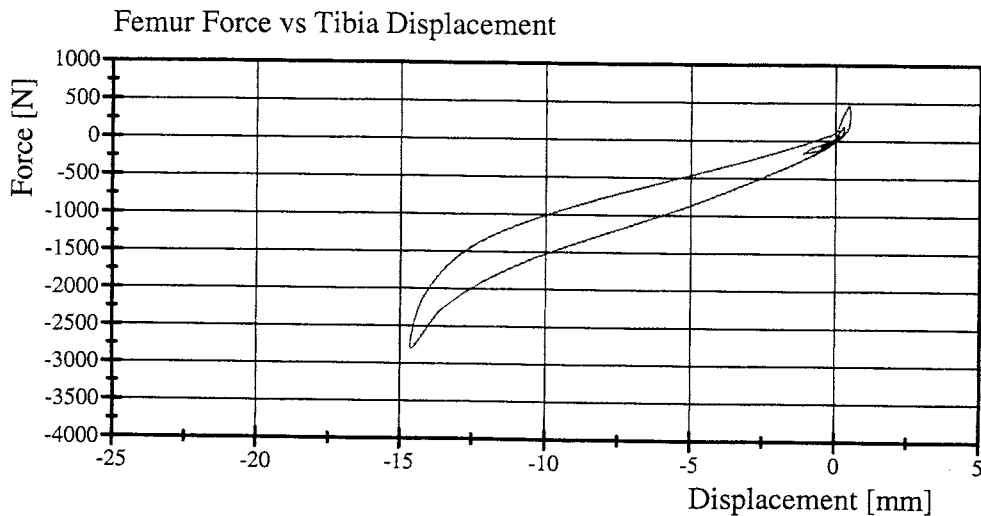
Min: -2800.3 N at 14.1 ms



Filter Class: 600

Max: 0.5 mm at 31.8 ms

Min: -14.6 mm at 14.6 ms



Transportation Research Center Inc.

5720 Right Knee Slider Test

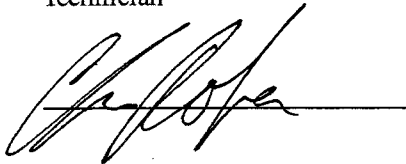
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/26/2002

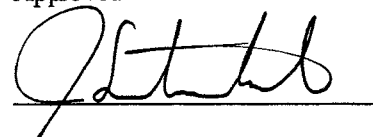
| Test Parameter | Specification | Test Results | Pass |
|-------------------|--------------------|--------------|------|
| Temperature | 18.9 - 25.6 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 57 % | Yes |
| Pendulum Velocity | 2.70 - 2.80 m/s | 2.74 m/s | Yes |
| Knee Displacement | -15.5 - (-12.7) mm | -14.6 mm | Yes |

Comments:

Technician



Approved

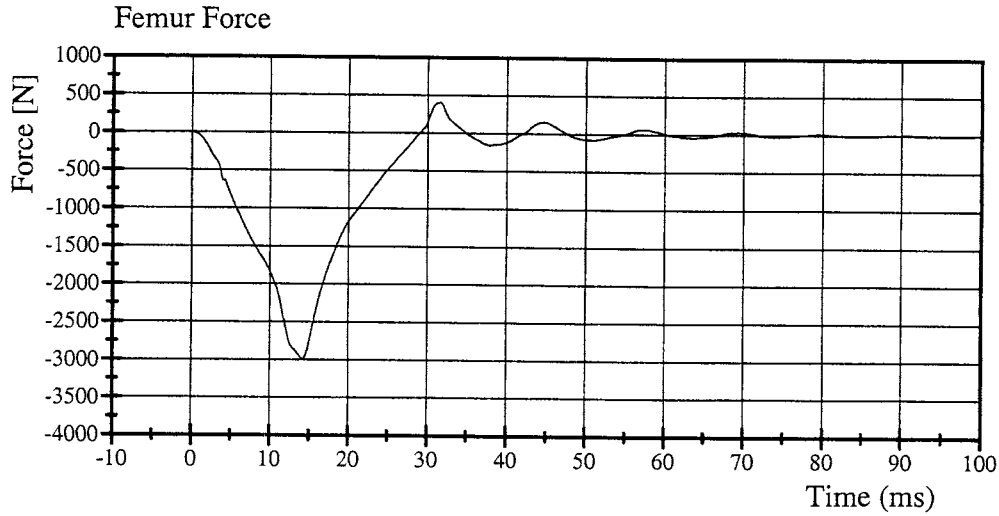


Transportation Research Center Inc.

5720 Right Knee Slider Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

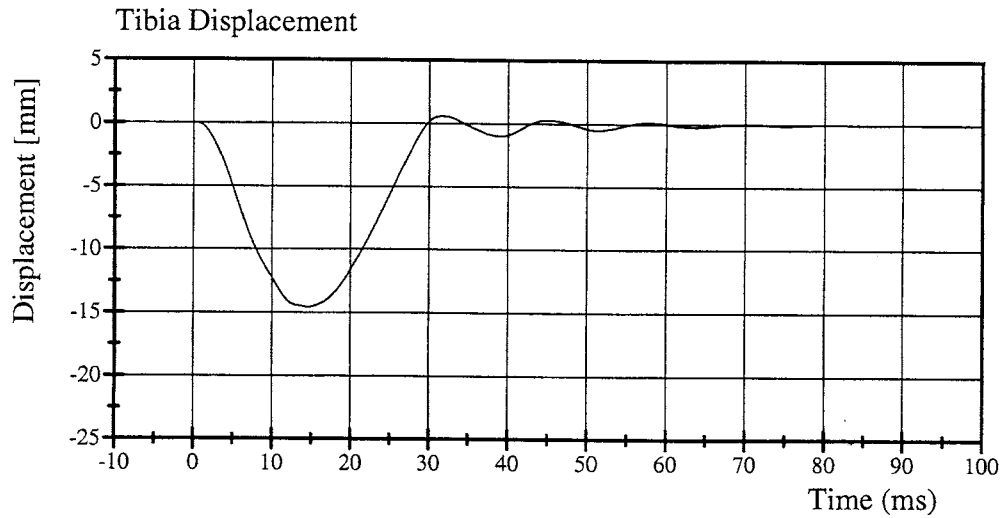
Test Date 08/26/2002



Filter Class: 600

Max: 402.3 N at 31.6 ms

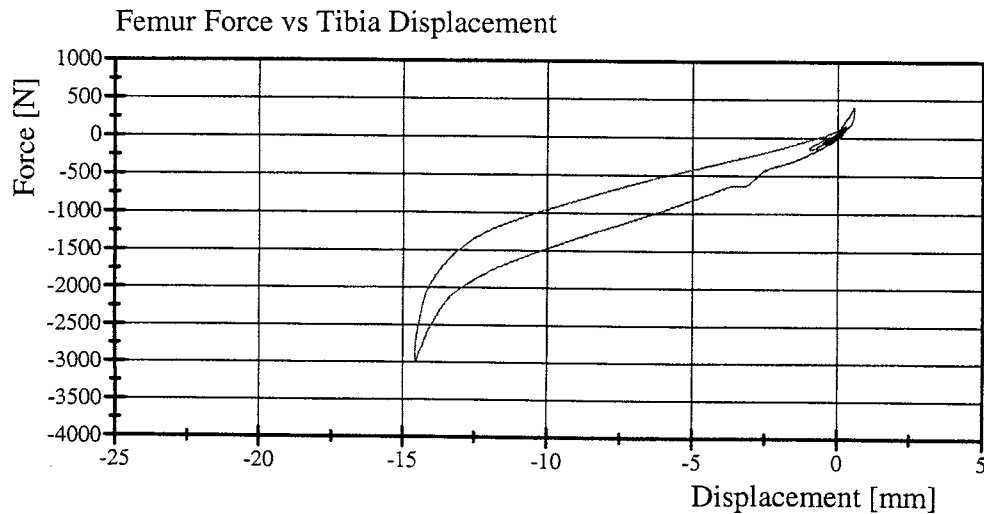
Min: -2989.0 N at 14.2 ms



Filter Class: 600

Max: 0.6 mm at 31.7 ms

Min: -14.6 mm at 14.6 ms



Transportation Research Center Inc.

5720 Left Knee Test

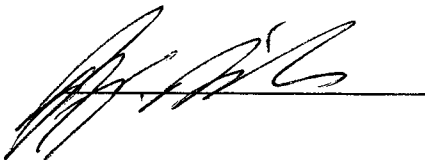
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

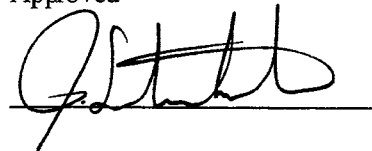
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.6 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 60 % | Yes |
| Pendulum Velocity | 2.07 - 2.13 m/s | 2.12 m/s | Yes |
| Maximum Pendulum Force | 3450 - 4060 N | 3946 N | Yes |

Comments:

Technician



Approved



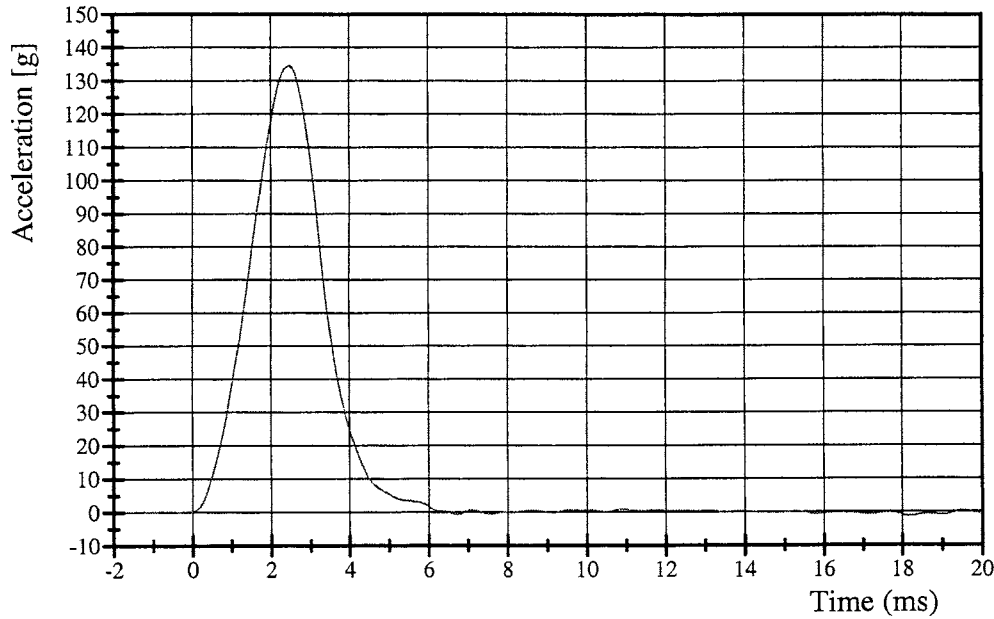
Transportation Research Center Inc.

5720 Left Knee Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

Pendulum Deceleration

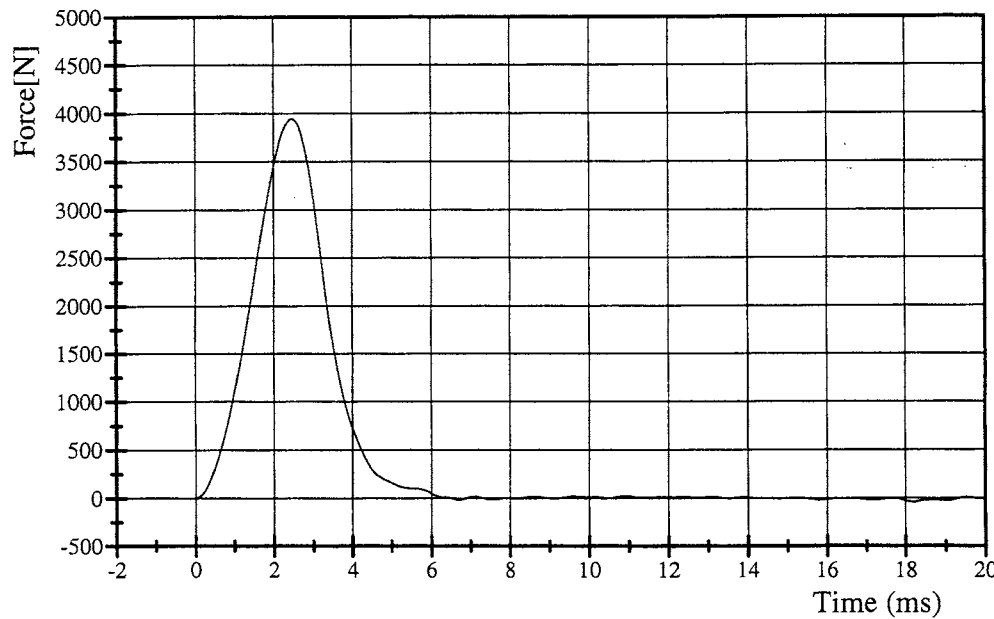


Filter Class: 600

Max: 134.6 g at 2.5 ms

Min: -1.3 g at 18.2 ms

Pendulum Force



Filter Class: 600

Max: 3945.9 N at 2.5 ms

Min: -37.8 N at 18.2 ms

Transportation Research Center Inc.

5720 Right Knee Test

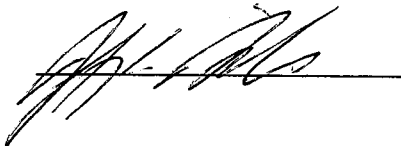
HIII 5th Female Serial No. 421 Calibration No. 10 - 1

Test Date 08/28/2002

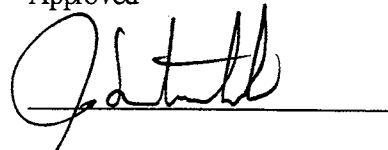
| Test Parameter | Specification | Test Results | Pass |
|------------------------|-----------------|--------------|------|
| Temperature | 18.9 - 25.6 °C | 21.1 °C | Yes |
| Relative Humidity | 10 - 70 % | 59 % | Yes |
| Pendulum Velocity | 2.07 - 2.13 m/s | 2.12 m/s | Yes |
| Maximum Pendulum Force | 3450 - 4060 N | 3748 N | Yes |

Comments:

Technician



Approved

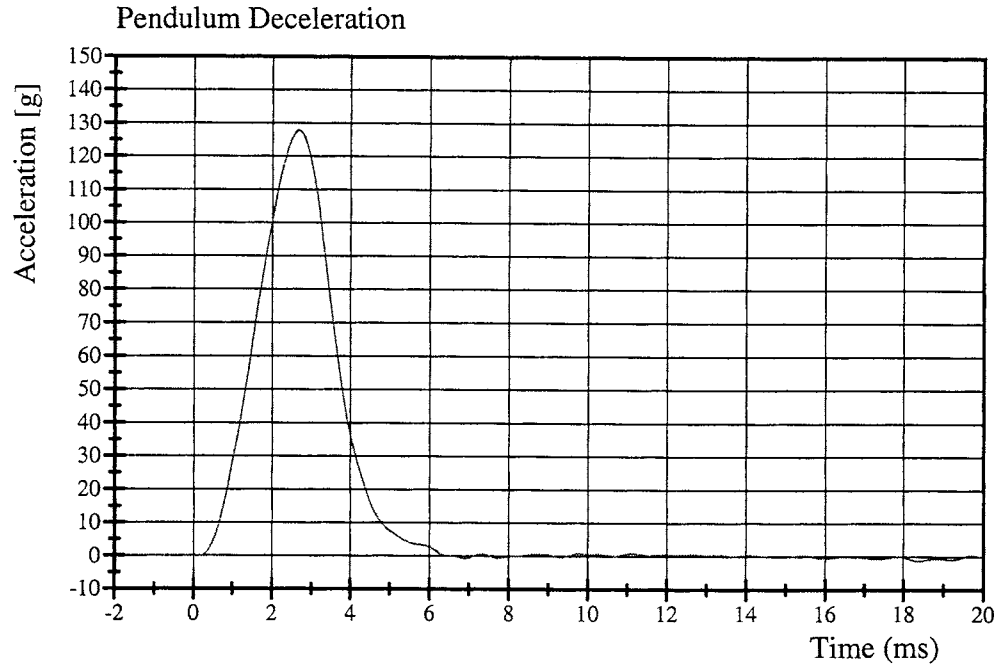


Transportation Research Center Inc.

5720 Right Knee Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

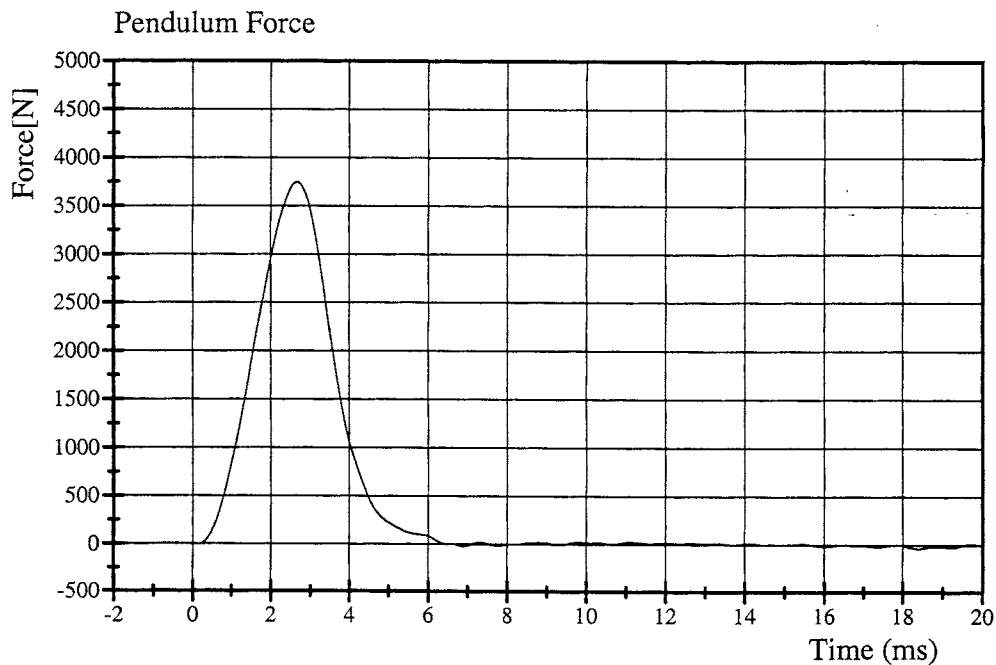
Test Date 08/28/2002



Filter Class: 600

Max: 127.8 g at 2.6 ms

Min: -1.3 g at 18.4 ms



Filter Class: 600

Max: 3748.3 N at 2.6 ms

Min: -36.7 N at 18.4 ms

Post-Test Dummy Configuration and Performance Verification Data

Bullet Vehicle Passenger Dummy S/N: 421

(No post-test calibration)

Appendix D

Test Equipment and Instrumentation Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:

+X: Forward
+Y: Rightward
+Z: Downward

Potentiometers:

+Chest longitudinal deflection: Outward
+Chest lateral deflection: Leftward
+Seat belt displacement: Outward
+Seat belt extension: Elongation
+Knee slider displacement: Distance between femur and tibia
increased (in relation to a seated
dummy)

Rotation potentiometers:

+About the X-axis: Left foot-eversion
Right foot-inversion
+About the Y-axis: Left/right foot-dorsiflexion
+About the Z-axis: Left foot-internal
Right foot-external

Load cells:

+Femur force: Tension
+Seat belt force: Tension
+Barrier force: Tension

Neck load cells:

+X force: Head pushed rearward
+Y force: Head pushed leftward
+Z force: Head pulled upward (tension on neck)
+X moment: Left ear rotating toward left shoulder
+Y moment: Chin rotating toward chest
+Z moment: Chin rotating toward left shoulder

Tibia load cells:

+X force: Ankle forward, knee rearward
+Y force: Ankle rightward, knee leftward
+Z force: Tension
+X moment: Bottom of tibia moving leftward
+Y moment: Bottom of tibia moving rearward

Frequency Response Classes
SAE J211 MAR95

| <u>Typical Test Measurements</u> | <u>Channel Class</u> |
|----------------------------------------------|----------------------|
| Vehicle Structural Accelerations for use in: | |
| Total vehicle comparison | 60 |
| Collision simulation input | 60 |
| Component analysis | 600 |
| Integration for velocity or displacement | 180 |
| Barrier Face Forces | 60 |
| Belt Restraint System Loads | 60 |
| Anthropomorphic Test Device | |
| Head accelerations (linear and angular) | 1000 |
| Neck | |
| Forces | 1000 |
| Moments | 600 |
| Thorax | |
| Spine accelerations | 180 |
| Rib accelerations | 1000 |
| Sternum accelerations | 1000 |
| Deflections | 180 |
| Lumbar | |
| Forces | 1000 |
| Moments | 1000 |
| Pelvis | |
| Accelerations | 1000 |
| Forces | 1000 |
| Moments | 1000 |
| Femur/Knee/Tibia/Ankle | |
| Forces | 600 |
| Moments | 600 |
| Displacements | 180 |
| Sled Accelerations | 60 |
| Steering Column Loads | 600 |
| Head form Accelerations | 1000 |

Description Of Timing Marks On TRC Inc. High-Speed Film

All TRC Inc. high-speed cameras are equipped with red LEDs which put timing marks on the right edge of the film. TRC Inc. uses a single timing generator to generate the timing for all cameras. This allows the timing marks to be common to all cameras. The timing marks can be used to measure camera speed (frames per second) or to locate a point in time before or after the time-zero event.

The timing marks appear on the film as small red marks on the right edge of the film. Round marks are left by the Photosonic and Stalex cameras while horizontal bars are left by the Hycam, Locam, and Fastax II cameras.

The timing generator puts out a pulse for every millisecond plus it generates additional pulses for hundredths and tenths of seconds. To explain this further, we can use an example of a camera running at 1000 frames per second.

1. Every frame will have **one** LED appear in it. This indicates a *millisecond* pulse.
2. Every ten frames will have **two** LEDs appear in it. These indicate a *millisecond* pulse plus a *hundredth of a second* pulse.
3. Every one hundred frames will have **three** LEDs appear in it. These indicate a *millisecond* pulse, a *hundredth of a second* pulse, and a *tenth of a second* pulse.

To locate time-zero, observe the continuous LED that is visible on the left side of the frame at the beginning of each view. Locate the frame where the left side LED is fully extinguished and reverse 4 frames for the Photosonic cameras; reverse 5 frames for Hycam cameras; reverse 2 frames for Stalex cameras. This frame is time-zero.

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report

9/23/2002 8:50:33 AM

Name of Test 020921

System K3600

Name of DAU DAU0

| Chan.# | Sensor # | Mnemonic | Description | Dir. | Range | Pol. | Cal. Date/Status | Group | Mfg. | Model |
|--------|----------------|----------|---------------------|----------------------|---------------|------|------------------|----------|---------|----------------|
| 0000 | EVENT0 | SYNC0 | SYNC0 | | 10.24 | V | + 4/15/2002 | OK -1 | TRC | Event |
| 0001 | J17649 | HEDXG1 | Head Accel X | Rwd | 1184.0751 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0002 | AJ454 | HEDYG1 | Head Accel Y | Lft | 1195.1447 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0003 | J14189 | HEDZG1 | Head Accel Z | Up | 1189.8675 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0004 | P17196 | HEDXR1 | Head Accel Red X | Rwd | 1187.0537 g | g | - 1/25/2002 | --- 168v | Endevco | 7264C-2KLC-2-2 |
| 0005 | B02A25-N05 | HEDYR1 | Head Accel Red Y | Lft | 1210.0586 g | g | - 2/8/2002 | OK 168v | Entran | EGE-73B6Q-200 |
| 0006 | 01G25-N09 | HEDZR1 | Head Accel Red Z | Up | 1212.7529 g | g | - 1/24/2002 | OK 168v | Entran | EGE-73B6Q-200 |
| 0007 | 1716A-851-FX | NEKXF1 | Neck Force X | Hd Fd | 13329.237 N | N | - 5/29/2002 | OK 168v | Denton | 1716A |
| 0008 | 1716A-851-FY | NEKYF1 | Neck Force Y | Hd Lt, 13329.530 N | N | N | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0009 | 1716A-851-FZ | NEKZF1 | Neck Force Z | Hd U 20045.228 N | N | N | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0010 | 1716A-851-MX | NEKXM1 | Neck Moment X | Rt Ear 424.21629 N-m | N-m | N-m | - 5/29/2002 | OK 168v | Denton | 1716A |
| 0011 | 1716A-851-MY | NEKYM1 | Neck Moment Y | Chn t 423.71714 N-m | N-m | N-m | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0012 | 1716A-851-MZ | NEKZM1 | Neck Moment Z | Chn t 423.80316 N-m | N-m | N-m | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0013 | J35921 | CSTYXG1 | Chest Accel X | Fwd | 601.70169 g | g | + 5/24/2002 | OK 168v | Endevco | 7264-2000TZ |
| 0014 | AJ7F7 | CSTYGI | Chest Accel Y | Lft | 597.08455 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0015 | J36723 | CSTZG1 | Chest Accel Z | Up | 597.09847 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000TZ |
| 0016 | 99H30-Z14 | CSTXR1 | Chest Accel Red X | Rwd | 602.40255 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQE0-20 |
| 0017 | 98H14-K05 | CSTYR1 | Chest Accel Red Y | Lft | 599.48248 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQ-2000 |
| 0018 | 98H13-F03 | CSTZR1 | Chest Accel Red Z | Up | 600.08673 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQ-2000 |
| 0019 | 14CB1-2847-168 | CSTXDI | Chest Deflection X | Strmm | 101.85558 mm | mm | + 6/5/2002 | OK 168v | Servo | 14CB1-2847 |
| 0020 | ACCY2 | PEVXG1 | Pelvis Accel X | Rwd | 601.36246 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0021 | J27490 | PEVYG1 | Pelvis Accel Y | Lft | 600.66402 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0022 | J21963 | PEVZG1 | Pelvis Accel Z | Up | 604.09415 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0023 | 1914A-362-FX | LFMXF1 | Left Femur Force X | Knee | 20035.751 N | N | - 5/24/2002 | OK 168v | Denton | 1914A |
| 0024 | 1914A-362-FY | LFMYF1 | Left Femur Force Y | Knee | 20015.190 N | N | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0025 | 1914A-362-FZ | LFMZFI | Left Femur Force Z | Knee | 33334.983 N | N | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0026 | 1914A-362-MX | LFMXM1 | Left Femur Moment X | Knee | 508.62542 N-m | N-m | - 5/24/2002 | OK 168v | Denton | 1914A |
| 0027 | 1914A-362-MY | LFMYM1 | Left Femur Moment Y | Knee | 509.30828 N-m | N-m | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0028 | 1914A-362-MZ | LFMZM1 | Left Femur Moment Z | Tib Lt | 508.04912 N-m | N-m | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0029 | 1914A-376-FX | RFMXF1 | Right Femur Force X | Knee | 20005.301 N | N | - 5/24/2002 | OK 168v | Denton | 1914A |

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| | | | | | | | | | | | | |
|------|-----------------|--------|----------------------------|--------|-----------|-----|---|-----------|-----|------|----------|-------------|
| 0030 | 1914A-376-FY | RFMYF1 | Right Femur Force Y | Knee | 20010.349 | N | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0031 | 1914A-376-FZ | RFMZP1 | Right Femur Force Z | Knee | 33337.253 | N | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0032 | 1914A-376-MX | RFMXM1 | Right Femur Moment X | Knee | 508.76684 | N-m | - | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0033 | 1914A-376-MY | RFMYM1 | Right Femur Moment Y | Knee | 508.69127 | N-m | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0034 | 1914A-376-MZ | RFMZM1 | Right Femur Moment Z | Tib Lt | 509.68328 | N-m | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0035 | 150-0121VR-1802 | KNLXD1 | Left Knee Displacement | Tib R | 29.03976 | mm | - | 6/13/2002 | OK | 168v | SpaceAge | 150-0121VR |
| 0036 | 3115-268-FZ | TBLZP1 | Left Upper Tibia Force Z | Tib D | 16678.774 | N | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0037 | 3115-268-MX | TBLXM1 | Left Upper Tibia Moment X | Tib Rt | 593.07741 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0038 | 3115-268-MY | TBLYM1 | Left Upper Tibia Moment Y | Tib F | 591.89956 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0039 | 3287-196-FZ | ANLZF1 | Left Lower Tibia Force Z | Ank | 16671.821 | N | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0040 | 3287-196-MX | ANLXM1 | Left Lower Tibia Moment X | Ank R | 592.39488 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0041 | 3287-196-MY | ANLYM1 | Left Lower Tibia Moment Y | Ank F | 593.25316 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0042 | 150-0121VL-1812 | KNRXD1 | Right Knee Displacement | Tib R | 22.301594 | mm | - | 6/13/2002 | OK | 168v | SpaceAge | 150-0121VL |
| 0043 | 3115-274-FZ | TBRZF1 | Right Upper Tibia Force Z | Tib D | 16684.475 | N | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0044 | 3115-274-MX | TBRXM1 | Right Upper Tibia Moment X | Tib Rt | 592.48251 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0045 | 3115-274-MY | TBRYM1 | Right Upper Tibia Moment Y | Tib F | 591.94838 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0046 | 3287-185-FZ | ANRZF1 | Right Lower Tibia Force Z | Ank | 16690.937 | N | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0047 | 3287-185-MX | ANRXM1 | Right Lower Tibia Moment X | Ank R | 593.76939 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0048 | 3287-185-MY | ANRYM1 | Right Lower Tibia Moment Y | Ank F | 594.01359 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0049 | J38064 | VCGXG1 | VEHICLE CG X-AXIS ACCEL | FWD | 1012.6582 | g | + | 6/18/2002 | OK | -1 | Denton | 3287 |
| 0050 | J38075 | VCGYG1 | VEHICLE CG Y-AXIS ACCEL | RT | 1003.2527 | g | + | 6/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0051 | J29421 | VCGZG1 | VEHICLE CG Z-AXIS ACCEL | UP | 993.98175 | g | - | 9/8/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0052 | AN814 | RDKXG1 | REAR DECK X-AXIS ACCELE | FWD | 993.17194 | g | + | 9/10/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0053 | A01EJ | RDKYG1 | REAR DECK Y-AXIS ACCELE | RT | 1002.1923 | g | + | 8/27/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0054 | ANBH3 | RDKZG1 | REAR DECK Z-AXIS ACCELE | UP | 991.09563 | g | - | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0055 | J27503 | LFSXG1 | LEFT FRONT SILL X-AXIS A | FWD | 1491.0160 | g | + | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0056 | J41082 | LFSYG1 | LEFT FRONT SILL Y-AXIS A | RT | 1499.1801 | g | + | 5/2/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0057 | J40522 | LRSXG1 | LEFT REAR SILL X-AXIS AC | FWD | 1517.8466 | g | + | 3/25/2002 | --- | -1 | Endevco | 7264-2000TZ |
| 0058 | J40561 | LRSYG1 | LEFT REAR SILL Y-AXIS AC | RT | 1501.0261 | g | + | 3/25/2002 | --- | -1 | Endevco | 7264-2000TZ |
| 0059 | J37990 | RFSXG1 | RIGHT FRONT SILL X-AXIS | FWD | 603.98726 | g | + | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0060 | J38421 | RFSYG1 | RIGHT FRONT SILL Y-AXIS | LT | 603.80207 | g | - | 7/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0061 | J40074 | RRSXG1 | RIGHT REAR SILL X-AXIS A | FWD | 595.62587 | g | + | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0062 | FH15J | RRSYG1 | RIGHT REAR SILL Y-AXIS A | LT | 599.61938 | g | - | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0063 | J40978 | ENGXG1 | ENGINE TOP X-AXIS ACCEL | FWD | 603.48892 | g | + | 4/3/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0064 | J14374 | ENGYG1 | ENGINE TOP Y-AXIS ACCEL | LT | 1489.0430 | g | - | 6/6/2002 | OK | -1 | Endevco | 7264-2000TZ |

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| | | | | | | | | | | | | |
|-----------------|-------------------|-------------------|-------------------------------------|--------------|-----------------|--------------|--------------|----------------------|---------------|---------------|------------------|-------------------|
| 0065 | J41123 | ENGXG2 | ENGINE BOTTOM X-AXIS AC | FWD | 1484.5743 | g | + | 4/4/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0066 | J40975 | ENYG2 | ENGINE BOTTOM Y-AXIS AC | RT | 1495.5673 | g | + | 4/3/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0067 | J40559 | DPCXG1 | INSTRUMENT PANEL CENTE | FWD | 1004.4336 | g | + | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0068 | J40538 | DPCYG1 | INSTRUMENT PANEL CENTE | LT | 992.70979 | g | - | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0069 | J20387 | LRXXG1 | LEFT REAR SEAT CROSSME | FWD | 999.10237 | g | + | 6/6/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0070 | J40977 | LRXYG1 | LEFT REAR SEAT CROSSME | LT | 992.53659 | g | - | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0071 | J39582 | RRXXG1 | RIGHT REAR SEAT CROSSM | FWD | 603.48892 | g | + | 6/5/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0072 | A85JJ | RRXYG1 | RIGHT REAR SEAT CROSSM | LT | 604.52925 | g | - | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0073 | ABFire | DABET1 | DRIVER AIRBAG EVENT - WI | J | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |
| 0074 | ADFire | PABET1 | PASS AIRBAG EVENT - WIRE | J | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |

Channel Report

9/23/2002 8:50:33 AM

Name of Test 020921

System K3600

Name of DAU DAU1

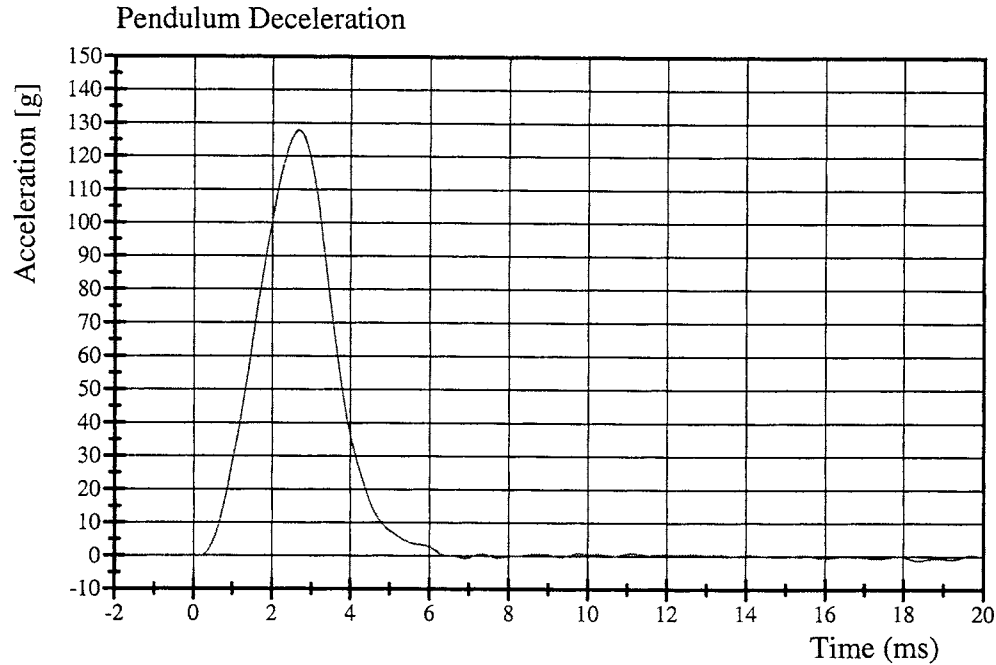
| Chan.# | Sensor # | Mnemonic | Description | Dir. | Range | Pol. | Cal. Date/Status | Group | Mfg. | Model |
|--------|-----------------|----------|------------------------|--------|-----------|------|------------------|----------|----------|-------------|
| 1000 | EVENT1 | SYNC1 | SYNC1 | | 10.24 | V | + 4/15/2002 | OK -1 | TRC | Event |
| 1001 | J20083 | HEDXGA | Head Accel X | Rwd | 1203.8703 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1002 | J19843 | HEDYGA | Head Accel Y | Lft | 1203.0075 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1003 | J20027 | HEDZGA | Head Accel Z | Up | 1198.544 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2KM5T |
| 1004 | 1716A-782-FX | NEKXFA | Neck Force X | Hd Fd | 13338.003 | N | - 5/30/2002 | OK 169v- | Denton | 1716A |
| 1005 | 1716A-782-FY | NEKYFA | Neck Force Y | Hd Lt | 13358.829 | N | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1006 | 1716A-782-FZ | NEKZFA | Neck Force Z | Hd U | 20011.554 | N | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1007 | 1716A-782-MX | NEKXMA | Neck Moment X | Rt Ear | 423.49858 | N-m | - 5/30/2002 | OK 169v- | Denton | 1716A |
| 1008 | 1716A-782-MY | NEKYMA | Neck Moment Y | Chn t | 424.23484 | N-m | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1009 | 1716A-782-MZ | NEKZMA | Neck Moment Z | Chn t | 423.51205 | N-m | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1010 | J23757 | CSTXGA | Chest Accel X | Fwd | 599.31757 | g | + 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1011 | J21989 | CSTYGA | Chest Accel Y | Lft | 601.26006 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2KM5T |
| 1012 | J35747 | CSTZGA | Chest Accel Z | Up | 602.63653 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1013 | 14CB1-2847-169 | CSTXDA | Chest Deflection X | Strmm | 102.03095 | mm | + 6/6/2002 | OK 169v- | Servo | 14CB1-2847 |
| 1014 | J36741 | PEVXGA | Pelvis Accel X | Rwd | 598.78139 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1015 | J36605 | PEVYGA | Pelvis Accel Y | Lft | 597.68397 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1016 | AAMD7 | PEVZGA | Pelvis Accel Z | Up | 596.56972 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000LC |
| 1017 | 1914-0261-FX | LFMXFA | Left Femur Force X | Knee | 20043.875 | N | - 5/24/2002 | OK 169v- | Denton | 1914 |
| 1018 | 1914-0261-FY | LFMYFA | Left Femur Force Y | Knee | 20037.545 | N | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1019 | 1914-0261-FZ | LFMZFA | Left Femur Force Z | Knee | 33361.065 | N | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1020 | 1914-0261-MX | LFMXMA | Left Femur Moment X | Knee | 508.75256 | N-m | - 5/24/2002 | OK 169v- | Denton | 1914 |
| 1021 | 1914-0261-MY | LFMYMA | Left Femur Moment Y | Knee | 508.52406 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1022 | 1914-0261-MZ | LFMZMA | Left Femur Moment Z | Tib Lt | 509.01555 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1023 | 1914A-383-FX | RFMXFA | Right Femur Force X | Knee | 20039.527 | N | - 5/24/2002 | OK 169v- | Denton | 1914A |
| 1024 | 1914A-383-FY | RFMYFA | Right Femur Force Y | Knee | 20017.163 | N | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1025 | 1914A-383-FZ | RFMZFA | Right Femur Force Z | Knee | 33365.2 | N | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1026 | 1914A-383-MX | RFMXMA | Right Femur Moment X | Knee | 508.55789 | N-m | - 5/24/2002 | OK 169v- | Denton | 1914A |
| 1027 | 1914A-383-MY | RFMYMA | Right Femur Moment Y | Knee | 509.40946 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1028 | 1914A-383-MZ | RFMZMA | Right Femur Moment Z | Tib Lt | 509.04462 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1029 | 150-0121VR-1716 | KNLXDA | Left Knee Displacement | Tib R | 28.758390 | mm | - 6/13/2002 | OK 169v- | SpaceAge | 150-0121VR |

Transportation Research Center Inc.

5720 Right Knee Test

HIII 5th Female Serial No. 421 Calibration No. 10 - 1

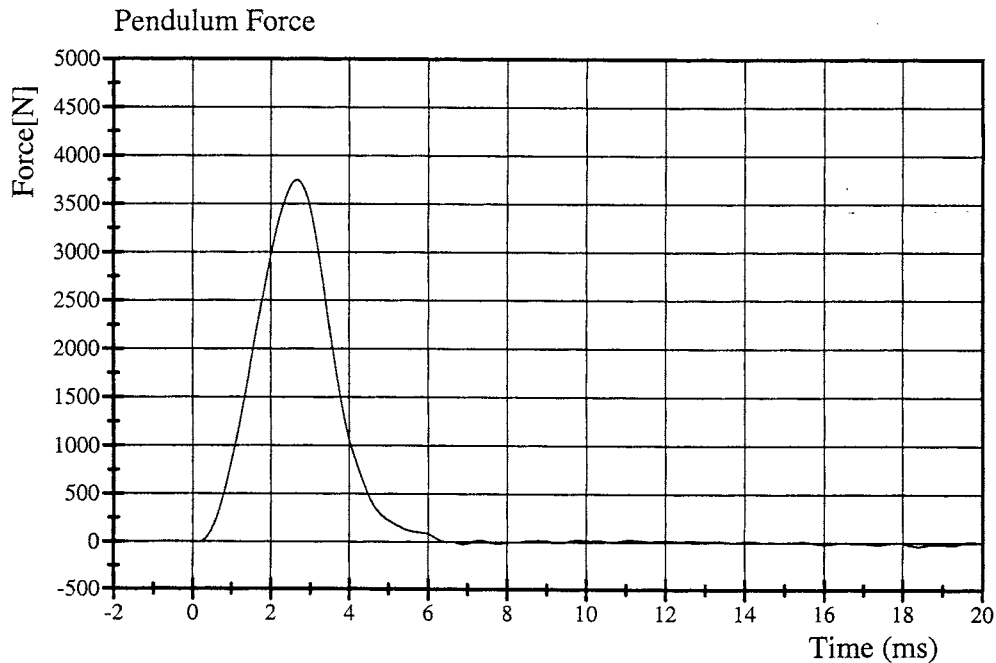
Test Date 08/28/2002



Filter Class: 600

Max: 127.8 g at 2.6 ms

Min: -1.3 g at 18.4 ms



Filter Class: 600

Max: 3748.3 N at 2.6 ms

Min: -36.7 N at 18.4 ms

Channel Report

| ID | Code | Channel | Measurement | Unit | Value | Sign | Date | Status | Age |
|------|-----------------|---------|-------------------------|--------|-----------|------|-----------|--------|---------------|
| 1030 | 150-0121VL-2103 | KNRXDA | Right Knee Displacement | mm | 22.515391 | - | 6/13/2002 | OK | 150-0121VL |
| 1031 | AJ4R6 | HEDXGB | Head Accel X | g | 1202.7673 | + | 8/6/2002 | OK | 7264-2KM5T |
| 1032 | 02A16-A01 | HEDYGB | Head Accel Y | g | 1213.8454 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1033 | 01L26-F06 | HEDZGB | Head Accel Z | g | 1213.7591 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1034 | 02A16-A03 | HEDXRB | Head Accel Red X | g | 1200.1594 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1035 | 02A16-A08 | HEDYRB | Head Accel Red Y | g | 1199.9063 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1036 | 02A16-A09 | HEDZRB | Head Accel Red Z | g | 1188.1556 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1037 | IF-205-180-FX | NEKXFB | Neck Force X | N | 13332.807 | - | 3/18/2002 | OK | IF-205 |
| 1038 | IF-205-180-FY | NEKYFB | Neck Force Y | N | 13344.549 | + | 3/18/2002 | OK | IF-205 |
| 1039 | IF-205-180-FZ | NEKZFB | Neck Force Z | N | 20033.116 | + | 3/18/2002 | OK | IF-205 |
| 1040 | IF-205-180-MX | NEKXMB | Neck Moment X | N-m | 423.99134 | - | 3/18/2002 | OK | IF-205 |
| 1041 | IF-205-180-MY | NEKYMB | Neck Moment Y | N-m | 424.10166 | + | 3/18/2002 | OK | IF-205 |
| 1042 | IF-205-180-MZ | NEKZMB | Neck Moment Z | N-m | 424.47778 | + | 3/18/2002 | OK | IF-205 |
| 1043 | B02A25-N03 | CSTXGB | Chest Accel X | g | 599.26146 | + | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1044 | 02A18-N12 | CSTYGB | Chest Accel Y | g | 597.38411 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1045 | B02A25-N10 | CSTZGB | Chest Accel Z | g | 598.37900 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1046 | AE9B7 | CSTXRB | Chest Accel Red X | g | 598.41047 | - | 8/6/2002 | OK | 7264-2KM5T |
| 1047 | 02A04-A24 | CSTYRB | Chest Accel Red Y | g | 598.00509 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1048 | B02A18-N22 | CSTZRB | Chest Accel Red Z | g | 600.28373 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1049 | 14CB1-2897-1355 | CSTXDB | Chest Deflection X | mm | 99.823165 | + | 3/25/2002 | OK | 14CB1-2897 |
| 1050 | AF9K3 | PEVXGB | Pelvis Accel X | g | 596.31959 | - | 8/5/2002 | OK | 7264-2000LC |
| 1051 | 02A16-A26 | PEVYGB | Pelvis Accel Y | g | 599.6545 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1052 | 02A18-N15 | PEVZGB | Pelvis Accel Z | g | 599.50705 | - | 8/5/2002 | OK | EGE-73B6Q-200 |
| 1053 | 2430-739 | LFMZFB | Left Femur Force Z | N | 20014.442 | + | 3/18/2002 | OK | 2430 |
| 1054 | 2430-760 | RFMZFB | Right Femur Force Z | N | 20010.299 | + | 3/18/2002 | OK | 2430 |
| 1055 | 150-0121VR-1502 | KNLXDB | Left Knee Displacement | POT10 | 43.785009 | + | 5/8/2002 | OK | 150-0121VR |
| 1056 | 150-0121VL-1494 | KNRXDB | Right Knee Displacement | AXR | 43.693463 | + | 5/8/2002 | OK | 150-0121VL |
| 1057 | J40744 | VCGXGA | VEHICLE CG X-AXIS | ACCEL | 1003.8428 | + | 6/3/2002 | OK | 7264-2000TZ |
| 1058 | J41087 | VCGYGA | VEHICLE CG Y-AXIS | ACCEL | 997.05363 | + | 6/6/2002 | OK | 7264-2000TZ |
| 1059 | J40727 | VCGZGA | VEHICLE CG Z-AXIS | ACCEL | 1009.5632 | - | 4/17/2002 | OK | 7264-2000TZ |
| 1060 | J40929 | RDKXGA | REAR DECK X-AXIS | ACCELE | 992.30575 | + | 6/6/2002 | OK | 7264-2000TZ |
| 1061 | J41106 | RDKYGA | REAR DECK Y-AXIS | ACCELE | 1000.254 | - | 6/18/2002 | OK | 7264-2000TZ |
| 1062 | J41077 | RDKZGA | REAR DECK Z-AXIS | ACCELE | 1001.8491 | - | 5/1/2002 | OK | 7264-2000TZ |
| 1063 | J39522 | LFSXGA | LEFT FRONT SILL X-AXIS | A | 1489.4545 | + | 6/5/2002 | OK | 7264-2000TZ |
| 1064 | J30458 | LFSYGA | LEFT FRONT SILL Y-AXIS | A | 1478.2307 | - | 8/27/2002 | OK | 7264-2000TZ |

Channel Report

9/23/2002 8:50:34 AM

| | | | | | | | | | | | | |
|------|--------|--------|--------------------------|-----|-----------|---|---|-----------|----|----|---------|-------------|
| 1065 | AAL44 | LRSXGA | LEFT REAR SILL X-AXIS AC | FWD | 1480.4534 | g | + | 9/10/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1066 | J41027 | LRSYGA | LEFT REAR SILL Y-AXIS AC | LT | 1513.5167 | g | - | 8/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1067 | J38413 | RFSXGA | RIGHT FRONT SILL X-AXIS | FWD | 603.8626 | g | + | 7/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1068 | J38007 | RFSYGA | RIGHT FRONT SILL Y-AXIS | LT | 600.31188 | g | - | 7/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1069 | J36554 | RRSXGA | RIGHT REAR SILL X-AXIS A | FWD | 599.70015 | g | + | 8/27/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1070 | J39915 | RRSYGA | RIGHT REAR SILL Y-AXIS A | LT | 601.12947 | g | - | 6/5/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1071 | J22046 | ENGXGA | ENGINE TOP X-AXIS ACCEL | RR | 602.44508 | g | - | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1072 | J34352 | ENGYGA | ENGINE TOP Y-AXIS ACCEL | RT | 1500.3663 | g | + | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1073 | J35719 | ENGXGB | ENGINE BOTTOM X-AXIS AC | RR | 1516.1386 | g | - | 9/10/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1074 | J35794 | ENGYGB | ENGINE BOTTOM Y-AXIS AC | LT | 1498.1712 | g | - | 9/5/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1075 | J38570 | DPCXGA | INSTRUMENT PANEL CENTE | FWD | 1011.5678 | g | + | 7/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1076 | J34526 | DPCYGA | INSTRUMENT PANEL CENTE | LT | 991.24913 | g | - | 8/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1077 | AN8J0 | LRXXGA | LEFT REAR SEAT CROSSME | FWD | 1003.0955 | g | + | 9/10/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1078 | ACCM9 | LRXYGA | LEFT REAR SEAT CROSSME | LT | 998.75156 | g | - | 5/23/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1079 | J41130 | RRXXGA | RIGHT REAR SEAT CROSSM | FWD | 603.54583 | g | + | 5/2/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1080 | J41111 | RRXYGA | RIGHT REAR SEAT CROSSM | RT | 600.69573 | g | + | 5/2/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 1081 | ABFire | DABETA | DRIVER AIRBAG EVENT - WI | 69 | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |
| 1082 | ABFire | DABETB | DRIVER AIRBAG EVENT - WI | D | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |
| 1083 | ABFire | PABETA | PASSENGER AIRBAG EVENT | A | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |
| 1084 | ABFire | PABETB | PASSENGER AIRBAG EVENT | 8 | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |

Dummy 168v Type HIII 50TH Description VRTC - 168v HIII 50TH CAL'd 1-24-02 (DKS 9-13-02) J211

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|---------------------|---------------|----------------|--------------|--------------|-----------|---------|--------------------|------|
| HEDXG | Head Accel X | 7264-2KM5T | J17649 | Endevco | 0.03203 | g 2000 | 5/24/02 | Rwd | 1 |
| HEDYG | Head Accel Y | 7264-2000T | AJ454 | Endevco | 0.02856 | g 2000 | 5/24/02 | Lft | 1 |
| HEDZG | Head Accel Z | 7264-2000T | J14189 | Endevco | 0.0331 | g 2000 | 5/24/02 | Up | 1 |
| HEDXR | Head Accel Red X | 7264C-2KLC-2- | P17196 | Endevco | 0.02104 | g 2000 | 1/25/02 | Rwd | 1 |
| HEDYR | Head Accel Red Y | EGE-73B6Q-20 | B02A25-N05 | Entran | 0.02064 | g 2000 | 2/8/02 | Lft | 1 |
| HEDZR | Head Accel Red Z | EGE-73B6Q-20 | 01G25-N09 | Entran | 0.01919 | g 2000 | 1/24/02 | Up | 1 |
| NEKXF | Neck Force X | 1716A | 1716A-851-FX | Denton | 0.000193999 | N 8896.4 | 5/29/02 | Hd Fd,Cst Rr | 1 |
| NEKYF | Neck Force Y | 1716A | 1716A-851-FY | Denton | 0.000188289 | N 8896.4 | 5/29/02 | Hd Lt,Cst Rt | 0 |
| NEKZF | Neck Force Z | 1716A | 1716A-851-FZ | Denton | 0.000147643 | N 13344.6 | 5/29/02 | Hd Up,Cst Dn | 0 |
| NEXXM | Neck Moment X | 1716A | 1716A-851-MX | Denton | 0.005989735 | N-m 282.5 | 5/29/02 | Rt Ear to Rt Shld | 1 |
| NEKYM | Neck Moment Y | 1716A | 1716A-851-MY | Denton | 0.005981947 | N-m 282.5 | 5/29/02 | Chn to Strmm | 0 |
| NEKZM | Neck Moment Z | 1716A | 1716A-851-MZ | Denton | 0.008568142 | N-m 282.5 | 5/29/02 | Chn to Lt Shld | 0 |
| CSTXG | Chest Accel X | 7264-2000TZ | J35921 | Endevco | 0.03039 | g 2000 | 5/24/02 | Fwd | 0 |
| CSTYG | Chest Accel Y | 7264-2000T | AJ7F7 | Endevco | 0.0343 | g 2000 | 5/24/02 | Lft | 1 |
| CSTZG | Chest Accel Z | 7264-2000TZ | J36723 | Endevco | 0.02522 | g 2000 | 5/24/02 | Up | 1 |
| CSTXR | Chest Accel Red X | EGE-73BQE0-2 | 99H30-Z14 | Entran | 0.02073 | g 2000 | 4/25/02 | Rwd | 1 |
| CSTYR | Chest Accel Red Y | EGE-73BQ-200 | 98H14-K05 | Entran | 0.01743 | g 2000 | 4/25/02 | Lft | 1 |
| CSTZR | Chest Accel Red Z | EGE-73BQ-200 | 98H13-F03 | Entran | 0.02081 | g 2000 | 4/25/02 | Up | 1 |
| CSTXD | Chest Deflection X | 14CB1-2847 | 14CB1-2847-168 | Servo | 1.11705 | mm 100 | 6/5/02 | Strmm Away Frm Spn | 0 |
| PEVXG | Pelvis Accel X | 7264-2000T | ACCY2 | Endevco | 0.02365 | g 2000 | 5/24/02 | Rwd | 1 |
| PEVYG | Pelvis Accel Y | 7264-2KM5T | J27490 | Endevco | 0.02214 | g 2000 | 5/24/02 | Lft | 1 |
| PEVZG | Pelvis Accel Z | 7264-2KM5T | J21963 | Endevco | 0.0253 | g 2000 | 5/24/02 | Up | 1 |
| LFMXF | Left Femur Force X | 1914A | 1914A-362-FX | Denton | 0.000143968 | N 13344 | 5/24/02 | Knee Dn,Fem Up | 1 |
| LFMYF | Left Femur Force Y | 1914A | 1914A-362-FY | Denton | 0.000144523 | N 13344 | 5/24/02 | Knee Rt,Fem Lt | 0 |
| LFMZG | Left Femur Force Z | 1914A | 1914A-362-FZ | Denton | 0.000059074 | N 22240 | 5/24/02 | Knee Fd,Pel Rr | 0 |
| LFMXM | Left Femur Moment X | 1914A | 1914A-362-MX | Denton | 0.004464012 | N-m 339 | 5/24/02 | Knee Rt,Hld Fem | 1 |

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|----------------------------|------------|------------------|--------------|--------------|-----------|---------|-----------------|------|
| LFMYM | Left Femur Moment Y | 1914A | 1914A-362-MY | Denton | 0.004409145 | N·m 339 | 5/24/02 | Knee Up,Hld Fem | 0 |
| LFMZM | Left Femur Moment Z | 1914A | 1914A-362-MZ | Denton | 0.00790413 | N·m 339 | 5/24/02 | Tib Lt,Hld Pel | 0 |
| RFMXF | Right Femur Force X | 1914A | 1914A-376-FX | Denton | 0.000146666 | N 13344 | 5/24/02 | Knee Dn,Fem Up | 1 |
| RFMYF | Right Femur Force Y | 1914A | 1914A-376-FY | Denton | 0.000146629 | N 13344 | 5/24/02 | Knee Rt,Fem Lt | 0 |
| RFMZf | Right Femur Force Z | 1914A | 1914A-376-FZ | Denton | 0.00059876 | N 22240 | 5/24/02 | Knee Fd,Pel Rt | 0 |
| RFMXM | Right Femur Moment X | 1914A | 1914A-376-MX | Denton | 0.004443068 | N·m 339 | 5/24/02 | Knee Rt,Hld Fem | 1 |
| RFMYM | Right Femur Moment Y | 1914A | 1914A-376-MY | Denton | 0.003790977 | N·m 339 | 5/24/02 | Knee Up,Hld Fem | 0 |
| RFMZM | Right Femur Moment Z | 1914A | 1914A-376-MZ | Denton | 0.006787469 | N·m 339 | 5/24/02 | Tib Lt,Hld Pel | 0 |
| KNLXD | Left Knee Displacement | 150-0121VR | 150-0121VR-18026 | SpaceAge | 23.508 | mm 40 | 6/13/02 | Tib Rr,Hld Fem | 1 |
| TBLZF | Left Upper Tibia Force Z | 3115 | 3115-268-FZ | Denton | 0.0000946 | N 11120.6 | 5/29/02 | Tib Dn,Knee Up | 0 |
| TBLXM | Left Upper Tibia Moment X | 3115 | 3115-268-MX | Denton | 0.007285179 | N·m 395.4 | 5/29/02 | Tib Rt,Hld Knee | 0 |
| TBLYM | Left Upper Tibia Moment Y | 3115 | 3115-268-MY | Denton | 0.007361801 | N·m 395.4 | 5/29/02 | Tib Fd,Hld Knee | 0 |
| ANLZF | Left Lower Tibia Force Z | 3287 | 3287-196-FZ | Denton | 0.000094932 | N 11120.5 | 5/29/02 | Ank Dn,Knee Up | 0 |
| ANLXM | Left Lower Tibia Moment X | 3287 | 3287-196-MX | Denton | 0.007515551 | N·m 395.4 | 5/29/02 | Ank Rt,Hld Knee | 0 |
| ANLYM | Left Lower Tibia Moment Y | 3287 | 3287-196-MY | Denton | 0.007504678 | N·m 395.4 | 5/29/02 | Ank Fd,Hld Knee | 0 |
| KNRXd | Right Knee Displacement | 150-0121VL | 150-0121VL-18123 | SpaceAge | 22.958 | mm 40 | 6/13/02 | Tib Rr,Hld Fem | 1 |
| TBRZF | Right Upper Tibia Force Z | 3115 | 3115-274-FZ | Denton | 0.00009486 | N 11120.6 | 5/29/02 | Tib Dn,Knee Up | 0 |
| TBRXM | Right Upper Tibia Moment X | 3115 | 3115-274-MX | Denton | 0.007417687 | N·m 395.4 | 5/29/02 | Tib Rt,Hld Knee | 0 |
| TBRYM | Right Upper Tibia Moment Y | 3115 | 3115-274-MY | Denton | 0.007392652 | N·m 395.4 | 5/29/02 | Tib Fd,Hld Knee | 0 |
| ANRZF | Right Lower Tibia Force Z | 3287 | 3287-185-FZ | Denton | 0.000095265 | N 11120.5 | 5/29/02 | Ank Dn,Knee Up | 0 |
| ANRXM | Right Lower Tibia Moment X | 3287 | 3287-185-MX | Denton | 0.007630864 | N·m 395.4 | 5/29/02 | Ank Rt,Hld Knee | 0 |
| ANRYM | Right Lower Tibia Moment Y | 3287 | 3287-185-MY | Denton | 0.007560817 | N·m 395.4 | 5/29/02 | Ank Fd,Hld Knee | 0 |

Dummy 421v- Type HYBRID III 5th Description VRTC - 421v HYBRID III 5th Female CAL'd 6-2-01 (DKS 9-19-02)J211

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|--------------------|--------|----------------------------|--------------|--------------|-----------|---------|--------------------|------|
| HEDXG | Head Accel X | VRTC 5 | 7264-2KM5T AJ4R6 | Endevco | 0.02183 | g 2000 | 8/6/02 | Fwd | 0 |
| HEDYG | Head Accel Y | | EGE-73B6Q-20 02A16-A01 | Entran | 0.02109 | g 2000 | 8/5/02 | Lft | 1 |
| HEDZG | Head Accel Z | | EGE-73B6Q-20 01L26-F06 | Entran | 0.01962 | g 2000 | 8/5/02 | Up | 1 |
| HEDXR | Head Accel Red X | | EGE-73B6Q-20 02A16-A03 | Entran | 0.02306 | g 2000 | 8/5/02 | Rwd | 1 |
| HEDYR | Head Accel Red Y | | EGE-73B6Q-20 02A16-A08 | Entran | 0.0251 | g 2000 | 8/5/02 | Lft | 1 |
| HEDZR | Head Accel Red Z | | EGE-73B6Q-20 02A16-A09 | Entran | 0.02052 | g 2000 | 8/5/02 | Up | 1 |
| HD1XG | Head (LT) Accel X | | EGE-73B6Q-20 02A16-A28 | Entran | 0.02021 | g 2000 | 8/5/02 | Fwd | 0 |
| HD1ZG | Head (LT) Accel Z | | EGE-73B6Q-20 02A16-A20 | Entran | 0.02253 | g 2000 | 8/5/02 | Up | 1 |
| HD2YG | Head (FT) Accel Y | | EGE-73B6Q-20 02A09-F12 | Entran | 0.01943 | g 2000 | 8/5/02 | Lft | 1 |
| HD2ZG | Head (FT) Accel Z | | EGE-73B6Q-20 02A18-N07 | Entran | 0.02007 | g 2000 | 8/5/02 | Up | 1 |
| HD3XG | Head (TP) Accel X | | EGE-73B6Q-20 02A16-A23 | Entran | 0.02026 | g 2000 | 8/5/02 | Fwd | 0 |
| HD3YG | Head (TP) Accel Y | | EGE-73B6Q-20 02A16-A25 | Entran | 0.02037 | g 2000 | 8/5/02 | Lft | 1 |
| NEKXF | Neck Force X | | IF-205 IF-205-180-FX | FTSS | 0.00018243 | N 8896 | 3/18/02 | Hd Fd,Cst Rr | 1 |
| NEKYF | Neck Force Y | | IF-205 IF-205-180-FY | FTSS | 0.000175596 | N 8896 | 3/18/02 | Hd Lt,Cst Rt | 0 |
| NEKZF | Neck Force Z | | IF-205 IF-205-180-FZ | FTSS | 0.000092266 | N 13344 | 3/18/02 | Hd Up,Cst Dn | 0 |
| NEKXM | Neck Moment X | | IF-205 IF-205-180-MX | FTSS | 0.005577699 | N-m 282.5 | 3/18/02 | Rt Ear to Rt Shld | 1 |
| NEKYM | Neck Moment Y | | IF-205 IF-205-180-MY | FTSS | 0.005602124 | N-m 282.5 | 3/18/02 | Chin to Stirrm | 0 |
| NEKZM | Neck Moment Z | | IF-205 IF-205-180-MZ | FTSS | 0.008122478 | N-m 282.5 | 3/18/02 | Chn to Lt Shld | 0 |
| CSTXG | Chest Accel X | | EGE-73B6Q-20 B02A25-N03 | Entran | 0.02163 | g 2000 | 8/5/02 | Fwd | 0 |
| CSTYG | Chest Accel Y | | EGE-73B6Q-20 02A18-N12 | Entran | 0.01926 | g 2000 | 8/5/02 | Lft | 1 |
| CSTZG | Chest Accel Z | | EGE-73B6Q-20 B02A25-N10 | Entran | 0.01967 | g 2000 | 8/5/02 | Up | 1 |
| CSTXR | Chest Accel Red X | | 7264-2KM5T AE9B7 | Endevco | 0.0248 | g 2000 | 8/6/02 | Rwd | 1 |
| CSTYR | Chest Accel Red Y | | EGE-73B6Q-20 02A04-A24 | Entran | 0.01924 | g 2000 | 8/5/02 | Lft | 1 |
| CSTZR | Chest Accel Red Z | | EGE-73B6Q-20 B02A18-N22 | Entran | 0.02106 | g 2000 | 8/5/02 | Up | 1 |
| CSTXD | Chest Deflection X | | 14CBI-2897 14CBI-2897-1355 | Servo | 1.70969 | mm 100 | 3/25/02 | Strmm Away Frm Spn | 0 |
| PEVXG | Pelvis Accel X | | 7264-2000LC AF9K3 | Endevco | 0.0212 | g 2000 | 8/5/02 | Rwd | 1 |

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|-------------------------------|--------------|------------------|--------------|--------------|-----------|---------|-----------------|------|
| PEVYG | Pelvis Accel Y | EGE-73B6Q-20 | 02A16-A26 | Entran | 0.02009 | g | 2000 | Lft | 1 |
| PEVZG | Pelvis Accel Z | EGE-73B6Q-20 | 02A18-N15 | Entran | 0.01877 | g | 2000 | Up | 1 |
| LFMZP | Left Femur Force Z S37 | 2430 | 2430-739 | GSE | 0.000067676 | N | 13344 | Knee Fd, Pel Rr | 0 |
| RFMZP | Right Femur Force Z VRTC 4 | 2430 | 2430-760 | GSE | 0.000067069 | N | 13344 | Knee Fd, Pel Rr | 0 |
| KNLXD | Left Knee Displacement POT10 | 150-0121VR | 150-0121VR-15021 | SpaceAge | 23.387 | mm | 40 | Tib Fd, Hld Fem | 0 |
| KNRXD | Right Knee Displacement AXRRP | 150-0121VL | 150-0121VL-14949 | SpaceAge | 23.436 | mm | 40 | Tib Fd, Hld Fem | 0 |

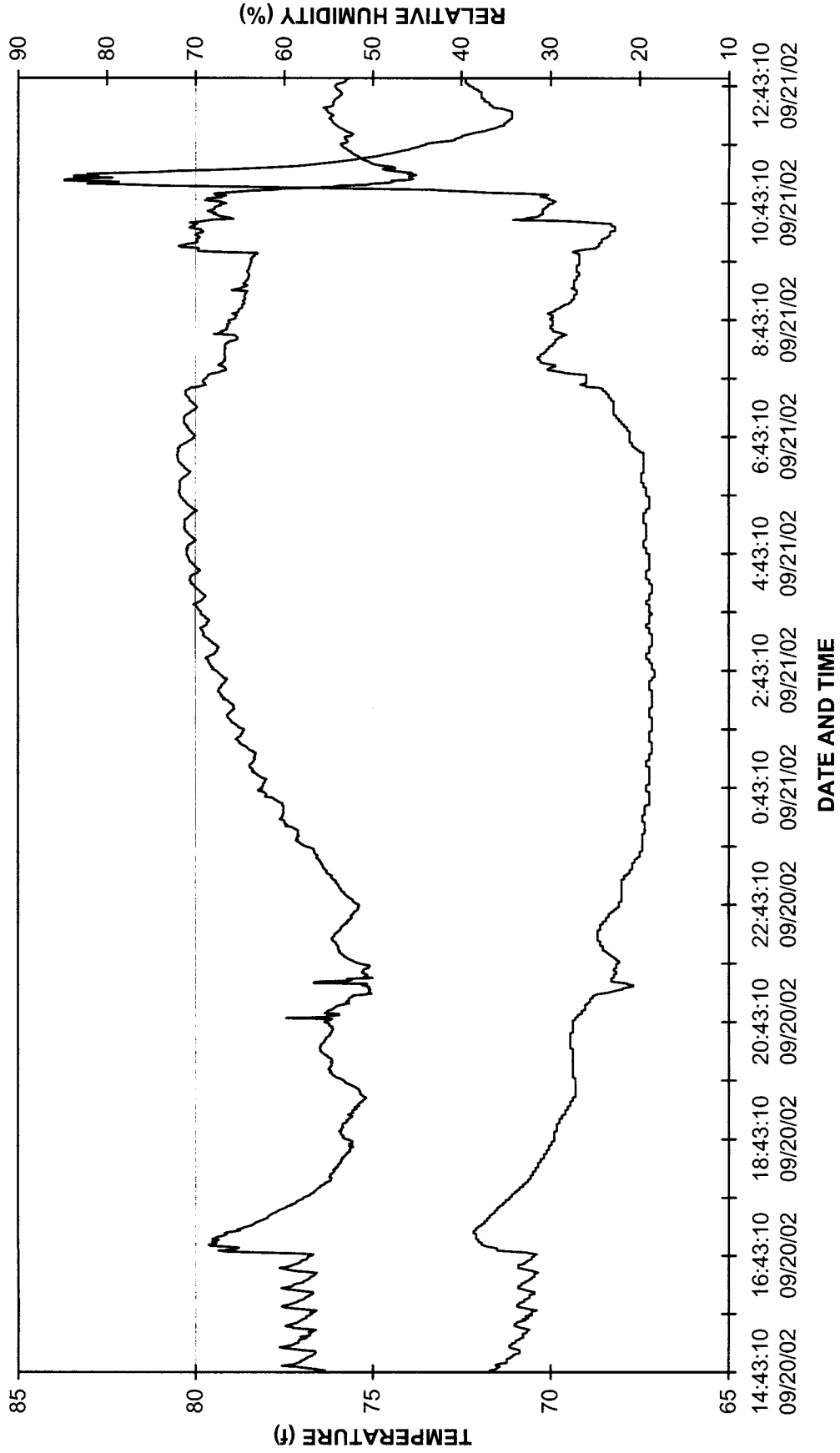
Dummy 169v- Type HIII 50TH Description VRTC - 169v HIII 50TH CAL'D 5-24-02 (DKS 9-13-02) J211

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|----------------------|-------------|----------------|--------------|-----------------|-----------|---------|--------------------|------|
| HEDXG | Head Accel X | 7264-2000T | J20083 | Endevco | 0.02181 g | 2000 | 5/24/02 | Rwd | 1 |
| HEDYG | Head Accel Y | 7264-2000T | J19843 | Endevco | 0.0224 g | 2000 | 5/24/02 | Lft | 1 |
| HEDZG | Head Accel Z | 7264-2KM5T | J20027 | Endevco | 0.02589 g | 2000 | 5/24/02 | Up | 1 |
| NEKXF | Neck Force X | 1716A | 1716A-782-FX | Denton | 0.000190504 N | 8896 | 5/30/02 | Hd Fd,Cst Rr | 1 |
| NEKYF | Neck Force Y | 1716A | 1716A-782-FY | Denton | 0.000186052 N | 8896 | 5/30/02 | Hd Lt,Cst Rt | 0 |
| NEKZF | Neck Force Z | 1716A | 1716A-782-FZ | Denton | 0.000096548 N | 13344 | 5/30/02 | Hd Up,Cst Dn | 0 |
| NEKXM | Neck Moment X | 1716A | 1716A-782-MX | Denton | 0.005812389 N·m | 282.5 | 5/30/02 | Rt Ear to Rt Shld | 1 |
| NEKYM | Neck Moment Y | 1716A | 1716A-782-MY | Denton | 0.005816283 N·m | 282.5 | 5/30/02 | Chn to Strmm | 0 |
| NEKZM | Neck Moment Z | 1716A | 1716A-782-MZ | Denton | 0.008224071 N·m | 282.5 | 5/30/02 | Chn to Lt Shld | 0 |
| CSTXG | Chest Accel X | 7264-2000T | J23757 | Endevco | 0.02801 g | 2000 | 5/24/02 | Fwd | 0 |
| CSTYG | Chest Accel Y | 7264-2KM5T | J21989 | Endevco | 0.02333 g | 2000 | 5/24/02 | Lft | 1 |
| CSTZG | Chest Accel Z | 7264-2000TZ | J35747 | Endevco | 0.02832 g | 2000 | 5/24/02 | Up | 1 |
| CSTXD | Chest Deflection X | 14CB1-2847 | 14CB1-2847-169 | Servo | 1.11513 mm | 100 | 6/6/02 | Strmm Away Frm Spn | 0 |
| PEVXG | Pelvis Accel X | 7264-2000TZ | J36741 | Endevco | 0.02311 g | 2000 | 5/24/02 | Rwd | 1 |
| PEVYG | Pelvis Accel Y | 7264-2000TZ | J36605 | Endevco | 0.02677 g | 2000 | 5/24/02 | Lft | 1 |
| PEVZG | Pelvis Accel Z | 7264-2000LC | AAMD7 | Endevco | 0.02682 g | 2000 | 5/24/02 | Up | 1 |
| LFMXF | Left Femur Force X | 1914 | 1914-0261-FX | Denton | 0.000144725 N | 13344 | 5/24/02 | Knee Dn,Fem Up | 1 |
| LFMYF | Left Femur Force Y | 1914 | 1914-0261-FY | Denton | 0.000145182 N | 13344 | 5/24/02 | Knee Rt,Fem Lt | 0 |
| LFMZf | Left Femur Force Z | 1914 | 1914-0261-FZ | Denton | 0.000053289 N | 22240 | 5/24/02 | Knee Fd,Pel Rr | 0 |
| LFMXM | Left Femur Moment X | 1914 | 1914-0261-MX | Denton | 0.004356637 N·m | 339 | 5/24/02 | Knee Rt,Hld Fem | 1 |
| LFMYM | Left Femur Moment Y | 1914 | 1914-0261-MY | Denton | 0.004435398 N·m | 339 | 5/24/02 | Knee Up,Hld Fem | 0 |
| LFMZM | Left Femur Moment Z | 1914 | 1914-0261-MZ | Denton | 0.007827729 N·m | 339 | 5/24/02 | Tib Lt,Hld Pel | 0 |
| RFMXF | Right Femur Force X | 1914A | 1914A-383-FX | Denton | 0.000147685 N | 13344 | 5/24/02 | Knee Dn,Fem Up | 1 |
| RFMYF | Right Femur Force Y | 1914A | 1914A-383-FY | Denton | 0.00014785 N | 13344 | 5/24/02 | Knee Rt,Fem Lt | 0 |
| RFMZf | Right Femur Force Z | 1914A | 1914A-383-FZ | Denton | 0.00006006 N | 22240 | 5/24/02 | Knee Fd,Pel Rr | 0 |
| RFMXM | Right Femur Moment X | 1914A | 1914A-383-MX | Denton | 0.004435103 N·m | 339 | 5/24/02 | Knee Rt,Hld Fem | 1 |

| Chsname | Location | Model | Name | Manufacturer | Sens./mV/V/U | Fullscale | Caldate | Pos Output | Flip |
|---------|-------------------------|------------|------------------|--------------|--------------|-----------|---------|-----------------|------|
| RFMYM | Right Femur Moment Y | 1914A | 1914A-383-MY | Denton | 0.004437463 | N·m | 5/24/02 | Knee Up,Hld Fem | 0 |
| RFMZM | Right Femur Moment Z | 1914A | 1914A-383-MZ | Denton | 0.008078761 | N·m | 5/24/02 | Tib Lt,Hld Pel | 0 |
| KNLXD | Left Knee Displacement | 150-0121VR | 150-0121VR-17169 | SpaceAge | 23.738 | mm | 6/13/02 | Tib Rr,Hld Fem | 1 |
| KNRXd | Right Knee Displacement | 150-0121VL | 150-0121VL-21033 | SpaceAge | 22.74 | mm | 6/13/02 | Tib Rr,Hld Fem | 1 |

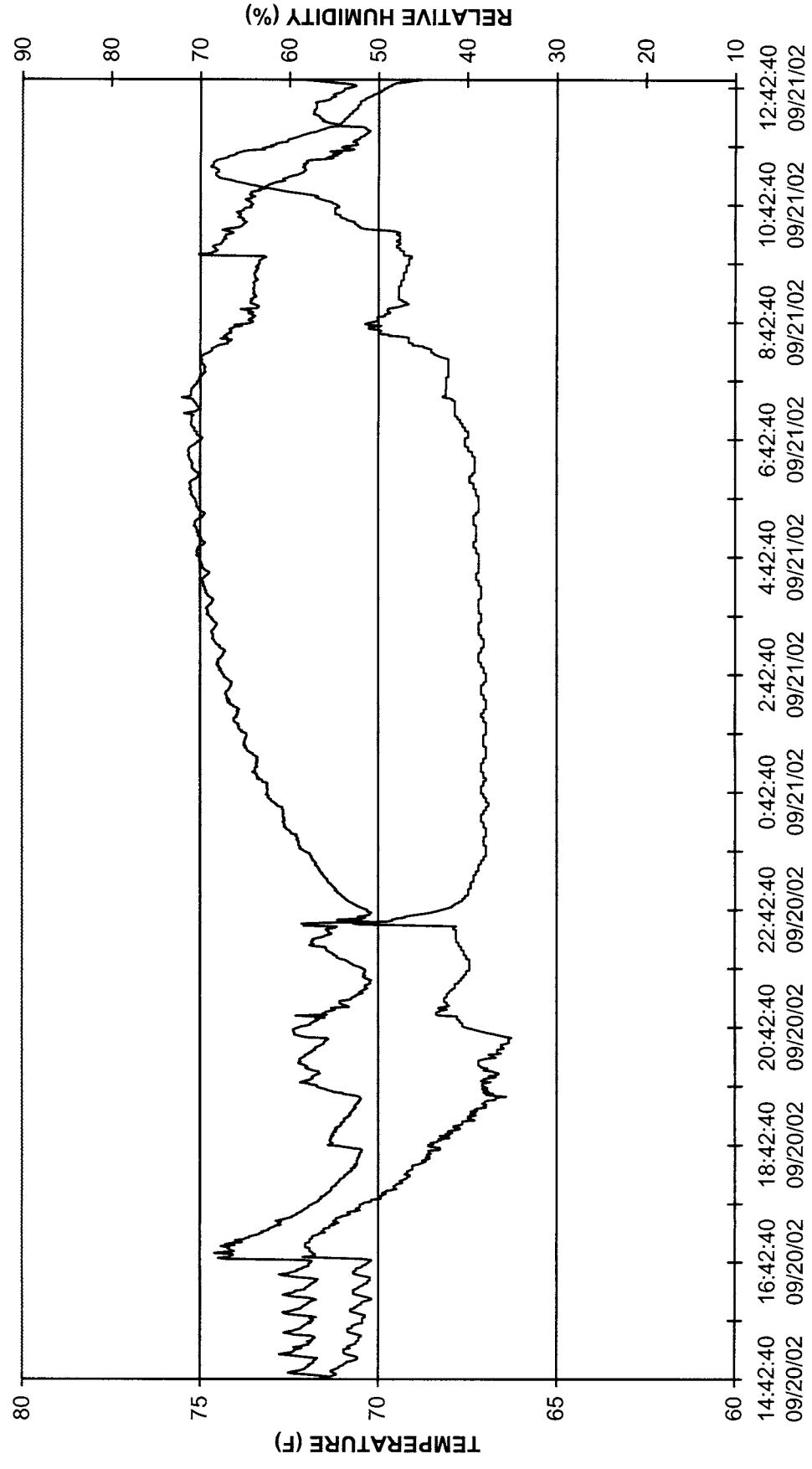
TARGET VEHICLE TEMPERATURE AND RELATIVE HUMIDITY CHART 020921

— TEMPERATURE (F) — RELATIVE HUMIDITY (%)



BULLET VEHICLE TEMPERATURE AND RELATIVE HUMIDITY CHART 020921

— TEMPERATURE (F) — RELATIVE HUMIDITY (%)



Appendix E

INSIA Report on Structural Measurements



UPM



INSIA

Compatibility Project
EEVC - WG15

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

**APARICIO IZQUIERDO, FRANCISCO
PÁEZ AYUSO, FRANCISCO JAVIER**

**INSIA
Carretera de Valencia, km. 7
Campus Sur de la Universidad Politécnica de Madrid
28031 – MADRID – (SPAIN)**

March, 1999

Post-Test Dummy Configuration and Performance Verification Data

Bullet Vehicle Passenger Dummy S/N: 421

(No post-test calibration)

Appendix D

Test Equipment and Instrumentation Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:

+X: Forward
+Y: Rightward
+Z: Downward

Potentiometers:

+Chest longitudinal deflection: Outward
+Chest lateral deflection: Leftward
+Seat belt displacement: Outward
+Seat belt extension: Elongation
+Knee slider displacement: Distance between femur and tibia
increased (in relation to a seated
dummy)

Rotation potentiometers:

+About the X-axis: Left foot-eversion
Right foot-inversion
+About the Y-axis: Left/right foot-dorsiflexion
+About the Z-axis: Left foot-internal
Right foot-external

Load cells:

+Femur force: Tension
+Seat belt force: Tension
+Barrier force: Tension

Neck load cells:

+X force: Head pushed rearward
+Y force: Head pushed leftward
+Z force: Head pulled upward (tension on neck)
+X moment: Left ear rotating toward left shoulder
+Y moment: Chin rotating toward chest
+Z moment: Chin rotating toward left shoulder

Tibia load cells:

+X force: Ankle forward, knee rearward
+Y force: Ankle rightward, knee leftward
+Z force: Tension
+X moment: Bottom of tibia moving leftward
+Y moment: Bottom of tibia moving rearward

Frequency Response Classes
SAE J211 MAR95

| <u>Typical Test Measurements</u> | <u>Channel Class</u> |
|----------------------------------------------|----------------------|
| Vehicle Structural Accelerations for use in: | |
| Total vehicle comparison | 60 |
| Collision simulation input | 60 |
| Component analysis | 600 |
| Integration for velocity or displacement | 180 |
| Barrier Face Forces | 60 |
| Belt Restraint System Loads | 60 |
| Anthropomorphic Test Device | |
| Head accelerations (linear and angular) | 1000 |
| Neck | |
| Forces | 1000 |
| Moments | 600 |
| Thorax | |
| Spine accelerations | 180 |
| Rib accelerations | 1000 |
| Sternum accelerations | 1000 |
| Deflections | 180 |
| Lumbar | |
| Forces | 1000 |
| Moments | 1000 |
| Pelvis | |
| Accelerations | 1000 |
| Forces | 1000 |
| Moments | 1000 |
| Femur/Knee/Tibia/Ankle | |
| Forces | 600 |
| Moments | 600 |
| Displacements | 180 |
| Sled Accelerations | 60 |
| Steering Column Loads | 600 |
| Head form Accelerations | 1000 |

Description Of Timing Marks On TRC Inc. High-Speed Film

All TRC Inc. high-speed cameras are equipped with red LEDs which put timing marks on the right edge of the film. TRC Inc. uses a single timing generator to generate the timing for all cameras. This allows the timing marks to be common to all cameras. The timing marks can be used to measure camera speed (frames per second) or to locate a point in time before or after the time-zero event.

The timing marks appear on the film as small red marks on the right edge of the film. Round marks are left by the Photosonic and Stalex cameras while horizontal bars are left by the Hycam, Locam, and Fastax II cameras.

The timing generator puts out a pulse for every millisecond plus it generates additional pulses for hundredths and tenths of seconds. To explain this further, we can use an example of a camera running at 1000 frames per second.

1. Every frame will have **one** LED appear in it. This indicates a *millisecond* pulse.
2. Every ten frames will have **two** LEDs appear in it. These indicate a *millisecond* pulse plus a *hundredth of a second* pulse.
3. Every one hundred frames will have **three** LEDs appear in it. These indicate a *millisecond* pulse, a *hundredth of a second* pulse, and a *tenth of a second* pulse.

To locate time-zero, observe the continuous LED that is visible on the left side of the frame at the beginning of each view. Locate the frame where the left side LED is fully extinguished and reverse 4 frames for the Photosonic cameras; reverse 5 frames for Hycam cameras; reverse 2 frames for Stalex cameras. This frame is time-zero.

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report

9/23/2002 8:50:33 AM

Name of Test 020921

System K3600

Name of DAU DAU0

| Chan.# | Sensor # | Mnemonic | Description | Dir. | Range | Pol. | Cal. Date/Status | Group | Mfg. | Model |
|--------|----------------|----------|---------------------|----------------------|---------------|------|------------------|----------|---------|----------------|
| 0000 | EVENT0 | SYNC0 | SYNC0 | | 10.24 | V | + 4/15/2002 | OK -1 | TRC | Event |
| 0001 | J17649 | HEDXG1 | Head Accel X | Rwd | 1184.0751 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0002 | AJ454 | HEDYG1 | Head Accel Y | Lft | 1195.1447 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0003 | J14189 | HEDZG1 | Head Accel Z | Up | 1189.8675 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0004 | P17196 | HEDXR1 | Head Accel Red X | Rwd | 1187.0537 g | g | - 1/25/2002 | --- 168v | Endevco | 7264C-2KLC-2-2 |
| 0005 | B02A25-N05 | HEDYR1 | Head Accel Red Y | Lft | 1210.0586 g | g | - 2/8/2002 | OK 168v | Entran | EGE-73B6Q-200 |
| 0006 | 01G25-N09 | HEDZR1 | Head Accel Red Z | Up | 1212.7529 g | g | - 1/24/2002 | OK 168v | Entran | EGE-73B6Q-200 |
| 0007 | 1716A-851-FX | NEKXF1 | Neck Force X | Hd Fd | 13329.237 N | N | - 5/29/2002 | OK 168v | Denton | 1716A |
| 0008 | 1716A-851-FY | NEKYF1 | Neck Force Y | Hd Lt, 13329.530 N | N | N | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0009 | 1716A-851-FZ | NEKZF1 | Neck Force Z | Hd U 20045.228 N | N | N | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0010 | 1716A-851-MX | NEKXM1 | Neck Moment X | Rt Ear 424.21629 N-m | N-m | N-m | - 5/29/2002 | OK 168v | Denton | 1716A |
| 0011 | 1716A-851-MY | NEKYM1 | Neck Moment Y | Chn t 423.71714 N-m | N-m | N-m | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0012 | 1716A-851-MZ | NEKZM1 | Neck Moment Z | Chn t 423.80316 N-m | N-m | N-m | + 5/29/2002 | OK 168v | Denton | 1716A |
| 0013 | J35921 | CSTYXG1 | Chest Accel X | Fwd | 601.70169 g | g | + 5/24/2002 | OK 168v | Endevco | 7264-2000TZ |
| 0014 | AJ7F7 | CSTYGI | Chest Accel Y | Lft | 597.08455 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0015 | J36723 | CSTZG1 | Chest Accel Z | Up | 597.09847 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000TZ |
| 0016 | 99H30-Z14 | CSTXR1 | Chest Accel Red X | Rwd | 602.40255 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQE0-20 |
| 0017 | 98H14-K05 | CSTYR1 | Chest Accel Red Y | Lft | 599.48248 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQ-2000 |
| 0018 | 98H13-F03 | CSTZR1 | Chest Accel Red Z | Up | 600.08673 g | g | - 4/25/2002 | OK 168v | Entran | EGE-73BQ-2000 |
| 0019 | 14CB1-2847-168 | CSTXDI | Chest Deflection X | Strmm | 101.85558 mm | mm | + 6/5/2002 | OK 168v | Servo | 14CB1-2847 |
| 0020 | ACCY2 | PEVXG1 | Pelvis Accel X | Rwd | 601.36246 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2000T |
| 0021 | J27490 | PEVYGI | Pelvis Accel Y | Lft | 600.66402 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0022 | J21963 | PEVZG1 | Pelvis Accel Z | Up | 604.09415 g | g | - 5/24/2002 | OK 168v | Endevco | 7264-2KM5T |
| 0023 | 1914A-362-FX | LFMXF1 | Left Femur Force X | Knee | 20035.751 N | N | - 5/24/2002 | OK 168v | Denton | 1914A |
| 0024 | 1914A-362-FY | LFMYF1 | Left Femur Force Y | Knee | 20015.190 N | N | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0025 | 1914A-362-FZ | LFMZFI | Left Femur Force Z | Knee | 33334.983 N | N | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0026 | 1914A-362-MX | LFMXM1 | Left Femur Moment X | Knee | 508.62542 N-m | N-m | - 5/24/2002 | OK 168v | Denton | 1914A |
| 0027 | 1914A-362-MY | LFMYM1 | Left Femur Moment Y | Knee | 509.30828 N-m | N-m | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0028 | 1914A-362-MZ | LFMZM1 | Left Femur Moment Z | Tib Lt | 508.04912 N-m | N-m | + 5/24/2002 | OK 168v | Denton | 1914A |
| 0029 | 1914A-376-FX | RFMXF1 | Right Femur Force X | Knee | 20005.301 N | N | - 5/24/2002 | OK 168v | Denton | 1914A |

Channel Report

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| | | | | | | | | | | | | |
|------|-----------------|--------|----------------------------|--------|-----------|-----|---|-----------|-----|------|----------|-------------|
| 0030 | 1914A-376-FY | RFMYF1 | Right Femur Force Y | Knee | 20010.349 | N | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0031 | 1914A-376-FZ | RFMZP1 | Right Femur Force Z | Knee | 33337.253 | N | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0032 | 1914A-376-MX | RFMXM1 | Right Femur Moment X | Knee | 508.76684 | N-m | - | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0033 | 1914A-376-MY | RFMYM1 | Right Femur Moment Y | Knee | 508.69127 | N-m | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0034 | 1914A-376-MZ | RFMZM1 | Right Femur Moment Z | Tib Lt | 509.68328 | N-m | + | 5/24/2002 | OK | 168v | Denton | 1914A |
| 0035 | 150-0121VR-1802 | KNLXD1 | Left Knee Displacement | Tib R | 29.03976 | mm | - | 6/13/2002 | OK | 168v | SpaceAge | 150-0121VR |
| 0036 | 3115-268-FZ | TBLZP1 | Left Upper Tibia Force Z | Tib D | 16678.774 | N | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0037 | 3115-268-MX | TBLXM1 | Left Upper Tibia Moment X | Tib Rt | 593.07741 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0038 | 3115-268-MY | TBLYM1 | Left Upper Tibia Moment Y | Tib F | 591.89956 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0039 | 3287-196-FZ | ANLZP1 | Left Lower Tibia Force Z | Ank | 16671.821 | N | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0040 | 3287-196-MX | ANLXM1 | Left Lower Tibia Moment X | Ank R | 592.39488 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0041 | 3287-196-MY | ANLYM1 | Left Lower Tibia Moment Y | Ank F | 593.25316 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0042 | 150-0121VL-1812 | KNRDX1 | Right Knee Displacement | Tib R | 22.301594 | mm | - | 6/13/2002 | OK | 168v | SpaceAge | 150-0121VL |
| 0043 | 3115-274-FZ | TBRZF1 | Right Upper Tibia Force Z | Tib D | 16684.475 | N | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0044 | 3115-274-MX | TBRXM1 | Right Upper Tibia Moment X | Tib Rt | 592.48251 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0045 | 3115-274-MY | TBRYM1 | Right Upper Tibia Moment Y | Tib F | 591.94838 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3115 |
| 0046 | 3287-185-FZ | ANRZF1 | Right Lower Tibia Force Z | Ank | 16690.937 | N | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0047 | 3287-185-MX | ANRXM1 | Right Lower Tibia Moment X | Ank R | 593.76939 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0048 | 3287-185-MY | ANRYM1 | Right Lower Tibia Moment Y | Ank F | 594.01359 | N-m | + | 5/29/2002 | OK | 168v | Denton | 3287 |
| 0049 | J38064 | VCGXG1 | VEHICLE CG X-AXIS ACCEL | FWD | 1012.6582 | g | + | 6/18/2002 | OK | -1 | Denton | 3287 |
| 0050 | J38075 | VCGYG1 | VEHICLE CG Y-AXIS ACCEL | RT | 1003.2527 | g | + | 6/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0051 | J29421 | VCGZG1 | VEHICLE CG Z-AXIS ACCEL | UP | 993.98175 | g | - | 9/8/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0052 | AN814 | RDKXG1 | REAR DECK X-AXIS ACCELE | FWD | 993.17194 | g | + | 9/10/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0053 | A01EJ | RDKYG1 | REAR DECK Y-AXIS ACCELE | RT | 1002.1923 | g | + | 8/27/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0054 | ANBH3 | RDKZG1 | REAR DECK Z-AXIS ACCELE | UP | 991.09563 | g | - | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0055 | J27503 | LFSXG1 | LEFT FRONT SILL X-AXIS A | FWD | 1491.0160 | g | + | 7/30/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0056 | J41082 | LFSYG1 | LEFT FRONT SILL Y-AXIS A | RT | 1499.1801 | g | + | 5/2/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0057 | J40522 | LRSXG1 | LEFT REAR SILL X-AXIS AC | FWD | 1517.8466 | g | + | 3/25/2002 | --- | -1 | Endevco | 7264-2000TZ |
| 0058 | J40561 | LRSYG1 | LEFT REAR SILL Y-AXIS AC | RT | 1501.0261 | g | + | 3/25/2002 | --- | -1 | Endevco | 7264-2000TZ |
| 0059 | J37990 | RFSXG1 | RIGHT FRONT SILL X-AXIS | FWD | 603.98726 | g | + | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0060 | J38421 | RFSYG1 | RIGHT FRONT SILL Y-AXIS | LT | 603.80207 | g | - | 7/15/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0061 | J40074 | RRSXG1 | RIGHT REAR SILL X-AXIS A | FWD | 595.62587 | g | + | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0062 | FH15J | RRSYG1 | RIGHT REAR SILL Y-AXIS A | LT | 599.61938 | g | - | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0063 | J40978 | ENGXG1 | ENGINE TOP X-AXIS ACCEL | FWD | 603.48892 | g | + | 4/3/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0064 | J14374 | ENGYG1 | ENGINE TOP Y-AXIS ACCEL | LT | 1489.0430 | g | - | 6/6/2002 | OK | -1 | Endevco | 7264-2000TZ |

Channel Report

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| | | | | | | | | | | | | |
|-----------------|-------------------|-------------------|-------------------------------------|--------------|-----------------|--------------|--------------|----------------------|---------------|---------------|------------------|-------------------|
| 0065 | J41123 | ENGXG2 | ENGINE BOTTOM X-AXIS AC | FWD | 1484.5743 | g | + | 4/4/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0066 | J40975 | ENYG2 | ENGINE BOTTOM Y-AXIS AC | RT | 1495.5673 | g | + | 4/3/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0067 | J40559 | DPCXG1 | INSTRUMENT PANEL CENTE | FWD | 1004.4336 | g | + | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0068 | J40538 | DPCYG1 | INSTRUMENT PANEL CENTE | LT | 992.70979 | g | - | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0069 | J20387 | LRXXG1 | LEFT REAR SEAT CROSSME | FWD | 999.10237 | g | + | 6/6/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0070 | J40977 | LRXYG1 | LEFT REAR SEAT CROSSME | LT | 992.53659 | g | - | 9/18/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0071 | J39582 | RRXXG1 | RIGHT REAR SEAT CROSSM | FWD | 603.48892 | g | + | 6/5/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0072 | A85JJ | RRXYG1 | RIGHT REAR SEAT CROSSM | LT | 604.52925 | g | - | 6/19/2002 | OK | -1 | Endevco | 7264-2000TZ |
| 0073 | ABFire | DABET1 | DRIVER AIRBAG EVENT - WI | J | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |
| 0074 | ADFire | PABET1 | PASS AIRBAG EVENT - WIRE | J | 5.12 | V | + | 8/20/2002 | OK | -1 | FLUKE | Y8101A |

Channel Report

9/23/2002 8:50:33 AM

Name of Test 020921

System K3600

Name of DAU DAU1

| Chan.# | Sensor # | Mnemonic | Description | Dir. | Range | Pol. | Cal. Date/Status | Group | Mfg. | Model |
|--------|-----------------|----------|------------------------|--------|-----------|------|------------------|----------|----------|-------------|
| 1000 | EVENT1 | SYNC1 | SYNC1 | | 10.24 | V | + 4/15/2002 | OK -1 | TRC | Event |
| 1001 | J20083 | HEDXGA | Head Accel X | Rwd | 1203.8703 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1002 | J19843 | HEDYGA | Head Accel Y | Lft | 1203.0075 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1003 | J20027 | HEDZGA | Head Accel Z | Up | 1198.544 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2KM5T |
| 1004 | 1716A-782-FX | NEKXFA | Neck Force X | Hd Fd | 13338.003 | N | - 5/30/2002 | OK 169v- | Denton | 1716A |
| 1005 | 1716A-782-FY | NEKYFA | Neck Force Y | Hd Lt | 13358.829 | N | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1006 | 1716A-782-FZ | NEKZFA | Neck Force Z | Hd U | 20011.554 | N | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1007 | 1716A-782-MX | NEKXMA | Neck Moment X | Rt Ear | 423.49858 | N-m | - 5/30/2002 | OK 169v- | Denton | 1716A |
| 1008 | 1716A-782-MY | NEKYMA | Neck Moment Y | Chn t | 424.23484 | N-m | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1009 | 1716A-782-MZ | NEKZMA | Neck Moment Z | Chn t | 423.51205 | N-m | + 5/30/2002 | OK 169v- | Denton | 1716A |
| 1010 | J23757 | CSTXGA | Chest Accel X | Fwd | 599.31757 | g | + 5/24/2002 | OK 169v- | Endevco | 7264-2000T |
| 1011 | J21989 | CSTYGA | Chest Accel Y | Lft | 601.26006 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2KM5T |
| 1012 | J35747 | CSTZGA | Chest Accel Z | Up | 602.63653 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1013 | 14CB1-2847-169 | CSTXDA | Chest Deflection X | Strmm | 102.03095 | mm | + 6/6/2002 | OK 169v- | Servo | 14CB1-2847 |
| 1014 | J36741 | PEVXGA | Pelvis Accel X | Rwd | 598.78139 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1015 | J36605 | PEVYGA | Pelvis Accel Y | Lft | 597.68397 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000TZ |
| 1016 | AAMD7 | PEVZGA | Pelvis Accel Z | Up | 596.56972 | g | - 5/24/2002 | OK 169v- | Endevco | 7264-2000LC |
| 1017 | 1914-0261-FX | LFMXFA | Left Femur Force X | Knee | 20043.875 | N | - 5/24/2002 | OK 169v- | Denton | 1914 |
| 1018 | 1914-0261-FY | LFMYFA | Left Femur Force Y | Knee | 20037.545 | N | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1019 | 1914-0261-FZ | LFMZFA | Left Femur Force Z | Knee | 33361.065 | N | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1020 | 1914-0261-MX | LFMXMA | Left Femur Moment X | Knee | 508.75256 | N-m | - 5/24/2002 | OK 169v- | Denton | 1914 |
| 1021 | 1914-0261-MY | LFMYMA | Left Femur Moment Y | Knee | 508.52406 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1022 | 1914-0261-MZ | LFMZMA | Left Femur Moment Z | Tib Lt | 509.01555 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914 |
| 1023 | 1914A-383-FX | RFMXFA | Right Femur Force X | Knee | 20039.527 | N | - 5/24/2002 | OK 169v- | Denton | 1914A |
| 1024 | 1914A-383-FY | RFMYFA | Right Femur Force Y | Knee | 20017.163 | N | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1025 | 1914A-383-FZ | RFMZFA | Right Femur Force Z | Knee | 33365.2 | N | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1026 | 1914A-383-MX | RFMXMA | Right Femur Moment X | Knee | 508.55789 | N-m | - 5/24/2002 | OK 169v- | Denton | 1914A |
| 1027 | 1914A-383-MY | RFMYMA | Right Femur Moment Y | Knee | 509.40946 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1028 | 1914A-383-MZ | RFMZMA | Right Femur Moment Z | Tib Lt | 509.04462 | N-m | + 5/24/2002 | OK 169v- | Denton | 1914A |
| 1029 | 150-0121VR-1716 | KNLXDA | Left Knee Displacement | Tib R | 28.758390 | mm | - 6/13/2002 | OK 169v- | SpaceAge | 150-0121VR |

REPORT DOCUMENTATION PAGE
Title:

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

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 28031 – Madrid – Spain

Supplementary notes:

Under contract to:

THE EUROPEAN COMMUNITY

Project: “Improvement of Crash Compatibility between Cars”
 Contract Nº: RO – 97 – SC.1064

Abstract:

The main aim of this working package -*Structural Survey of Cars*- is the reduction of incompatibilities, both structural and geometric, between passenger vehicles and their potential collision partners. The understanding of these incompatibilities needs a previous step for the knowledge of the existing car fleet.

Firstly, it is necessary to select the main resistant elements in the car body. These elements have to be chosen from the point of view of the sort of collision that we want to study, that is to say, frontal and side impacts.

Detailed measurements have been taken from exterior and interior elements, spread to a total number of 74 models selected from the main vehicle manufacturers at Spain. All of them are being sold this year. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars will be defined.

This report shows the methodology followed to get these measurements.

Subject terms:

Crash compatibility, geometric compatibility, resistant elements, measure methodology

Date:

March, 1999

1.- METHODOLOGY.

Detailed measurements have been taken from exterior and interior elements. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars have been defined. These elements are presented in the following figures, and have been divided in two main groups according to the vehicle zones studied in this project.

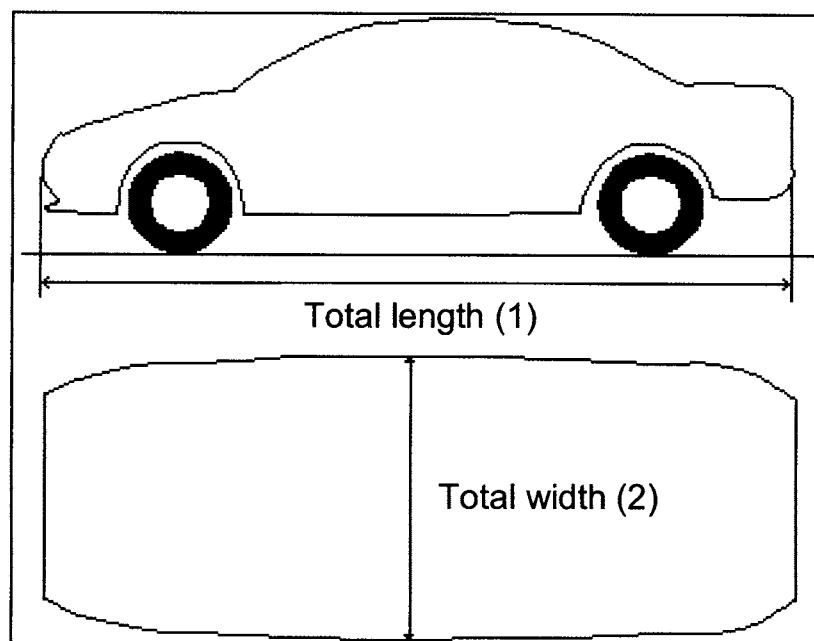


Figure 1.- Definition of the main resistant elements. General dimensions.

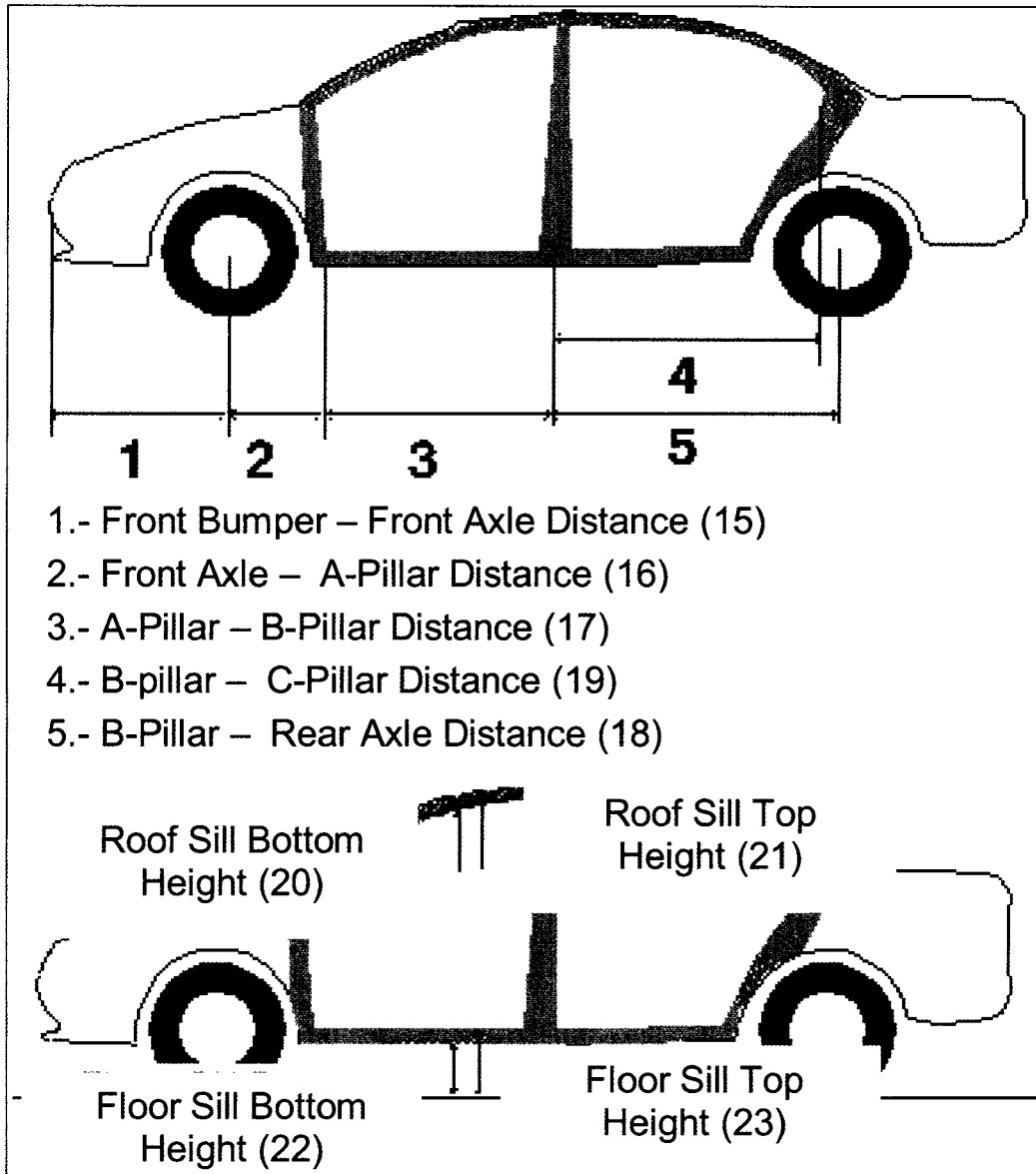


Figure 2.- Definition of the main resistant elements. Side elements.

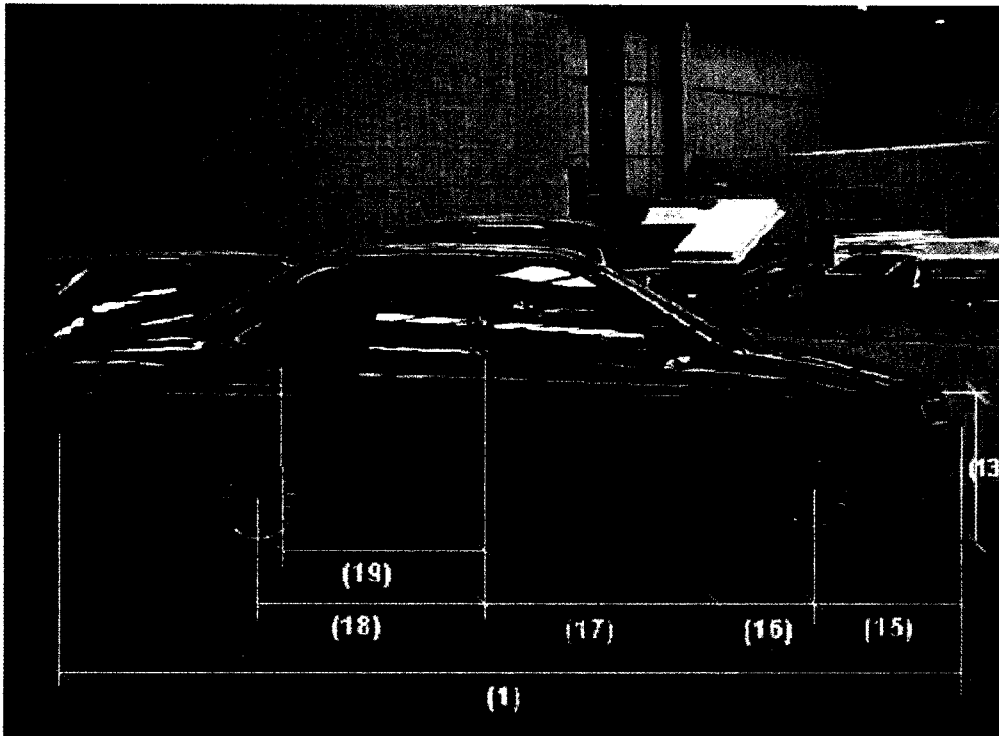
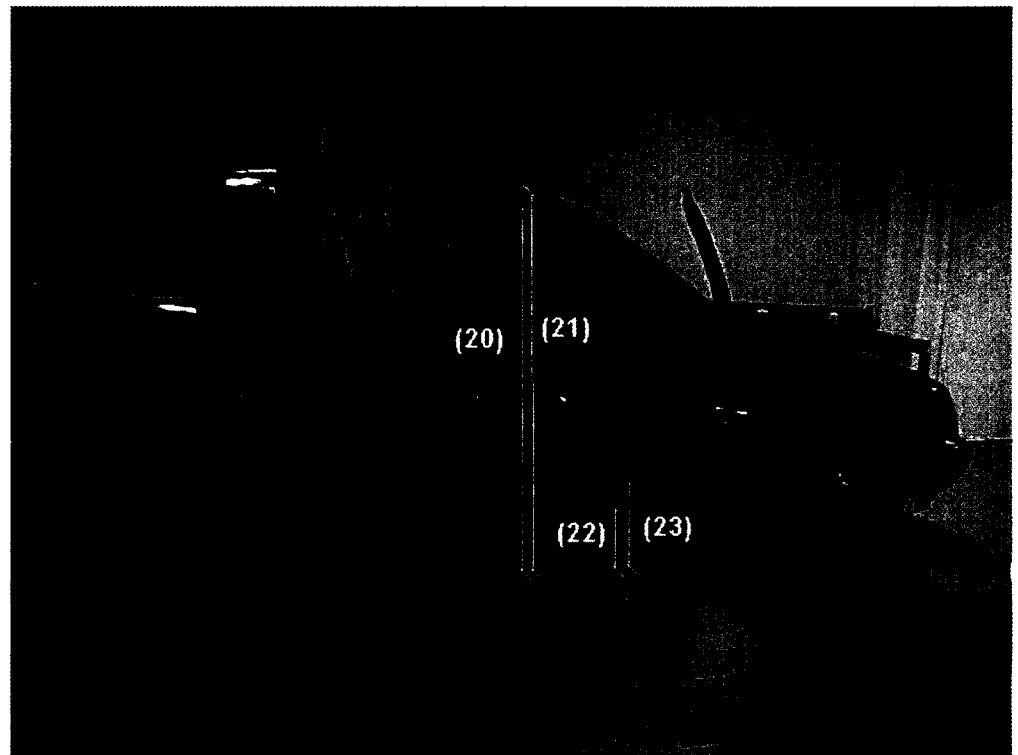


Figure 3.-
Measurements of
the side resistant
elements (outer).

Figure 4.- Measurements
of the side resistant
elements (inner).



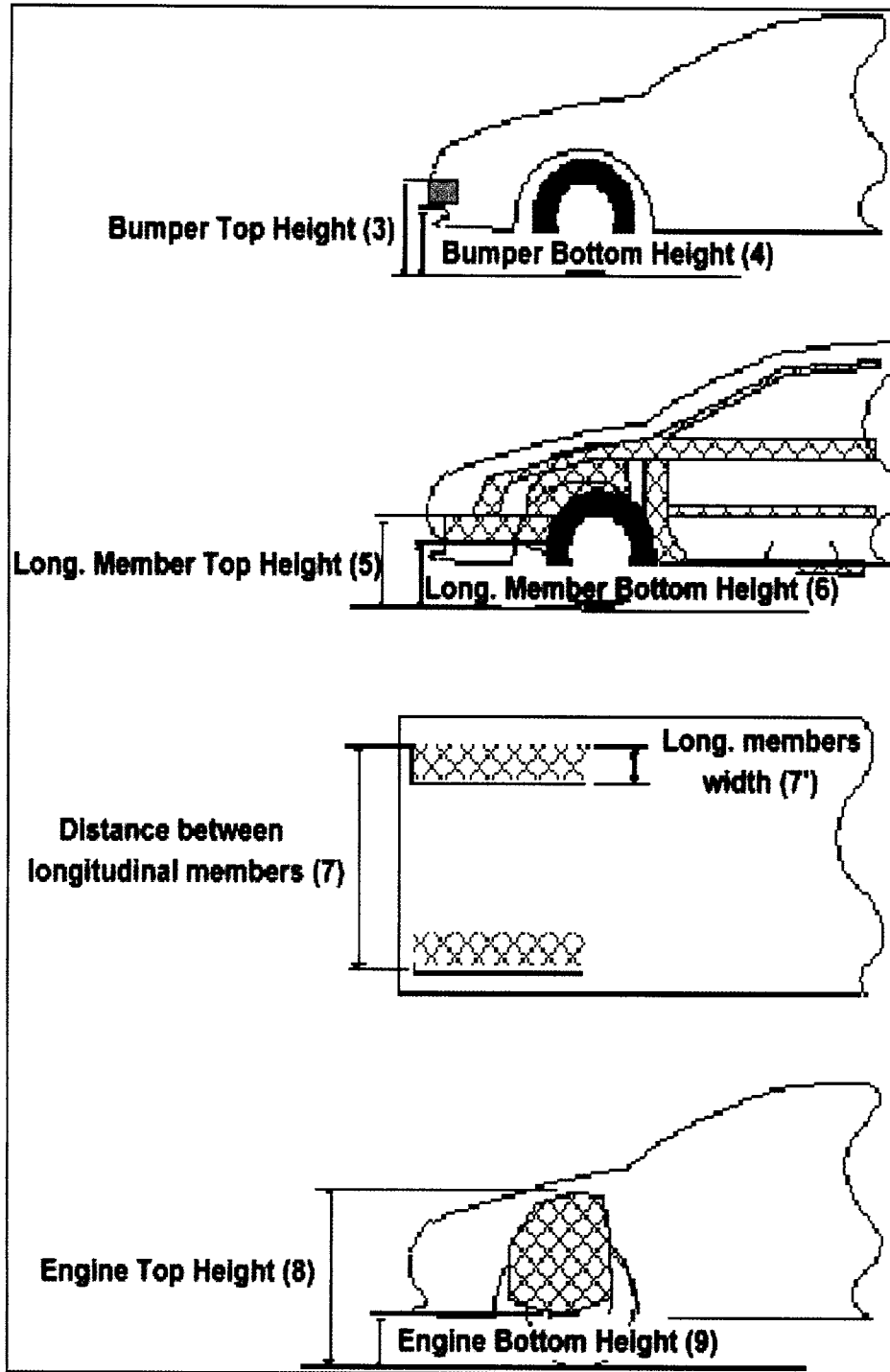


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

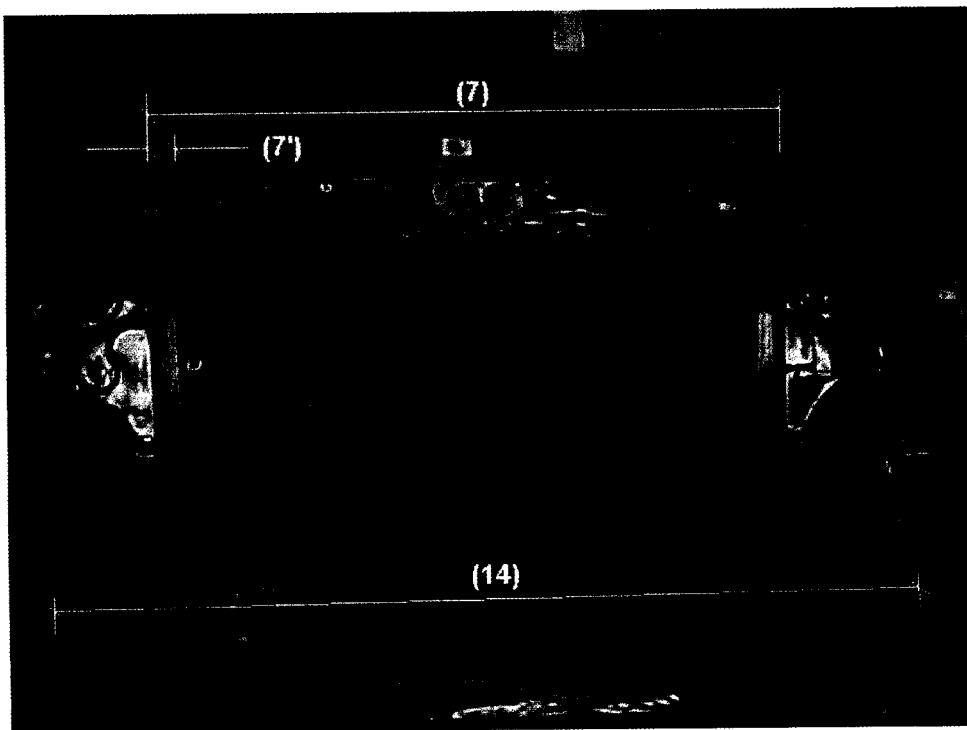
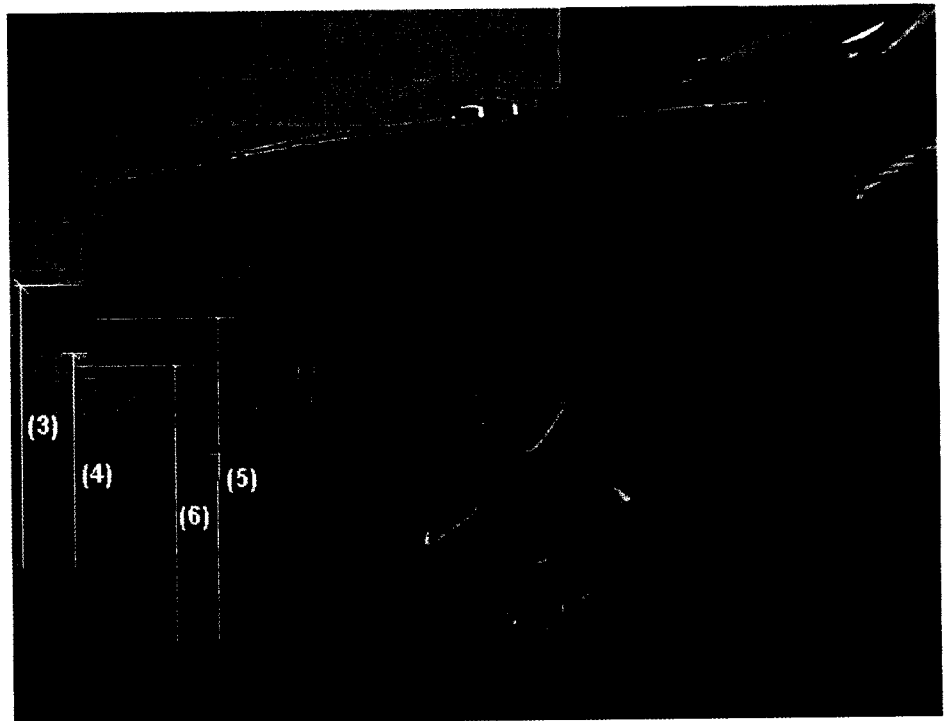
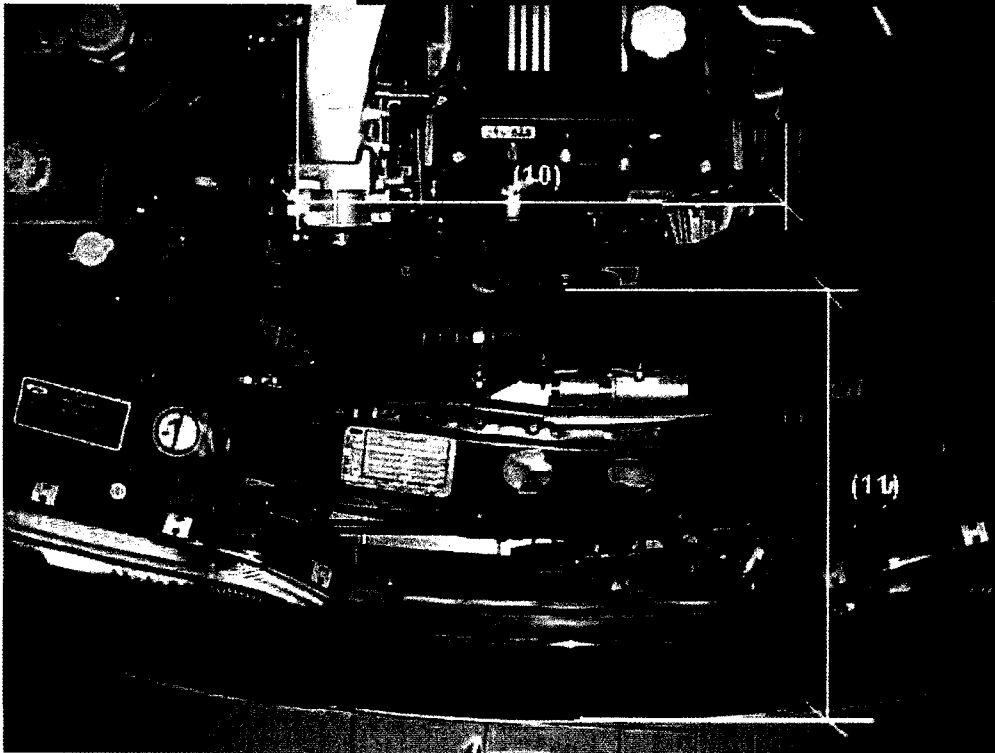
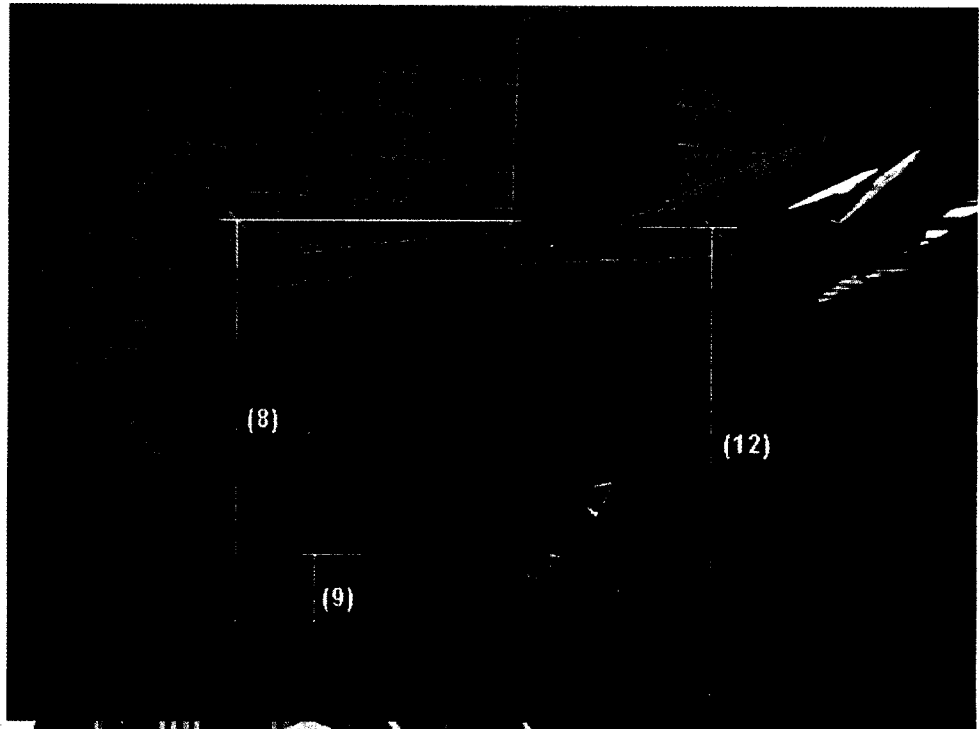


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

*Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.*



*Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).*

The procedure considered to measure these elements is described as follows, where it is indicated the location of these ones in the Excel Sheet (SURVEY.XLS) into brackets:

FRONT ELEMENTS

- **Total Length –(1)- (Side & Front Sheets - C column):** distance between the point in the front bumper further on and the point in the rear bumper further back.
- **Weight (Side & Front Sheets - D column):** mass, including an average driver weight (70 kg), and the fuel tank mass (at half-capacity).
- **Total Width –(2)- (Side & Front Sheets - E column):** distance between the outer side points in a transverse plane of the vehicle (middle plane between the front and rear axles).
- **Bumper bottom height –(4)- (Front Sheet G column):** distance between the ground and the lowest point on the front bumper, being a resistant member (aerodynamic elements under the front bumper are not considered).
- **Bumper top height –(3)- (Front Sheet H column):** distance between the ground and the highest point on the front bumper, being a resistant member (aerodynamic elements are not considered).
- **Longitudinal member top height –(5)- (Front Sheet I column):** distance between the ground and the highest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint (when accessible).
- **Longitudinal member bottom height –(6)- (Front Sheet J column):** distance between the ground and the lowest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint.
- **Distance between longitudinal members (Front Sheet K column):** transverse distance between extreme points in longitudinal members, measured approximately in the front bumper-longitudinal member joint.

Depending on the accessibility of these members, the extreme points are the inner points (I) or the outer points (O).

- **Longitudinal member width -7'- (Front Sheet L column):** width of one of the longitudinal members, measured approximately in the front bumper-longitudinal member joint.

-
- **Engine top height (8) (Front Sheet N column):** distance between the ground and the highest point on the engine that can be a resistant member in case of accident (usually, the highest point on the head, or the highest point of the inlet or exhaust manifolds).
 - **Engine bottom height (9) (Front Sheet M column):** distance between the ground and the lowest point on the engine (usually, the lowest point on the crankcase).
 - **Engine and Gearbox width (10) (Front Sheet O & P columns):**
 - *Transverse configuration engine:* distance between extreme points in the gearbox-cylinder block unit or others resistant members attached to the cylinder block unit, i.e. fan belts (from a front point of view).
 - *Longitudinal configuration engine:* distance between extreme points in the cylinder block unit (from a front point of view).
 - **Front bumper - Engine distance (11) (Front Sheet Q column):** distance between the point in the front bumper further on and the point in the engine further on that is a resistant element, i.e. the further on point of the exhaust manifold placed in the front of the engine.
 - **Front shock absorber fixing width (14) (Front Sheet R column):** transverse distance between the front shock absorber - body car joints.
 - **Front shock absorber fixing height (12) (Front Sheet S column):** distance between the ground and the front shock absorber-body car joint.
 - **Bonnet leading edge height (Front Sheet T column):** distance between the ground and the bonnet edge further on.

SIDE ELEMENTS

- **Front bumper - Front axle distance (15) (Side Sheet G column):** distance between the point in the front bumper further on and the middle point in the front tyre-road contact patch.
- **Front axle - A Pillar distance (16) (Side Sheet H column):** distance between the middle point in the front tyre-road contact patch and the point in the A-pillar further back.
- **A Pillar - B Pillar distance (17) (Side Sheet I column):** distance between the point in the A-pillar further back and the middle point in the B-pillar.
- **B Pillar - C Pillar distance (19) (Side Sheet J column):** distance between the middle point in the B-pillar and the point in the C-pillar further back (only 4/5-door vehicles).
- **B Pillar - Rear axle distance (18) (Side Sheet K column):** distance between the middle point in the B-pillar and the middle point in the rear tyre-road contact patch.
- **Roof sill bottom height (20) (Side Sheet L column):** distance between the ground and the lowest point on the roof sill, measured in the front door middle point.
- **Roof sill top height (21) (Side Sheet M column):** distance between the ground and the highest point on the roof sill (usually located in the sill-roof joint), measured in the front door middle point.
- **Floor sill bottom height (22) (Side Sheet N column):** distance between the ground and the lowest point on the floor sill, measured in the front door middle point.
- **Floor sill top height (23) (Side Sheet O column):** distance between the ground and the highest point on the floor sill, measured in the front door middle point.

NOTE

- N/A: dimension not available.

Appendix F

Vehicle Manufacturer's Information

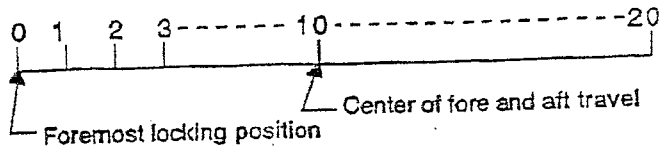
96 HONDA ACCORD COU
NSA-31JMG IR1683

g. (cont.)

(4) Position of adjustable seats (S6.3)

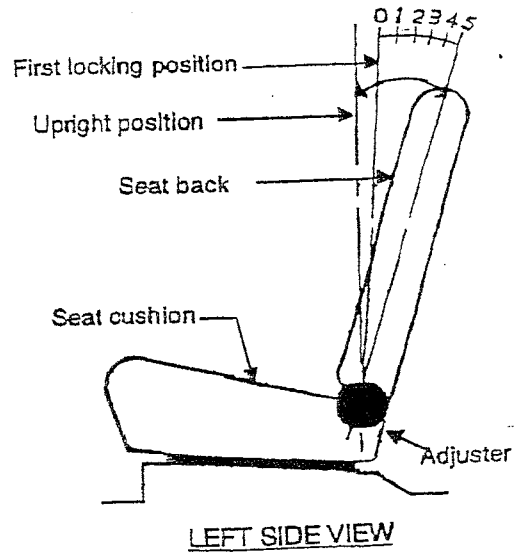
10th steps from the Foremost locking position for Passenger's seat. Fit and Controlled to use power SW of Driver's seat to the same position as passenger's seat.

Locking position of side adluster



(5) Position of adjustable seat backs (S6.4)

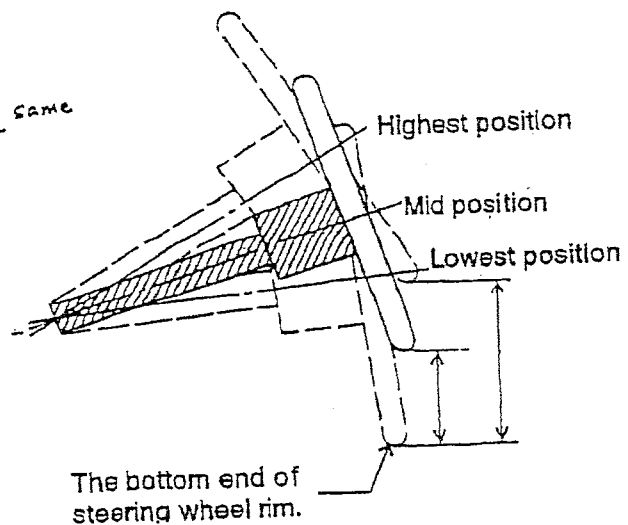
Nominal design riding position is located with seat back adjusted to the 5th latch position from the first locking position.



(6) Position of adjustable steering wheel (S6.5)

- A : 1.76 inch (Highest position)
- B : 0.87 inch (Mid position)

STEERING COULUMN ASSEMBLY



96 HONDA ACCORD C
 NSA-31JMG IR1683

g. Information and data relating to the test conditions (S6)

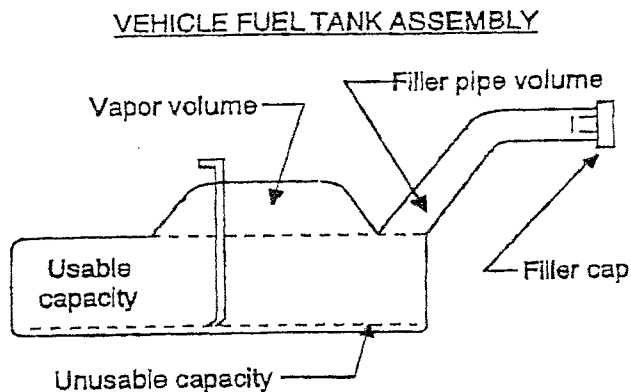
- (1) Test weight measured at each wheel (S6.1)

Fr. : 1896 lbs.
Rr. : 1506 lbs.

- (2) Fuel tank capacity and the amount of Stoddard solvent added (S6.1)

Usable capacity : 17.0 gallons.

Amount of Stoddard solvent : 15.8 gallons.



- (3) Vehicle test attitude immediately prior to testing including measurements to the reference points in the "as delivered" and "fully loaded" conditions (S6.2)

Wheel Opening Height Unit : inch

| | Front | | Rear | |
|--------------|-------|------|------|------|
| | L | R | L | R |
| As delivered | 27.2 | 27.4 | 27.1 | 27.0 |
| Fully loaded | 26.4 | 27.4 | 24.9 | 25.9 |

DATA SHEET NO. 4
TEST VEHICLE INFORMATION

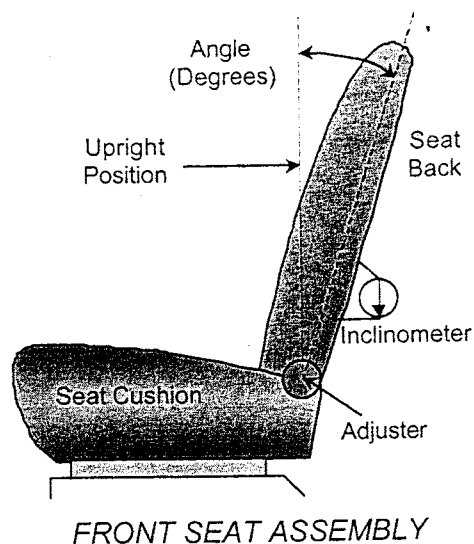
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
Test Date: 01/18/01

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturers designated angle. The procedure is as follows: A special application tool with pointed probes is inserted through the fabric to make contact with the rigid portion of the lower seat frame assembly, approximately 13 inches above the pivot point of the seat back. An inclinometer is placed against the flat surface of the tool and the seat back angle is measured directly from the dial face.

Driver seat back angle: 23° with a seated dummy
Passenger seat back angle: 23° with a seated dummy



SEAT FORE/AFT POSITIONS

Driver seat has 20 seat detents and the passenger seat has 25 detents. The first or forward most position is counted as number one (1). The fore/aft position is set aft of the middle position for both driver and passenger.

Driver seat fore/aft total travel: 20 seating positions or detents
Passenger seat fore/aft total travel: 25 seating positions or detents
Driver seat fore/aft position: 11th detent from forward most
Passenger seat fore/aft position: 13th detent from forward most

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with adjustable anchorages for both driver and passenger seat positions. Both driver and passenger anchorages have 5 positions; they are set in the 3^d position from the top.

DATA SHEET NO. 4...(continued)

TEST VEHICLE INFORMATION

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

FUEL TANK CAPACITY DATA

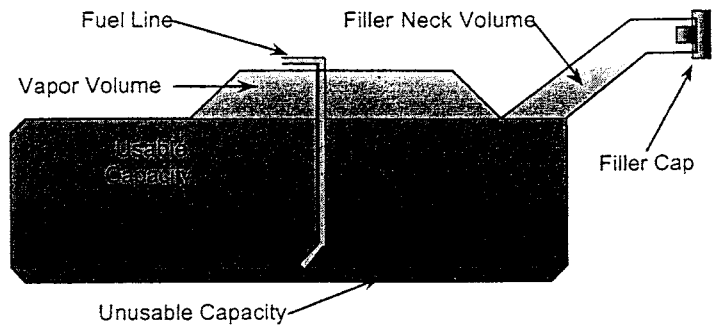
The "Usable Capacity" of the standard equipment fuel tank is: 73.8 liters

The "Usable Capacity" of any optional equipment fuel tank is: N/A liters

"Usable Capacity" used for certification tests FMVSS 301 requirements: 67.9 to 69.3 liters

Actual amount of Stoddard solvent added to vehicle for certification test: 68.6 liters

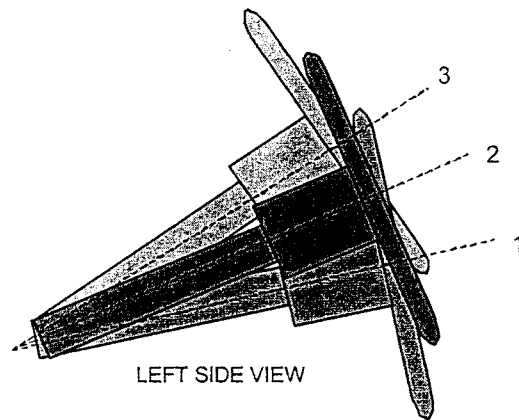
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which it automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat. Fuel lines run along the left side of the body to the engine compartment.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes, when it is moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed onto the plate, and the angle is measured. The tested vehicle has its steering column set to the geometric center, or position 3.



STEERING COLUMN ASSEMBLY

Lowermost, position 1: 30.0°

Geometric center, position 2: 30.8°

Uppermost, position 3: 33.0°