

REPORT NUMBER: 214D-MGA-2001-013

**TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION**

**Ford Motor Company
1995 Ford Escort LX 4 door
NHTSA NUMBER: PS0200**

**PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105**



May 3, 2001

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF VEHICLE SAFETY COMPLIANCE
400 SEVENTH STREET, SW, ROOM 5208
WASHINGTON, D.C. 20590**

FMVSS 214D Test Data Summary

Vehicle: 1995 Ford Escort LX 4 Door

Test Date: May 3, 2001

Test Speed: 53.1 kph

NHTSA No: PS0200

Vehicle Test Weight

Weight as Delivered: = 1125.3 kg

Weight as Tested: = 1315.8 kg

Injury Criteria:

ATD Position	TTI (g's)	Pelvis (g's)	HIC
Driver	66	87	248
Passenger	70	100	1082

DATA SHEET NO. 5

SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 1995/Ford/Escort LX/4 door

NHTSA No.: PS0200

Test Program: FMVSS 214

Test Date: May 3, 2001

THORAX AND PELVIS PEAK ACCELERATIONS (FIR 100 Filtered)

Location	Axis	Units	Right Front Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (RUR)	Y	G's	13.4	75	55.8	38	7.1	77	69.0	41
Upper Rib (RUR)	Y	G's	13.2	75	56.5	38	6.8	124	68.7	41
Lower Rib (RLR)	Y	G's	12.0	96	64.0	39	22.9	77	75.5	40
Lower Rib (RLR)	Y	G's	11.7	96	64.0	39	22.3	77	75.1	41
Lower Spine (T ₁₂)	Y	G's	11.9	92	67.4	37	33.5	70	65.0	42
Lower Spine (T ₁₂)	Y	G's	12.0	92	67.9	37	34.4	70	63.5	42
Pelvis (PEV)	Y	G's	8.2	92	86.9	31	14.9	73	99.5	34
Pelvis (PEV) (R)	Y	G's	8.1	98	87.3	31	14.9	74	99.7	34

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION (FIR 100 Filtered)

Location	Right Front Passenger				Right Rear Passenger			
	RLR	T ₁₂	TTI(g)	PEV(g)	RLR	T ₁₂	TTI(g)	PEV(g)
Rib, Spine, and Pelvis	64.0	67.4	66	86.9	75.5	65.0	70	99.5
Rib, Spine, and Pelvis (R)	64.0	67.9	66	87.3	75.1	63.5	69	99.1

HEAD CG PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Right Front Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	12.2	41	14.6	108	21.3	188	11.4	59
Head CG	Y	G's	8.3	60	98.2	41	19.0	190	137.9	56
Head CG	Z	G's	21.1	69	25.2	48	23.5	42	42.2	61
Head CG		G's	99.5	41			140.8	56		

HEAD INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Right Front Passenger				Right Rear Passenger			
	HIC	T ¹	T ²	Avg G's	HIC	T ¹	T ²	Avg
Head CG	248	38.6	51.8	51.2	1082	52.8	60.6	114.0

Positive Acceleration Polarities: Longitudinal (X) = Forward
 (Conforms to SAE J211) Lateral (Y) = Right
 Vertical (Z) = Down

