

Crash Tests

New Car Safety

MAZDA TRIBUTE/FORD ESCAPE

2001 on

Dual front airbags

Overall Evaluation



Offset crash test at 64km/h

Overall score

24.67 out of 34

Variant: Tribute Limited auto

Eng: V6 3 litre.

Kerb weight: 1580 kg

Category: Compact 4WD

Vehicles built: 4/02 and 3/02

Model History and Safety Features

The tested model of MAZDA TRIBUTE was introduced in 2001. The Ford Escape is based on the same vehicle and can be expected to provide similar crashworthiness.

Dual front airbags are standard equipment. Side airbags with head protection are standard on the 'Luxury' variant of the Tribute and the 'Limited' variant of the Escape. ABS brakes are standard on some variants. The front seat belt buckles are mounted on the seats and the upper anchorages are adjustable. These features improve the fit of the seat belt. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash.

OVERALL EVALUATION : 4 Stars

The MAZDA TRIBUTE scored 8.67 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well except in the footwell. Protection from serious leg injury was poor for the driver.

The vehicle scored 16 out of 16 in the side impact crash test.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 2.67pts, upper legs 2pts, lower legs zero pts.

The passenger compartment held its shape reasonably well in the offset crash test. However the front part of the driver's floor was pushed rearwards 190mm and the brake pedal moved rearwards by 234mm. The pedal moved upwards 65mm. The dash moved 68mm towards the driver. The steering wheel hub moved rearwards 40mm, upwards 11mm and sideways 28mm. The front ("A") pillar moved 98mm rearwards. The roof buckled upwards above the driver and the width of the driver's doorway shortened by 91mm. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door.

The airbag cushioned the head of the driver. The head started to roll off the side of the airbag but was not sufficient to attract a penalty. The driver's knees hit the steering column and dash. The ignition switch barrel and column adjuster were found to be potential sources of knee injury. The passenger's head was cushioned by the airbag. The passenger's knees hit the glove box.

SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 4pts, abdomen 4pts, pelvis 4pts.

This test simulates a fairly small car striking the driver's door of the vehicle under test. It is based on a regulation test but the regulation does not apply to vehicles with a high seat height like

the Tribute. Such vehicles can be expected to perform relatively well in this particular side impact test.

The tested variant was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible vehicles an extra two points, giving a maximum possible overall score of 34 points.

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	480	238	60
Acceleration (g for 3ms)	53.4	36.9	29.9
Neck - Shear (kN)	0.7	0.36	-
Tension (kN)	2.11	0.99	-
Extension (Nm)	26.51	12.98	-
Chest Accln (g for 3ms)	43.6	30.9	-
Compression (mm)	31.3	21.6	8.9
Viscous criterion (m/s)	0.09	0.07	0.06
Abdomen - Force (kN)	-	-	0.52
Pelvis - Force (kN)	-	-	1.46
Upper legs Force (kN)	Left 2.18 Right 3.31	1.67 3.45	
Knee displ (mm)	Left 3.58 Right 0.77	1.37 5.25	
Lower legs Force (kN)	Left 2.85 Right 2.34	1.16 1.09	
Index (Upper/Low)	Left 0.4/0.77 Right 0.4/0.98	0.39/0.27 0.4/0.46	

Bonus points

Pole Test: Not eligible

Seat belt reminders: Not eligible

Modifiers for offset test scores

Head		No penalty
Chest		No penalty
Upper leg	Variable & conc. loading	2 pt penalty L&R
Lower leg	Brake pedal vert. movement	0.813 pt penalty
Foot score	Brake pedal rear movement	Zero points

Pedestrian rating (2002 protocol)

4.07 points out of 36 (11%)



Child head impacts 2.07pts; adult head impacts zero pts; upper leg zero pts and lower leg impacts 2 pts.

These results are not applicable to the Ford Escape, which has different body panels.

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