

Crash Tests

New Car Safety

MAZDA 3

2004 on

Front+side+head airbags

Overall Evaluation



Overall score

26.56 out of 37

Variant: Sedan

Eng: 2 litre.

Kerb weight: 1200 kg

Category: SMALL CAR

Vehicles built: 3/04

Model History and Safety Features

The tested model of Mazda 3 was introduced in 2004.

Dual front airbags, side airbags, head-protecting side curtains and ABS brakes are standard equipment on the Maxx and SP23 variants. Side airbags, curtains and ABS brakes are available as a safety pack on the Neo variant.

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. Pre-tensioners are fitted to the front seat belts to reduce slack in the event of a crash. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point seat belt.

OVERALL EVALUATION : 4 Stars

The Mazda 3 scored 12.39 out of 16 in the offset crash test. The passenger compartment held its shape well in the offset crash test. Protection from serious lower leg injury was marginal for the driver.

The vehicle scored 14.17 out of 16 in the side impact crash test. There was a marginal risk of serious chest injury for the driver.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 2.13pts, chest 3.64pts, upper legs 4pts, lower legs 2.62pts.

The passenger compartment held its shape well in the offset crash test. The front part of the driver's floor was pushed rearwards 60mm. The brake pedal moved rearwards by 73mm and upwards 25mm, relative to the driver's seat. The dash moved 26mm towards the driver. The steering wheel hub moved forwards 8mm, downwards 11mm and sideways 2mm, relative to the driver's seat. The front ("A") pillar moved 12mm rearwards. The width of the driver's doorway shortened by 10mm. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. There were no modifiers for knee protection but the design of the steering column could be improved in this regard. The passenger's head went deep into the airbag and experienced a high deceleration, indicating contact with the dash.

SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 2.36pts, abdomen 3.95pts, pelvis 3.87pts.

The vehicle was eligible for the optional Pole Impact Test but a test was not conducted. This test can earn a further two points.



Offset crash test at 64km/h

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.0)		Side Impact Crash Test at 50km/h (v4.0)
	Driver	Passn	Driver
Head HIC	371	341	105
Acceleration (g for 3ms)	47.5	75.5	38.9
Neck - Shear (kN)	0.68	0.28	-
Tension (kN)	0.68	0.82	-
Extension (Nm)	21.2	30.5	-
Chest Accln (g for 3ms)	43.3	26.3	-
Compression (mm)	22.9	24.5	30.2
Viscous criterion (m/s)	0.06	0.08	0.37
Abdomen - Force (kN)	-	-	1.02
Pelvis - Force (kN)	-	-	3.1
Upper legs Force Left (kN)	0.51	0.2	
Right (kN)	0.39	2.75	
Knee displ (mm) Left	0.03	0.17	
Right	0.02	3.72	
Lower legs Force Left (kN)	2.73	2.87	
Right (kN)	1.96	1.93	
Index (Upper/Low) Left	0.44/0.71	0.43/0.16	
Right	0.39/0.17	0.26/0.35	

Bonus points (maximum 5)

Pole Test: Not tested

Seat belt reminders: None

Modifiers for offset test scores

Head	Passn airbag bottomed out	1pt deduction
Chest		No deduction
Upper leg	Variable & conc. loading	No deduction
Lower leg		No deduction
Foot score	Blocked pedal 52mm	Score 3.98 points

Pedestrian rating (v4.0)



8.16 points out of 36

Child head impacts 6.49pts; adult head impacts 1.67pts; upper leg zero pts and lower leg impacts zero pts.