

ANCAP Safety Rating

MAZDA CX-5 (April 2017 - onwards)



Mazda CX-5

This ANCAP safety rating applies to:

Make / Model	Mazda CX-5
Year Range	April 2017 - onwards
Variant(s)*	All variants
Vehicle Type	Medium SUV

The tested model of Mazda CX-5 was introduced in Australia and New Zealand in April 2017. This ANCAP safety rating applies to all variants of the Mazda CX-5 (KF series) introduced in April 2017 and built from February 2017.

Dual frontal, side chest-protecting and side head-protecting (curtain) airbags are standard. Autonomous emergency braking (AEB) and a driver-set speed limiter are standard. A lane departure warning system (LDW) with lane keep assist (LKA) is available on some variants. A full list of safety features and technologies can be viewed within the *Safety Features & Technologies* table on page 2 of this report.

Injury Outcomes.

Full Width Frontal



Frontal Offset



Side Impact



Pole



Whiplash Protection



Test Results Summary.

Airbags	Dual Frontal, Side, Head
Adult Occupant Protection	95% (36.48 out of 38)
- Full Width Frontal Test [#]	7.52 (out of 8)
- Frontal Offset Test [#]	7.37 (out of 8)
- Side Impact Test [#]	8.00 (out of 8)
- Pole Test [#]	8.00 (out of 8)
- Whiplash Protection Test	2.59 (out of 3)
- AEB (City)	3.00 (out of 3)
Child Occupant Protection	80% (39.36 out of 49)
Safety Assist	59% (7.11 out of 12)
- Speed Assistance System	1.50 (out of 3)
- Seat Belt Reminders	3.00 (out of 3)
- Lane Support System	0.00 (out of 3)
- AEB (Interurban)	2.61 (out of 3)
Pedestrian Protection	78% (32.76 out of 42)
ANCAP Safety Rating	★★★★★
Rating Year[^]	2017

[#] Scaled scores. Total test score out of 16.00 points.

Adult Occupant Protection.

Full Width Frontal Test

Each body region is scored out of 4 points

Driver	Rear Passenger
Head: 4.00 points	Head: 4.00 points
Neck: 4.00 points	Neck: 3.19 points
Chest: 3.62 points	Chest: 3.27 points
Upper legs: 4.00 points	Upper legs: 4.00 points

In the full width frontal test, head protection for the driver and passenger was good. Protection of the chest of both the driver and rear passenger was acceptable, as was the neck of the rear dummy.

Frontal Offset Test

Each body region is scored out of 4 points

Driver / Front Passenger (lesser of each)
Head / neck: 4.00 points
Chest: 3.86 points
Upper legs: 4.00 points
Lower legs: 2.89 points

The passenger compartment held its shape well in the frontal offset test. Dummy readings indicated good protection of the knees and femurs of both the driver and passenger. Acceptable protection was provided for the chest and lower legs of the driver. Driver and passenger contact with the airbags was stable. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

Side Impact Test

Each body region is scored out of 4 points

Side Impact Test	Pole Test
Head: 4.00 points	Head: 4.00 points
Chest: 4.00 points	Chest: 4.00 points
Abdomen: 4.00 points	Abdomen: 4.00 points
Pelvis: 4.00 points	Pelvis: 4.00 points

In both the side impact and the more severe side pole test, all critical body areas were well protected and the CX-5 scored maximum points.

Whiplash Protection

Front:	1.84 points
Rear:	0.75 points
AEB (City):	3.00 points

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Child Occupant Protection.

Crash Test Performance

6 year old child: 10.86 points
10 year old child: 10.00 points

In the frontal offset test, protection of the 10 year child dummy was good for the chest and the head. However, dummy readings of neck tension indicated poor protection of this part of the body. Protection of the chest of the 6 year child dummy was marginal but that of the head and neck was good. In the side impact test, both dummies were well protected.

Child Safety Features & Child Seat Installation

Safety features: 8.00 points
Installation check: 10.50 points

NOTE: The child restraints tested by Euro NCAP are relevant to the European market. For Australasian consumers, this information should be used as a guide to vehicle features only. For more detailed information about Australian child restraints visit childcarseats.com.au.

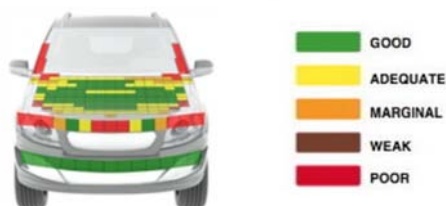
Pedestrian Protection.

Pedestrian Test

Scored out of 42 points

Adult & child head impacts: 18.91 points
Upper leg impacts: 1.99 points
Lower leg impacts: 6.00 points
AEB (vulnerable road user): 5.86 points

This vehicle scored 32.76 out of 42 points. The bonnet provided good or adequate protection to the head of a struck pedestrian over most of its surface. The bumper provided good protection to pedestrians' legs while the front of the bonnet showed mixed results. The autonomous emergency braking (AEB) system can detect pedestrians and performed well in testing of this functionality. (Tested by Euro NCAP v8.3)



Score Deductions.

Deductions from full width frontal test scores

Neck: No deductions
Head: No deductions
Chest: No deductions
Upper legs / pelvis: No deductions
Overall: No deductions

Deductions from frontal offset test scores

Head / neck: No deductions
Chest: No deductions
Upper legs: No deductions
Lower legs: No deductions
Overall: No deductions

Deductions from side impact test score

No deductions

Deductions from pole test score

No deductions

Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) and detail on fitting requirements for each star rating level can be found at ancap.com.au.

Safety Feature / Safety Assist Technology	Availability
Seat belts (three-point, lap/sash) for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	S
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 nd row seats)	S
Airbag - Frontal (driver)	S
Airbag - Frontal (passenger)	S
Airbag - Side, chest protection (front seats)	S
Airbag - Side, chest protection (2 nd row seats)	X
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 nd row seats)	S
Airbag - Knee (driver)	X
Airbag - Knee (front passenger)	X
Head restraints for all seats	S
Active bonnet	X
Adaptive cruise control (ACC)	V
Antilock braking system (ABS)	S
Autonomous emergency braking (AEB)	
- City	S
- Interurban	S
- Vulnerable road user	S
Automatic headlights	V
Automatic high beam	V
Blind spot monitoring (BSM)	S (V NZ)
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Automatic emergency call (eCall)	X
Emergency stop signal (ESS)	S
Emergency brake assist (EBA)	S
Fatigue detection	V
Forward collision warning	S
Hill launch assist	S
Lane departure warning (LDW)	V
Lane keep assist (LKA)	V
Daytime running lights (DRL)	V
Reversing collision avoidance	S
Secondary collision brake assist	S
Smart Key	V
Speed assistance - automatic / intelligent speed limiting (ISA)	X
Speed assistance - manual speed limiting	S
Speed assistance - speed sign recognition & warning	V
Tyre pressure monitoring system (TPMS)	X

S = Standard on all variants.

O = Optional on base variant. May be standard on higher variants.

V = Not available on base variant but standard or optional on higher variants.

X = Not available on any variant.

E = Available in Europe but not available on any Australasian variant.

These specifications are subject to change. Please check with the manufacturer for the latest specifications.

Safety Assist.

Speed Assistance System (SAS)

Scored 1.50 out of 3 points

Speed information:	0.00
Speed assistance (manual):	1.50
Speed assistance (automatic / intelligent):	0.00

AEB (Interurban)

Scored 2.61 out of 3 points

Autonomous emergency braking (AEB):	1.41 out of 1.50
Forward collision warning (FCW):	0.95 out of 1.00
Human machine interface (HMI):	0.25 out of 0.50

Seat Belt Reminder (SBR)

Scored 3.00 out of 3 points

Driver and passenger:	2.00 out of 2.00
Rear:	1.00 out of 1.00

Lane Support Systems (LSS)

Scored 0.00 out of 3 points

[Not assessed]

 The standard-fit autonomous emergency braking (AEB) system performed well in tests of its effectiveness at highway speeds, with all collisions avoided or mitigated. A driver-set speed limitation system is also standard. A lane departure warning (LDW) system with lane keep assist (LKA) is available on some variants, but this system is not standard and is not included in this assessment.

Approaching a stationary vehicle:

17.17 out of 18.00 points for Forward Collision Warning (FCW)



Approaching a slow moving vehicle:

11.00 out of 11.00 points for Autonomous Emergency Braking (AEB)



Approaching a braking vehicle with short headway:

1.53 out of 2.00 points for AEB, 1.55 out of 2.00 points for FCW



Approaching a braking vehicle with long headway:

2.00 out of 2.00 points for AEB, 2.00 out of 2.00 points for FCW



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ANCAP
Safety ★★★★★



Injury Values & Measurements.

Body Region	Frontal offset test at 64km/h (v7)		Full width frontal test at 50km/h (v1)		Side impact test at 50km/h (v7)	Oblique pole test at 32km/h (v7)
	Driver	Front Passenger	Driver	Rear Passenger	Driver	Driver
Head						
HIC	119	109	219	293	19	265
Acceleration (g for 3ms)	39.35	37.02	48.91	55.18	17.81	53.82
Neck						
Shear (kN)	0.29	0.38	0.27	1.45	-	-
Tension (kN)	1.36	0.45	1.30	2.14	-	-
Extension (Nm)	12.98	14.65	17.70	14.27	-	-
Chest						
Acceleration (g for 3ms)	-	-	-	-	-	-
Compression (mm)	22.72	16.14	20.26	22.41	8.69	19.61
Viscous criterion (m/s)	0.05	0.05	0.09	0.08	0.09	0.13
Abdomen						
Compression (mm)	-	-	-	-	11.28	26.42
Pelvis						
Force (kN)	-	-	-	-	0.29	0.86
Upper legs						
Femur force left (kN)	0.32	1.07	0.31	0.06		
Femur force right (kN)	0.81	0.43	0.43	0.25		
Knee displacement left (mm)	0.13	2.14	0.66	2.12		
Knee displacement right (mm)	0.04	3.57				
Lower legs						
Force left (kN)	1.82	1.75	-	-		
Force right (kN)	2.18	1.37	-	-		
Index (upper / lower) left	0.38/0.24	0.23/0.39	-	-		
Index (upper / lower) right	0.65/0.36	0.29/0.22	-	-		
Intrusion Measurements						
Steering column						
Forward (mm)	38	-	-	-		
Upward (mm)	-36	-	-	-		
Sideways (mm)	2	-	-	-		
Pedals						
Brake - rearward (mm)	13	-	-	-		
Brake - upward (mm)	-2	-	-	-		
A-Pillar						
Rearward (mm)	6	-	-	-		

* **Model Variants:** ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model. For further information about the application of ANCAP safety ratings to model variants, see the ANCAP Variant Policy.

^ **Rating Year:** The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and may be based on the year in which a new vehicle model is first launched into the Australian and/or New Zealand markets; the year in which the vehicle was tested (if tested by Euro NCAP); or, for vehicles which hold an existing ANCAP safety rating, the year in which the rating was updated (or earlier applicable year).

Assessment Details.

Tested Make / Model	Mazda CX-5 Sports Line
Tested Vehicle(s) Built	2017
Tested Body Type	5 door SUV
Tested Vehicle Kerb Weight	1645 kg
Tested Vehicle Engine	2.2 litre diesel
Tested By	Euro NCAP
Assessed By	Euro NCAP
Document Reference	CX-517
Document Created / Revised	6 September 2017 / 12 September 2017
Rating Published	September 2017
Rating Updated	n/a



Frontal offset test at 64km/h