

ANCAP Safety Rating

VOLVO V40 (From 2013)



Test Variant:	Volvo V40 D2 1.6 Diesel Kinetic LHD
Variant Applicability*:	D2 variants
Kerb Mass:	1380 kg
Vehicles Built:	2012
Engine:	1.6 litre diesel
Category:	Medium Car

Note: The diesel left-hand-drive European model was tested by Euro NCAP. ANCAP was provided with information which showed that the Euro NCAP results apply to the Australasian D2 variant.



Frontal offset test at 64 km/h (Source: Euro NCAP)

Airbags	ESC	Frontal Offset	Side Impact	Pole	Whiplash	Pedestrian	Seat Belt Reminders	Overall Score	ANCAP Safety Rating
Frontal + side + head + knee	Standard	15.67 (out of 16)	16.00 (out of 16)	2 (out of 2)	ACCEPTABLE	GOOD	3 (out of 3)	36.67 (out of 37)	★★★★★

The tested model of Volvo V40 is being introduced in Australia and New Zealand during 2013. This rating applies to the D2 variant.

Dual front airbags, driver knee airbag, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD), autonomous emergency braking (AEB) and electronic stability control (ESC) are also standard, along with several other safety assist technologies. Intelligent seat belt reminders are fitted to all seats. Pretensioners are fitted to the front and rear outboard seat belts to reduce slack in the event of a crash.

OCCUPANT PROTECTION

Frontal Offset Test.

Each body region is scored out of 4 points

Head / neck:	4.00 points
Chest:	3.96 points
Upper legs:	4.00 points
Lower legs:	3.71 points

The passenger compartment held its shape very well in the frontal offset test. There was a slight risk of serious chest and leg injury for the driver. The accelerator pedal moved rearwards by 19mm. The brake pedal moved upwards 15mm. The steering wheel hub moved 52mm forward, 4mm downward and 3mm sideways. The front ("A") pillar moved 1mm rearwards. 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. The passenger's head was cushioned by the airbag. There were no knee hazards.

Side Impact Test.

Each body region is scored out of 4 points

Head:	4.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points

Pole Test.

Scored out of 2 points

Vehicles are eligible for a pole test if fitted with head-protecting side airbags. The Volvo V40 was eligible and earned the maximum two points in this test.

Whiplash Protection Test.

Whiplash protection is assessed to the RCAR Protocol

Geometric test:	GOOD
Dynamic test:	ACCEPTABLE

Injury Outcomes.

Frontal Offset
Driver



Passenger



Side Impact
Driver



Whiplash



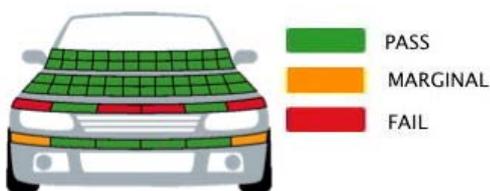
PEDESTRIAN PROTECTION

Pedestrian Test.

Scored out of 36 points

Child head impacts:	12.00 points
Adult head impacts:	12.00 points
Upper leg impacts:	2.00 points
Lower leg impacts:	5.76 points

The V40 is equipped with an under-bonnet airbag system. This detects when a pedestrian has been struck and lifts the bonnet to provide greater protection to the head. The airbag also covers the windscreen pillars to provide better protection in those areas. Volvo demonstrated that the system would operate over a range of speeds and would detect different pedestrian statures. The system worked well, the bonnet offering good protection in all areas likely to be struck by a pedestrian's head, making the V40 the first car to score maximum points in this area. The front edge of the bonnet provided poor protection in most areas tested while the bumper was predominantly good. The V40 also has pedestrian-detecting autonomous emergency braking available.



(Tested by Euro NCAP v5.3)



Volvo V40

SAFETY FEATURES

These specifications are subject to change. Please check with manufacturer for the latest specifications. For a description of these safety features and safety rating requirements see the ANCAP Road Map.

Safety Assist Technology (SAT)	Availability
Front airbag - driver	S
Front airbag - passenger	S
Side airbags (chest protection) - front seats	S
Side airbags (head protection) - front seats	S
Side airbags (head protection) - 2nd row seats	S
Knee airbag - driver	S
Three-point seat belts for all forward facing seats	S
Seat belt pretensioners (front / rear outboard)	S / S
Intelligent seat belt reminder - driver	S
Intelligent seat belt reminder - front passenger	S
Intelligent seat belt reminder - 2nd row seats	S
Head restraints for all seats	S
Antilock brakes (ABS)	S
Electronic brake distribution (EBD)	S
Emergency brake assist (EBA)	S
Electronic stability control (ESC)	S
Adaptive cruise control (ACC)	O
Autonomous emergency braking (AEB)	S
Lane support system	O

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.

INJURY MEASUREMENTS

Body Region	Frontal offset test at 64 km/h (v5.1)		Side impact test at 50 km/h (v5.1)
	Driver	Passenger	Driver
Head			
HIC	291	177	32
Acceleration (g for 3ms)	42.1	35.5	22.6
Neck			
Shear (kN)	0.50	0.50	-
Tension (kN)	0.79	0.06	-
Extension (Nm)	0.0	0.0	-
Chest			
Acceleration (g for 3ms)	-	-	-
Compression (mm)	22.31	19.69	15.51
Viscous criterion (m/s)	0.05	0.04	0.08
Abdomen			
Force (kN)	-	-	0.420
Pelvis			
Force (kN)	-	-	1.680
Upper legs			
Force left (kN)	0.46	1.10	
Force right (kN)	1.08	1.10	
Knee displacement left (mm)	0.20	0.80	
Knee displacement right (mm)	0.20	0.90	
Lower legs			
Force left (kN)	1.95	2.03	
Force right (kN)	2.43	1.65	
Index (upper / lower) left	0.32 / 0.13	0.39 / 0.11	
Index (upper / lower) right	0.38 / 0.35	0.39 / 0.13	

MODIFIERS

Deductions from frontal offset test scores

Head:	No deduction
Chest:	No deduction
Upper leg:	No deduction
Lower leg:	No deduction
Foot score:	Score 4 points

Deductions from side impact test scores

Chest:	No deduction
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* For information about the application of ANCAP ratings to model variants see the ANCAP Variant Policy. In brief, 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.

^ Refer ANCAP Rating Road Map (www.ancap.com.au/media).

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