



BYD SEAL-U
Standard Safety Equipment

2023



Adult Occupant



90%

Child Occupant



86%

Vulnerable Road Users



83%

Safety Assist



77%

SPECIFICATION

Tested Model	BYD SEAL-U electric, LHD
Body Type	- 5 door SUV
Year Of Publication	2023
Kerb Weight	2147kg
VIN From Which Rating Applies	- all SEAL-U
Class	Small SUV

SAFETY EQUIPMENT

	Driver	Passenger	Rear
FRONTAL CRASH PROTECTION			
Frontal airbag	●	●	✘
Belt pretensioner	●	●	●
Belt loadlimiter	●	●	●
Knee airbag	✘	✘	✘
LATERAL CRASH PROTECTION			
Side head airbag	●	●	●
Side chest airbag	●	●	✘
Side pelvis airbag	●	●	✘
Centre Airbag	●	●	—

	Driver	Passenger	Rear
CHILD PROTECTION			
Isofix/i-Size	—	●	●
Integrated CRS	—	✘	✘
Airbag cut-off switch	—	●	—
Child presence detection	—	●	●
SAFETY ASSIST			
Seat Belt Reminder	●	●	●

SAFETY EQUIPMENT (NEXT)


OTHER SYSTEMS	
Active Bonnet	✘
AEB Vulnerable Road Users	●
AEB Pedestrian - Reverse	●
Cyclist Dooring Prevention	●
AEB Motorcyclist	●
AEB Car-to-Car	●
Speed Assistance	●
Lane Assist System	●
Fatigue / Distraction Detection	✘

Note: Other equipment may be available on the vehicle but was not considered in the test year.


- Fitted to the vehicle as standard
 ○ Fitted to the vehicle as part of the safety pack
○ Not fitted to the test vehicle but available as option or as part of the safety pack
 ✘ Not available
 — Not applicable

 ADULT OCCUPANT

Total 36.3 Pts / 90%


 GOOD  ADEQUATE  MARGINAL  WEAK  POOR

Frontal Impact 14.0 / 16 Pts




Mobile Progressive Deformable Barrier Full Width Rigid Barrier

Lateral Impact 16.0 / 16 Pts



Side Mobile Barrier Side Pole Far-Side Excursion Occupant Interaction

Rear Impact 3.4 / 4 Pts



Rear Seat Front Seat

ADULT OCCUPANT

Total 36.3 Pts / 90%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Rescue and Extrication		3.0 / 4 Pts
Rescue Sheet	Available, ISO compliant	
Advanced eCall	Available	
Multi Collision Brake	Available	
Submergence Check	Compliant	

Comments

The passenger compartment of the SEAL-U remained stable in the frontal offset test. Dummy numbers showed good protection of the knees and femurs of both the driver and passenger. BYD showed that a similar level of protection would be provided to occupants of different sizes and to those sitting in different positions. Protection of the front seat passenger was good for all critical body areas. Analysis of the deceleration of the impact trolley during the test, and analysis of the deformable barrier after the test, revealed that the SEAL-U would be a moderately benign impact partner in a frontal collision. In the full-width rigid barrier test, protection of all critical body areas was good or adequate for the driver and good for all body areas of the rear passenger. In both the side barrier test and the more severe side pole impact, protection of all critical body areas was good and the SEAL-U scored maximum points in this part of the assessment. Control of excursion (the extent to which a body is thrown to the other side of the vehicle when it is hit from the far side) was adequate. The SEAL-U has a counter-measure to mitigate against occupant to occupant injuries in such impacts and this performed well in the side pole impact. Tests on the front seats and head restraints demonstrated good protection against whiplash injuries in the event of a rear-end collision. A geometric analysis of the rear seats indicated marginal whiplash protection. The SEAL-U has an advanced eCall system which alerts the emergency services in the event of a crash. The car also has a system which applies the brakes after an impact, to avoid secondary collisions. BYD demonstrated that if the car entered water the doors, if locked, could be opened within two minutes of power being lost and a hammer is provided to allow side windows to be broken to allow escape.

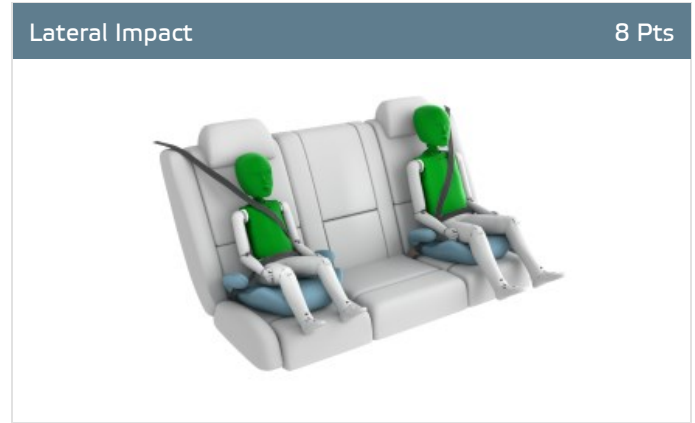
CHILD OCCUPANT

Total 42.4 Pts / 86%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Crash Test Performance based on 6 & 10 year old children

23.4 / 24 Pts



Restraint for 6 year old child: *Britax Romer Kidfix i-Size*
 Restraint for 10 year old child: *Nania Booster Basic*

Safety Features

7.0 / 13 Pts

	Front Passenger	2nd row outboard	2nd row center
Isofix	●	●	✘
i-Size	●	●	✘
Integrated CRS	✘	✘	✘
Top tether	●	●	●
Child Presence Detection	●	●	●

● Fitted to test car as standard
 ○ Not on test car but available as option
 ✘ Not available

CRS Installation Check

12.0 / 12 Pts

i-Size	Seat Position				
	Front		2nd row		
			Left	center	Right
	●	●	●	✘	●

● Easy
 ● Difficult
 ● Safety critical
 ✘ Not allowed
✘ Airbag ON
 Rearward facing restraint installation not allowed
✘ Airbag OFF

Version 110924

CHILD OCCUPANT

Total 42.4 Pts / 86%

Isofix	Seat Position				
	Front		2nd row		
			Left	center	Right
	●	●	●	✗	●
	✗	●	●	✗	●
	●	●	●	✗	●
	●	●	●	✗	●
	●	●	●	✗	●
	✗	●	●	✗	●

● Easy
 ● Difficult
 ● Safety critical
 ✗ Not allowed
✗ Airbag ON
 Rearward facing restraint installation not allowed
 Airbag OFF

Seatbelt Attached	Seat Position				
	Front		2nd row		
			Left	center	Right
	✗	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●
	●	●	●	✗	●
	✗	●	●	✗	●

● Easy
 ● Difficult
 ● Safety critical
 ✗ Not allowed
✗ Airbag ON
 Rearward facing restraint installation not allowed
 Airbag OFF

Version 110924



CHILD OCCUPANT

Total 42.4 Pts / 86%

Comments

In both the frontal offset and side barrier tests, good protection was provided to all critical body areas for both child dummies apart from the neck of the 10 year child, protection of which was adequate. The front passenger airbag can be disabled to allow a rearward-facing child restraint to be used in that seating position. Clear information is provided to the driver regarding the status of the airbag and the system was rewarded. The SEAL-U is equipped with a direct 'child presence detection' system, which issues a warning when it detects that a child or infant has been left in the car. However, the system did not meet Euro NCAP's requirements and was not rewarded. All of the child restraint types for which the SEAL-U is designed could be properly installed and accommodated in the car.

VULNERABLE ROAD USERS

Total 52.6 Pts / 83%

GOOD
 ADEQUATE
 MARGINAL
 WEAK
 POOR

VRU Impact Protection

28.3 / 36 Pts



Pedestrian & Cyclist Head	11.5 Pts
Pelvis	3.3 Pts
Femur	4.5 Pts
Knee & Tibia	9.0 Pts

VRU Impact Mitigation

24.3 / 27 Pts

System Name	AEB VRU System
Type	Auto-Brake with Forward Collision Warning
Operational From	4 km/h

PERFORMANCE |

AEB Pedestrian

7.5 / 9 Pts

Scenario	Day time	Night time
Car reversing into adult or child		—
Adult crossing a road into which a car is turning		—
Adult crossing the road		
Child running from behind parked vehicles		
Adult along the roadside		

— Currently not tested

AEB Cyclist

7.8 / 8 Pts

Scenario	Day time
Approaching cyclist crossing from behind parked vehicles	
Turning across path of an oncoming cyclist	
Approaching a crossing cyclist	
Approaching a cyclist along the roadside	

VULNERABLE ROAD USERS

Total 52.6 Pts / 83%



Cyclist Dooring Prevention 0.0 / 1 Pts

Scenario	
Dooring a passing cyclist	information"

AEB Motorcyclist 6.0 / 6 Pts

Scenario	Autobrake function only	Driver reacts to warning
Approaching a stationary motorcyclist		
Approaching a braking motorcyclist		
Turn across the path of an oncoming motorcyclist		—

— Currently not tested

Lane Support Motorcyclist 3.0 / 3 Pts

Scenario	Day time
Changing lane across the path of an oncoming motorcyclist	
Changing lane across the path of an overtaking motorcyclist	

Comments

Protection of the head of a struck pedestrian or cyclist was predominantly good or adequate, with poor results recorded at the base of the windscreen and on the stiff windscreen pillars. Protection of the pelvis was predominantly good while that of the femur and the knee and tibia was at good at all test locations. The autonomous emergency braking (AEB) system of the BYD can respond to vulnerable road users as well as to other vehicles. The system performed well in tests of its response to pedestrians. The system also scored highly in tests of its reaction to cyclists, but not for dooring, in which the car prevents or warns against door opening if a cyclist is approaching from behind. The AEB system performed well in all tests of its response to motorcyclists and scored full points.

SAFETY ASSIST

Total 13.9 Pts / 77%

GOOD
 ADEQUATE
 MARGINAL
 WEAK
 POOR

Speed Assistance 2.6 / 3 Pts

Speed Limit Information Function	Camera & Map, subsigns supported
Speed Limitation Function	Intelligent ACC (accurate to 5km/h)

Occupant Status Monitoring 1.4 / 3 Pts

> Seatbelt Reminder 1.0 / 1 Pts

Applies To	Front and rear seats		
	Driver Seat	Front Passenger(s)	Rear Passenger(s)
Warning			
Visual	●	●	●
Audible	●	●	●
Occupant Detection	—	●	●

Pass
 Fail
 Not available

> Driver Monitoring 0.4 / 2 Pts

System Name	Driver Attention Warning
Type	Indirect monitoring
Operational From	30 km/h
Fatigue	Drowsiness

SAFETY ASSIST

Total 13.9 Pts / 77%

Lane Support

3.0 / 3 Pts

System Name	Lane Departure Assist and Emergency Lane Keeping Assist	
Type	LKA and ELK	
Operational From	50 km/h	
PERFORMANCE		
Emergency Lane Keeping		GOOD
Lane Keep Assist		GOOD
Human Machine Interface		GOOD

AEB Car-to-Car

6.9 / 9 Pts

System Name	Autonomous Emergency Brake	
Type	Autonomous emergency braking and forward collision warning	
Operational From	4 km/h	
Sensor Used	camera and radar	

Scenario	Autobrake function only	Driver reacts to warning
Approaching a car crossing a junction		
Approaching a car head-on		—
Turning across the path of an oncoming car		—
Approaching a stationary car		
Approaching a slower moving car		—
Approaching a braking car		—

— Currently not tested



SAFETY ASSIST

Total 13.9 Pts / 77%

Comments

Overall, the autonomous emergency braking (AEB) system of the BYD SEAL-U performed well in tests of its reaction to other vehicles, but did not score for the head-on scenarios. A seatbelt reminder system is fitted as standard to the front and rear seats and the car scored some points for driver status monitoring. The lane support system gently corrects the vehicle's path if it is drifting out of lane and also intervenes in some more critical situations. The speed assistance system identifies the local speed limit, and the driver can choose to allow the limiter to be set automatically by the system.

RATING VALIDITY

Variants of Model Range

Body Type	Engine	Model Name/Code	Drivetrain	Rating Applies	
				LHD	RHD
5 door SUV	Electric	Design *	4 x 2	✓	-
5 door SUV	Electric	Comfort	4 x 2	✓	-
5 door SUV	PHEV	Design	4 x 4	✓	-
5 door SUV	PHEV	Active	4 x 2	✓	-
5 door SUV	PHEV	Comfort	4 x 2	✓	-
5 door SUV	PHEV	Design	4 x 4	-	✓
5 door SUV	PHEV	Active	4 x 2	-	✓

* Tested variant

Additional tests on PHEV 4 x 4

Annual Reviews and Facelifts

Date	Event	Outcome
December 2023	Rating Published	2023 ★ ★ ★ ★ ★ ✓
September 2024	Addition of PHEV variant	2023 ★ ★ ★ ★ ★ ✓