



**BYD SEAL**  
Standard Safety Equipment

2023



Adult Occupant



89%

Child Occupant



87%

Vulnerable Road Users



82%

Safety Assist



76%

## SPECIFICATION

Tested Model	BYD SEAL 'Design' 4x2, LHD
Body Type	- 4 door saloon
Year Of Publication	2023
Kerb Weight	2091kg
VIN From Which Rating Applies	- all BYD SEALs
Class	Large Family Car

## 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			
Isifix/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 35.8 Pts / 89%

■ GOOD   
 ■ ADEQUATE   
 ■ MARGINAL   
 ■ WEAK   
 ■ POOR

Frontal Impact 13.5 / 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 3.7 / 4 Pts

Rear Seat

Front Seat

**ADULT OCCUPANT**

Total 35.8 Pts / 89%

■ GOOD   
 ■ ADEQUATE   
 ■ MARGINAL   
 ■ WEAK   
 ■ POOR

Rescue and Extrication		2.5 / 4 Pts
Rescue Sheet	Available, ISO compliant	
Advanced eCall	Available	
Multi Collision Brake	Available	
Submergence Check	Non-compliant	

**Comments**

The passenger compartment of the SEAL 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 all critical body areas was good for the front passenger and at least adequate for the driver. Analysis of the deceleration of the impact trolley during the test, and analysis of the deformable barrier after the test, revealed that the SEAL 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 both the driver and the rear passenger. In both the side barrier test and the more severe pole impact, protection of all critical body areas was good and the SEAL 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 has a counter-measure to mitigate against occupant to occupant injuries in such impacts and this performed well in Euro NCAP's test. 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 also indicated good whiplash protection. The SEAL 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 but did not demonstrate the duration for which windows would remain functional.

**CHILD OCCUPANT**

Total 43.0 Pts / 87%

● GOOD   
 ● ADEQUATE   
 ● MARGINAL   
 ● WEAK   
 ● POOR

Crash Test Performance based on 6 & 10 year old children

24.0 / 24 Pts

Frontal Impact 16 Pts



Lateral Impact 8 Pts



Restraint for 6 year old child: *Britax Kidfix i-Size*  
 Restraint for 10 year old child: *Graco 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

CHILD OCCUPANT

Total 43.0 Pts / 87%

Isofix	Seat Position				
	Front		2nd row		
	Airbag ON	Airbag OFF	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		
	Airbag ON	Airbag OFF	Left	center	Right
	✘	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●
	✘	●	●	●	●

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

 CHILD OCCUPANT

Total 43.0 Pts / 87%

## Comments

In both the frontal offset and side barrier tests, good protection was provided to all critical body areas for both child dummies, and the BYD SEAL scored maximum points in this part of the assessment. 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 is equipped with 'child presence detection', a system which issues a warning when it recognises 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 is designed could be properly installed and accommodated in the car.



**VULNERABLE ROAD USERS**

Total 51.7 Pts / 82%



**VRU Impact Protection**

27.9 / 36 Pts



Pedestrian & Cyclist Head	9.9 Pts
Pelvis	4.5 Pts
Femur	4.5 Pts
Knee & Tibia	9.0 Pts

**VRU Impact Mitigation**

23.9 / 27 Pts

System Name	Automatic Emergency Braking
Type	Auto-Brake with Forward Collision Warning
Operational From	4 km/h
PERFORMANCE	

**AEB Pedestrian**

6.8 / 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 parked vehicles	
Turning across path of an oncoming cyclist	
Approaching a crossing cyclist	
Approaching a cyclist along the roadside	

 **VULNERABLE ROAD USERS**

Total 51.7 Pts / 82%

■ GOOD   
 ■ ADEQUATE   
 ■ MARGINAL   
 ■ WEAK   
 ■ POOR

**Cyclist Dooring Prevention** ■ 0.3 / 1 Pts

Scenario	
Dooring a passing cyclist	warning"

**AEB Motorcyclist** ■ 6.0 / 6 Pts

Scenario	Autobrake function only	Driver reacts to warning
Approaching a stationary motorcyclist	<span style="color: green;">■</span>	<span style="color: green;">■</span>
Approaching a braking motorcyclist	<span style="color: green;">■</span>	<span style="color: green;">■</span>
Turn across the path of an oncoming motorcyclist	<span style="color: green;">■</span>	—

— Currently not tested

**Lane Support Motorcyclist** ■ 3.0 / 3 Pts

Scenario	Day time
Changing lane across the path of an oncoming motorcyclist	<span style="color: green;">■</span>
Changing lane across the path of an overtaking motorcyclist	<span style="color: green;">■</span>

**Comments**

Protection of the head of a struck pedestrian or cyclist was predominantly adequate, with poor results recorded only on the stiff windscreen pillars. Protection of the pelvis, femur, knee and tibia was at good at all test locations and the SEAL scored maximum points in this part of the assessment. The autonomous emergency braking (AEB) system of the BYD can respond to vulnerable road users as well as to other vehicles. Overall, the system performed well in tests of its response to pedestrians, although the performance in certain test scenarios was marginal. The system scored highly in tests of its reaction to cyclists, including dooring, in which the car prevents or warns against door opening if a cyclist is approaching from behind. Similarly, the AEB system performed well in all tests of its response to motorcyclists and scored full points.

**SAFETY ASSIST**

Total 13.8 Pts / 76%

■ GOOD   
 ■ ADEQUATE   
 ■ MARGINAL   
 ■ WEAK   
 ■ POOR

**Speed Assistance** ■ 2.6 / 3 Pts

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

**Occupant Status Monitoring** ■ 1.3 / 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** ■ 0.3 / 2 Pts

System Name	Driver Attention Warning
Type	Indirect monitoring
Operational From	65 km/h
Fatigue	Drowsiness

Version 180324

SAFETY ASSIST

Total 13.8 Pts / 76%

Lane Support

2.8 / 3 Pts

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

AEB Car-to-Car

7.2 / 9 Pts

System Name	Automatic 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 13.8 Pts / 76%

## Comments

The autonomous emergency braking (AEB) system of the BYD SEAL performed well in tests of its reaction to other vehicles. A seatbelt reminder system is fitted as standard to the front and rear seats but the driver status monitoring system did not score highly, detecting only driver drowsiness. 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. An update in March 2024 is intended to make the lane support system more usable for drivers. The score in Euro NCAP's tests would be slightly reduced for this part of the assessment but the star rating would be unaffected. 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 & Transmission	Model Name/Code	Drivetrain	Rating Applies	
				LHD	RHD
4 door saloon	Electric	Design *	4 x 2	✓	✓
4 door saloon	Electric	Excellence AWD	4 x 4	✓	✓

\*Tested variant

### Annual Reviews and Facelifts

Date	Event	Outcome
October 2023	Rating Published	2023 ★★★★★ ✓
March 2024	Software update	2023 ★★★★★ ✓