



From lightweight concept to pure reality – ten years of the BMW M3 CSL

A lighter, more powerful version of the legendary BMW M3 first set pulses racing in 2003. Unveiled at Geneva Motor Show, the M3 CSL was an even quicker and more responsive than its thoroughbred cousin, which promised driving purists the most authentic motor sport experience in a production car.

With a limited production run, only five hundred ever reached the UK.

BMW's M division succeeded in stripping 110 kg from the M3. The result is a car that benefits from an impressive power to weight ratio of just 3.85kg/bhp and accelerates from 0–62 in 4.9 seconds. Top speed is electronically limited to 155 mph, but can be de-limited for holders of a racing licence.

Intelligent lightweight technology

For optimum weight reduction, BMW M engineers turned to 'intelligent' lightweight technology. This meant matching the most appropriate materials to the component or assembly requirements and resulted in widespread use of carbon fibre reinforced plastics, lightweight aluminium and glass fibre plastics.

Award winning engine – made better

BMW's M3 engine won three International Engine of the Year Awards in a row and, in the M3 CSL, offered an enhanced version of this 3.2-litre straight-six power house. Power output was boosted from 343 to 360 bhp at 7,900 rpm, while torque went up from 365 to 370 Nm at 4,900 rpm.

M3 CSL gearbox

BMW M's most sporting and dynamic transmission featured on the M3 CSL - the paddle shift SMG gearbox with Drivelogic and new software. Based on F1 technology, it allows ultra-fast shifting through all six gears, using the gear stick or paddles, with changes taking just 0.08 seconds. Drivers can choose between sequential and automated mode.



Handling dynamics

Precision handling comes courtesy of a wider front track and modified suspension geometry, including bespoke springs and dampers. A more direct ratio for the rack-and-pinion steering (14.5:1, compared to 15.4:1 for the M3) offers greater steering response in all conditions.

Driver aids

M Track Mode is a unique function of Dynamic Stability Control (DSC), activated via a steering wheel mounted switch. This allows skilled track drivers to push the car to the absolute limit of transverse and longitudinal acceleration, with DSC operating only where these limits are exceeded. The optional 19" wheels and tyres for the BMW M3 are fitted as standard but Michelin Pilot Sport Cup tyres, with asymmetric treads developed especially for the M3 CSL mounted on unique alloy wheels, could be specified as a no cost option.

To ensure M3 CSL owners were comfortable with the handling of these specially designed optional tyres, dealers explained the need for caution while they warm up and during very poor weather.

Interior

In the cockpit, the M3 CSL follows the principles of a genuine sports car. Options were kept to a minimum, with a focus on the functional, like contoured, glass fibre bucket seats, offering optimum side support in fast bends. Centre console and door trims are made of carbon fibre reinforced plastic and the M Sports steering wheel is clothed in Alcantara.



Specifications.

BMW M3 CSL.

Body			
No. of doors/seats			2/4
Length/width/height (unladen)	mm	4,492/1,780/1,365	
Wheelbase	mm	2,729	
Track, front/rear	mm	1,518/1,525	
Turning circle	m	11.0	
Tank capacity	approx. ltr	63	
Cooling system incl. heater	ltr	10.7	
Engine oil	ltr	7.0	
Transmission fluid	ltr	1.9	
Final drive fluid	ltr	1.2	
Unladen weight, EU ¹	kg	1,385	
Max. load to DIN standard	kg	415	
Max. permissible weight to DIN	kg	1,800	
Max. axle load, front/rear	kg	880/1,020	
Luggage compartment to VDA st.	ltr	410	
Air drag	c _x x A	0.683	
Power unit			
Configuration/cylinders/valves		Straight/6/4	
Engine management		MSS 54HP	
Capacity	cc	3,246	
Bore/stroke	mm	87.0/91.0	
Compression ratio	:1	11.5	
Fuel	RON	98	
Output	kW/bhp	265/360	
at	rpm	7,900	
Torque	Nm (lb-ft)	370 (273)	
at	rpm	4,900	
Electrical system			
Battery/location	Ah/–	55/luggage comp	
Alternator	A/W	120/1,680	
Suspension			
Front		Single-joint spring strut axle with displaced castor; small positive steering roll radius, compensation of transverse forces, anti-dive	
Rear		Central-arm axle with longitudinal control arms and double track control arms, anti-squat and anti-dive	
Brakes, front		Single-piston swing-calliper disc brakes	
Diameter	mm	345 x 28, vented	
Brakes, rear		Single-piston swing-calliper disc brakes	
Diameter	mm	328 x 20, vented	
Driving stability systems		ABS, CBC, DSC; M differential lock	
Steering		Rack-and-pinion	
Overall steering transmission	:1	14.5	
Transmission		Six-speed manual	
Transmission ratios	1 st	:1	4.227
	2 nd	:1	2.528
	3 rd	:1	1.669
	4 th	:1	1.226
	5 th	:1	1.000
	6 th	:1	0.828
	Rev	:1	3.746
Final drive ratio	:1	3.620	
Tyres, front/rear		235/35 ZR19 / 265/30 ZR19	
Rims, front/rear		8.5J x 19 EH 2 IS 44 alu / 9.5J x 19 EH 2 IS 27 alu	
Performance			
Power-to-weight ratio to DIN stand	kg/kW	5.2	



Output per litre		kW/bhp	81.6/111.0
Acceleration	0-62 mph	sec	4.9
	Stand-start km	sec	23.5
In 4 th gear	62-80 mph	sec	5.0
Top speed		mph	155 ²
Fuel consumption (EU cycle)			
Urban		Mpg	15.9
Extra-urban		Mpg	33.6
Composite		Mpg	23.7
CO ₂		g/km	287
Other data			
Emission category			EU3

-
- ¹Weight of car in road trim (DIN) plus 75 kg for driver and luggage.
²Electronically limited.