

Jack Danielson, Executive Dir  
NHTSA  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

[REDACTED]  
[REDACTED]  
Frederick, Maryland [REDACTED]  
Email: [REDACTED]

RE: Premature Engine Failure Mercedes-Benz Engine M278928  
Engine Lock During Operation Safety Hazard

Dear Sir,

Please find enclosed numerous correspondences with the Executive leadership Team of MBUSA. The corporate office has failed to adequately address my concerns and have chosen instead to force me to assume responsibility for all safety concerns and the financial burden of replacing an engine that has been manufactured utilizing defective technology, methods, and procedures. It is my belief that MBUSA knew or should have known that the engine was defective prior to selling their GL550 vehicles to consumers.

***I am requesting that you investigate my claims and represent my interest and those similarly situated owners of certified preowned purchased GL550 vehicles equipped with the M278 engine. Further, I do have hopes that you will encourage a certified member of the Executive leadership Team to communicate with me via signed written responses directly.*** I have enclosed a copy of the vague form letter received regarding this matter for your review. The document is not signed and does not specifically state an itemized invoice to resolve my safety or financial concerns.

It should be noted that this defect is known to MBUSA, but they have elected not to disclose the defect leading to premature failure of the engine to customers who purchased vehicles equipped with this engine. The damage occurs when the car logs slightly more than 60,000 miles and progressively worsens until the vehicle logs in excess of 70,000 miles. There is the potential for the engine to lock at high speeds during operation on the nation's roadways.

The defect presented itself to me in my case when the car's engine started shuddering, losing power on the freeway, such that the car eventually needed to be evaluated by a certified Mercedes Benz Service Facility on multiple occasions before the defect was captured via borescope. The nature of the defect was revealed to me at one facility and additional documentation was required to verify with certainty the extent of the defect. Therefore, the vehicle was towed to a second Mercedes Benz facility to determine the extent of the engine defect. The images were obtained and revealed that all 8 cylinders are scored. The images have been included as part of this document. This type of damage simply does not occur in modern day vehicles absent a defect. The piston is an integral and basic component of an internal combustion engine, whose travel inside the engine's cylinder causes the compression of the combustible fuel and air mixture that propels the vehicle.


For more than 60 days, I have sent letters to the MBUSA Executive Team to request an equitable and safety-first solution to this problem that has resulted from the manufacture of a defective Mercedes

Benz Engine. Despite numerous requests, the MBUSA Executive Team did not respond; but instead, instructed me to speak with the service dealership who in no way is responsible for the sale of the vehicle. I was told to purchase a new engine to remedy the problem at a cost of approximately \$40,000. **Additionally, at no time prior to the sale of the vehicle or otherwise did MBUSA or its Germantown Dealership who sold the vehicle to me with approximately 34,000 logged miles disclose to me that the engine was prone to premature failure.**

For the reasons set forth in this document and previous correspondences, I do ask that you investigate my claims to ensure that this matter is resolved in a safe and equitable manner for me and all others who have purchased Mercedes Benz vehicles equipped with the M278 engine. I suspect that the proper investigation of my claims will reveal the true nature of the defect and what MBUSA knew about the engine defect. It is hoped that Ethical Leadership will resolve this issue. However, if legal recourse is required, then the end result, I believe will be similar to a ruling imposed by a federal judge in Georgia. He ruled that Mercedes-Benz must face claims it sold model year 2015-2019 C-Class vehicles that suffer from a manufacturing defect that causes them to leak raw fuel within their engine compartment. This is a clear safety hazard.

It is hoped that the Executive Team will initiate a course of action to resolve this matter in lieu of having to settle an Engine Defect Class Action Lawsuit as was the case on March 23, 2015. In this settlement, Mercedes-Benz USA, LLC ('MBUSA') prospectively had to cover future repairs for the allegedly defective parts at issue for the lesser of 10 years or 125,000 miles, subject to certain conditions and limitations. This extended coverage more than doubled the durational limit of MBUSA's New Vehicle Limited Warranty's term of the lesser of 4 years or 50,000 miles." Mercedes-Benz reimbursed eligible engine defect Class Members for past repair costs that they incurred while attempting to replace the allegedly defective Mercedes-Benz engine. Car repairs that were not performed at an authorized Mercedes-Benz dealer, were reimbursed up to \$4,000 for the engine defect repair and replacement costs.

Sincerely,

  
September 4, 2023

CC: Maryland Attorney General, Anthony G. Brown, Saint Paul Plaza, 200 St Paul Pl, Baltimore, MD 21202

# Mercedes M278 4.6L Engine Specs, Problems & Reliability

The Mercedes-Benz M278 is a 4.6-liter V8 direct-injected bi-turbo engine introduced in 2010. This member of the new engine family, which also includes the [M276 V6](#), replaced the previous [M273 V8 engines](#) under a hood of the popular E-Class, S-Class, and GL-Class models.

The M278 is based on a 4.7-liter version of the M273. Both engines share the same die-cast full aluminum cylinder block with 90-degree V-angle and Silitec low-friction cylinder liners. Bore size, stroke, and bore pitch are identical. The M278 has new pistons with increased by 2 mm compression height. The connecting rods in opposite are 2 mm shorter in order to preserve a compression ratio of 10.5:1. At the bottom, there is a two-piece die-cast aluminum oil pan. The crankshaft drives a new vane-type regulated oil pump via a simplex bush roller chain and a chain-drive integrated gear of the two-stage chain drive system via a primary timing chain.

Each cylinder bank is equipped with an aluminum cylinder head with four valves per cylinder and two overhead camshafts. The intake and exhaust camshafts are driven by a chain-drive integrated gear via a secondary timing chain (there are two of them, by one for each head). Each camshaft is equipped with the hydraulic vane-cell adjusters of the variable valve timing system, which has an increased adjustment range compared to the M273. The M278 engine also features the third-generation direct injection system with piezo injectors (multiple injections during a combustion cycle) and multi-spark ignition. The high-pressure pump is located at the rear end on the right intake camshaft and drives by 4 additional cams. The pressure supplied to the rails lies between 120 and 200 Bar.

Like the predecessor, the M278 4.6L V8 is a turbocharged engine. Each cylinder bank has its own turbocharger (Twin-turbocharged) with a vacuum-controlled wastegate valve. These small Honeywell turbochargers produce up to 0.9 bar (13 psi) boost pressure. The water-cooled charge air cooler is integrated into the intake manifold and

keeps the air temperature at less than 70 Celsius degrees. Engine systems are controlled by the MED17.7 engine control unite (ECU).

Mercedes replaces the outgoing M278 V8 engine range with the latest 4.0-liter M176 engine series introduced in 2015.

## Engine Specs

Manufacturer	Daimler AG
Production years	2010-present
Cylinder block material	Aluminum
Cylinder head material	Aluminum
Fuel type	Gasoline
Fuel system	Direct Injection
Configuration	V
Number of cylinders	8
Valves per cylinder	4
Valvetrain layout	DOHC
Bore, mm	92.9 mm (3.66 in)
Stroke, mm	86 mm (3.39 in)
Displacement, cc	

	4,663 cc (284.6 cu in)
<b>Type of internal combustion engine</b>	Four-stroke, turbocharged
<b>Compression Ratio</b>	10.5:1
<b>Power, hp</b>	367-435 hp (270-320 kW)/5,250
<b>Torque, lb ft</b>	406-516 lb-ft (550-700 Nm)/1,600-3,500
<b>Engine weight</b>	-
<b>Firing order</b>	1-5-4-2-6-3-7-8
<b>Engine oil weight</b>	MB 229.5/229.51, SAE 0W-40
<b>Engine oil capacity, liter</b>	8.5l (9.0 qt)
<b>Oil change interval, mile</b>	9,000 (15,000 km) / 12 months

**Applications**

Mercedes-Benz S-Class (S500/S550), Mercedes-Benz CL-Class (CL500/CL550), Mercedes-Benz S-Class Coupe/Cabriolet (S500/S550), Mercedes-Benz CLS-Class (CLS500/CLS550), Mercedes-Benz SL-Class (SL500/SL550), Mercedes-Benz E-Class (E500/E550), Mercedes-Benz M-Class/GLE-Class (ML500/GLE500/ML550), Mercedes-Benz GL-Class (GL450), Mercedes-Benz GLS-Class

**Mercedes M278 Engine Problems and Reliability**

Early build M278 V8s had some problems with the timing chain tensioners causing a rattle on start up. The engine has a pretty complicated timing chain drive arrangement. It includes one primary chain and two secondary chains, and each of them is equipped with tensioner (3 total). If not pay attention to knocks/noise for a long time, this may lead to the replacement of the entire chain drive system together with cam adjusters. There

were some reports of engine oil starvation due to the failure of the oil pump drive gear (oil pump is driven via a chain).

Also, there were some problems with premature valve guide wear, but later engines don't have that issue. The Silitec coating showed themselves as bad cylinder surface material for operation under high temperatures and detonation. Later, the manufacturer switched on NanoSlide coating which is more scratch resistance.

Marcia Randazzo

*Mediator*

Office of the Attorney General

Consumer Protection Division

44 North Potomac Street

Hagerstown, Maryland 21740

p: 301-791-7783

[mrandazzo@oag.state.md.us](mailto:mrandazzo@oag.state.md.us)

[www.marylandattorneygeneral.gov](http://www.marylandattorneygeneral.gov)

RE: MD Office of the Attorney General Consumer Complaint

Case [REDACTED] (re Mercedes Benz USA)

Dear Ms. Randazzo,

Mercedes-Benz-USA having an address located at 1 Mercedes Benz Drive Sandy Springs, GA 30328 declined to address the financial burden imposed upon me resulting from my purchase of a defective engine that powers my 2015 GL550 Mercedes Benz Sport Utility Vehicle (SUV) from A.C. Latifi who works for The Germantown Mercedes Benz Dealership located at 19750 Germantown Rd, Germantown, MD 20874. Instead, MB-USA, LLC, has devised a scheme in partnership with a local Mercedes-Benz Dealership to share the cost of vehicle repair in lieu of revealing the etiology or the total scope of the damages. Additionally, it is highly likely that the cost of replacing the defective engine with the same inadequate technology at an inflated cost means that the full financial cost burden is the responsibility of the customer. The MB-USA, LLC-Hagerstown Dealership collaboration is a Goodwill gesture in appearance only. The financial subsidy is stated as a percentage of the inflated cost and lacks an itemized cost documentation that is fully transparent to the customer.


MB-USA fails to document the exact cause or extent of the damage. Further, MB-USA, LLC does not state the quantitative amount of the Goodwill gesture. In addition, the financial gesture is not transferable to any other Mercedes Benz dealership located in Maryland. The luxury car giant has engaged in a strategy that seeks to restrict customer access to viable options that could determine the most cost-effective means to repair the vehicle. The Senior Executive leadership team has declined to speak directly with me to resolve the dispute and any effort to go outside the United States to the Board of Directors is remanded to lower-level employees in the US who seek to remain anonymous and non-committal to any concrete course of action. In other words, no matter the cause of the engine failure, I must replace the engine despite having meticulously serviced the engine. It must be realized that the dealership did not manufacture the engine, but is a representative of the "Corporate Brand." Therefore, The Hagerstown Mercedes Benz located at 1955 Dual Hwy Hagerstown, MD 21740 must act as an agent of MB-USA, LLC to some extent.

MB-USA, LLC makes no admission of guilt regarding the manufacture of a defective engine, but it is widely known that it is most unusual for an engine to fail when maintained meticulously with low logged miles. Additionally, numerous blogs on various Mercedes Benz websites and other internet sites discuss the Mercedes Benz defective engine. It is widely understood that the corporate warranty is in name only. Efforts by Mercedes Benz to hide behind their warranty of 50,000 miles has been dispelled by Class Action lawsuits, and vehicle recalls by "The National Highway Traffic Safety Administration."

I have invested significant personal resources and funds to document the extent of the unusual engine failure in this case. As appropriate, I have sought the advice of experts in the field to include but is not limited to Speed Lake Jr. of "Total Seal Piston Rings." Gunther's Machining & Rebuilding, Inc. located at 10409 B Woodsboro Pike Walkersville, MD 21793, and Mercedes Specialists located at 835 Baltimore Blvd Ste B, Westminster, MD 21157. The Engine was also borescoped at a reputable dealership, and the images along with letters of correspondence to the Executive leadership Team, and class action complaint documentation have been included in this package for your convenience. Per your request, I have also included copies of the auto repair receipt and additional supporting documentation of this nature is to be provided pending legal review. This information is to be used to assist you with the proper investigation and mediation of this case. Letters of correspondence, and email transmissions are confidential.

I do appreciate your time, attention, methodical, and systematic review of this information.

Sincerely,

  
October 16, 2023

CC Jack Danielson, Executive Dir, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590  
Anthony G. Brown, AG, Maryland Attorney General Office, Saint Paul Plaza, 200 St Paul Pl, Baltimore, MD 21202

**PRIORITY MAIL** *JUST 30¢*  
FLAT RATE ONE RATE ■ AN  
APPLY PRIORITY

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE  
**CERTIFIED MAIL**



Department of Transportation

To: W41-306  
Building: DOT  
Mailstop: 4 West  
Rtg Symbol: NEC, NOA, NIA  
External Carrier: Registered  
Sender: DOT

2/15/2024 12:29:26 PM



9589071052701051009384

For international shipments, the maximum weight is 4 lbs.

**Retail**  
RDC 03 0 Lb 2.10 Oz  
20590  
U.S. POSTAGE PAID  
PM  
WALKERSVILLE, MD  
FEB 14, 2024  
**\$17.90**  
R2304M110761-06



*20590*

5