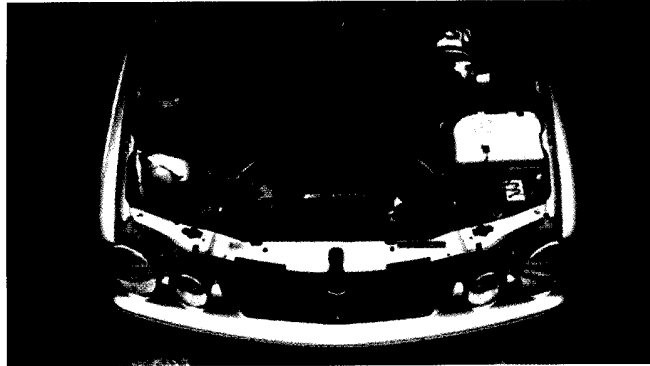




Mercedes-Benz



Factory Approved Service Products
November 2001

Distributor in the United States:

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Montvale, NJ 07645-0350
www.MBUSA.com

Technical Information
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Order No. S-0473-02Q
Printed in U.S.A

Mercedes-Benz USA recommends the use of Mercedes-Benz original parts, replacement parts, accessories as well as factory approved service products explicitly approved by us for your vehicle model.

We have subjected these parts, accessories and service products to special tests in which their reliability, safety and their special suitability for Mercedes-Benz vehicles have been verified.

Mercedes-Benz original parts, replacement parts, accessories and factory approved service products approved by us are available at your authorized Mercedes-Benz Center.

APPROVED ENGINE OILS

FOR VEHICLES WITHOUT FLEXIBLE SERVICE SYSTEM

IMPORTANT: Engine oils are labeled on the container with various ACEA (Association des Constructeurs Européens d'Automobiles) and/or API (American Petroleum Institute) designations of quality. Mercedes-Benz recommends the use of MB approved engine oils listed in the Mercedes-Benz oil specification sheet 229.1 or 229.3 which also meet ACEA and/or API classifications listed on the chart below. If a MB approved or ACEA quality engine oil is not available, then an API quality engine oil meeting the below listed API classification can be used. Only engine oils (including synthetic) with any of the following classification grades, or combinations thereof, are approved.

cedes ALL previously published viscosity charts. For additional information please refer to the Operator's Manual.

Engine	MB Sheet	ACEA Classification 1)	API Classification 1)
Gasoline	229.1	A3	SH
	229.3	B3	SJ
Diesel	229.1	B2	CF-4
	229.3	B3	CG-4
		B4	

Always refer to the viscosity chart for the proper viscosity grade based on ambient temperature. Note: This chart super-

1) only if MB sheet 229.1 or 229.3 is not available

FOR VEHICLES WITH FLEXIBLE SERVICE SYSTEM

Mercedes-Benz recommends only the use of MB approved synthetic motor oil for all vehicles equipped with the Flexible Service System (FSS) as of Model Year 1998.

MB Approved Synthetic Engine oil	MB Sheet
Mobil 1 Tri-Synthetic Formula 15W-50	229.1
Mobil 1 Tri-Synthetic Formula 0W-40	229.1
Valvoline SynPower Full Synthetic Motor Oil 5W-40	229.1
Castrol Syntec 5W-50	229.1
Castrol Syntec 10W-40	229.1
Castrol TXT Softec Plus 5W-30	229.3
Quaker State Full Synthetic European Formula 5W-40	229.1
Pennzoil Synthetic European Formula 5W-40	229.1
76 Pure Synthetic Motor Oil 5W-40	229.1
Shell Helix Ultra 5W-30	229.3
Shell Helix Ultra 5W-40	229.3

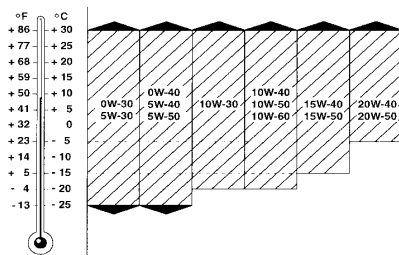
Conventional petroleum based oils are not recommended for vehicles equipped with the Flexible Service System but may be used on older vehicles.

If the engine oil used does not meet the above mentioned standard, engine damage is possible, which is not covered by the Mercedes-Benz New car Limited Warranty.

Use of any oil additives is not recommended by MBUSA and may result in damage to the engine which is not covered by the Mercedes-Benz New car Limited Warranty.

VISCOSITY GRADES FOR MOTOR OILS

Select oil viscosity according to the lowest air temperature expected before the next oil change using the chart below.



ALL MODELS

AUTOMATIC TRANSMISSION FLUID ¹

MB Automatic Transmission Fluid MB part no. 001 989 21 03 10

BRAKE FLUID (DOT 4 Plus)
 MB Brake Fluid MB Part no. 000 989 08 07 10 (0.75 liter container)
 MB part no. 000 989 08 07 11 (5.0 liter container)

BRAKE PAD PASTE
 MB Brake Pad Paste MB part no. 001 989 10 51

CHASSIS GREASE (NLGI Class 01)
 For all greasing points except front wheel hubs
 Shell Retinax C

COMPLEX GREASE (NLGI Class 2)
 For sliding blocks of sliding/pop-up roof
 MB Lubrication Paste MB part no. 001 989 46 51

COMPRESSOR OIL (R134a)
 MB compressor oil MB part no. Q 1 13 0001

¹) Please see your authorized Mercedes-Benz Center regarding applications.

FLUID GREASE (NLGI Class 00)

For door lock pin and striker eye (except G-Class)

Castrol CLS Grease

HIGH TEMPERATURE ROLLER BEARING GREASE (NLGI Class 2)

For front wheel bearings (except G-Class)

MB High Temperature Antifriction

Bearing Grease MB part no. 001 989 23 51 10

HYPOID GEAR OIL ¹⁾

For front and rear axle differentials (except G-Class)

MB Hypoid Gear Oil MB part no. 001 989 17 03 10

LONG TERM LUBRICATING GREASE (NLGI Class 2)

For release bearing, release arm and splines for connecting linkage on level control valves

Molykote Longterm 2 Plus

MB Long Term Grease MB part no. 000 989 63 51

MULTI-PURPOSE GREASE (NLGI Class 2)

For all greasing points except front wheel

3752 Almaguard Vari-Purpose Lubricant

Castrol LM Grease

Exxon Multi-Purpose Grease

Renolit MP

Unocal MP Automotive Grease

¹⁾ Please see your authorized Mercedes-Benz Center regarding applications.

ENGINE COOLING SYSTEM

MB Anti-Corrosion/Anti-Freeze MB part no. Q 1 03 0002

Caution! The use of aluminum components in M-B engines requires that anti-corrosive/anti-freeze specifically formulated to protect aluminum parts be used. Failure to use MB anti-corrosive/anti-freeze may result in a significantly shortened service life. While there may be a number of products available which will provide the required protection, all such products have not been tested for Mercedes-Benz vehicles. The above product is suitable for our engines and can be mixed with the original anti-corrosion/anti-freeze filled in at the factory.

WINDSHIELD WASHER CONCENTRATE

MB Summerwash Formula VR9422

MB part no. 001 986 44 71 10 (40 ml)

Suggested Mixing Ratio (1:100)

Ambient Temperature	MB Summer-wash	Added to	Water	Solvent ¹⁾
Summer use (above 32° F)	40 ml	added to	1 Gallon	
Winter use (below 32° F)	40 ml	added to		1 Gallon

¹⁾ Pre-mixed windshield washer solvent (commercially available blue concentrate in 1 gallon container)

S and CL-Class

ACTIVE BODY CONTROL FLUID

MB ABC Fluid MB part no. 001 989 24 03 10

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 001 989 24 03 10
Pentosin CHF11S

E-Class

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

HYDRAULIC OIL

For tandem pumps with common oil reservoir for steering and level control in E-class, Model Year 1996 and newer.

MB Hydraulic Oil MB part no. 001 989 20 03 10

4-MATIC TRANSFER CASE LUBRICANT

MB Transfer Case Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6)

Cabriolet Hydraulic Soft Top - MB Hydraulic Oil MB part no. 001 989 20 03 10

APPROVED DEXTRON III AUTOMATIC TRANSMISSION FLUID ¹⁾

Castrol Dextron-III/Mercon ATF F-30341

Castrol Transmax M-22257 / 22096

Chevron ATF Dextron III F-30108 / 30159

Citgo Multi-Purpose ATF D-21571

Exxon Superflo ATF Dextron III F-30111

Havoline ATF Mercon/Dextron-III F-30321

Texaco ATF Mercon/Dextron-III F-30321

Pennzoil ATF D-22413 / F-30110

Quaker State Dextron-III/Mercon F30161

Sunoco ATF Dextron-III/Mercon F-30176

Unocal Multi-Purpose ATF D-22413 / 22431

Valvoline ATF Type D

¹⁾ Please see your authorized Mercedes-Benz Center regarding applications.

C-Class

MANUAL TRANSMISSION FLUID

For MB manual transmission - 6 speed

MB Manual Transmission Fluid MB part no. 001 989 26 03

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 001 989 24 03 10
Pentosin CHF11S

SUPERCHARGER OIL - Engine M111 EVO

MB Supercharger Oil MB Part no. 000 989 62 01

SUPERCHARGER OIL - Engine M112

Mobil Jet Oil II

CLK-CLASS

HYDRAULIC OIL

For hydraulic soft top

MB Hydraulic Oil MB part no. 000 989 91 03 10

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

SL-Class

HYDRAULIC OIL

For load leveling system, hydropneumatic suspension, hydraulic soft top

MB Hydraulic Oil MB part no. 000 989 91 03 10

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

SLK-Class

SUPERCHARGER OIL - Engine M111 EVO

MB Supercharger Oil MB Part no. 000 989 62 01

SUPERCHARGER OIL - Engine M112

Mobil Jet Oil II

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

HYDRAULIC OIL

For hydraulic soft top

MB Hydraulic Oil MB part no. 000 989 91 03 10

SLK-Class (continued)

MANUAL TRANSMISSION FLUID

For MB manual transmission - 6 speed

MB Manual

Transmission Fluid MB part no. 001 989 26 03

For MB manual transmission - 5 speed

MB Manual

Transmission Fluid MB part no. 000 989 26 03

M-Class

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

TRANSFER CASE LUBRICANT

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

G-Class

TRANSFER CASE LUBRICANT

MB Transfer Case Fluid MB Part no. 001 989 28 03

LONG TERM LUBRICATING GREASE (NLGI Class 2)

For propeller shafts - universal joints

MB Long Term Grease MB part no. 000 989 63 51

HIGH TEMPERATURE ANTIFRICTION GREASE (NLGI Class 2)

For joint housing

MB High Temperature Antifricition

Grease MB Part no. 001 989 23 51 10

MULTI-PURPOSE GREASE

For front wheel bearings

MB Multi-Purpose Grease MB Part no. 000 989 28 51

SYNTHETIC AXLE OIL

For front and rear differentials

MB Synthetic Axle Oil MB Part no. 001 989 27 03 10

G-Class (continued)

BRAKE FLUID

For differential lock mechanism

MB Brake Fluid (DOT 4 Plus) MB Part no. 000 989 08 07 10
(0.75 liter container)

MB part no. 000 989 08 07 11
(5.0 liter container)

STEERING GEAR LUBRICANT - POWER STEERING

MB Power Steering Fluid MB Part no. 000 989 88 03
or an approved Dextron III ATF, see page 6

LIQUID GREASE (NLGI Class 00)

For door locks

Exxon Mobil Chassis Grease LBZ

Exxon Mobil Grease TCL 435

MB Liquid Grease MB part no. 001 989 08 51 10

COMPLEX GREASE (NLGI Class 2)

For sliding blocks of sliding/pop-up roof

MB Lubrication Paste MB part no. 001 989 46 51

FUEL REQUIREMENTS

1. Gasoline Engines

Reformulated gasolines (RFG) and/or unleaded gasoline containing oxygenates such as Ethanol, TAME, ETBE, IPA, IBA, and TBA can be used provided that the ratio of any one of these oxygenates to gasoline does not exceed 10%. MTBE may be added up to 15%. The ratio of Methanol to gasoline must not exceed 3% plus co-solvents.

Mixtures of Ethanol and Methanol must not be used. Gasohol, which contains 10% Ethanol and 90% unleaded gasoline, can also be used. These blends must also meet all other fuel requirements such as resistance to spark knock, boiling range, vapor pressure, etc.

Gasoline Additives

A major concern among engine manufacturers is carbon build-up caused by gasoline. MERCEDES-BENZ recommends to use only quality gasoline containing additives that prevent the build up of carbon deposits.

After an extended period of using fuels without such additives, carbon deposits can build up, especially on the intake valves and in the combustion area, leading to engine performance problems such as:

- warm up hesitation,
- unstable idle,
- knocking /pinging,
- misfire,
- power loss.

DO NOT blend other fuel additives with the fuel. These additional additives only result in unnecessary cost and may be harmful to engine operation.

Damage or malfunction resulting from poor fuel quality or from blending additional fuel additives are not covered by the MERCEDES-BENZ Limited Warranty or by any pre-owned or Extended Limited warranties.

For model year 1986, all gasoline models except 190E 2.3 require premium unleaded gasoline. As of model year 1987, all gasoline engines require premium unleaded gasoline.

10

Use only premium unleaded gasoline meeting ASTM standard D439. The octane number posted at the pump must be at least 91 min. In the U.S., this octane number is an average of the Research octane number (R) and the Motor octane number (M): $(R + M) / 2$. The octane number is also known as the Anti-Knock Index.

Caution! To maintain the engine's durability and performance, only premium unleaded gasoline is to be used. If premium unleaded is not available and low octane gasoline is used, follow these precautions:

- Partially fill the fuel tank with unleaded regular gasoline and fill up with premium unleaded as soon as possible.
- Avoid full throttle driving and abrupt acceleration.
- Do not exceed an engine speed of 2000 rpm if the vehicle has a light load (two occupants and no luggage for example).
- Do not exceed 2/3 of maximum accelerator pedal position if the vehicle is fully loaded or operating in mountainous terrain.

Model years 1975 - 1985 and model year 1986 190 E 2.3

Use unleaded regular gasoline meeting ASTM standard D439. The octane number posted at the pump must be at least 87 min.

Model years 1972 - 1974

Used leaded or unleaded gasoline meeting ASTM standard D439. The octane number posted at the pump must be at least 87 min. When only unleaded gasoline is being used, check the valve clearance on engines with mechanically adjustable valves at half the recommended interval.

Pre-model year 1972

Use premium unleaded gasoline meeting ASTM standard D439. The octane number posted at the pump must be at least 91 min. Check the valve clearance at half the recommended interval.

2. Diesel Engines

Use only commercially available vehicular diesel fuel number 2 or number 1 (ASTM D975 Number 2-D or Number 1-D).

For information on cold weather operation, refer to the vehicle Operator's Manual or Service Information MBNA 00/007(11-82).

11