

**Series 837
Diesel Engines**



MTU Diesel Engines for Armoured Vehicles

MTU Diesel Engines are recognised world-wide as reliable and efficient power sources for the design, development, manufacture and production of armoured vehicles. All models comply for NATO standards.

Increasing the power-to-weight ratio with MTU's 1600, 1800 and 2000 series engines in the design of armoured vehicles for military, police and fire-fighter applications is made possible by the unique fuel-injection and high-performance systems.

The engine series covered by the following list can be found at www.mtu.com.

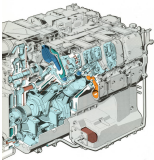
- 1600 series
- 1800 series
- 2000 series
- 2200 series
- 2300 series
- 2500 series

See also the following engine series in profile:

- 3000 series
- 3300 series
- 3600 series
- 4000 series
- 4200 series
- 4300 series
- 4400 series
- 4500 series
- 4600 series
- 4700 series

These engine series have applications in the marine and transport markets as well as other applications ranging from 100 to 1000 kW.

The range of armoured vehicle engines described in this brochure has qualified MTU engines to make your vehicle projects not only more reliable, but also efficient. The engine's performance, power, torque, fuel economy and cooling system, making the maintenance of running time.



MB 833

**Five-Cylinder Diesel Engines
for Heavy Military Vehicles
330-420 kW (450-560 HP)**

Engine variants

MB 833A-500, naturally aspirated
MB 833B-500, turbocharged & intercooled
MB 833A-550, turbocharged & intercooled
MB 833B-550, turbocharged & intercooled

Benefits

Displacement cylinder
Displacement tank
Number of cylinders
Compression ratio
Turbocharger
Injection method
Injection timing
Injection pressure
Injection pump
Injection nozzle
Injection valve
Injection timing
Injection pressure
Injection pump
Injection nozzle
Injection valve
Injection timing
Injection pressure

Applications

MB 833A-500, naturally aspirated

MB 833B-500, turbocharged & intercooled

MB 833A-550, turbocharged & intercooled

MB 833B-550, turbocharged & intercooled

Key features

MB 833A-500, naturally aspirated

MB 833B-500, turbocharged & intercooled

MB 833A-550, turbocharged & intercooled

MB 833B-550, turbocharged & intercooled



MB 833A-500

Clearinghouse M8-802

Power Rating Definition

Clearinghouses with 100/1000
The power requirement to be
delivered

Indicators (per 10')

up to 1"

Any combination of the two ratings
maximum 100' (up to 10'') with 10'
temperature to max. 12"

Climate Conditions

Engine can be operated under
ambient temperature conditions of
-40°F to +120°F
At performance level
-40°F, unless to be provided

Fuel

Engine must be fuel-ready
Standard

15.1 100 10 10 10

15.1 100 10 10 10 10 10

Alternative:

15.1 100 10 10 10

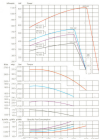
15.1 100 10 10 10

15.1 100 10 10 10

Label Size

15.1 100 10 10 10

15.1 100 10 10 10



Dimensions (mm and Weight)

Engine/Option	A	B	C	kg ¹⁾
M8-802 100/1000	1200	1200	900	1020
M8-802 100/1000	1200	1200	1000	1000
M8-802 100/1000	1200	1200	900	1000
M8-802 100/1000	1200	1200	1000	1000

¹⁾ Dry weight of basic engine configuration (not carrier,
generator, or auxiliary). Dry weight (empty) M8-802
Clearinghouse series: 10 kg.

Subject to modification or cancellation without notice.



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MB 838

Two-Cylinder Diesel Engines
for Heavy Military Applications
018-1000 kW (250-1400 HP)

Engine series

MB 838L4-600, mechanically supercharged 4-cylinder
MB 838C4-600, mechanically supercharged 4-cylinder
MB 838L4-800, turbocharged 4-cylinder

Applications

Generators, including
diesel generator sets
Mechanical drives
Compressors
Cooling systems
Refrigeration
Pumps
Cylinder heads
Pistons
Crankshaft bearings
Injection systems

Dimensions

MB 838L4-600 AM 2000
274 mm (108 in.)
274 mm (108 in.)
Stroke: 207 mm (8.15 in.)

MB 838 series

MB 838L4-800 AM 2000
327 mm (12.9 in.)
327 mm (12.9 in.)

Injection: closed-circuit fuel-injection system

Injection:

Water

Injection system

Lightweight design, standard

1

2-200



MB 838L4-600

Class/Engine M3 500

Power/Speed Definition
 In accordance with ISO 15850
 (Net power, regardless of oil
 demand)

**Reference speed 107
 RPM 17**

As a combination of the generator
 constant speed and 107 RPM will be
 compensated to rpm 17

Climate conditions

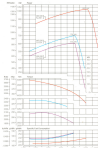
Engine room temperature
 ambient temperature/altitude
 - 40°C to + 50°C
 In ambient temperature below
 - 5°C, oil will be heated

Fuel

Engine room ambient humidity
 60-90%
 ISO 8000-10-14
 ISO 8000-10-15 (oil cooler - 40°C)
 Altitude
 MSL 0-10000 0-70
 MSL 10000 0-40
 MSL 10000 0-20

Labels

MSL 0-10000 0-2000
 ISO 8000-10 0-200



Dimensional and weights



Engine version	A	B	C	kg ¹
M3000-C-02	1900	1400	800	1000
M3000-C-01	1900	1400	800	1000
M3000-C-03	1700	1300	800	900

¹ The weight of the engine configuration, not including
 generator assembly. Dimensions are in kg.
 Values are only approx. 40 kg.

Subject to modifications in the interest of technical progress.



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Eight-Cylinder Diesel Engine for Heavy Military Vehicles

735 kW (1000 MHP)
at 2700 or 3000 rpm

MT 881



Engine model

MT 881 & MT 881A (with/without
12 charging alternator)

MT 881A (with)

Dimensions

Engine length in block
Block length (with
flywheel in position)
Cylinder-to-cylinder
Cooling surface

1640 mm (64.57 in.) (with flyw.)
1320 mm (51.97 in.)
1400 mm (55.12 in.)
8 cylinders, MT 7-cylinder optional
3400

Engine description

Water-cooled
Water injection
Cylinder head
Rover
Number of turbochargers
Direction of rotation

horizontal, cylinder-in-line layout
water-cooled
water injection
electric
distributed fan-cooled head
5-cylinder fan-cooled, 4-cylinder
1
counterclockwise

**Twelve-Cylinder Diesel Engine
for Heavy Military Vehicles
1100 kW (1500 mHP)
at 2700 or 3000 rpm**

MT

**Power for Amphibious Vehicles
1920 kW (2600 mHP)
at 3300 rpm**

883



Engine version

MT 883 12V 3000 (with turbo)
(2 charging/compressor)

MT 883 12V 3300

Dimensions

Displacement, cylinder

104,100 cm³ (6,350 cu in.)

Displacement, wet

1,28 liter (328 cu in.)

Number of cylinders

12 (inline, 48° V-configuration)

Compression ratio

16.0:1

Cooling system

water-cooled, closed circuit liquid

cooling system

Water capacity

400 liter

Weight, wet

4000 kg

Cylinder bore

140 mm (5.5118 in.)

Stroke

160 mm (6.2992 in.)

Number of main bearings

7

Number of valves

intake/exhaust valves

Application Examples



Image 1

000 000



Image 2

000 000



Image 3

000 000



Image 4

000 000



Image 5

000 000



Image 6

000 000



Image 7 (from Image 1)

000 000



Image 8

000 000



mtu

Einzelne Lösungen

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