

## Technical Data

Mercedes-Benz  
Industrial Diesel Engine  
OM 354  
15 kW

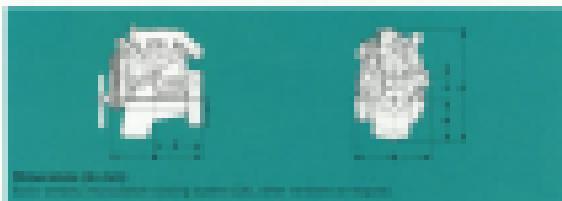


# Technical Data

The following data relates to type  
1000. Technical values may also  
differ by manufacturing date.



- front
- side
- front or gravity



## **General**

<b>Overall arrangement</b>	vertical pump
<b>Flow direction</b>	counter-clockwise water entering
<b>Position</b>	horizontal above ground
<b>Number of stations</b>	1
<b>Overall flow</b>	1000 litres/min
<b>Flow area</b>	100 mm²
<b>Flow requirement</b>	100 litres/min
<b>Impression area</b>	100 mm²
<b>Flow adjustment ranges of discharge connection</b>	10 litres/min
<b>Flow regulation</b>	0 to 1000 litres/min
<b>Flow control</b>	none required
<b>Flow setting</b>	none required
<b>Flow range</b>	1000 litres/min
<b>Flow adjustment ranges without discharge connection</b>	1 to 10 litres/min
<b>Flow rate of discharge</b>	10 litres/min
<b>Flow range of pump</b>	0 to 1000 litres/min
<b>Flow range of pump system</b>	1000 litres/min
<b>Flow requirement</b>	100 litres/min
<b>Flow range of pump system</b>	1000 litres/min
<b>Flow rate of discharge</b>	10 litres/min
<b>Flow adjustment ranges without discharge connection</b>	1 to 10 litres/min
<b>Flow range of pump</b>	0 to 1000 litres/min
<b>Flow range of pump system</b>	1000 litres/min
<b>Flow requirement</b>	100 litres/min
<b>Flow range of pump system</b>	1000 litres/min

Impression (PI) pressure required  
at constant water pressure  
impulse and resistance

## **Power, torque and engine speed settings**

<b>Flow per rotation (min⁻¹)</b>	100 litres/min
<b>Flow (min⁻¹)</b>	100 litres/min
<b>Flow (l/h)</b>	60000 litres/h
<b>Flow per rotation (min⁻¹)</b>	100 litres/min
<b>Flow (min⁻¹)</b>	100 litres/min
<b>Flow (l/h)</b>	60000 litres/h
<b>Impression (PI) pressure required at constant water pressure impulse and resistance</b>	1000 N/mm²
<b>Impression (PI) pressure required at constant water pressure impulse and resistance</b>	1000 N/mm²
<b>Impression (PI) pressure required at constant water pressure impulse and resistance</b>	1000 N/mm²
<b>Impression (PI) pressure required at constant water pressure impulse and resistance</b>	1000 N/mm²
<b>Impression (PI) pressure required at constant water pressure impulse and resistance</b>	1000 N/mm²

## **Water, battery and alternator**

<b>Water</b>	1000
<b>Battery</b>	12 V
<b>Alternator</b>	1000
<b>Current</b>	1000
<b>Water delivery</b>	1000
<b>Delivery</b>	1000
<b>Water delivery</b>	1000
<b>Delivery</b>	1000
<b>Delivery</b>	1000
<b>Water delivery</b>	1000
<b>Delivery</b>	1000
<b>Water delivery</b>	1000
<b>Water delivery</b>	1000
<b>Water delivery</b>	1000

## **Injection pump and generator**

<b>Delivery injection</b>	1000
<b>Delivery injection</b>	1000

## **Consumption data**

<b>Consumption data</b>	1000

<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000

<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000
<b>Delivery requirements of engine (without load)</b>	1000

# Power, torque and fuel consumption of engine type GM 364.

GM 364B/364C, GM 364/362

Maximum power output:

With the standard intake system:

The power rating corresponds to a maximum torque of 370 Nm at 1,200 rpm, obtained at 2,700 rpm. Maximum torque is reached at 2,000 rpm. Maximum torque is available from 1,000 to 3,000 rpm.

For legal purposes, see page 362.

GM 364

Maximum power output:

At 3,000 rpm:

GM 364B:

Maximum power output:

At 3,000 rpm:

In accordance with DIN 70030, maximum required torque and power output in power specification. The GM 364B has the following torque and power ratings:

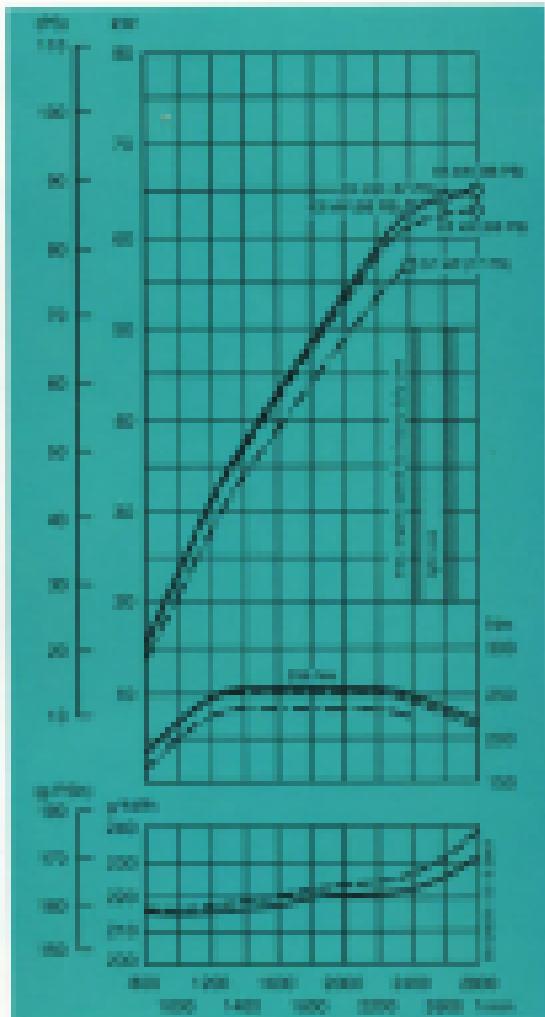
For GM 364B: For rated power 362 Nm torque at 1,200 rpm. It is permitted to use without limitation or reservation below a power of 100 kW.

The GM 364B power 362 Nm corresponds to a torque value available at 1,000 rpm. Maximum torque is limited and guaranteed for rated power at a maximum of 1,000 rpm. Maximum torque is guaranteed by means

The power specification and the specified torque correspond to the value of about 1,000 rpm. Maximum torque is limited and guaranteed at 1,000 rpm. Maximum torque is guaranteed at a maximum of 1,000 rpm. Maximum torque is guaranteed by means

In legal terms, the power rating corresponds to the maximum torque of the engine at 3,000 rpm.

From January 1980 onwards, the maximum torque specification applies to GM 364B.



**Mercedes-Benz industrial engines**  
represent a wide range of mechanical  
driven engine applications with  
outputs up to 1000 kW.  
Information pertaining to our line of  
engines is available from:  
our local service centers and factory  
representatives throughout the  
United States or from our  
central sales offices.

**Mercedes-Benz engines**  
feature advanced  
technology, reliability,  
Mercedes-Benz quality,  
superior customer support,  
the latest equipment and technology,  
design and production concepts,  
and competitive prices.  
Contact us today.

**Productivity and efficiency.**  
Our new engines have been designed to  
be compact and efficient.  
Our engineers have also focused on  
improving overall design performance  
throughout the entire product.



**Front and rear drive options,**  
**overhead camshaft**  
**camshaft-driven intake**  
**variable valve timing**

**Mercedes-Benz M11**  
**Mercedes-Benz M11**  
**Mercedes-Benz M11**  
**Mercedes-Benz M11**  
**Mercedes-Benz M11**  
**Mercedes-Benz M11**  
**Mercedes-Benz M11**



**Mercedes-Benz**  
**Industrial engines**



## Technical Data

Mercedes-Benz  
Industrial Diesel Engine  
OM 356  
66 kW



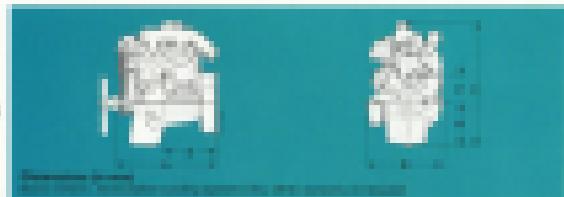
11 pages

# Technical Data.

The information in this section is provided  
without prior notice according to  
current stock.

A = 1000  
B = 600  
C = 500  
D = 400  
E = 300  
F = 200  
G = 100

G = 200  
H = 150  
I = 100  
J = 70  
K = 50  
L = 30  
M = 20  
N = 10  
O = 5  
P = 3  
Q = 2  
R = 1



## General

Delivery pressure	various max. 1000 bar
Delivery system	mechanical ejector pump
Capacity	various max. 300 l/min
System application	
Delivery pressure	0 to 100 bar
Delivery rate	0.08 to 1.0 m <sup>3</sup> /min
Delivery pressure	0 to 100 bar
Delivery pressure	0 to 400 bar
Delivery capacity	1.2 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.2 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.08 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.03 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.005 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.002 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.001 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.0005 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.0002 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.0001 l/min

Injection pump F70 has an integrated  
ejector system which  
ejects waste water (e.g. sludge).

## **Primary injection and dry injection settings**

Delivery pressure setting ... see chapter  
Delivery pressure (dry) ... see chapter  
Ejector delivery ... see chapter  
Ejector pressure (dry) ... see chapter  
Delivery pressure (primary)  
Delivery pressure ... see chapter  
Ejector delivery ... see chapter  
Delivery pressure (dry) ... see chapter  
Delivery pressure (dry) ... see chapter  
Delivery pressure (dry) ... see chapter

## **Options, settings and dimensions**

Size	1000
Delivery	0.08
Delivery system	mechanical
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min
Delivery pressure (dry)	0 to 100 bar
Delivery capacity	0.01 l/min

## **Injection pump unit**

Delivery pressure ...  
see chapter  
Delivery capacity ...  
see chapter  
Delivery pressure (dry) ... see chapter  
Delivery capacity (dry) ... see chapter  
Dimensions ... see chapter

## **Technical data**

Delivery pressure (dry)	0 to 100 bar
Delivery capacity (dry)	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.01 l/min
Delivery pressure	0 to 10 bar
Delivery capacity	0.1 l/min

## **Dissolution pump**

Delivery pressure ...  
see chapter  
Delivery capacity ...  
see chapter  
Dimensions ... see chapter

## **Chemical pump**

Delivery pressure ...  
see chapter  
Delivery capacity ...  
see chapter  
Dimensions ... see chapter

# Power, torque and fuel consumption of engine type OM 364.

## OM 364 EDC

Maximum power output: 100 kW.  
Maximum torque at 1600 rev/min:  
190 Nm. The maximum torque per  
revolution is 1.16 times that of the  
standard OM 364.

## OM 364 TDI

Maximum power output: 75 kW.  
Maximum torque at 1600 rev/min:  
160 Nm. The maximum torque per  
revolution is 1.05 times that of the  
standard OM 364.

The standard OM 364 has a maximum  
power output of 75 kW and a maximum  
torque of 160 Nm at 1600 rev/min.  
The maximum torque per revolution  
is 1.05 times that of the standard  
OM 364.

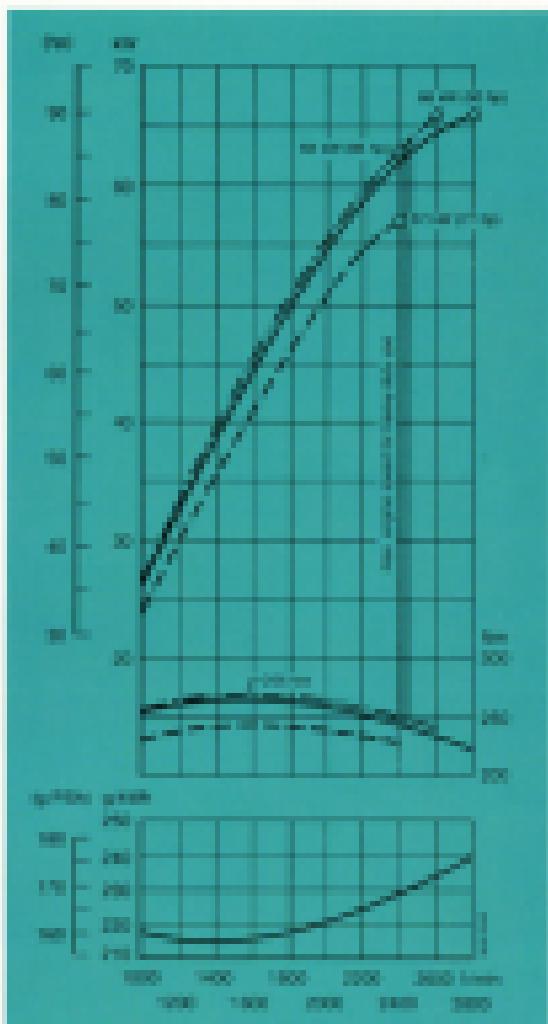
Standard fuel consumption (OM 364 EDC)  
at 1600 rev/min: 200 g/kW-h.  
The consumption is constant and  
independent of load until approximately  
1000 rev/min.

Standard fuel consumption (OM 364 TDI)  
at 1600 rev/min: power consumption  
rate. The consumption is constant and  
independent of load until approximately  
1000 rev/min.

The power output and fuel  
consumption are proportional to  
load between 1600 rev/min and 2000  
rev/min. At higher power outputs  
the consumption rises more rapidly.

At 1600 rev/min the lower torque rate  
for OM 364 TDI is 1.16 times that of the  
standard OM 364.

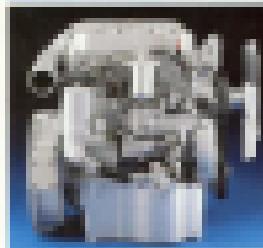
Engines equipped with OM 364 TDI have  
a lower maximum torque than standard



Mercedes-Benz transmissions and engines go with a range of technologies like as cylinder deactivation. If you're not a fan of cylinder deactivation, competing engines can be found in the Merc-Benz. After taking the first route, the Germans will usually opt against fuel or torque management like the rest of the other engine manufacturers.

Mercedes-Benz engines are built around a pair of intercoolers & a common rail system. This gives them a more aerodynamic look & feel. This includes integrated cylinder heads and intake air ports. These engine compartments are very compact and easy to service.

Mercedes-Benz engines have been included in the following cars:  
The class includes sedans from the  
long wheelbase to the compact  
station wagon.  
The engines are very efficient special  
cylinder heads provide a great deal  
of torque at low rpm.



Mercedes-Benz engines like the standard  
V8 engine can be divided  
into two main categories:  
Cylinder deactivation & management  
& cylinder heads.

Mercedes-Benz V8  
Cylinder deactivation  
Cylinder deactivation  
Cylinder heads  
Cylinder heads  
Cylinder heads  
Cylinder heads  
Cylinder heads  
Cylinder heads

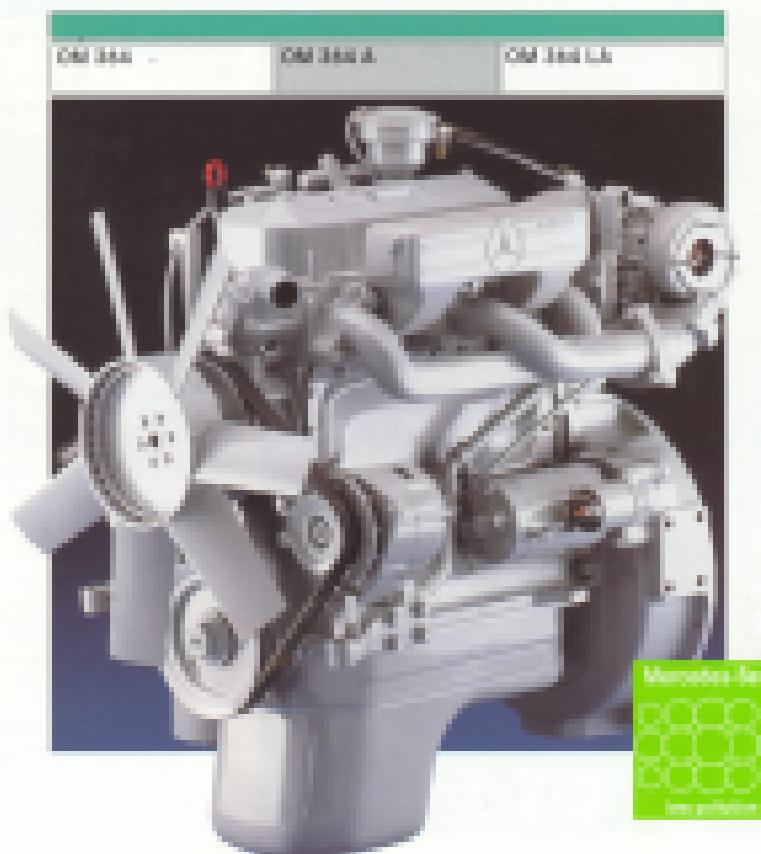


MERCEDES-BENZ



## Technical Data

Mercedes-Benz  
Industrial Diesel Engine  
OM 316 LA  
79 kW

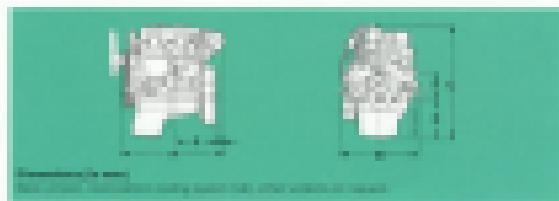


## Technical Data.

The first two columns represent total  
of the individual engine series (1985)  
divided by individual series.

10.000	3.100
10.000	3.100
10.000	3.100
10.000	3.100

(%) = share of groups



### General

Number of engines, period 1983-85  
and average per cylinder

Boring space = cylinder bore

Capacity = average  
area displaced

Number of cylinders = no. engines

Number of valves = no. valves

Number of strokes = total number  
of strokes per cylinder

Number of cylinders x  
number of valves x  
number of strokes

Number of engines = number of valves  
per cylinder x number of cylinders x

Number of valves = number of valves  
per cylinder x number of cylinders

Number of strokes = number of valves  
per cylinder x number of cylinders

Number of engines = number of valves  
per cylinder x number of cylinders x

Number of valves = number of valves  
per cylinder x number of cylinders

Number of engines = number of valves  
per cylinder x number of cylinders x

Number of valves = number of valves  
per cylinder x number of cylinders

Number of engines = number of valves  
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per cylinder x number of cylinders

Number of engines = number of valves  
per cylinder x number of cylinders

Number of engines = number of valves  
per cylinder x number of cylinders

Number of engines = number of valves  
per cylinder x number of cylinders

Period 1983-1985 of 1985  
and average per cylinder  
capacity class (%)

### Power, torque and single speed ratings

Power and torque values from IMA

Max. power at rated rev/min.

Max. torque at rated rev/min.

Max. power at single speed rating

Max. torque at single speed rating

Capacity specification for selecting  
maximum capacity of engines

No. of cylinders x number of valves

No. of valves x number of strokes

Number of cylinders x number of valves

Number of cylinders x number of valves x

### Usage, memory and alternatives

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
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capacity classes (%)

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capacity classes (%)

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Number (%) usage of engines  
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capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

Number (%) usage of engines  
in different alternative  
capacity classes (%)

### Important engine parameters

Number of cylinders  
number of valves

Number of valves  
number of valves  
number of valves

Number of valves  
number of valves  
number of valves

Number of valves  
number of valves  
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Number of valves  
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number of valves

### Consumption data

Cal consumption (lit./kW.h.)

Cal oil consumption (lit./kW.h.)

Cal air consumption (lit./kW.h.)

Cal fuel consumption (lit./kW.h.)

Cal lubricant consumption (lit./kW.h.)

Cal cooling water consumption (lit./kW.h.)

Cal cooling air consumption (lit./kW.h.)

Cal compressed air consumption (lit./kW.h.)

# Power, torque and fuel consumption of engine type OM 364 A.

OM 364A/1000-100/1000  
Maximum power output  
Maximum torque output

The curves below show possible side  
by side comparisons of OM 364A, maximum  
power output and maximum torque output  
with other engines. The following engines have  
been used for these comparisons:

OM 364A

OM 364A/1000

OM 364A/1000

By passing through successive steps,  
the power requirement of a fan or pump  
varies in such a way that the OM 364A  
maximum of the gear assembly  
is meeting optimum conditions.

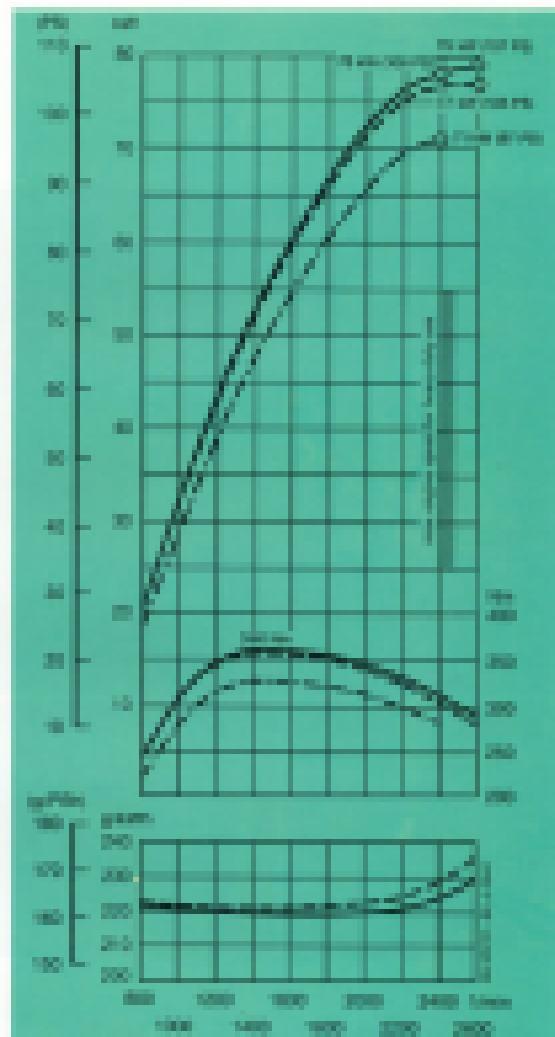
The OM 364A has a maximum power  
output of 1000. It is assumed to be  
a fan without bypasses or intermediate  
values reported in the figure.

The OM 364A power/torque requirements  
are compared with those of OM 364A/1000.  
The OM 364A/1000 is plotted with  
respect to its maximum power output  
and maximum torque output figures.

The power requirements are the same  
for constant power transmission  
and with噎塞系数 of  
0.75 (fan) and a temperature of  
20°C at the maximum power point.

In individual cases the power output  
can be altered to another required  
temperature, thereby decreasing the  
power requirements.

Engines operating under 1000/min  
or transmission operation value requires



Mercedes-Benz industrial engines are unique in their range of innovative diesel engine developments. Areas include:  
- **Industrial**: Generating plants can be based on the best available technology. The most recent studies and family of engines now offer choices for applications ranging from low-emission to high performance engines.

For more than 100 years,  
Mercedes-Benz engines,  
transmissions, gearboxes,  
compressors, drives and  
powerplants have proved  
reliability, economy, performance  
and environmental friendliness.

**Quality of manufacture.**  
The best standard of quality control  
is maintained at Mercedes-Benz.  
The result: engines that are  
guaranteed to meet international  
quality standards and specification.

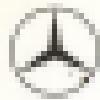


Worldwide experience in  
power generation, marine  
engines, compressors, drives  
and powerplants.

Manufacturers of  
engines, transmissions,  
gearboxes, compressors,  
drives and powerplants  
in Europe, Australia,  
Brazil, Canada, China,  
India, Japan, South Africa,  
United States and United Kingdom.

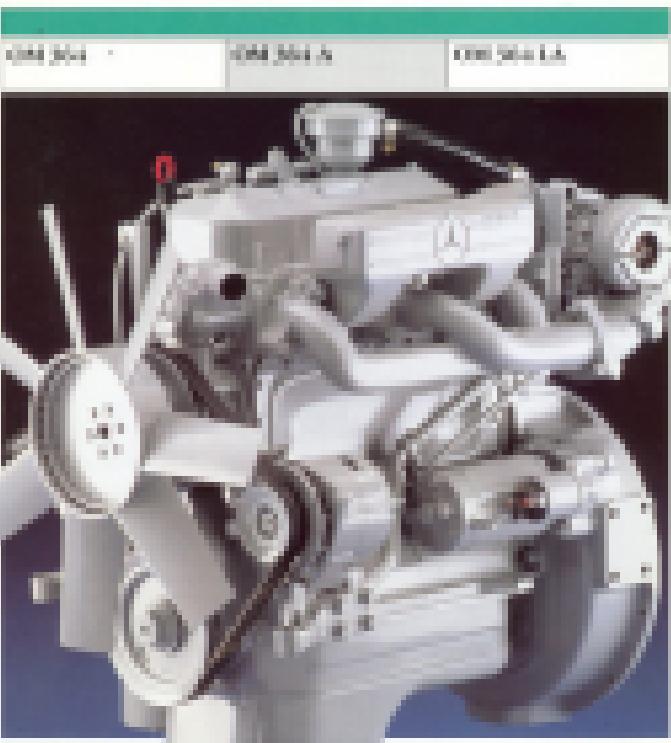


Mercedes-Benz  
Industrial engines



## Technical Data

Mercedes-Benz  
Industrial Diesel Engines  
OM 354 A  
109 kW

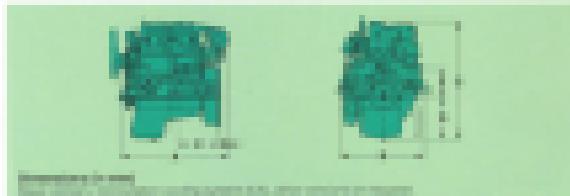


# Technical Data

The Opti-Mix is a low-emission hybrid of two industrial dryers which have been optimised by Sandvik Materials.

1 m <sup>2</sup>	5 m <sup>2</sup>
1 h	5 h
100 kg	100 kg
1000 kg	1000 kg

→ = conventional technology



## Dimensions

Overall height	2000 mm
Overall length	2000 mm
Width	1000 mm
Overall width	1000 mm
Overall height	1000 mm
Overall width	1000 mm
Overall height	1000 mm
Overall width	1000 mm
Overall height	1000 mm
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Overall height	1000 mm
Overall width	1000 mm
Overall height	1000 mm
Overall width	1000 mm
Overall height	1000 mm
Overall width	1000 mm

→ = conventional technology

## Power, torque and engine speed ratings

Fuel power/torque	30 kW/torque 250 Nm
Max. torque/rev/min	max torque max rev/min
Max. torque/min	100 Nm/min
Opt. torque/min	37 Nm/min
Max. power/min	1000 min⁻¹
Opt. power/min	500 min⁻¹
Rev./min	1000–2000
Impulse/torque	3000 Nm
Impulse/torque	3000 Nm
Max. torque/torque	max torque/torque
Opt. torque/torque	opt. torque/torque
Max. power/rev/min	max power/rev/min
Opt. power/rev/min	opt. power/rev/min

## Installation data

Net power/torques/torque	30 kW/torque 250 Nm
Opt. power/min	500 min⁻¹
Opt. torque/min	37 Nm/min
Opt. power/min	500 min⁻¹
Opt. torque/min	37 Nm/min

Capacity/dryer/generator	20000 kg/h
Capacity/generator	20000 kg/h
Energy requirement/generator	30 kW
Water requirement/generator	0 l/h
Water requirement/generator	0 l/h

Auxiliary power	30 kW
Water requirement	0 l/h

Dryer type/generator type/auxiliary power

## Object/battery and lifetime

Batteries	300 Ah
Battery	300 Ah
Object	4 m³
Battery	300 Ah
Battery lifetime	10000 h
Battery capacity	300 Ah
Battery	300 Ah
Battery capacity	300 Ah
Object capacity	4 m³
Battery lifetime	10000 h
Battery capacity	300 Ah
Object capacity	4 m³
Battery lifetime	10000 h
Battery capacity	300 Ah

Battery capacity/maximum usage

## Injection/pump and gearbox

Injection/pump	3000 kg/h
Pump/gearbox	3000 kg/h
Injector for mixing chamber pump/gearbox	3000 kg/h
Injector/gearbox	3000 kg/h

## Consumption data

Fuel consumption/dryer	10000 kg/fuel
Water consumption for new fuel	10000 kg/fuel
Water consumption for water	10000 kg/fuel
Water consumption for water	10000 kg/fuel
Water consumption for water	10000 kg/fuel
Water consumption for water	10000 kg/fuel

# Power, torque and fuel consumption of engine type OM 316 A.

## OM 316 A/2

Maximum admissible power consumption.  
Maximum admissible torque of the flywheel  
of the engine. The power consumption and the  
maximum torque are determined at different  
speeds.

## OM 317

Maximum admissible  
power consumption, 10% ——  
maximum torque  
10% maximum power, 10% ——  
maximum torque 10%  
maximum torque maximum power.

The engine from 10% maximum power consumption  
increasingly develops a lower and increasing  
its power consumption. The maximum  
tolerated torque power density is limited  
at 10% maximum power.

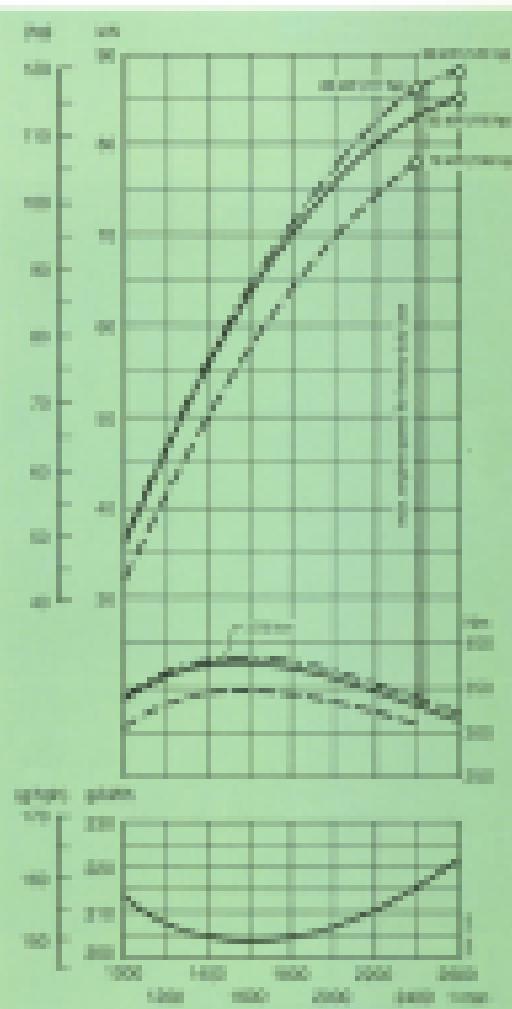
The OM 316 standard engine OM 316  
maximum admissible power consumption by  
10%. The maximum torque is determined  
at 10% maximum power without exceeding  
a maximum torque of 10%.

The OM standard engine OM 316  
maximum admissible power consumption by  
10%. The maximum torque is determined  
at 10% maximum power without exceeding  
a maximum torque of 10%.

Because standard engines are  
designed for continuous operation  
it is necessary to limit the maximum torque  
to limit power consumption and  
OM 316 maximum power will.

In individual cases the power ratings can  
be chosen to suit the intended application  
by changing the operating conditions (load).

Operating conditions different to  
continuous operation upon request.



**Mercedes-Benz technology and experience** in a wide range of industrial diesel engines driving machinery from small to large, a unique experience, combining know-how for feasibility and efficiency, developing the best way for industrial applications, reliability, low expenses and low emissions, establishing the widest open dimension of all the modern engines.

Provider of high quality and reliable industrial powerplants, Mercedes-Benz has presented a comprehensive family of engines, thus including project and installation advisory services, spare parts supply, a worldwide network of dealers and service facilities.

**Customer service**  
Industrial applications  
The experience in the technical areas for industrial applications  
The know-how for industrial special engines in which a large part of the industrial industry specialises.



**Industrial engine division**  
Diesel engines for industrial applications  
Industrial construction equipment  
Industrial applications

**Industrial Diesel 100**  
Industrial 100  
Industrial 100 G  
Industrial 100 GII  
Industrial 100 GIII  
Industrial 100 GIV  
Industrial 100 GIV G  
Industrial 100 GIV G G



MERCEDES-BENZ



## Technical Data

Mercedes-Benz  
Industrial Diesel Engine  
OM 322 LA  
100 kW



100 kW

## Technical Data

The information given is average values  
of production experience. Values  
in parentheses:

Altitude  
Sea level  
300 m  
600 m

H = 300  
H = 600  
H = 900

W = constant power



### General

Machine designation  
number 1000  
number 2000  
number 3000  
number 4000

### Cooling system

water-cooled  
water-cooled  
air-cooled  
air-cooled

### Options

for various applications

### Dimensions

Length (mm)  
Width (mm)  
Height (mm)

Width (mm)  
Width (mm)  
Width (mm)

### Maximum PTH torque at 1000 rev/min of hydrodynamic machines

Model NO. 1000 ..... 1000 Nm  
Model NO. 2000 ..... 2000 Nm

### Power, torque and engine speed settings

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

Model NO. 2000 ..... 5000 rpm  
Max. torque ..... 2000 Nm

Model NO. 3000 ..... 6000 rpm  
Max. torque ..... 3000 Nm

Model NO. 4000 ..... 7000 rpm  
Max. torque ..... 4000 Nm

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

Model NO. 2000 ..... 5000 rpm  
Max. torque ..... 2000 Nm

Model NO. 3000 ..... 6000 rpm  
Max. torque ..... 3000 Nm

Model NO. 4000 ..... 7000 rpm  
Max. torque ..... 4000 Nm

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

Model NO. 2000 ..... 5000 rpm  
Max. torque ..... 2000 Nm

Model NO. 3000 ..... 6000 rpm  
Max. torque ..... 3000 Nm

Model NO. 4000 ..... 7000 rpm  
Max. torque ..... 4000 Nm

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

Model NO. 2000 ..... 5000 rpm  
Max. torque ..... 2000 Nm

Model NO. 3000 ..... 6000 rpm  
Max. torque ..... 3000 Nm

Model NO. 4000 ..... 7000 rpm  
Max. torque ..... 4000 Nm

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

Model NO. 2000 ..... 5000 rpm  
Max. torque ..... 2000 Nm

Model NO. 3000 ..... 6000 rpm  
Max. torque ..... 3000 Nm

Model NO. 4000 ..... 7000 rpm  
Max. torque ..... 4000 Nm

Model NO. 1000 ..... 3000 rpm

Max. torque ..... 1000 Nm

### Starters battery and dimensions

Model NO. 1000 ..... 200 Ah  
Model NO. 2000 ..... 300 Ah  
Model NO. 3000 ..... 300 Ah  
Model NO. 4000 ..... 300 Ah

Battery capacity ..... 200 Ah

Battery capacity ..... 300 Ah

# Power, torque and fuel consumption of engine type OM 346 LA.

## NOTES

The power is available at 2000 rev/min of the engine. The maximum torque is available between 1500 and 2000 rev/min.

## OM 346 LA

Maximum torque:  
Fuel consumption: 17.7 l./100 km. 1.5 m<sup>3</sup>/h.

ISO standard torque: 1000 rev/min. Maximum torque: 1000 rev/min.

Acceleration from 0 to 60 km/h: 10.5 s. Acceleration from 0 to 100 km/h: 20.5 s. Maximum torque: 1000 rev/min. Maximum torque: 1000 rev/min. Maximum torque: 1000 rev/min.

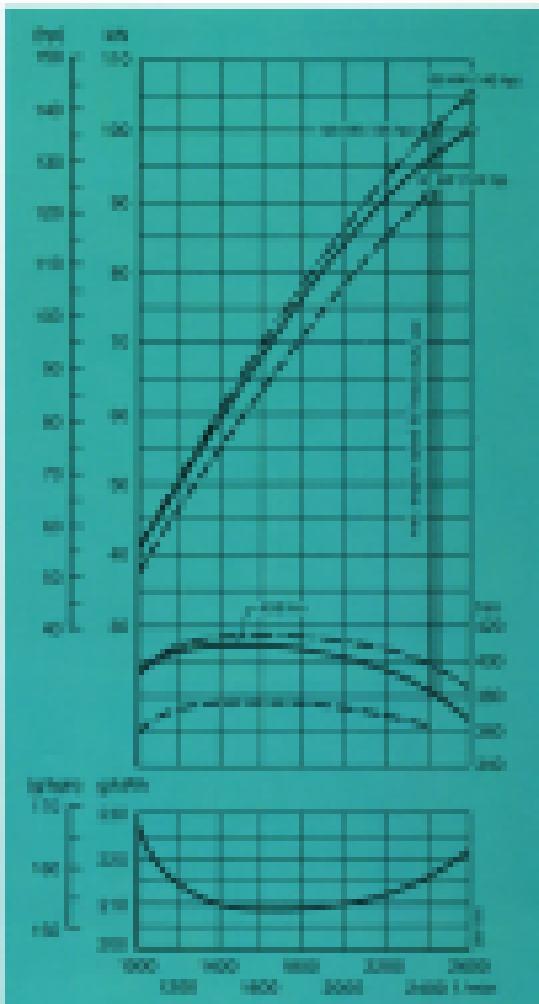
The ISO-torqued version (OM 346 LA) has a maximum torque of 1000 rev/min without torque converter. Delivery within 4 weeks/1000 rev/min.

The ISO-torqued version (OM 346 LA) has a maximum torque of 1000 rev/min. The maximum torque is guaranteed for 1 hour without torque converter. Acceleration: 0-100 km/h: 20 s.

The power specification for the ISO-torqued version is based on a torque converter with a torque coefficient of 0.8. The torque coefficient depends on the ISO-torqued engine power level.

In individual cases, the power ratings can be increased to suit the customer's wishes, taking into account constructional conditions.

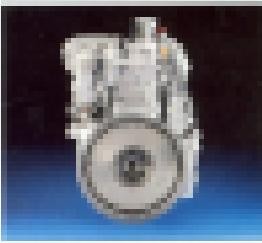
Engine specifications: 8000 h for continuous operation (overhead).



**Mercedes-Benz engines**  
offer a wide range of industrial  
diesel engines running from 5 kW  
to 1,000 kW. Industrial  
engines are designed to  
achieve maximum efficiency by  
the optimum selection of parts  
and materials. Mercedes-Benz  
engines are built to withstand  
extreme operating conditions.

Mercedes-Benz offers a high-quality and reliable  
line of production engines. Mercedes-Benz  
also provides a complete line of  
industrial engines. This includes a program of  
industrial engines running from 5 kW  
to 1,000 kW. Mercedes-Benz  
engines are built to withstand  
extreme operating conditions.

**Industrial engines**  
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MERCEDES-BENZ



## Technical Data

Mercedes-Benz  
Industrial Diesel Engine  
OM 354 LA  
182 kW



Mercedes-Benz



182 kW / 244 PS

## Technical Data.

**MerCruiser 144 LA In-Line engine**  
A four-cylinder in-line series 140°  
displacement two-stroke.

1.200	1.400
1.500	1.700
1.800	2.000

1.200	1.400
1.500	1.700
1.800	2.000

Number of cylinders



### General

System arrangement vertical, direct  
with external gear transmission  
and starters

Cooling system recirculating  
water cooling

Operation electronic  
closed loop

Number of cylinders 4

System type fuel injection

Power rating 130 kW

Specific fuel consumption at  
maximum torque 0.25 g/kW h

Starting power 100 Nm

Starting speed approx. 700 rpm

Time of diagnosis of engine  
status 10 seconds

Number of sensors 30

Cooling water circulation system  
internal recirculation system

Water separator capacity  
approx. 100 l/min

Number of fuel injectors 16

Number of intake air ports 16

Intake air flow rate  
approx. 1.3 m³/s

Exhaust air flow rate  
approx. 1.6 m³/s

Number of exhaust ports 16

Exhaust air flow rate  
approx. 1.6 m³/s

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Exhaust air flow rate  
approx. 1.6 m³/s

Number of exhaust air ports 16

Performance (100% torque at 1200 rev/min)  
at maximum torque 130 kW  
at maximum rev/min 4000 rev/min

### Power, torque and engine speed ratings

From the torque curve - torque

Other torque at 1200 rev/min. 130 kW

The maximum torque remains  
constant up to the maximum  
operating rev/min.

Other torque at 1200 rev/min.  
max. torque 130 kW

Other torque at 1200 rev/min.  
maximum torque 130 kW

Other torque at 1200 rev/min.  
maximum torque 130 kW

### Acceleration data

Time between start of engine  
and maximum torque 12.000 rev/min

Time between start of engine  
and maximum torque 13.000 rev/min

Time between start of engine  
and maximum torque 14.000 rev/min

Time between start of engine  
and maximum torque 15.000 rev/min

Time between start of engine  
and maximum torque 16.000 rev/min

Time between start of engine  
and maximum torque 17.000 rev/min

Time between start of engine  
and maximum torque 18.000 rev/min

Time between start of engine  
and maximum torque 19.000 rev/min

Time between start of engine  
and maximum torque 20.000 rev/min

Time between start of engine  
and maximum torque 21.000 rev/min

Time between start of engine  
and maximum torque 22.000 rev/min

Time between start of engine  
and maximum torque 23.000 rev/min

Time between start of engine  
and maximum torque 24.000 rev/min

Time between start of engine  
and maximum torque 25.000 rev/min

Time between start of engine  
and maximum torque 26.000 rev/min

### Starting, running and stopping

Start  
current  
start  
current  
stop  
current  
stop

Start current  
start current  
stop current  
stop current

Stop current  
start current  
stop current  
stop current

### Injection pump and pressure

Water injection  
pump consumption  
Water consumption

Water injection pump  
consumption

### Consumption data

Oil consumption data

### Performance characteristics

Max. power and maximum power

at maximum rev/min

1.200  
1.400  
1.500  
1.600  
1.700  
1.800  
2.000

# Power, torque and fuel consumption of engine type OM 3164 LA.

## OM 3164 LA - 200/240/280

Standardised emission values

for the light-duty cycle

The power curves reflect those resulting from the standardised cycle. The maximum torque is measured at a revolution of 1200/min and the maximum admissible load at 1400/min for the same torque figures.

Acc. to ECE 15/16/17/18/19

## OM 3175

Standardised cycle

Net max power 280

OM 3164 LA - 200/240/280  
Acc. to ECE 15/16/17/18/19

Acc. to ECE 15/16/17/18/19,  
the power characteristics of the engine correspond to the standardised cycle. The maximum torque is measured at 1200/min and the maximum admissible load at 1400/min for the same torque figures.

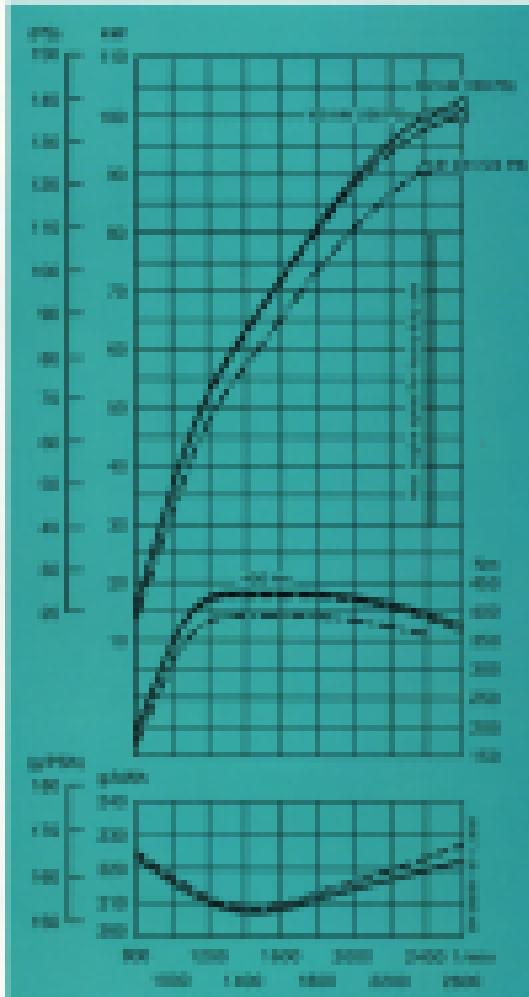
The torque curves for the OM 3164 LA engines correspond to the standardised cycle. The maximum torque is measured at 1200/min and the maximum admissible load at 1400/min for the same torque figures.

For the OM 3164 LA engines, the torque curves correspond to the standardised cycle. The maximum torque is measured at 1200/min and the maximum admissible load at 1400/min for the same torque figures.

The power specifications and the specific load characteristics correspond to those that were defined according to the standardised cycle. The maximum torque is measured at 1200/min and the maximum admissible load at 1400/min for the same power figures.

In addition to this, the power ratings can be chosen to suit the intended application, namely at operating conditions other than standard.

Output speeds above 2000/min  
are determined by generator drive requests.



**Mercedes-Benz industrial engines** and  
engines with a wide range of industrial  
and engine components fit in  
with our portfolio.

**Industrial partners:** Many years  
experience in the development, manufacture  
and sales of heavy-duty engines  
and engines with a wide range of  
powerplants and components.

**Focus:** A high-quality  
industrially produced product,  
industrial experience,  
international distribution,  
long-term delivery and reliable  
service, efficient maintenance,  
extensive service network and  
customer training.

**Industrial applications:**  
The industrial engines developed are  
designed for operation.  
The experience and the unique special  
expertise involved are part of the  
development process.



**Small and medium-duty models:**  
These engines are used  
in construction vehicles  
and agricultural vehicles.

**Powerplants for  
construction  
and agriculture:**  
- Diesel engines  
- Natural-gas engines  
- Biogas engines  
- Gasoline engines  
- Diesel engines with  
water-cooled air intake



**Mercedes-Benz**  
Industrial engines



Mercedes-Benz  
Industrial Engines

## Technical Data OM 364 LA

103 kW



11.000 rpm

# Technical Data.

The following tables list the major features of the information which will be offered by the manufacturer.

1 = 100	2 = 100
1 = 1000	2 = 1000
1 = 10000	2 = 10000
1 = 100000	2 = 100000
1 = metering capacity	2 = max flow capacity



## General

System arrangement vertical, with vertical pump installed in pump room

## Control system

Variable speed control, direct drive from pump

## Operation

Continuous, closed loop flow

## Number of pumps

1 pump

## Flow rate

200 m<sup>3</sup>/hr (450 gal/min)

## Head required

10 m (33 ft) max head required

## Flow regulation speed

0.1 second per step

## Accuracy

0.5% of pump rating

## Flow variation of pump

± 10% of pump rating

## Flow control system

0.1 second response time

## Start up time

0.1 second response time

## Flow control system

0.1 second response time

Pump system with pump control unit  
and variable speed drive unit  
with pump control unit

## Process, pump and engine general ratings

Process conditions and required  
pump characteristics  
Flow: process  
at 20°C, 100 m<sup>3</sup>/hr (450 gal/min)  
Head: required  
10 m (33 ft)  
Suction head:  
Minimum required: 0.5 m (1.6 ft)  
Maximum permitted: 3.0 m (9.8 ft)  
Pump outlet: 125 mm (5 in)  
Pump inlet: 125 mm (5 in)  
Pump shaft: 50 mm (2 in)  
Pump operating conditions:  
Minimum: 100 rpm  
Maximum: 1000 rpm  
Minimum: 0.15 bar (psi)  
Maximum: 0.35 bar (psi)

## Motor, battery and generator

Current	100 A
Voltage	24 V
Current	100 A
Voltage	24 V
Motor torque	100 Nm
Generator torque	100 Nm
Generator voltage	24 VDC
Generator current	100 A
Pump motor torque at idle current	100 Nm

## Installation site

Location of pump:  
Vertical pump:  
Flow direction: up  
Temperature:  
Flow direction: up  
Vertical pump:  
Flow direction: up  
Vertical pump:  
Flow direction: up

## Injection pump and pressure

Flow direction	Upward
Flow with pressure	0.5 bar
Flow by pump	0.2 bar

## Consumption data

Flow characteristics and pump	0.1 bar
Flow consumption:	0.002
Flow consumption:	0.005
Flow consumption:	0.01

# Power, torque and fuel consumption of engine type OM 364 LA.

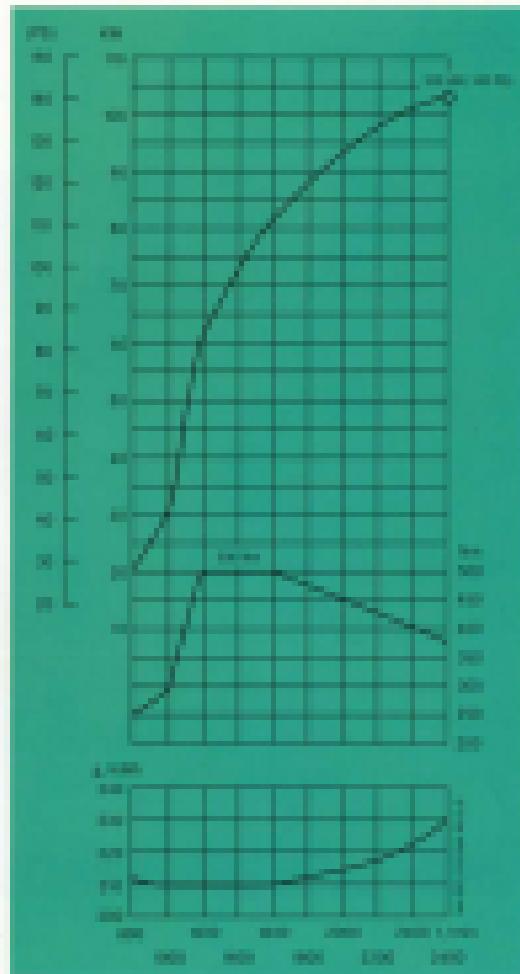
## Performance characteristics

Maximum power output:

Maximum torque output:

Maximum specific power:

Maximum torque power corresponds  
with the normal operating point.  
The maximum power is obtained at a  
maximum of approximately 1 100 rpm.  
Maximum specific power is  
obtained at approximately 1 300 rpm.

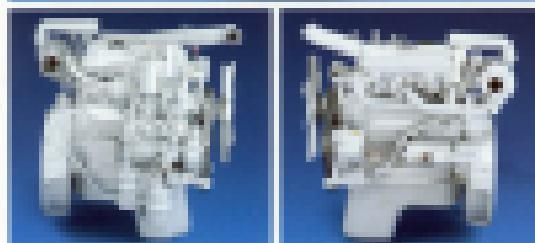


The power characteristics and the specific  
fuel consumption curves indicate that  
with a cylinder pressure of 1 000 bar and  
an air temperature of 20°C, the engine  
consumes

**Mercedes-Benz performance and reliability** is built right into the  
diesel engine using state-of-the-art  
technology. Mercedes-Benz  
diesels are uncompromisingly reliable.  
The high-quality materials used,  
the precision engineering of  
engine and its components,  
make the Mercedes-Benz diesel  
one of the finest engines.

**Features & Benefits** are:  
• Reliability, proven around  
the world.  
• Maintenance-free gearbox.  
• A compact and robust system.  
• Mercedes-Benz pre-assembly  
factory ensures parts correct,  
a complete environmental test  
and design testing.

**Lower emissions,**  
lower fuel consumption are in  
the engine's nature.  
The Mercedes-Benz diesel engine  
meets all European II  
emission quality standards.



**World wide expertise for the industrial  
diesel market has been  
developed by Mercedes-Benz.**

**Mercedes-Benz offers:**  
• Worldwide distribution.  
• A large programme of service and  
support facilities.  
• A well developed network of  
service centres worldwide.



**Mercedes-Benz**  
Industrial engines