Technical Data

Mercedes-Benz Industrial Diesel Engine OM 364 65 kW

OM 364	OM 364 A	OM 364 LA

Mercedes-Benz low pollution

Technical data.

The OM 364 in-line engine is part of the industrial engine series 300 offered by Mercedes-Benz.

A = 755
B = 635
C = 905
D = 325
E = 395
F = 200
S = center of gravity

Dimensions (in mm)
Basic version, recirculation cooling system (LA), other versions on request.

General

Cylinder arrangement	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	19.0 : 1
Mean effective pressure at 2800/min and 65 kW	7.0 bar
Mean piston speed at 2800/min	12.4 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10 l
Weight of basic engine acc. to VDMA, i.e. without recooling system alternator and starter	312 kg
Weight of engine with fan, alternator and starter	335 kg
Power-to-weight ratio, referred to VDMA weight and 65 kW	4.8 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without butterfly valve	22 kW
with butterfly valve	58 kW
Cold-starting ability without starting aid and battery 75% charged, down to −20°C	
Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque at 1400 ... 2200/min	256 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cycling irregulation of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel J=0.65	0.82 kgm²
Combustion air volume at 2800/min	4.4 m³/min
Exhaust gas volume at 2800/min and 65 kW with back pressure of 100 mbar at engine outlet	14 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold	2300 kJ/kW
Capacity of cooling water pump without cooling system at engine speed 2800/min	210 l/min
Permissible air intake restriction upstream of engine inlet at rated automotive output	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 25 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at engine outlet	max. 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 x 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

Fuel consumption see diagram	
Lube oil consumption for an already run-in-engine amounts up to 0.5% of effective fuel consumption. This value may be exceeded in isolated cases depending on application and running time.	

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

80/1269/EEC-89/491/EEC
Maximum automotive power
Visco fan hydraulic loose ——————

The power rating quoted above complies with directive 88/77/EEC, alteration 91/542/EEC, aiming at a reduction in gaseous emissions **and** particulates. Valid as of 1.7.1992 for new homologation.

Fan, rigid — — — —

DIN 6271
Maximum ISO net brake fuel stop power **IFN** ——————

ISO standard power **ICXN** — · — · —
exceedable by 10%

As distinct from DIN standard 6271, the power required by a fan is not considered in power specification **IFN** and **ICXN** because of the great variety of cooling system available.

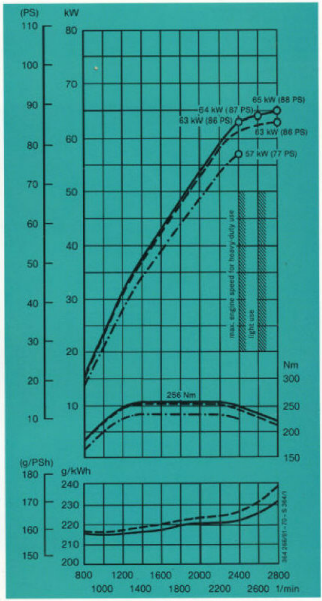
The ISO net brake fuel stop power **IFN** cannot be exceded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represent continuous power exceedable by 10%. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0{,}84\ g/cm^3$ and a temperature of 35°C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intented application, taking all operating conditions into account.

Engine speeds below 1500/min for continuous operation upon request.



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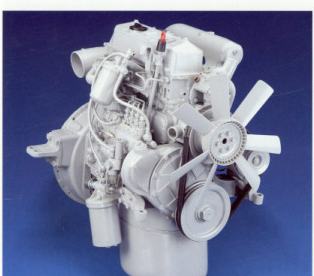

Should you require further material, please consult the Vehicle Components Division in Stuttgart-Untertuerkheim:

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Postfach 60 02 02
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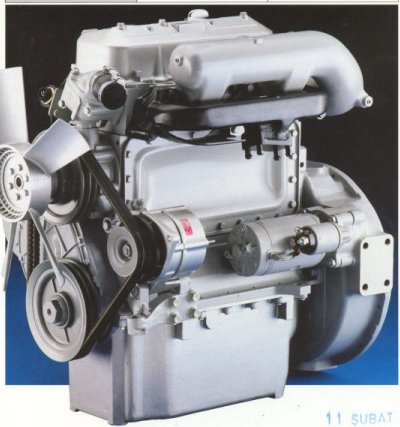
Mercedes-Benz
Industrial engines

Technical Data

Mercedes-Benz Industrial Diesel Engine OM 364 66 kW

OM 364	OM 364 A	OM 364 LA

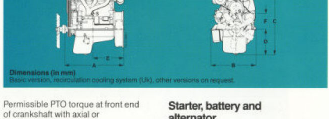


Technical Data.

The OM 364 in-line engine is part of the industrial engine series 300 offered by Daimler-Benz.

A = 768
B = 580
C = 925
D = 325

E = 395
F = 200
S = center of gravity



Dimensions (in mm)
Basic version, recirculation cooling system (UK), other versions on request.

General

Cylinder arrangement	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	17.25 : 1
Mean effective pressure at 2800/min and 66 kW	7.1 bar
Mean piston speed at 2800/min	12.4 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10 l
Weight of basic engine acc. to VDMA, i. e. without recooling system alternator and starter	312 kg
Weight of engine with fan, alternator and starter	335 kg
Power-to-weight ratio, referred to VDMA weight and 66 kW	4.73 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min	
without throttle valve	approx. 22 kW
with throttle valve	approx. 53 kW
Cold-starting ability without starting aid and battery 75 % charged, down to	−20°C
Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque (80/1269/EEC) at 1400 ...1600/min	266 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cyclic irregularity of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel $J = 0.65$	0.82 kgm²
Combustion air volume at 2800/min	4.6 m³/min
Exhaust gas volume at 2800/min and 66 kW with back pressure of 60 mbar at engine outlet	14.3 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold	2300 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2800/min	204 l/min
Permissible air intake restriction upstream of engine inlet at rated automotive output	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 20 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure	max. 60 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 × 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for ifstalling standard engine speed and injection governors	

Consumption data

Fuel consumption see diagram	
Lube oil consumption for new and already run-in engines is of effective fuel comsumption.	approx. 0.5 %
This value can – acc. to application and running time – rise in individual cases to max. 1 %.	

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

80/1269/EEC

Maximum automotive power ———

The power is available at the flywheel of the engine. The power required by the standard fan has already been taken into account.

DIN 6271

Maximum ISO net brake fuel stop power **IFN** · — · —

ISO standard power exceedable by 10% **ICXN** — — —

As distinct from DIN standard 6271, the power required by a fan is not considered in power specifications IFN and ICXN because of the great variety of cooling systems available.

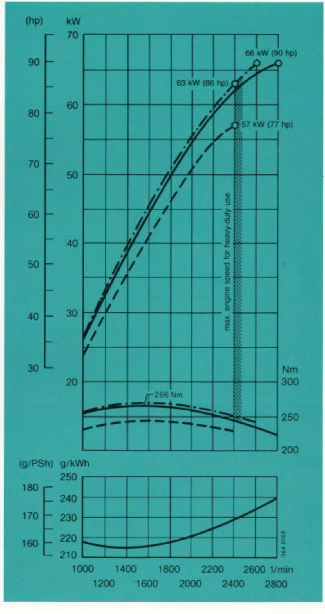
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represents continuous power exceedable by 10%. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0{,}84$ g/cm³ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intended application, taking all operating conditions into account.

Engine speeds below 1500/min for continuous operation upon request.



Daimler-Benz manufactures and supplies a wide range of industrial diesel engines varying from 17 to 610 kW (23–830 hp). Information concerning these can be found in the brochures describing the basic concept behind each family of engines and in type sheets detailing the technical specifications of all the various engines.

Besides a high-quality and technically perfected product, Daimler-Benz also provides a comprehensive back-up system. This includes project and installation advisory services, spare parts supply, a worldwide service network and service training.

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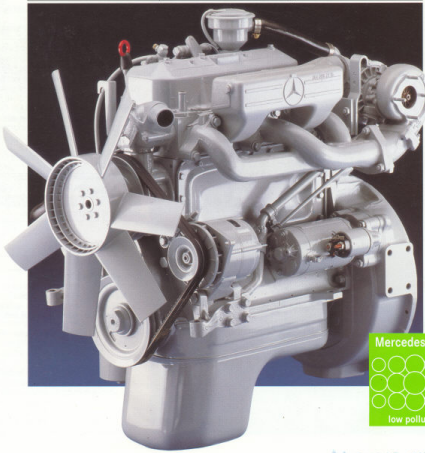
MERCEDES-BENZ

Technical Data

Mercedes-Benz Industrial Diesel Engine OM 364 A 79 kW

OM 364	OM 364 A	OM 364 LA



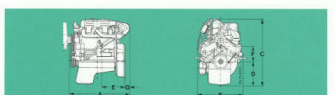
Mercedes-Benz

low pollution

Technical Data.

The OM 364 A in-line engine is part of the industrial engine series 300 offered by Mercedes-Benz.

A = 815 E = 320
B = 620 F = 210
C = 905 G = 70
D = 325 S = center of gravity



Dimensions (in mm)
Basic version, recirculation cooling system (UA), other versions on request.

General

Cylinder arrangement with exhaust gas turbocharger	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	18 : 1
Mean effective pressure at 2600/min and 79 kW	9.2 bar
Mean piston speed at 2600/min	11.5 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10.5 l
Weight of basic engine without recooling-system alternator and starter acc. to VDMA	320 kg
Weight of engine with fan, alternator and starter	345 kg
Power-to-weight ratio, referred to VDMA weight and 79 kW	4.05 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without butterfly valve	22 kW
with butterfly valve	52 kW
Cold-starting ability without starting aid and battery 75 % charged, down to -15°C	

Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque at 1400 ...1500/min	360 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cyclic irregularity of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel I=0.43	0.60 kgm²
Combustion air volume at 2600/min	6.9 m³/min
Exhaust gas volume at 2600/min and 79 kW with back pressure of 100 mbar at turbine outlet	18 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold	2300 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2600/min	200 l/min
Permissible air intake restriction upstream of turbocharger inlet at rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 25 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at turbine outlet	max. 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 x 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

Fuel consumption see diagram	

Lube oil consumption for an already run-in-engine amounts up to 0.5 % of effective fuel consumption. This value may be exceeded in isolated cases depending on application and running time.

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

80/1269/EEC-89/491/EEC
Maximum automotive power
Visco fan hydraulic loose ——————

The power rating above complies with the directive 88/77/EEC, alternation 91/542/EEC, aiming at a reduction in gaseous emissions **and** particulates. Valid as of 1.7.1992 for new homologation.

Fan, rigid — — — —

DIN 6271
Maximum ISO net brake fuel stop power **IFN** ——————

ISO standard power **ICXN** —·—·—·—
exceedable by 10 %

As distinct from DIN standard 6271, the power required by a fan is not considered in power specification **IFN** and **ICXN** because of the great variety of cooling systems available.

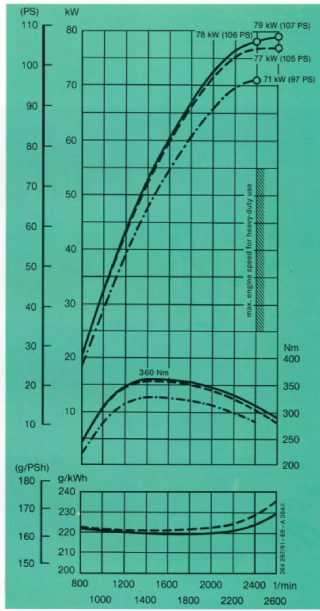
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represents continuous power exceedable by 10 %. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0.84\ g/cm^3$ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intented application, taking all operating conditions into account.

Engine speeds below 1500/min for continuous operation upon request.



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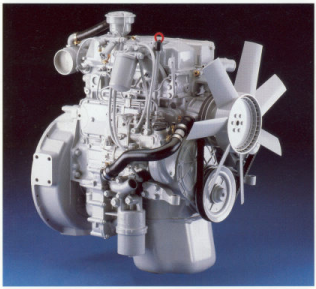

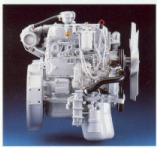

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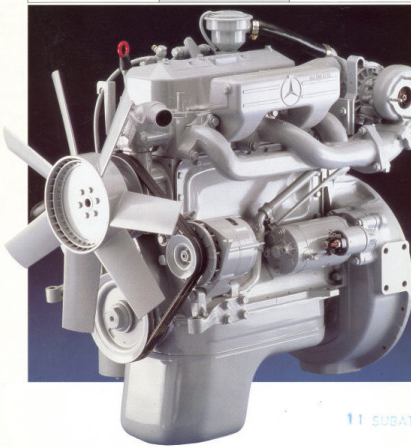
Mercedes-Benz
Industrial engines

Technical Data

Mercedes-Benz
Industrial Diesel Engine
OM 364 A
85 kW

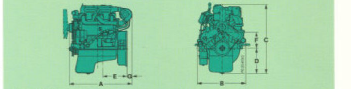
OM 364	OM 364 A	OM 364 LA



Technical Data.

The OM 364 A in-line engine is part of the industrial engine series 300 offered by Daimler-Benz.

A = 815 E = 320
B = 635 F = 210
C = 905 G = 65
D = 325 S = center of gravity



Dimensions (in mm)
Basic version, recirculation cooling system (Lk), other versions on request.

General

Cylinder arrangement with exhaust gas turbocharger	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	16.5 : 1
Mean effective pressure at 2600/min and 85 kW	9.9 bar
Mean piston speed at 2600/min	11.5 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10.5 l
Weight of basic engine without recooling system alternator and starter acc. to VDMA	320 kg
Weight of engine with fan, alternator and starter	345 kg
Power-to-weight ratio, referred to VDMA weight and 85 kW	3.76 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without throttle valve	approx. 19 kW
with throttle valve	approx. 51 kW
Cold-starting ability without starting aid and battery 75 % charged, down to	−15°C
Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque (80/1269/EEC) at 1400 ... 1500/min	378 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cyclic irregularity of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel J = 0.43	0.60 kgm²
Combustion air volume at 2600/min	7.0 m³/min
Exhaust gas volume at 2800/min and 85 kW with back pressure of 60 mbar at turbine outlet	17.5 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold	2300 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2600/min	201 l/min
Permissible air intake restriction upstream of turbocharger inlet at rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter, new	max. 20 mbar
dry air filter, polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at turbine outlet	max. 60 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 × 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

Fuel consumption see diagram	
Lube oil consumption for new and already run-in engines is	approx. 0.5 % of effective fuel consumption.
This value can – acc. to application and running time – rise in individual cases to max. 1 %.	

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

80/1269/EEC

Maximum automotive power ———

The power is available at the flywheel of the engine. The power required by the standard fan has already been taken into account.

DIN 6271

Maximum ISO net brake fuel stop power **IFN** · — · —
(replacing power B DIN 6270)

ISO standard power **ICXN** — — —
exceedable by 10 %
(replacing continuous power A DIN 6270)

As distinct from DIN standard 6271, the power required by a fan is not considered in power specifications IFN and ICXN because of the great variety of cooling systems available.

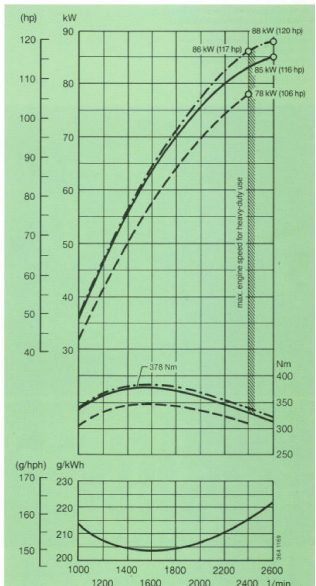
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represents continuous power exceedable by 10 %. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0.84$ g/cm³ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intended application, taking all operating conditions into account.

Engine speeds below 1500/min for continuous operation upon request.



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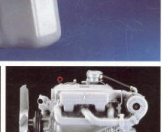

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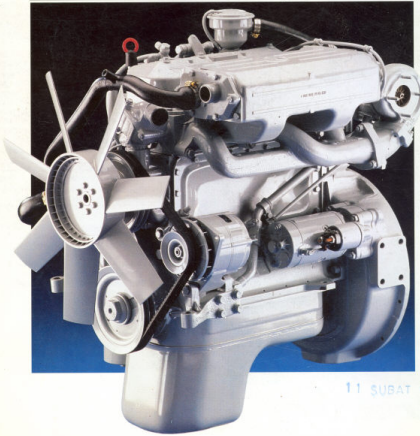
MERCEDES-BENZ

Technical Data

Mercedes-Benz Industrial Diesel Engine OM 364 LA 100 kW

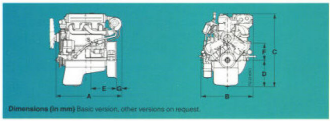
OM 364	OM 364 A	OM 364 LA



Technical Data.

The OM 364 LA in-line engine is part of the industrial engine series 300 offered by Daimler-Benz.

A = 815	E = 320
B = 635	F = 210
C = 905	G = 65
D = 325	S = center of gravity



Dimensions (in mm) Basic version, other versions on request.

General

Cylinder arrangement with exhaust gas turbocharger and intercooler	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	16.5 : 1
Mean effective pressure at 2600/min and 100 kW	11.6 bar
Mean piston speed at 2600/min	11.5 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10.5 l
Weight of basic engine acc. to VDMA, i. e. without recooling system alternator and starter	345 kg
Weight of engine with fan, alternator and starter	370 kg
Power-to-weight ratio, referred to VDMA weight and 100 kW	3.45 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without throttle valve	approx. 19 kW
with throttle valve	approx. 51 kW
Cold-starting ability without starting aid and battery 75 % charged, down to	– 15 °C
Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque (80/1269/EEC) at 1400 ... 1600/min	408 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cyclic irregularity of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel J = 0.65	0.82 kgm²
Combustion air volume at 2600/min	8.0 m³/min
Exhaust gas volume at 2800/min and 100 kW with back pressure of 60 mbar at turbine outlet	20.4 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold	2300 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2600/min	201 l/min
Permissible air intake restriction upstream of turbocharger inlet at rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 20 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at turbine outlet	max. 60 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 × 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

Fuel consumption see diagram	

Lube oil consumption for new and already run-in engines is approx. 0.5 % of effective fuel consumption. This value can – acc. to application and running time – rise in individual cases to max. 1 %.

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

80/1269/EEC

Maximum automotive power ——————

The power is available at the flywheel of the engine. The power required by the standard fan has already been taken into account.

DIN 6271

Maximum ISO net brake fuel stop power **IFN** · — · — ·

ISO standard power exceedable by 10 % **ICXN** — — —

As distinct from DIN standard 6271, the power required by a fan is not considered in power specifications IFN and ICXN because of the great variety of cooling systems available.

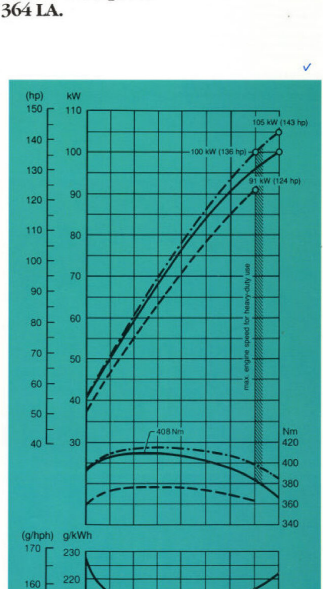
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represents continuous power exceedable by 10 %. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0{,}84$ g/cm³ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intended application, taking all operating conditions into account.

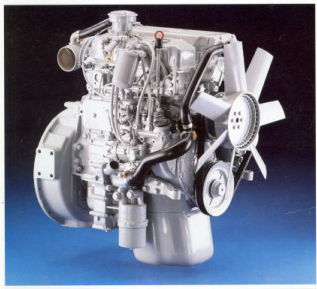
Engine speeds below 1500/min for continuous operation upon request.



Daimler-Benz manufactures and supplies a wide range of industrial diesel engines varying from 17 to 610 kW (23–830 hp). Information concerning these can be found in the brochures describing the basic concept behind each family of engines and in type sheets detailing the technical specifications of all the various engines.

Besides a high-quality and technically perfected product, Daimler-Benz also provides a comprehensive back-up system. This includes project and installation advisory services, spare parts supply, a worldwide service network and service training.

Contents not binding.
Subject to modifications.
The data included in this brochure are to be regarded as approximate.
The illustrations may also contain special equipment which is not part of the standard delivery specification.



Should you require further material, please consult the Vehicle Components Division in Stuttgart-Untertuerkheim:

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MERCEDES-BENZ

Technical Data

Mercedes-Benz Industrial Diesel Engine OM 364 LA 102 kW

OM 364	OM 364 A	OM 364 LA

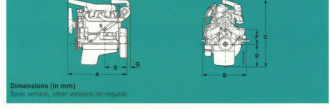
Mercedes-Benz

low pollution

Technical Data.

The OM 364 LA in-line engine is part of the industrial engine series 300 offered by Mercedes-Benz.

A ~ 900
B ~ 610
C ~ 970
D ~ 325
E ~ 320
F ~ 210
G ~ 65
S ~ center of gravity



Dimensions (in mm)
Basic version, other versions on request

General

Cylinder arrangement with exhaust gas turbocharger and intercooler	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	17 : 1
Mean effective pressure at 2600/min and 102 kW	11.9 bar
Mean piston speed at 2600/min	11.5 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10.5 l
Weight of basic engine without recooling system alternator and starter acc. to VDMA	320 kg
Weight of engine with fan, alternator and starter	355 kg
Power-to-weight ratio, referred to VDMA weight and	102 kW 3.14 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without butterfly valve	22 kW
with butterfly valve	52 kW
Cold-starting ability without starting aid and battery 75 % charged, down to –15 °C	
Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque at 1300 ...1800/min	430 Nm
Min. permissible engine speed for continuous operation below 1500/min	on request
Maximum speed without load depending on cyclic irregularity of governor	
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel J=0.65	0.82 kgm²
Combustion air volume at 2600/min	8.6 m³/min
Exhaust gas volume at 2800/min and 102 kW with back pressure of 100 mbar at turbine outlet	21 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold, without intercooler	1700 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2600/min	200 l/min
Permissible air intake restriction upstream of turbocharger inlet at rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 25 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at turbine outlet	max. 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 x 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

Fuel consumption	see diagram

Lube oil consumption for an already run-in-engine amounts up to 0.5 % of effective fuel consumption. This value may be exceeded in isolated cases depending on application and running time.

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

80/1269/EEC-89/491/EEC
Maximum automotive power
Visco fan hydraulic loose

The power rating quoted above complies with the directive 88/77/ECC, alteration 91/542/ECC, aiming at a reduction in gaseous emissions **and** particulates. Valid as of 1.7.1992 for new homologation.

Fan, rigid

DIN 6271
Maximum ISO net brake fuel stop power **IFN**

ISO standard power **ICXN**
exceedable by 10 %

As distinct from DIN standard 6271, the power required by a fan is not considered in power specification **IFN** and **ICXN** because of the great variety of cooling systems available.

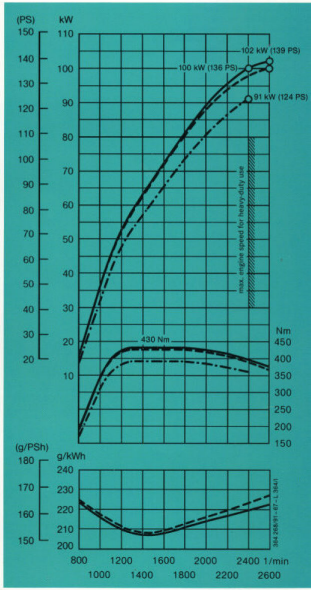
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

The ISO standard power **ICXN** represents continuous power exceedable by 10 %. The overload power is blocked and permitted for 1 hour without interruption or intermittently within a period of 12 hours.

The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0.84\ g/cm^3$ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the intented application, taking all operating conditions into account.

Engine speeds below 1500/min for continuous operation upon request.



Mercedes-Benz manufactures and supplies a wide range of industrial diesel engines varying from 40 to 612 kW (54 – 832 hp). Information concerning these can be found in the brochures describing the basic concept behind each family of engines and in type sheets detailing the technical specifications of the various engines.

Besides a high-quality and technically perfected product, Mercedes-Benz also provides a comprehensive back-up system. This includes project and installation advisory services, parts supply, a worldwide service network and service training.

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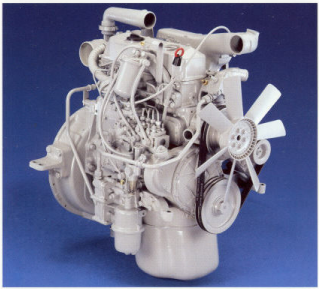

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Mercedes-Benz
Industrial engines

Mercedes-Benz
Industrial engines

Technical Data
OM 364 LA

103 kW

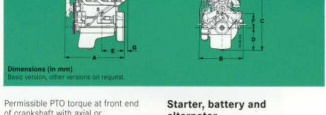
EURO2
low pollution

11.SMSAT.1995

Technical data.

The OM 364 LA in-line engine is part of the industrial engine series 300 offered by Mercedes-Benz.

A = 900 E = 320
B = 610 F = 210
C = 970 G = 65
D = 325 S = center of gravity



Dimensions (in mm)
Basic version, other versions on request.

General

Cylinder arrangement with exhaust gas turbocharger and intercooler	vertical, in-line
Cooling system	recirculating water cooling
Operation	4-stroke, direct injection
Number of cylinders	4
Cylinder bore	dia. 97.5 mm
Piston stroke	133 mm
Total displacement	3.972 l
Compression ratio	18 : 1
Mean effective pressure at 2600/min and 103 kW	12.0 bar
Mean piston speed at 2600/min	11.5 m/s
Starting speed	approx. 120/min
Sense of rotation of engine when facing flywheel	ccw
Starter	electric
Cooling water capacity of engine without recooling system	6.3 l
Max. lube oil capacity, standard oil pan	10.5 l
Weight of basic engine without recooling system alternator and starter acc. to VDMA	320 kg
Weight of engine with fan, alternator and starter	355 kg
Power-to-weight ratio, referred to VDMA weight and 103 kW	3.11 kg/kW
Braking power of engine (exhaust brake) at an engine speed of 2800/min without butterfly valve	22 kW
with butterfly valve	52 kW
Cold-starting ability without starting aid and battery 75 % charged, down to −15 °C	

Permissible PTO torque at front end of crankshaft with axial or single-side radial PTO	on request

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque at 1200 ... 1500/min	500 Nm
Minimum engine speed limit under load	1000/min
Maximum permissible engine speed with engine brake operation	3200/min
Min. idling speed	approx. 600/min

Installation data

Total moment of inertia of engine with flywheel J=0.52	0.69 kgm²
Combustion air volume at 2600/min	8.9 m³/min
Exhaust gas volume at 2600/min and 103 kW with back pressure of 100 mbar at turbine outlet	21 m³/min
Heat to be dissipated from cooling water with uncooled exhaust manifold, without intercooler	1600 kJ/kWh
Capacity of cooling water pump without cooling system at engine speed 2600/min	210 l/min
Permissible air intake restriction upstream of turbocharger inlet at rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter – new	max. 25 mbar
– polluted	max. 50 mbar
Permissible exhaust gas back pressure at rated automotive power at turbine outlet	max. 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	4 kW
Weight	13.5 kg
Starter battery	
Voltage	24 V
Min. capacity	2 x 55 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/35 A
Weight	5 kg
Power delivery starts at idling speed	

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standard engine speed and injection governors	

Consumption data

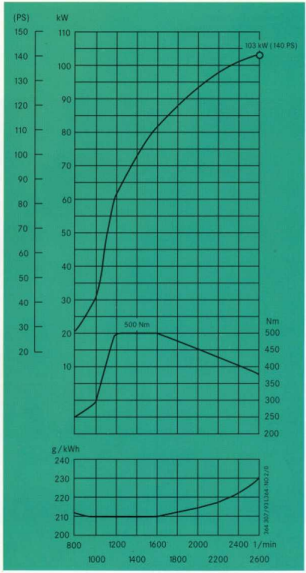
Fuel consumption see diagram	

Lube oil consumption for an already run-in-engine amounts up to 0.5 % of effective fuel consumption. This value may be exceeded in isolated cases depending on application and running time.

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

80/1269/EEC-89/491/EEC
Maximum automotive power
Visco fan hydraulic loose

The power rating quoted above complies with the directive 88/77/EEC, alteration 91/542/EEC grade B, aiming at a reduction in gaseous emissions **and** particulates. Valid as of 1.10.1995 for new homologation (EURO 2).



The power specifications and the specific fuel consumption data refer to diesel fuel with a reference density of $\rho_{15} = 0.84\ g/cm^3$ and a temperature of 35°C at the injection pump inlet.

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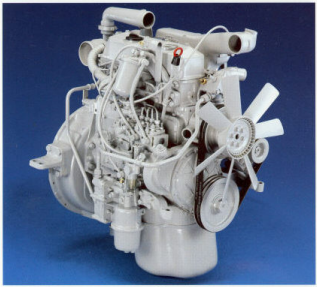

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Industrial engines