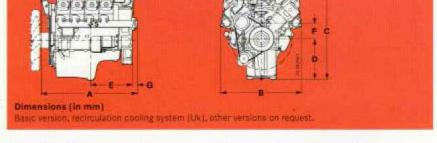


Mercedes-Benz Industrial Diesel Engine OM 442 195 kW



The OM 442 engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Mercedes-Benz.

A = 1055	E = 465
B = 895	F - 170
C = 1010	G = 55
D = 445	S = centre of gravity



down to

General		Permissible PTO torque at fr	
Cylinder arrangement	90°-V	of crankshaft with axial or single-side radial PTO	
Cooling system	recirculating water cooling	Power, torque and engine speed ratings	
Operation	4-stroke, direct injection		
Number of cylinders	8	Power and torque curves	
Cylinder bore	dia. 130 mm	Max. torque at 10001400 / min	
Piston stroke	142 mm	Min. permissible engine spe	
Total displacement	15.078 I	continuous operation	
Compression ratio	18:1	below 1500 / min	
Mean effective pressure a 2100 / min and 195 kW	t 7.4 bar	Maximum speed without loa on cyclic irregularity of gove	
Mean piston speed		Min, idling speed app	
at 2100 / min	9.9 m/s	2 1 22 22 2	
Starting speed a	pprox. 120/min	Installation data	
Sense of rotation of engin	e ccw	Total moment of inertia of er with flywheel J = 1.1	
Starter	electric	Combustion air volume	
Cooling water capacity of without recooling system	engine 17.5 I	at 2100 / min Exhaust gas volume at	
Max, lube oil capacity, standard oil pan	20.5	2100 / min and 195 kW with back pressure of 100 m at engine outlet	
Weight of basic engine ac		Heat to be dissipated from o	
i. e. without recooling sys alternator and starter	tem, 815 kg	water with uncooled	
Weight of engine with fan, alternator and starter	850 kg	Capacity of cooling water pu without cooling system	
Power-to-weight ratio, referred to VDMA weight	and	at engine speed 2100 / min Permissible air intake restric	
195 kW 4.18 kg/kW Braking power of engine (exhaust brake) at an engine speed of 2100/min		upstream of engine inlet at	
		rated automotive power oil bath air filter	
without butterfly valve with butterfly valve	52 kW	dry air filter, new dry air filter, polluted	
Cold-starting ability witho and battery 75% charged,		Permissible exhaust gas back pressure at rated autor	
down to	- 20°C	at engine outlet n	

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

Power, torque and engine speed ratings

Power and torque curves	s see diagram
Max. torque at 10001400 / min	980 Nm
Min. permissible engine continuous operation below 1500 / min	speed for on request
Maximum speed without on cyclic irregularity of s	
Min, idling speed	approx. 600/min

Installation data	
Total moment of inertia of e with flywheel J = 1.1	engine 2.1 kgm²
Combustion air volume at 2100 / min	15.3 m ³ /min
Exhaust gas volume at 2100 / min and 195 kW with back pressure of 100 r at engine outlet	nbar 32 m³/min
Heat to be dissipated from water with uncooled exhaust manifold	cooling 2300 kJ/kWh
Capacity of cooling water p without cooling system at engine speed 2100/min	
Permissible air intake restri	iction

- 20°C at engine outlet

back pressure at rated automotive power

max, 30 mbar

max, 25 mbar

max, 50 mbar

max, 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min, capacity	110 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idlin	

Injection pump and governor

with governor	Bosch
Provision for installing standard speed and injection governors	engine

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 442.

80/1269/EEC-89/491/EEC

Maximum automotive power Visco fan hydraulic loose

The power rating quote above complies with the 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 ICXN power exceedable by 10%

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.

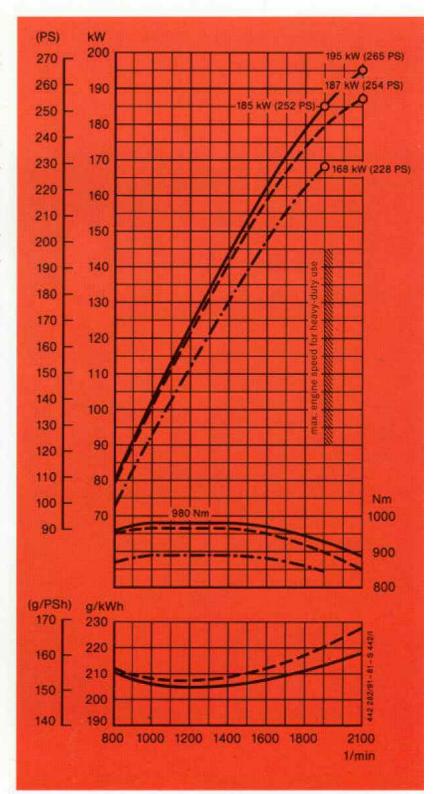
The ISO net brake fuel stop power IFN cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\rho_{15} = 0.84 \text{ g/cm}^3$ 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.

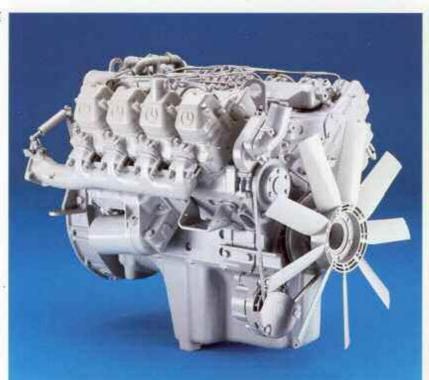
Engine speeds below 1500 / min for continuous operation upon request.



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.

Subject to medifications.
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:

Mercedes-Benz AG Produktbereich Fahrzeugaggregate (PBA) P. O. Box 60 02 02 D-7000 Stuttgart 60 Telephone (0711) 17-0 Telefax (0711) 175 59 71 Telex 7 2 524-0





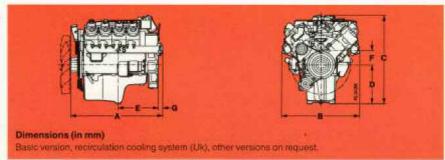
Mercedes-Benz Industrial Diesel Engine OM 442 213 kW



The OM 442 engine is one of the Vengines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Daimler-Benz.

A = 1070	E = 465
B = 895	F = 170
C = 1010	G = 53
D AAE	O CONTRACTOR OF THE

S = centre of gravity



down to

General		Permissible PTO
Cylinder arrangement	90°-V	crankshaft with as single-side radial
Cooling system	recirculating water cooling	225
Operation 4-stroke	, direct injection	Power, torque engine speed
Number of cylinders	8	-
Cylinder bore	dia. 130 mm	Power and torque Max torque
Piston strake	142 mm	at 10001600/m
Total displacement	15.0781	Min. permissible
Compression ratio	16.9 : 1	continuous opera
Mean effective pressure at 2100/min and 213 kW	t 8.07 bar	below 1500/min Maximum speed
Mean piston speed at 2100/min	9.9 m/s	on cyclic irregular Min. idling speed
Starting speed a	pprox. 120/min	
Sense of rotation of engine	е	Installation da
when facing flywheel	ccw	Total moment of i
Starter	electric	with flywheel J =
Cooling water capacity of without recooling system	engine 17.5 I	Combustion air v at 2100/min
Max, lube oil capacity, standard oil pan	max. 20,51	Exhaust gas volu 2100/min and 213
Weight of basic engine acci. e. without recooling syst		with back pressur at engine outlet
alternator and starter	815 kg	Heat to be dissipa water with uncoo
Weight of engine with fan, alternator and starter	850 kg	exhaust manifold Capacity of coolin
Power-to-weight ratio, referred to VDMA weight a 213 kW	nd 3.83 kg/kW	without cooling statengine speed 2 Permissible air in
Braking power of engine (e at an engine speed of 2100/min without throttle valve with throttle valve		upstream of engir rated automotive oil bath air filter dry air filter, new dry air filter, pollui
Cold-starting ability withou and battery 75% charged	ut starting aid	Permissible exha back pressure at

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 cur	ves see diagram
Max.torque at 10001600/min	(80/1269/EEC) 1100 Nm
Min. permissible eng continuous operation below 1500/min	
Maximum speed with on cyclic irregularity of	out load depending
Min. idling speed	approx. 600/min

Installation data

dry air filter, polluted

-20°C at engine outlet

Permissible exhaust gas

Total moment of inertia of e	ingine
with flywheel J = 1,1	2.1 kgm ²
Combustion air volume at 2100/min	14 m³/mir
Exhaust gas volume at 2100/min and 213 kW with back pressure of 60 m at engine outlet	bar 41 m³/mir
Heat to be dissipated from water with uncooled exhaust manifold	cooling 2300 kJ/kWh
Capacity of cooling water p without cooling system at engine speed 2100/min	ump 560 l/mir
Permissible air intake restri upstream of engine inlet at rated automotive output oil bath air filter	

back pressure at rated automotive power

max. 20 mbar

max. 50 mbar

max. 60 mbar

Starter-, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min. capacity	110 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idline	

Injection pump and governor

In-line injection pump	
with governor	Bosch
Provision for installing standa speed and injection governor	

Consumption data

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 and torque of engine type OM 442.

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 ICXN exceedable by 10%

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.

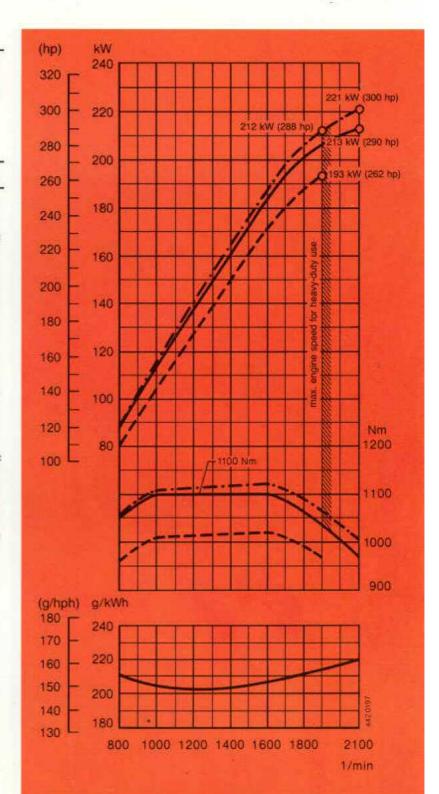
The ISO net brake fuel stop power IFN cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\varrho_{15} = 0.84 \text{ g/cm}^3$ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the 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, parts supply, a worldwide service network and service training. 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 Vehicules Components Division in Stuttgart-Untertuerkheim:

Daimler-Benz AG Produktbereich Fahrzeugaggregate (PBA) D-7000 Stuttgart 60 Telefon (0711) 17-0 Telefax (0711) 1755971 Telex 72 524-0





Mercedes-Benz Industrial Diesel Engine OM 442 A 250 kW



The OM 442 A engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Mercedes-Benz.

A = 1420	E = 475
B = 975	F = 155
G = 1120	G = 119
D = 476	S = centre of gravity

General

Cylinder arrangement	90°-V as turbocharger
	The state of the s
Cooling system	recirculating water cooling
Operation	4-stroke direct injection
Number of cylinders	8
Cylinder bore	dia, 128 mm
Piston stroke	142 mm
Total displacement	14.618
Compression ratio	18:1
Mean effective pressure a 2100/min and 250 kW	t 9.8 bar
Mean piston speed at 2100 / min	9.9 m/s
Starting speed a	pprox. 120 / mir
Sense of rotation of engin when facing flywheel	e ccw
Starter	electric
Cooling water capacity of without recooling system	engine 17.5
Max. lube oil capacity, standard oil pan	23.5
Weight of basic engine acci. e, without recooling syst	
alternator and starter	875 kg
Weight of engine with fan, alternator and starter	910 kg
Power-to-weight ratio, referred to VDMA weight a 250 kW	and 3.5 kg/kW
Braking power of engine (at an engine speed of 210	0/min
without butterfly valve with butterfly valve	57 kW 141 kW
Cold-starting ability withou and battery 75% charged,	
down to	- 20°C

Permissible PTO torque at fi	ront end
of crankshaft with axial or	
single-side radial PTO	on reque

Power, torque and engine speed ratings

Power and torque curves	see diagram
Max. torque at 1200/min	1500 Nm
Min. permissible engine continuous operation below 1500 / min	speed for on request.
Maximum speed without on cyclic irregularity of g	
Min. idling speed	approx. 600 / min

Installation data

with flywheel J = 1.1	2.2 kgm
Combustion air volume at 2100 / min	26.4 m³/mir
Exhaust gas volume at 2100 / min and 250 kW with back pressure of 10 at turbine outlet	0 mbar 59 m³/mir
Heat to be dissipated fro water with uncooled exhaust manifold	om cooling 2300 kJ/kWh
Capacity of cooling wate without cooling system	r pump

at engine speed 2100 / min 570 1 / min Permissible air intake restriction upstream of turbocharger inlet at rated automotive power oil bath air filter, new max. 3 dry air filter, new max. 5 dry air filter, polluted max. 5

max, 30 mbar max, 25 mbar max, 50 mbar

Permissible exhaust gas back pressure at rated automative power at turbine outlet max, 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery Voltage Min. capacity	24 V 110 Ab
Three-phase alternator	Bosch
Voltage	28 V
Current	10 / 30 A
Weight	4 kg
Power delivery starts at idlir	ng speed

Injection pump and governor

In-line injection pump with governor	Bosch
Provision for installing standar 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 442 A.

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, 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 ICXN — power exceedable by 10 %

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.

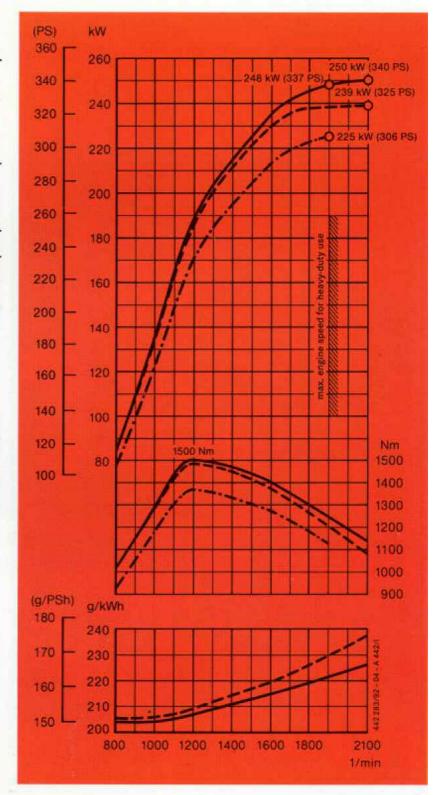
The ISO net brake fuel stop power IFN cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\rho_{15} = 0.84 \text{ g/cm}^3$ 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.

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.











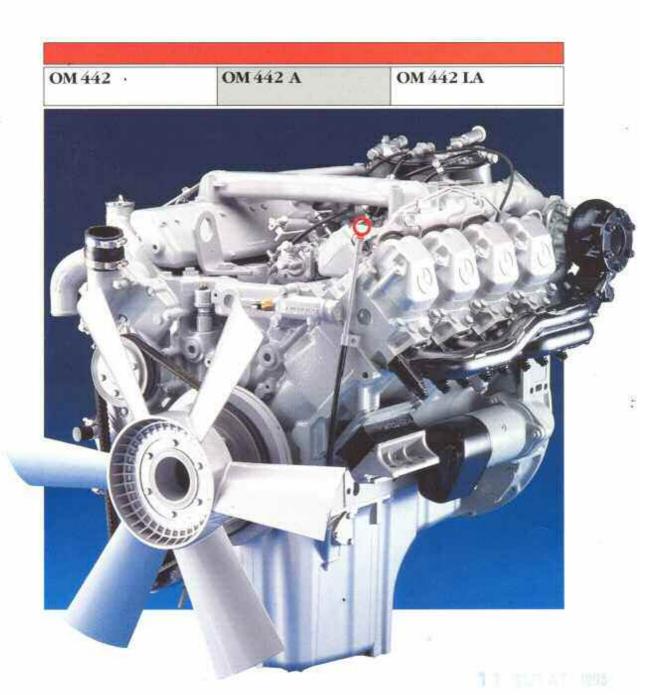
Should you require further material, please consult the Vehicle Components Division in Stuttgart-Untertuerkheim:

Mercedes-Benz AG Produktbereich Fahrzeugaggregate (PBA) Postfach 60 02 02 D-7000 Stuttgart 60 Telefon (0711) 17-0 Telefax (0711) 1 75 59 71 Telex 7 2 524-0



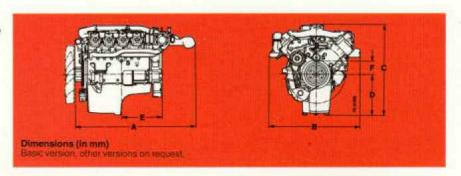


Technical Data Mercedes-Benz Industrial Diesel Engine OM 442 A 260 kW



The OM 442 A engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Daimler-Benz.

A = 1415	E = 475
B = 1055	F = 155
C = 1055	S = center of
D = 476	gravity



General		remissible FTO
Cylinder arrangement with exhaust ga	90°-V as turbocharger	of crankshaft with single-side radia
Cooling system	recirculating water cooling	Power, torque
Operation	4-stroke,	engine speed
	direct injection	Power and torque
Number of cylinders	8	Max. torque (80/
Cylinder bore	dia. 128 mm	at 10001600/m
Piston stroke	142 mm	Min. permissible
Total displacement	14.62	continuous opera
Compression ratio	16.25 : 1	below 1500/min
Mean effective pressure at 2100/min and 260 kW	10.2 bar	Maximum speed on cyclic irregula
Mean piston speed at 2100/min	9.9 m/s	Min. idling speed
Starting speed a	oprox. 120/min	Installation d
Sense of rotation of engine when facing flywheel	CCW	Total moment of with flywheel J =
Starter	electric	Combustion air v
Cooling water capacity of e without recooling system	engine 17.5 l	at 2100/min
Max. lube oil capacity, standard oil pan	23.51	Exhaust gas volu and 260 kW (354 of 60 mbar at turk
Weight of basic engine acc i.e. without recooling syste alternator and starter		Heat to be dissip water with uncode exhaust manifold
Weight of engine with fan, alternator and starter	910 kg	Capacity of cooling sithout cooling s
Power-to-weight ratio, referred to VDMA weight and 260 kW	3.37 kg/kW	at engine speed Permissible air in upstream of turb
Braking power of engine (exhaust brake) at an engine speed of 2100/min without throttle valve approx. 57 kW with throttle valve approx. 141 kW		rated automotive oil bath air filter dry air filter, new polluted
Cold-starting ability withou and battery 75% charged,		Permissible exha back pressure at at turbine outlet

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 cur	ves see diagram
Max. torque (80/1269 at 1000 1600/min	9/EEC) 1600 Nm
Min. permissible eng continuous operation below 1500/min	
Maximum speed with on cyclic irregularity of	
Min idling speed	annroy 600/min

Installation data

Total moment of inertia of e	naine
with flywheel J = 1.1	2.2 kgm ²
Combustion air volume at 2100/min	23.5 m ³ /min
Exhaust gas volume at 210 and 260 kW (354 hp) with b of 60 mbar at turbine outlet	ack pressure
Heat to be dissipated from water with uncooled exhaust manifold	cooling 2300 kJ/kWh
Capacity of cooling water p without cooling system at engine speed 2100/min	ump 610 l/min
Permissible air intake restri upstream of turbocharger in rated automotive power oil bath air filter dry air filter, new	max. 30 mbar max. 20 mbar
polluted Permissible exhaust gas	max. 50 mbar
back pressure at rated auto	mative power

max. 60 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min. capacity	110 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 stand	
speed and injection govern	The state of the s

Consumption data

Fuel consumption see	diagram
Lube oil consumption f	
run-in engines is	approx. 0.5 %
of effective fuel consur	nption.
This value can - acc. to	application and
running time - rise in in	idividual cases to
max. 1 %.	JY, 34 / 19 / 19 / 19 / 19 / 19 / 19 / 19 / 1

Power, torque and fuel consumption of engine type OM 442 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

ISO standard power ICXN — — - exceedable by 10 %

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.

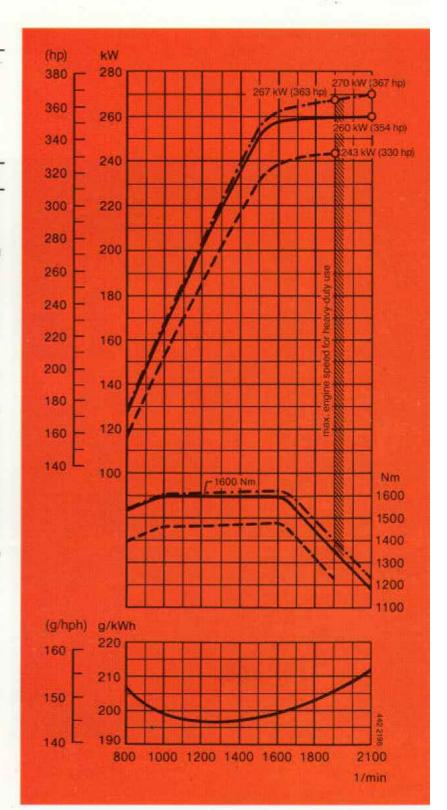
The ISO net brake fuel stop power **IFN** cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\varrho_{15}=0.84\,\text{g/cm}^3$ and a temperature of $35\,^{\circ}\text{C}$ 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.



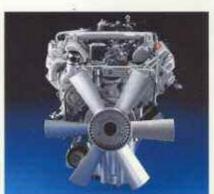
Daimler-Benz manufactures and supplies a wide range of industrial diesel engines varying from 17 to 610 kW (23 –830 hp). Information concerning these can be found in the brochures describing the basic concept behind each family of engines and in type sheets detailing the technical specifications of all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

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 Vehicules Components Division in Stuttgart-Untertuerkheim:

Daimler-Benz AG Produktbereich Fahrzeugaggregate (PBA) Postfach 6002 02 D-7000 Stuttgart 60 Telefon (0711) 17-0 Telefax (0711) 175 59 71 Telex 7 2 5 2 4 - 0



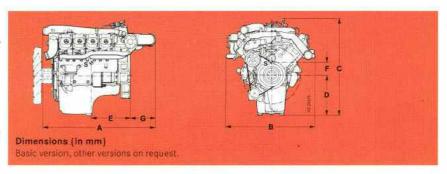


Technical Data OM 442 LA



The OM 442 LA engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Mercedes-Benz.

A = 1350	E = 475
B = 1060	F = 155
C = 1180	G = 305
D = 520	S = center of gravity



General

Cylinder arrang	ement 90°-\
wit	exhaust gas turbocharge and intercoole
Cooling systen	recirculating water cooling
Operation	4-stroke, direct injection
Number of cyli	iders 8
Cylinder bore	dia, 128 mm
Piston stroke	142 mm
Total displacen	ent 14.618
Compression r	tio 17.25:
Mean effective 2100 / min and	
Mean piston s at 2100 / min	eed 9.9 m/s
Starting speed	approx. 120 / mir
Sense of rotati when facing fly	
Starter	electric
Cooling water without recool	apacity of engine ng system 17.5
Max. lube oil c standard oil pa	
i. e. without re-	engine acc. to VDMA, cooling system,
alternator and	TO THE PERSON OF
Weight of engi alternator and	
Power-to-weig VDMA weight	t ratio, referred to nd 390 kW 2.27 kg/kW
Braking power at an engine sp	of engine (exhaust brake) eed of 2100/min
without butter	y valve 61 kW
with butterfly v	alve 141 kW

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 1100 / min	2300 Nm
Minimum engine speed limit under load	1000 / min
Maximum permissible engin speed with engine brake operation	e 2350/min
Min. idling speed	500/min

Installation data

with flywheel J = 1.1

Total moment of inertia of engine

0.011	[[마시크:[[[[[[]]]]]]] [[[[[]]]] [[[[]]] [[[]]] [[[]]] [[[]] [[]] [[]] [[]] [[]] [[]] [[]] [[]] [[]] [[]] [[]] [[]	
electric	at 2100 / min and 390 kW 35 m³ / Exhaust gas volume at 2100 / min and 390 kW with back pressure of 100 mbar	
17.5		
23.5		
MA, 885 kg	Heat to be dissipated from water with uncooled exha	n cooling ust manifold,
Capacity of cooling water pum		pump
7 kg/kW	at engine speed 2100/mi	an expense and annual
250,000,000	upstream of turbocharger rated automotive power oil bath air filter	
218 kW ing aid		
	17.5 I 23.5 I DMA, 885 kg 920 kg 7 kg/kW t brake) 61 kW 141 kW	at 2100 / min and 390 kW 17.5 Exhaust gas volume at 2100 / min and 390 kW with back pressure of 100 at turbine outlet 23.5 Heat to be dissipated from water with uncooled exhawithout intercooler 920 kg

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min. capacity	110 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/35 A
Weight	5 kg
Power delivery starts at idlin	ng speed

Injection pump and governor

In-line injection pump with control sleeve and electronic governing

2.2 kgm2 Consumption data

running time.

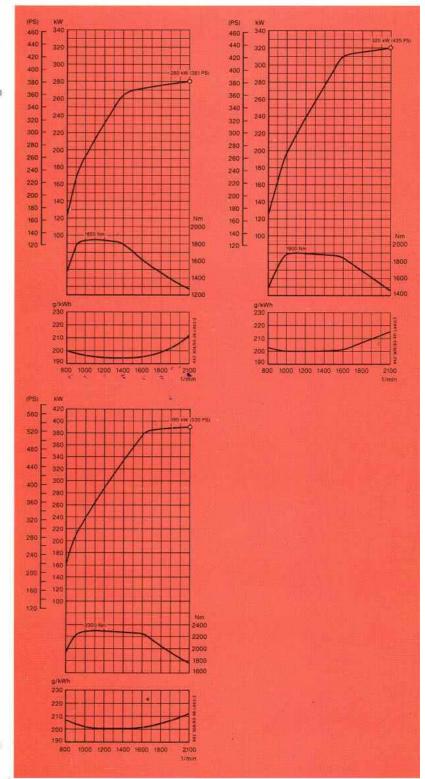
Fuel consumption see diagram Lube oil consumption for an already run-in engine amounts up to 0.5% of effective fuel consumption. This value may be exceeded in isolated cases depending on application and

Power, torque and fuel consumption of engine type OM 442 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 ρ_{15} = 0.84 g/cm³ and a temperature of 35°C at the injection pump inlet.

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 backup system. This includes project and installation advisory services, parts supply, a worldwide service network and service training. 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 Vehicules Components Division in Stuttgart-Untertuerkheim:

Daimler-Benz AG Produktbereich Fahrzeugaggregate (PBA) Postfach 60 02 02 D-7000 Stuttgart 60 Telefon (0711) 17-0 Telefax (0711) 1755971 Telex 72 524-0



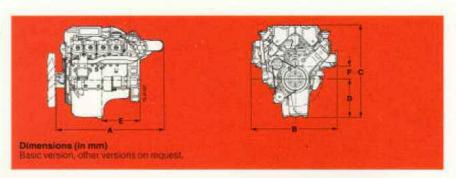


Mercedes-Benz Industrial Diesel Engine OM 442 LA 353 kW



The OM 442 LA engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Daimler-

A = 1330	E = 475
B = 1070	F = 155
C = 1145	S = center of
D = 476	gravity



General		Permissible PTO
Cylinder arrangement with exhaust gas a	90°-V s turbocharger and intercooler	of crankshaft with single-side radial
Cooling system	recirculating water cooling	Power, torque engine speed
Operation 4-stroke, of	direct injection	Power and torque
Number of cylinders	8	Max. torque (80/
Cylinder bore	dia. 128 mm	at 10001600/m
Piston stroke	142 mm	Min. permissible
Total displacement	14.621	continuous opera
Compression ratio	16.25 : 1	below 1500/min
Mean effective pressure at 2100/min and 353 kW	13.8 bar	Maximum speed on cyclic irregular
Mean piston speed		Min. idling speed
at 2100/min	9.9 m/s	
Starting speed ap	prox. 120/min	Installation da
Sense of rotation of engine when facing flywheel	ccw	Total moment of i
Starter	electric	Combustion air v
Cooling water capacity of er without recooling system	at 2100/min	
Max. lube oil capacity, standard oil pan	17.51	and 353 kW with 60 mbar at turbin
Weight of basic engine acc. i.e. without recooling systemalternator and starter		Heat to be dissipated water with uncoo without intercools
Weight of engine with fan, alternator and starter	925 kg	Capacity of cooling without cooling s
Power-to-weight ratio, referred to VDMA weight and 353 kW	at engine speed : Permissible air in upstream of turbo	
Braking power of engine (exhaust brake) at an engine speed of 2100/min without throttle valve approx. 57 kW with throttle valve approx. 141 kW		rated automotive oil bath air filter dry air filter, new polluted
Cold-starting ability without and battery 75% charged, o		Permissible exha back pressure at at turbine outlet

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 curv	es see diagram
Max. torque (80/1269 at 10001600/min	/EEC) 2000 Nm
Min. permissible engi- continuous operation below 1500/min	ne speed for on request
Maximum speed without on cyclic irregularity of	CONTRACTOR OF THE STREET, THE STREET,
Min. idling speed	approx. 600/min

Installation data

Permissible exhaust gas

iristaliation data	
Total moment of inertia of	engine
with flywheel J = 1.1	2.2 kgm ²
Combustion air volume at 2100/min	29 m³/min
Exhaust gas volume at 210 and 353 kW with back pres	ssure of
60 mbar at turbine outlet	72 m³/min
Heat to be dissipated from water with uncooled exhau- without intercooler	
Capacity of cooling water p without cooling system at engine speed 2100/min	
Permissible air intake restr upstream of turbocharger rated automotive power	
oil bath air filter	max. 30 mbar
dry air filter, new	max. 20 mbar
polluted	max, 50 mbar

back pressure at rated automotive power

max, 60 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min. capacity	110 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idling	gspeed

approx. 600/min Injection pump and governor

In-line injection	
pump with governor	Bosch
Provision for installing stand speed and injection govern	

Consumption data

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

Power, torque and fuel consumption of engine type OM 442 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 aiready been taken into account.

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 specifications IFN and ICXN because of the great variety of cooling systems available.

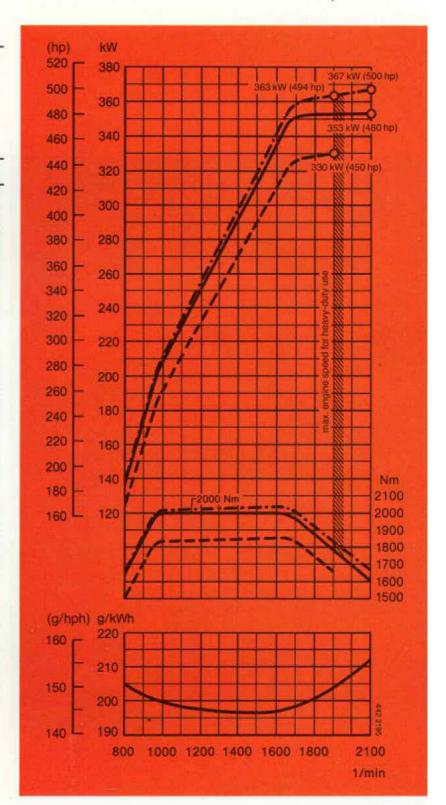
The ISO net brake fuel stop power IFN cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\varrho_{15} = 0.84 \, \text{g/cm}^3$ and a temperature of 35 °C at the injection pump inlet.

In individual cases, the power ratings can be chosen to suit the 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 backup system. This includes project and installation advisory services, parts supply, a worldwide service network and service training. 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 Vehicules Components Division in Stuttgart-Untertuerkheim:

Daimler-Benz AG Produktbereich Fahrzeugaggregate (PBA) Postfach 60 02 02 D-7000 Stuttgart 60 Telefon (0711) 17-0 Telefax (0711) 1755971 Telex 72 524-0



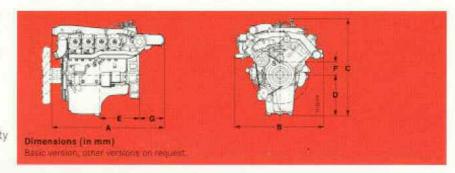


Mercedes-Benz Industrial Diesel Engine OM 442 LA 370 kW



The OM 442 LA engine is one of the V-engines in the 400 series and is one of the more powerful of the industrial diesel engines offered by Mercedes-Benz.

A = 1350	E = 475
B = 1060	F = 155
C - 1180	G = 305
D - 520	S = center of gravity



General	
Cylinder arrangement with exhaust gas a	90°-v s turbocharger and intercooler
Cooling system	recirculating water cooling
Operation 4-stroke, o	lirect injection
Number of cylinders	8
Cylinder bore	dia. 128 mm
Piston stroke	142 mm
Total displacement	14.618
Compression ratio	16.75:1
Mean effective pressure at 2100 / min and 370 kW	14.5 bar
Mean piston speed at 2100 / min	9.9 m/s
Starting speed ap	prox. 120 / min
Sense of rotation of engine when facing flywheel	CCW
Starter	electric
Cooling water capacity of e without recooling system	ngine 17.5 I
Max. lube oil capacity, standard oil pan	23.5 (
Weight of basic engine acc. i. e. without recooling syste	m.
alternator and starter	890 kg
Weight of engine with fan, alternator and starter	925 kg
Power-to-weight ratio, referred to VDMA weight ar 370 kW	nd 2.41 kg/kW
Braking power of engine (e) at an engine speed of 2100	khaust brake)
without butterfly valve with butterfly valve	57 kW 141 kW
Cold-starting ability without	

and battery 75% charged,

down to

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	s see diagram
Max. torque at 11001600 / min	2020 Nm
Min. permissible engine	speed for
continuous operation	
below 1500 / min	on request
Maximum speed without on cyclic irregularity of a	
Min. idling speed	approx 600 / min

- 20°C at turbine outlet

Installation data	
Total moment of inertia of a with flywheel J = 1.1	engine 2,2 kgm²
Combustion air volume at 2100 / min	36.6 m ³ /min
Exhaust gas volume at 2100 / min and 370 kW with back pressure of 100 r at turbine outlet	mbar 83 m³/min
Heat to be dissipated from water with uncooled exhau without intercooler	
Capacity of cooling water p without cooling system at engine speed 2100 / min	1.44
Permissible air intake restr upstream of turbocharger i rated automotive power oil bath air filter dry air filter, new dry air filter, polluted	CONTRACTOR OF THE PROPERTY OF
Permissible exhaust gas back pressure at rated auto	omotive power

max. 100 mbar

Starter, battery and alternator

Starter	Bosch
Voltage	24 V
Output	5.4 kW
Weight	16 kg
Starter battery	
Voltage	24 V
Min. capacity	110 Ah
Three-phase alternator	Bosch
Voltage	28 V
Current	10/30 A
Weight	4 kg
Power delivery starts at idlin	

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 442 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, 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 ICXN power exceedable by 10%

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.

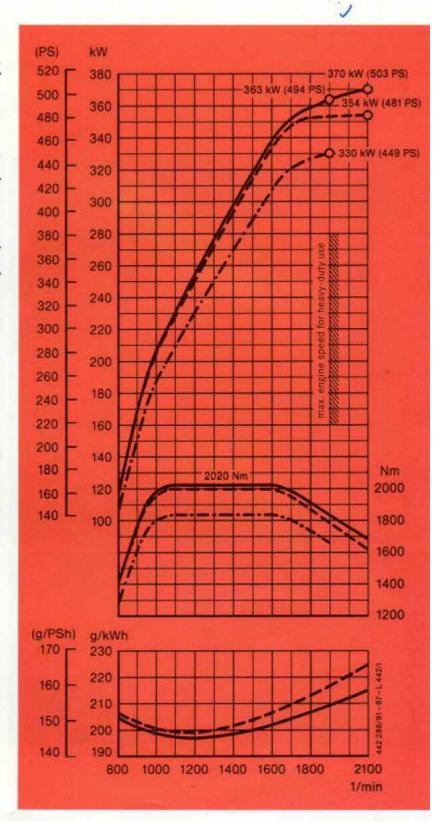
The ISO net brake fuel stop power IFN cannot be exceeded. It is permitted for 1 hour without interruption or intermittently within a period of 6 hours.

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 $\rho_{15} = 0.84 \text{ g/cm}^3$ 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.

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:

Mercedes-Benz AG Produktbereich Fahrzeugaggregate (PBA) P. O. Box 60 02 02 D-7000 Stuttgart 60 Telephone (0711) 17-0 Telefax (0711) 175 59 71 Telex 7 2 524-0

