

Air cooled Diesel engines

12.0-26.0 kW



LOMBARDINI[®]

A KOHLER COMPANY





ENGINES WITH 2 AND 3 CYLINDERS IN MODELS 25 LD, 12 LD, 9 LD AND 11 LD COVERING A POWER RANGE OF 12.0 TO 26.0 KW. THESE ARE THE BEST OPTION IN THEIR MARKET SECTOR, OFFERING DURABLE PERFORMANCE,

COMPACTNESS AND LOW MAINTENANCE COSTS. WIDELY USED FOR APPLICATIONS SUCH AS MOTOR-CULTIVATORS, SMALL FOUR-WHEELED TRACTORS, PUMPS AND COMPRESSORS.

AIR COOLED DIESEL ENGINES

12.0-26.0 KW

STANDARD EQUIPMENT

Electric starting with 12 V starter motor and alternator
Remote throttle
Oil pressure switch
Combined manifold and exhaust muffler
Engine feet
Fuel lift pump
Counter-clockwise rotation on power take-off side
Automatic extra fuel device
Use, maintenance and spare parts booklet
Oil bath air filter
Manual control accelerator
Power take-off on flywheel (9 LD; 11 LD)
Power take-off on crankshaft (25 LD; 12 LD)
Fuel tank with filter
Guard for belt (11 LD)

ACCESSORIES ON DEMAND

Different guards according to use
Range of alternative alternators and 24 V
Compression release
Flanges
Dry air filter
External fuel filter
Clutches
Hydraulic pump adapters
Range of fuel tanks of various sizes
Range of flywheels for various clutches
Mufflers and exhaust pipes
Controls
Pulleys
Oil cooler (9 LD; 25 LD; 11 LD)
Crank starter (9 LD)
Keyswitch panel





25 LD 330/2

QUICK SPECIFICS

2
CYLINDER

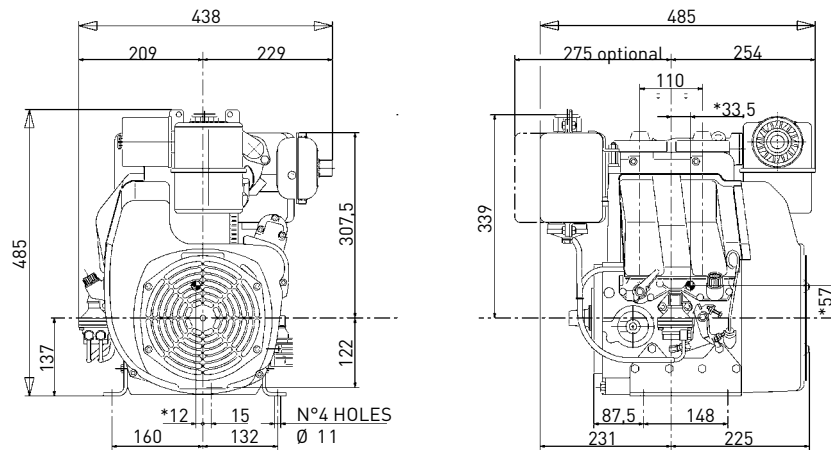
16.3 | **12.0** @ 3600 rpm
HP | kW

32.0 @ 2400 rpm
Nm



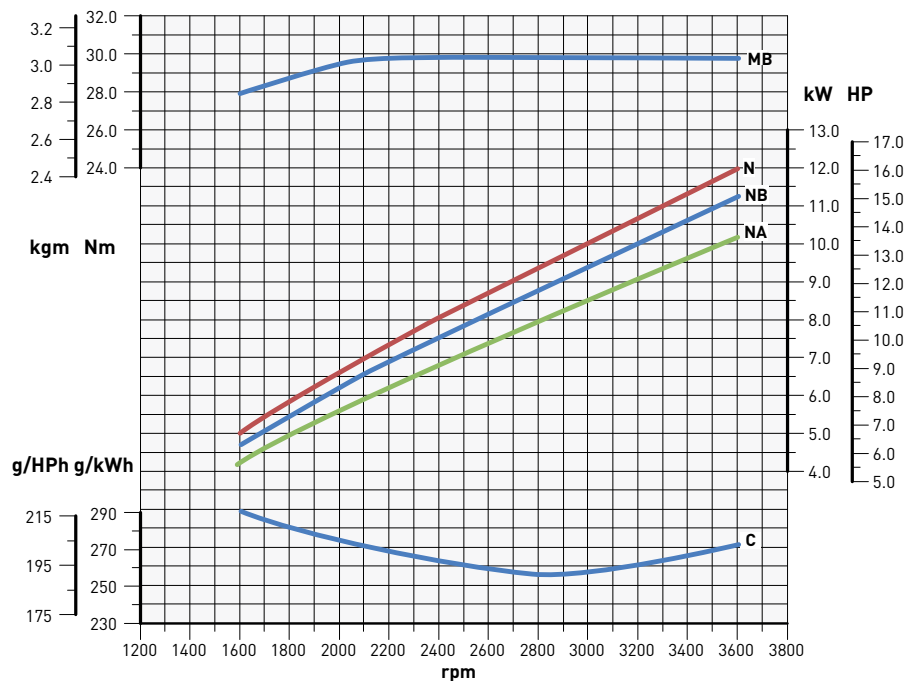
DATA

DIMENSIONS (mm)



* gravity center of the engine

PERFORMANCE CURVES



GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3600	11.2	10.3
3000	9.4	8.6

N - Power curve - 80/1269/CE E-ISO 1585
NB - Power curve - ISO 3046/1 -IFN
NA - Power curve - ISO 3046/1 - ICXN
MN - Torque curve - (N curve) MB (NB curve) MA (NA curve)
C - Specific fuel consumption - (NB curve)

Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

25 LD 425/2



QUICK SPECIFICS

2
CYLINDER

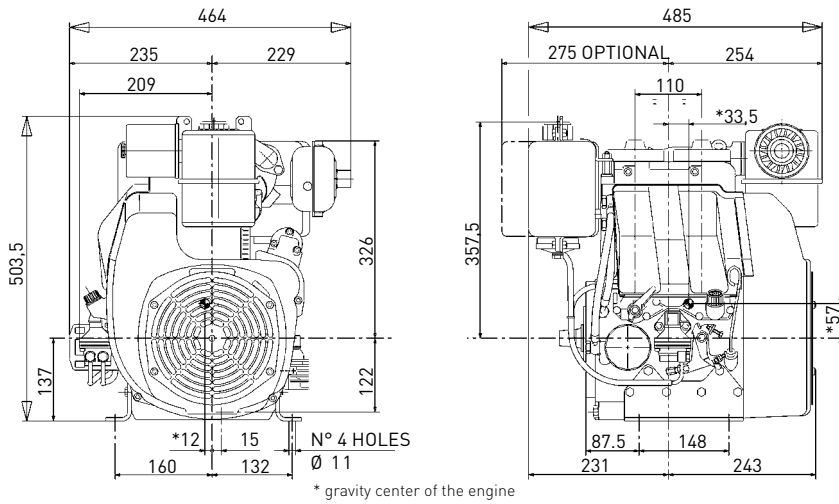
19.0 | **14.0** @ 3600 rpm
HP | kW

42.0 @ 2200 rpm
Nm

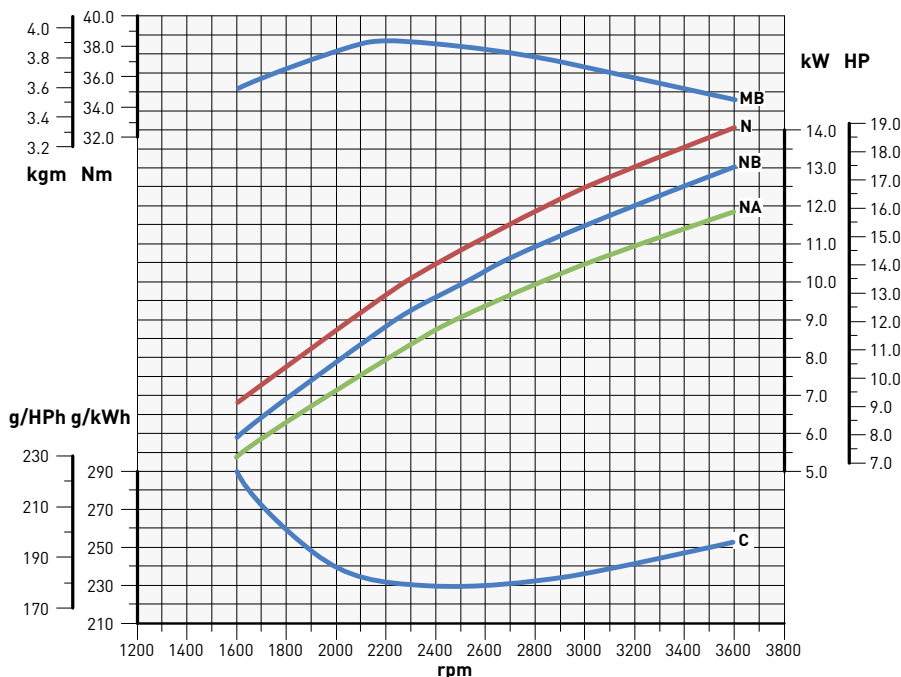


DATA

DIMENSIONS (mm)



PERFORMANCE CURVES



N - Power curve - 80/1269/CE E-ISO 1585 **MN** - Torque curve - (N curve) MB (NB curve) MA (NA curve)
NB - Power curve - ISO 3046/1 - IFN **C** - Specific fuel consumption - (NB curve)
NA - Power curve - ISO 3046/1 - ICXN

Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3600	13.0	12.0
3000	11.5	10.5

12 LD 477/2

QUICK SPECIFICS

2
CYLINDER

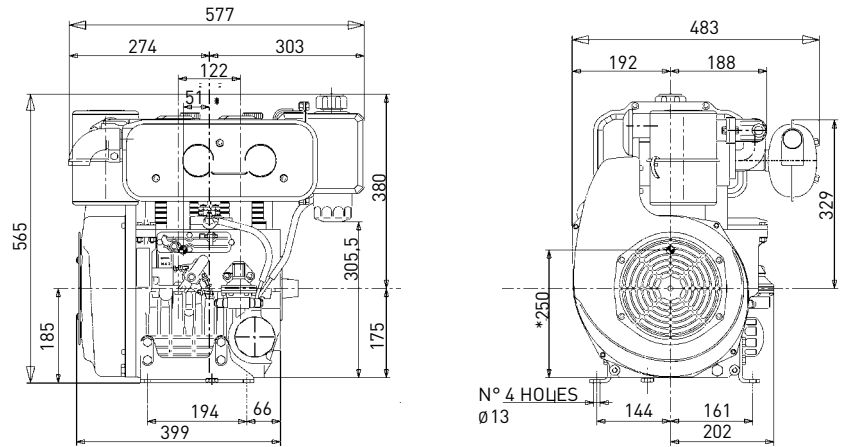
22.8 | **16.8** @ 3600 rpm
HP kW

55.0 @ 2100 rpm
Nm



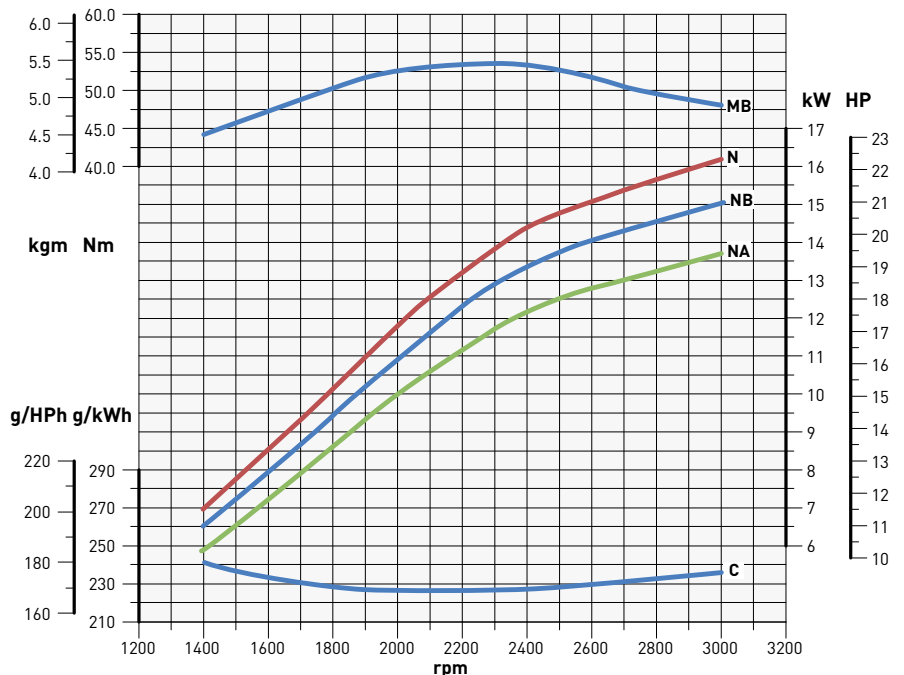
DATA

DIMENSIONS (mm)



* gravity center of the engine

PERFORMANCE CURVES



GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3600	15.7	14.5
3000	14.9	13.5
1800	9.0	8.1
1500	7.7	7.0

N - Power curve - 80/1269/CE E-ISO 1585
NB - Power curve - ISO 3046/1 -IFN
NA - Power curve - ISO 3046/1 - ICXN
MN - Torque curve - (N curve) MB (NB curve) MA (NA curve)
C - Specific fuel consumption - (NB curve)

Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

9 LD 625/2



QUICK SPECIFICS

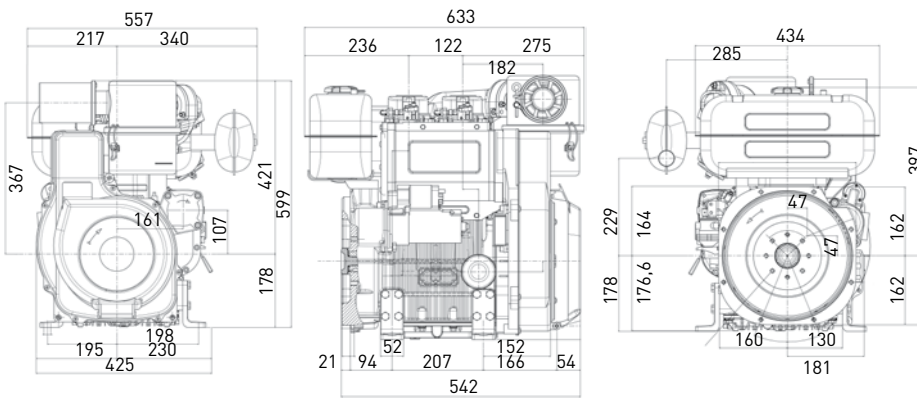
2
CYLINDER

25.5 | **18.8** @ 3000 rpm
HP | kW

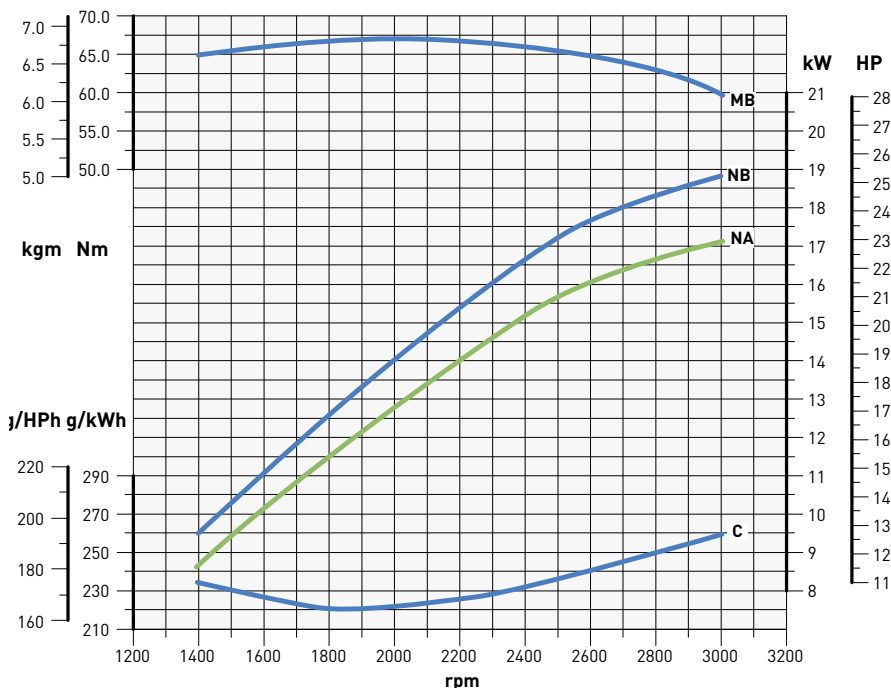
67.0 @ 2000 rpm
Nm

DATA

DIMENSIONS (mm)



PERFORMANCE CURVES



N - Power curve - 80/1269/CE E-ISO 1585
NB - Power curve - ISO 3046/1 - IFN
NA - Power curve - ISO 3046/1 - ICXN
MN - Torque curve - (N curve) MB (NB curve) MA (NA curve)
C - Specific fuel consumption - (NB curve)

Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

SETTING @ 2800 RPM

Max power (N) (kW)	Max torque (Nm)
18.2 @ 2800 rpm	67 @ 2000 rpm

GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3000	18.8	17.1
1800	13.5	12.0
1500	10.7	9.7

11 LD 626/3

QUICK SPECIFICS

3

CYLINDER

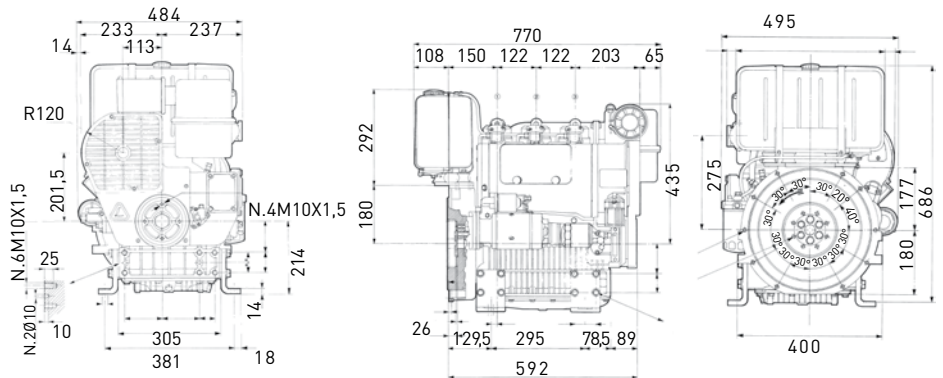
35.4 | **26.0** @ 3000 rpm
HP kW

102.0 @ 2000 rpm
Nm

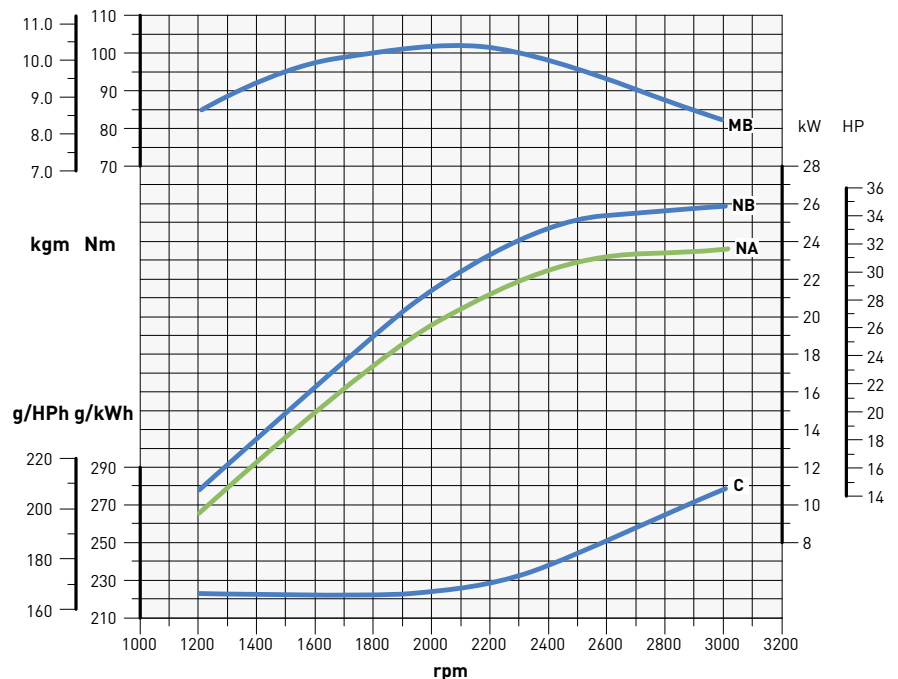


DATA

DIMENSIONS (mm)



PERFORMANCE CURVES

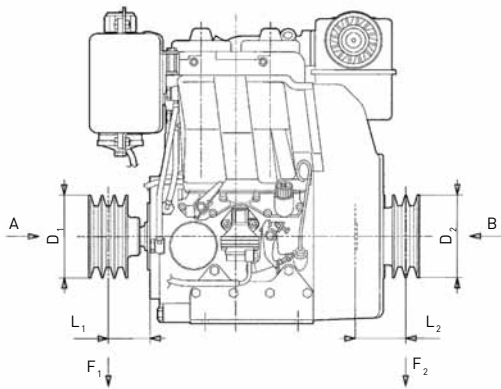


GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3000	28.6	26.3
1800	20.0	18.0
1500	16.7	14.7

N - Power curve - 80/1269/CE E-ISO 1585
NB - Power curve - ISO 3046/1 -IFN
NA - Power curve - ISO 3046/1 - ICXN
MN - Torque curve - (N curve) MB (NB curve) MA (NA curve)
C - Specific fuel consumption - (NB curve)

Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.



25 LD 330/2 - 425/2

Minimum pulley diameters for belt drive

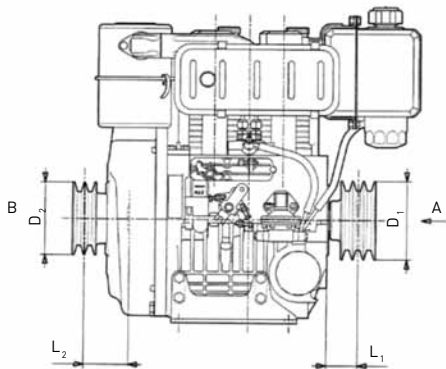
$$330/2: D_1 \text{ (mm)} \geq 585 [49 + L_1(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_2 \text{ (mm)} \geq 1030 [31 + L_2(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$425/2: D_1 \text{ (mm)} \geq 700 [45 + L_1(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_2 \text{ (mm)} \geq 1540 [17 + L_2(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 300 kg



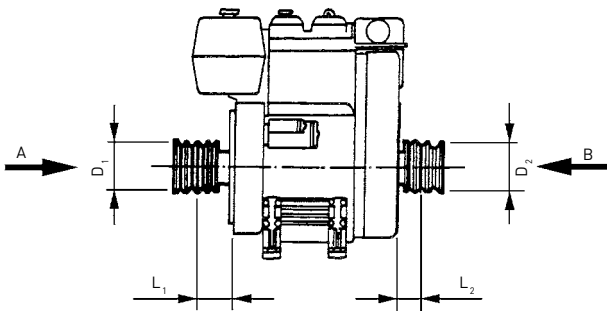
12 LD 477/2

Minimum pulley diameters for belt drive

$$D_1 \text{ (mm)} \geq 220 [78 + L_1(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_2 \text{ (mm)} \geq 196 [150 + L_2(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 350 kg



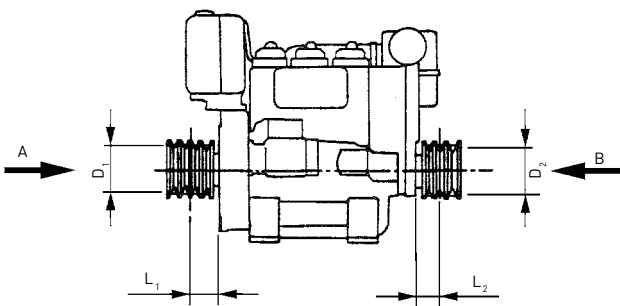
9 LD 625/2

Minimum pulley diameters for belt drive

$$D_1 \text{ (mm)} \geq 136 [162 + L_1(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_2 \text{ (mm)} \geq 204 [260 + L_2(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 300 kg



11 LD 626/3

Minimum pulley diameters for belt drive

$$D_1 \text{ (mm)} \geq 100 [185 + L_1(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

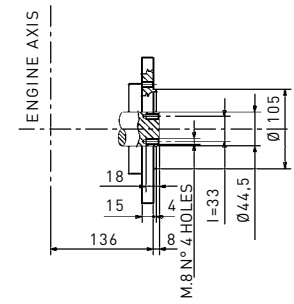
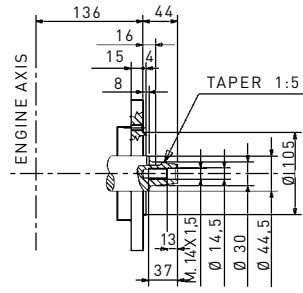
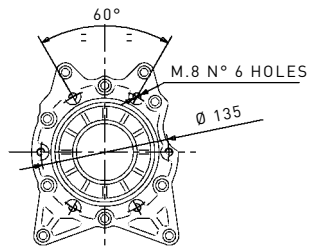
$$D_2 \text{ (mm)} \geq 113 [169 + L_2(\text{mm})] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 300 kg

AVAILABLE FLANGES*

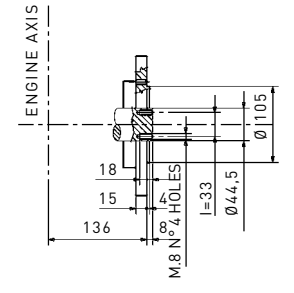
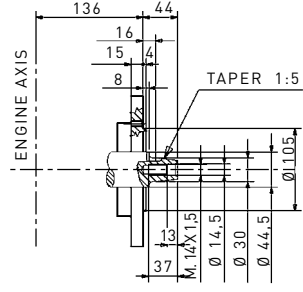
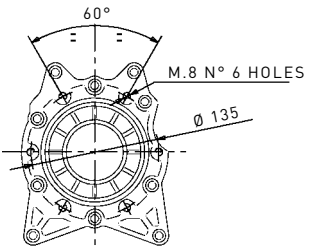
	Flange standard type	Standard version	Flange type crankshaft version
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25 LD 330/2



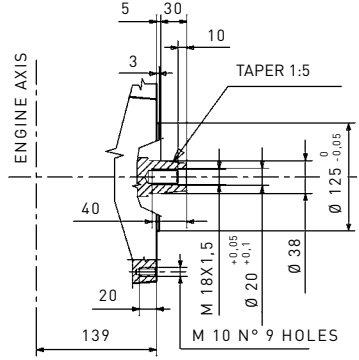
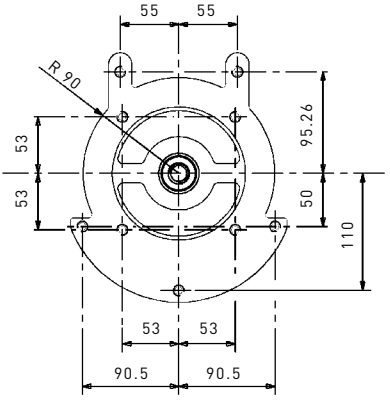
	Flange standard type	Standard version	Flange type crankshaft version
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25 LD 425/2



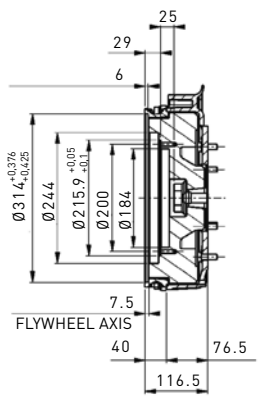
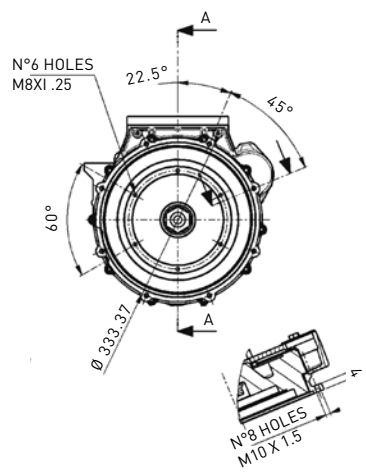
	Flange standard type	Standard version	
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12 LD 477/2



	Flange type B	SAE 5, 6" 1/2	
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12 LD 477/2



AVAILABLE FLANGES*

	Flange standard type	Standard version
9 LD 625/2		
9 LD 625/2	<p>Flange type B</p>	<p>SAE 4, 7 1/2</p>
11 LD 626/3	<p>Flange standard type</p>	<p>Standard version</p>
11 LD 626/3	<p>Flange type B</p>	<p>SAE 4, 7 1/2</p>

*Other flanges available on request

TECHNICAL SPECIFICATIONS

Model		25 LD 330/2	25 LD 425/2	
Engine specs	4 stroke air cooled diesel engine	•	•	
	Direct injection	•	•	
	Mechanical fuel lift pump	•	•	
	Forced lubrication with oil pump	•	•	
	Full flow oil filtration	•	•	
	Torque regulator	•	•	
	Centrifugal speed governor	•	•	
	Crankcase in die-cast aluminum	•	•	
	Electric starting	•	•	
	Counter-clockwise rotation (from power take-off side)	•	•	
	Aluminum alloy independent heads	•	•	
	Independent cast iron cylinders	•	•	
	Automatic extra fuel starting device	•	•	
	Air cooled by fan	•	•	
	Power take-off on crankshaft	•	•	
	Power take off on Flywheel	-	-	
Technical features	Cylinder	2	2	
	Bore (mm)	80	85	
	Stroke (mm)	65	75	
	Engine displ (cm ³)	654	851	
	Injection system	DI	DI	
	Compression ratio	19:1	19:1	
	Emission compliance	ECE R 24	ECE R 24 / EPA TIER 4	
Performance	Rating (kW/HP)			
	N (80/1269/CEE)ISO 1585	12,0/16,3	14,0/19,0	-
	NB ISO 3046 IFN	11,2/15,2	13,0/17,7	13,0/17,7
	NA ISO 3046 ICXN	10,3/14,0	12,0/16,3	12,0/16,3
Max torque (Nm@rpm)	32,0@2400	42,0@2200		
Min idling speed	1000 rpm	1000		
Fuel compatibility	UNI EN 590-2010	•	•	
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 15	•	•	
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 500	•	•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 15	•	•	
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 500	•	•	
	ARCTIC EN 590/ASTM D 975-09 B	•	•	
	High Sulfur Fuel < 5000 ppm (< 0.5%)	•	•	
	High Sulfur Fuel > 5000 ppm (> 0.5%)	•	•	
	Military NATO Fuels F34 - F35 - F44 - F63 - F64 - F65 *	•	•	
	Military US Fuels JP5 - JP8 (AVTUR) *	•	•	
Civil Jet Fuels Jet A/ A1*	•	•		
Service features	Fuel tank capacity (l)	4	4	
	Oil sump capacity (l)	1,5	1,7	
	Oil consumption (kg/h)	0,007	0,0085	
	Oil change interval std/synthetic (hr)	250 **	250 **	
	Oil filter change interval std/synthetic (hr)	250 **	250 **	
	Valve adjustment	500	500	
Physical characteristics	H×L×W (fan excluded) (mm)	485×485×438	503.5×485×464	
	Dry weight (kg)	60	63	
	Daily service points - positions	1 side service	1 side service	
	Ambient operating temps (°C)	-5° +45° ***	-5° +45° ***	
	Gradeability-all round (intermittent-30 min) (deg)	25°	25°	
	Gradeability-all round (peak value-1min) (deg)	35°	35°	
	Cap. of air required for correct combustion @3600 (l/min)	1050/875	1330/1110	
	Cap. of air required for correct cooling @3600 (l/min)	11700/9750	14200/11835	
Lubrication	Oil type	SAE 15 W-40 API CF4/SG ACEA B2/E2	SAE 15 W-40 API CF4/SG ACEA B2/E2	

* With restrictions ** According to operating conditions *** -32°C on demand

Model		12 LD 477/2	9 LD 625/2		11 LD 626/3
Engine specs	4 stroke air cooled diesel engine	•	•	•	•
	Direct injection	•	•	•	•
	Mechanical fuel lift pump	•	•	•	•
	Forced lubrication with oil pump	•	•	•	•
	Full flow oil filtration	•	•	•	•
	Torque regulator	•	•	•	•
	Centrifugal speed governor	•	•	•	•
	Crankcase in die-cast aluminum	•	•	•	•
	Electric starting	•	•	•	•
	Counter-clockwise rotation (from power take-off side)	•	•	•	•
	Aluminum alloy independent heads	•	•	•	•
	Independent cast iron cylinders	•	•	•	•
	Automatic extra fuel starting device	•	•	•	•
	Air cooled by fan	•	•	•	•
	Power take-off on crankshaft	•	-	-	-
	Power take off on Flywheel	-	•	•	•
	Technical features	Cylinder	2	2	3
Bore (mm)		90	95	95	95
Stroke (mm)		75	88	88	88
Engine displ (cm ³)		954	1248	1870	1870
Injection system		DI	DI	DI	DI
Compression ratio		19:1	17,5:1	17:1	17:1
Emission compliance		ECE R 24	ECE R 24 / EPA TIER 4	ECE R 24	ECE R 24
Performance	Rating (kW/HP) N (80/1269/CEE)ISO 1585 NB ISO 3046 IFN NA ISO 3046 ICXN	16,8/22,8 15,7/21,4 14,5/19,7	- 18,8/25,5 16,9/23,0	- 18,4/25,0 16,6/22,5	- 26,0/35,4 23,4/31,8
	Max torque (Nm@rpm)	55,0@2100	67,0@2000	102,0@2000	102,0@2000
	Min idling speed	1000	1000-1100	800-900	800-900
Fuel compatibility	UNI EN 590-2010	•	•	•	•
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 15	•	•	•	•
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 500	•	•	•	•
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 15	•	•	•	•
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 500	•	•	•	•
	ARCTIC EN 590/ASTM D 975-09 B	•	•	•	•
	High Sulfur Fuel < 5000 ppm (< 0.5%)	•	•	•	•
	High Sulfur Fuel > 5000 ppm (> 0.5%)	•	•	•	•
	Military NATO Fuels F34 - F35 - F44 - F63 - F64 - F65 *	•	•	•	•
	Military US Fuels JP5 - JP8 (AVTUR) *	•	•	•	•
Civil Jet Fuels Jet A/ A1*	•	•	•	•	
Service features	Fuel tank capacity (l)	7	10	15	15
	Oil sump capacity (l)	2,5	2,8	5	5
	Oil consumption (kg/h)	0,011	0,013	0,017	0,017
	Oil change interval std/synthetic (hr)	200 **	250 **	250 **	250 **
	Oil filter change interval std/synthetic (hr)	200 **	250 **	250 **	250 **
	Valve adjustment	300	250	500	500
Physical characteristics	H x L x W (fan excluded) (mm)	565x577x483	599x633x557	686x770x495	686x770x495
	Dry weight (kg)	78	115	170	170
	Daily service points - positions	1 side service	1 side service	1 side service	1 side service
	Ambient operating temps (°C)	-10° +45° ***	-10° +45° ***	-10° +45° ***	-10° +45° ***
	Gradeability-all round (intermittent-30 min) (deg)	25°	25°	25°	25°
	Gradeability-all round (peak value-1min) (deg)	35°	35°	35°	35°
	Cap. of air required for correct combustion @3600 (l/min)	1500/1220	1600 (@3000)	2400 (@3000)	2400 (@3000)
	Cap. of air required for correct cooling @3600 (l/min)	15800/13200	26300 (@3000)	38000 (@3000)	38000 (@3000)
Lubrication	Oil type	SAE 15 W-40 API CF4/SG ACEA B2/E2	SAE 10 W-40 API CF4/SG ACEA B2/E2	SAE 15 W-40 API CF4/SG ACEA B2/E2	

* With restrictions ** According to operating conditions ***-32°C on demand



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