

KOHLER® Diesel KD15

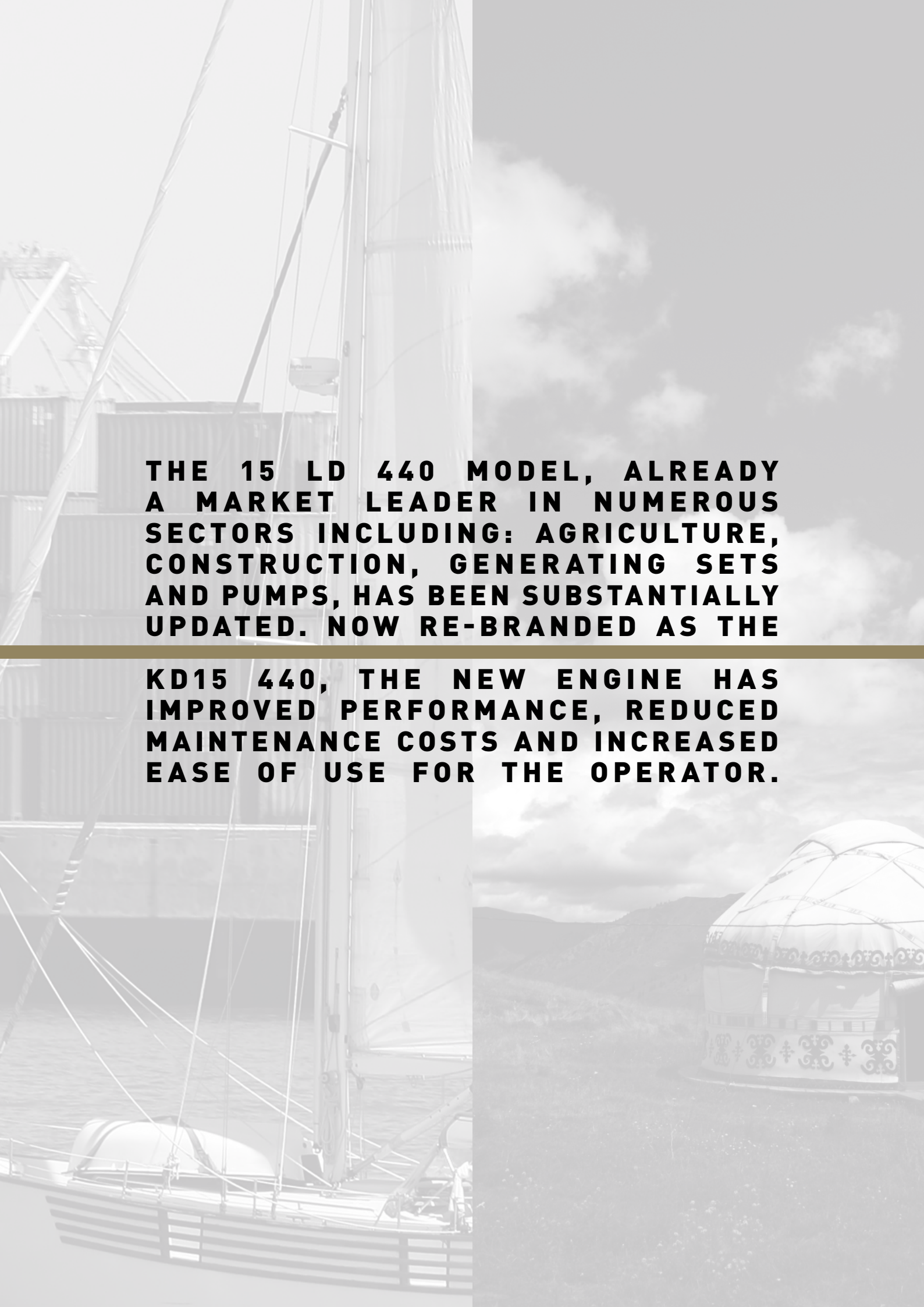


KOHLER®



IN ORDER TO MEET EVER INCREASING MARKET DEMANDS, THE KOHLER GROUP HAS BEEN UPDATING ITS RANGE OF AIR-COOLED, SINGLE CYLINDER DIESEL ENGINES. NOW, WE ARE PLEASED TO PRESENT THE NEW KD15 440 ENGINE,

WHICH, WITH ITS ADVANCED TECHNICAL FEATURES, STRENGTHENS AND IMPROVES THE CURRENT 15 LD ENGINE SERIES ELEVATING IT TO THE VERY TOP OF THE CLASS WITHIN ITS POWER RANGE.



THE 15 LD 440 MODEL, ALREADY A MARKET LEADER IN NUMEROUS SECTORS INCLUDING: AGRICULTURE, CONSTRUCTION, GENERATING SETS AND PUMPS, HAS BEEN SUBSTANTIALLY UPDATED. NOW RE-BRANDING AS THE

KD15 440, THE NEW ENGINE HAS IMPROVED PERFORMANCE, REDUCED MAINTENANCE COSTS AND INCREASED EASE OF USE FOR THE OPERATOR.

AIR CLEANER

The new air filter allows an use also in extremely dusty conditions. This result has been achieved thanks to a high efficiency separator with pre-filter and an accumulated-dust drain valve in the filter itself. Furthermore, the increased dimensions of the cartridge and the high filtration capacity of the paper element greatly enhances the engine protection, resulting in a considerable reduction in maintenance costs.

TANK AND FUEL FILTER

The new tank, with its modified components, greatly contributes to facilitating all maintenance operations due to some significant improvements, including a new fuel filter which is enhanced with additional safety filter protection. The primary and safety filters, used in tandem, avoid the accidental entry of foreign particles during the fuel refilling process. The primary filter housed inside the tank is easily accessible and can be replaced without the use of any special tools.

DRAIN TAP

The new drain tap makes it possible to remove water and impurities which accumulate in the bottom of the tank, allowing for cleaning without the need to dismantle other components.



INNOVATIONS

AIR CLEANER CLOGGING INDICATOR (OPTIONAL)

The air filter clogging indicator integrated into the engine configuration makes it possible to clearly see when maintenance is required.

LARGER OIL SUMP (OPTIONAL)

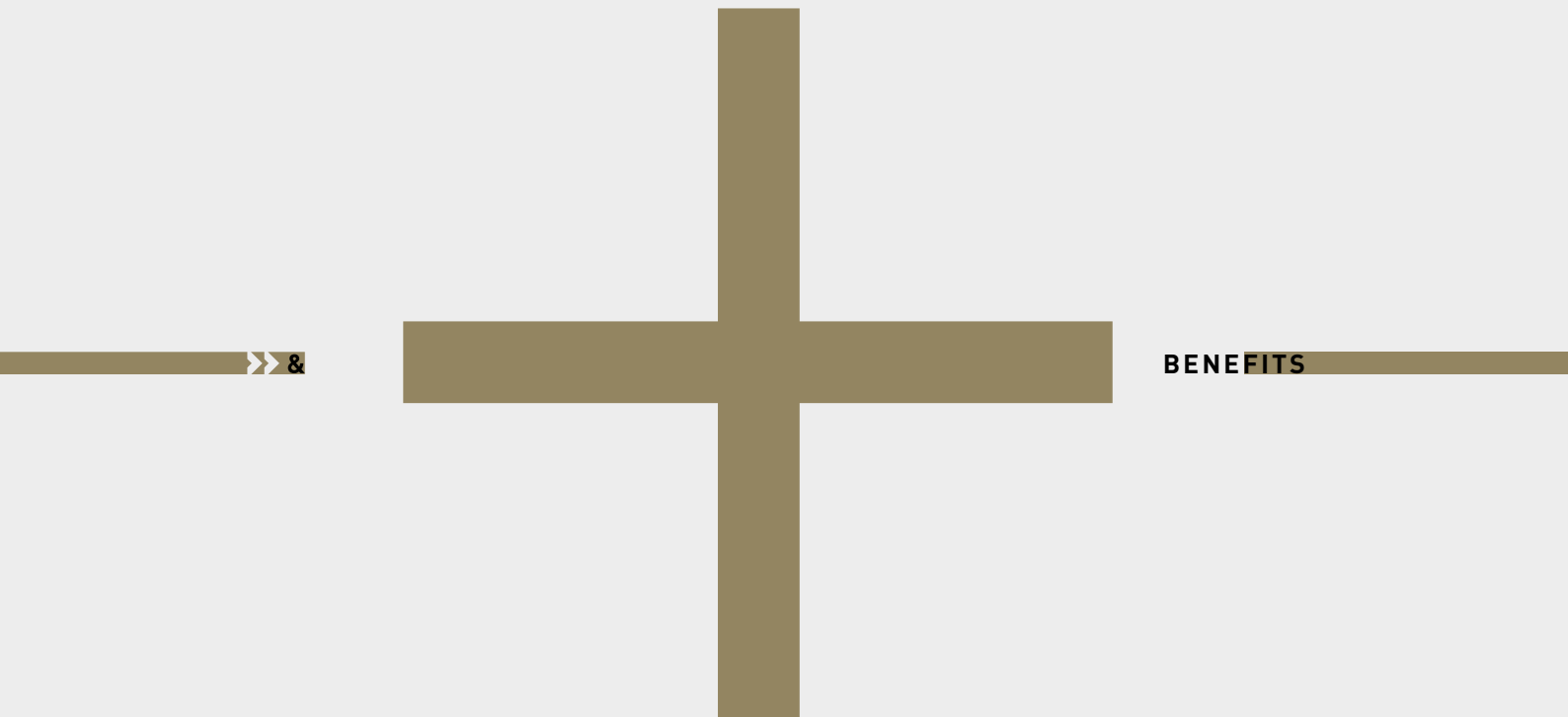
The larger oil sump increases the intervals between maintenance to 500 hours as opposed to 250 hours in standard versions.

HEAVY DUTY ROBUSTNESS

BEST AIR CLEANER SERVICE

EASY MAINTENANCE

LONG SERVICE INTERVALS



EXCELLENT FUEL EFFICIENCY

LOW OIL CONSUMPTION

REDUCED NOISE

HIGH RELIABILITY

KD15 440



STANDARD EQUIPMENT

Recoil starting with automatic compression release

NEW! Fuel tank with fuel pre-filter
Muffler with guard
Accelerator and stop manual control

NEW! Internal primary fuel filter and external safety fuel filter

NEW! High capacity dry air cleaner with cyclonic pre-filter
Hydraulic tappets
User maintenance & spare parts booklet

ACCESSORIES ON DEMAND

Power take-off flywheel side (engines with electrical starting)

Power take-off with flanging and special shaft

Internal dynamic balancer

Oil bath air cleaner

Electric start 12 V / 24V

Keyswitch panel

Emergency stop through electrovalve

Accelerator and stop remote control

Single lever control

Control lever guard

Fuel lift pump

Oil pressure switch

Oil temperature switch

Glow plug on intake manifold

Recoil with denoising cover

Grass protection for engine cooling.

NEW! Air filter clogging indicator, integrated into the engine construction form

Oversize oil sump

External spin on oil filter



KD15 440

QUICK SPECIFICS

1
CYLINDER

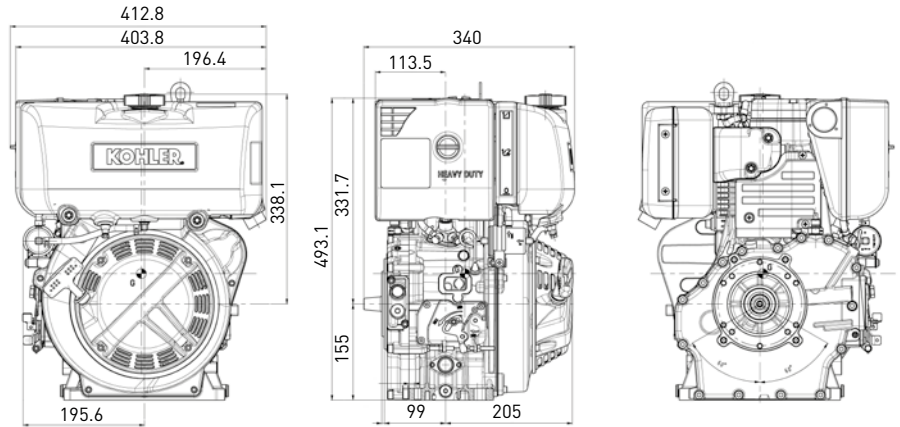
10.9 | **8** @ 3600 rpm
HP | kW

24.5 @ 2200 rpm
Nm

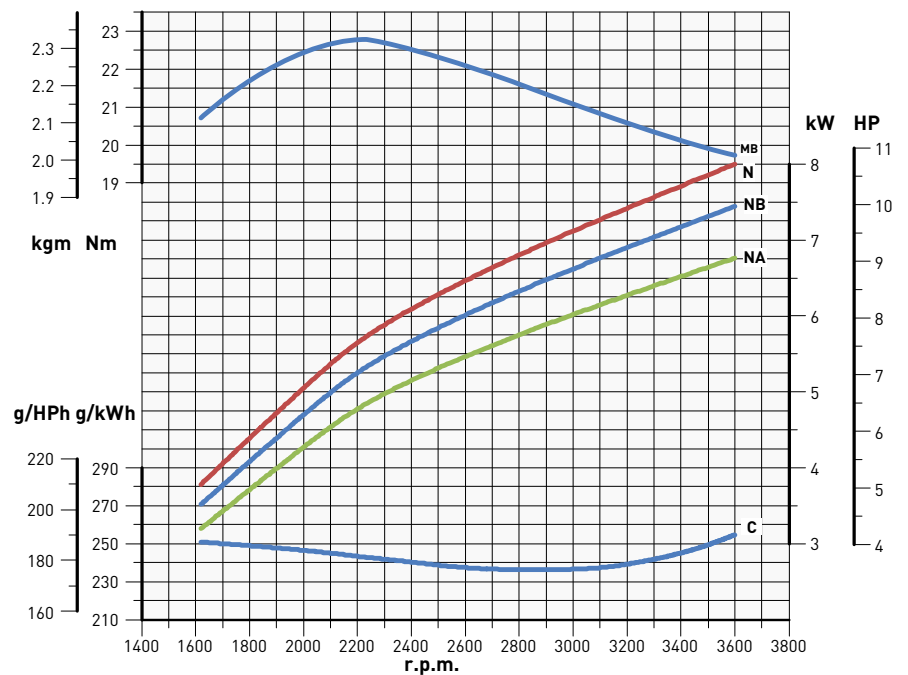


DATA

DIMENSIONS (mm)



PERFORMANCE CURVE



GENSET RATINGS

(rpm)	Intermittent [NB] (kW)	Continuous [NA] (kW)
3600	7.4	6.7
3000	6.8	6.1

N - Power curve - 80/1269/CE E-ISO 1585

NB - Power curve - ISO 3046/1 -IFN

NA - Power curve - ISO 3046/1 - ICXN

MB - Torque curve - (NB curve)

C - Specific fuel consumption - (NB curve)



KD15 440S

QUICK SPECIFICS

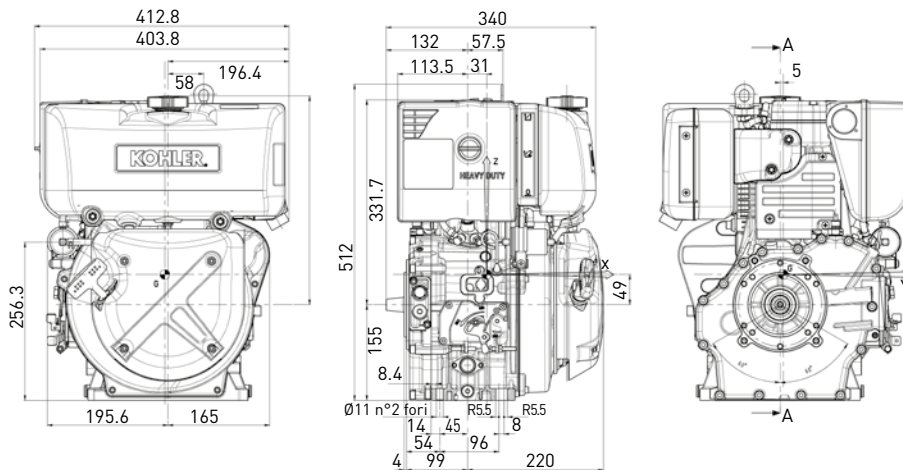
1
CYLINDER

10 | **7.3** @ 3600 rpm
HP | kW

22.5 @ 2100 rpm
Nm

DATA

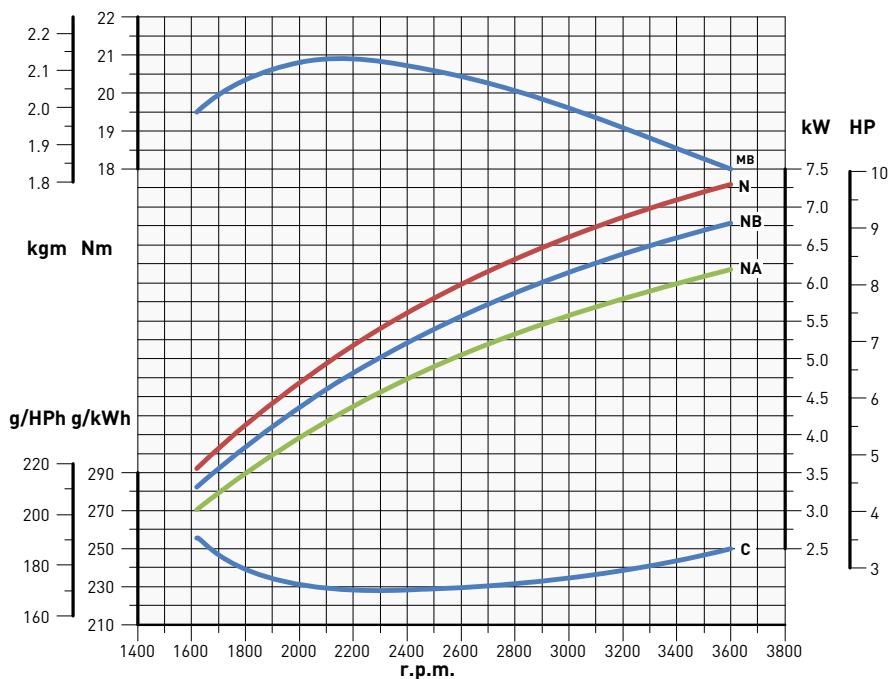
DIMENSIONS (mm)



PERFORMANCE CURVE



Sound pressure level up to 2 Db less than the standard version



N - Power curve - 80/1269/CE E-ISO 1585

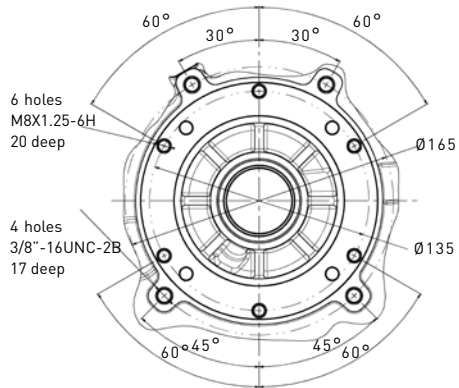
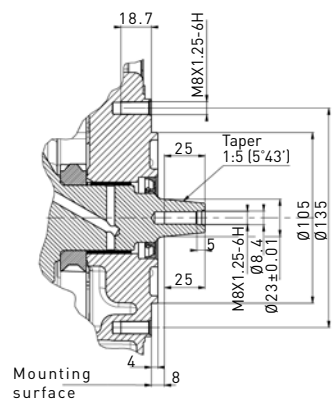
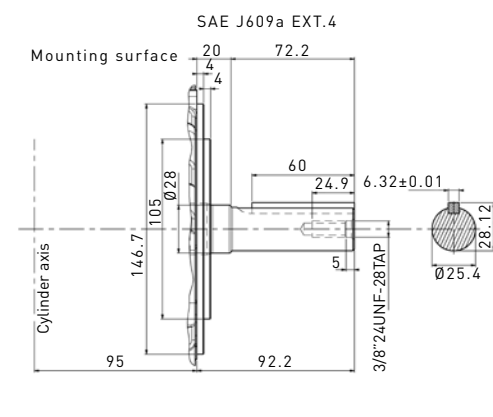
NB - Power curve - ISO 3046/1 -IFN

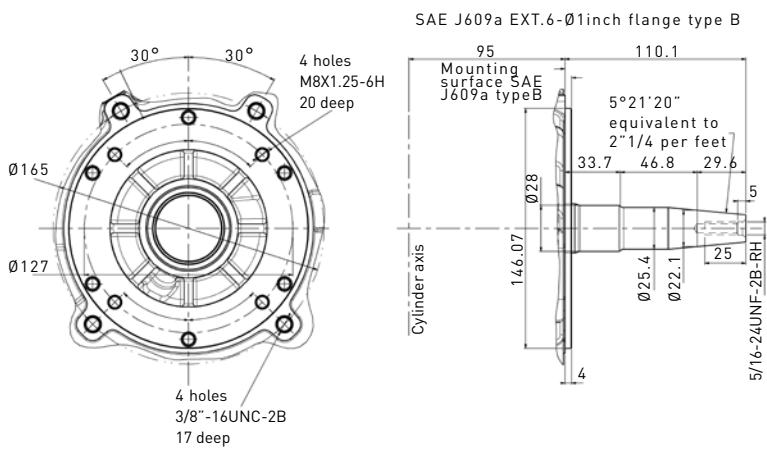
NA - Power curve - ISO 3046/1 - ICXN

MB - Torque curve - (NB curve)

C - Specific fuel consumption - (NB curve)

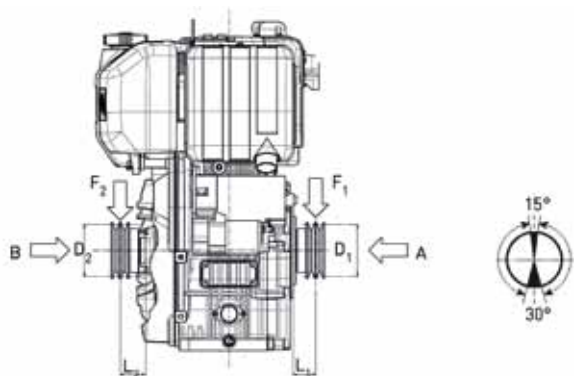
AVAILABLE FLANGES*

Flange standard type	Standard version	Industrial version
		
Flange 2° type	Genset version	



*Other flanges available on request

APPLICATIONS SPECS



Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 620 [66 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 650 [53 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions
A - B = 2000 N Max

Max radial force on pulley for belt drive

$$F_1 \text{ (N)} \leq \frac{89000}{53 + L_1 \text{ (mm)}}$$

$$F_2 \text{ (N)} \leq \frac{92000}{66 + L_2 \text{ (mm)}}$$

TECHNICAL SPECIFICATIONS

Model		KD15 440		KD15 440S
Engine specs	4 stroke air cooled diesel engine	•		•
	Conical power take-off on crankshaft	•		•
	Anticlockwise rotation	•		•
	Forced lubrication with oil pump	•		•
	Centrifugal mass governor	•		•
	Built-in full flow oil filter	•		•
	Oil breathing blow-by with safety device	•		•
	Automatic extra fuel starting device	•		•
	Self bleeding fuel system	•		•
	Torque adjuster	•		•
	Automatic compression release	•		•
	Die-cast aluminum crankcase with integral cast iron cylinder liner	•		•
	Aluminum cylinder head	•		•
	Built-in rigid feet	•		•
	Hydraulic tappets	•		•
	Dry air cleaner with cyclonic pre-filter	•		•
Primary and secondary fuel filter	•		•	
Technical features	Cylinder	1		1
	Bore (mm)	86		86
	Stroke (mm)	76		76
	Engine displ (cm ³)	441		441
	Injection system	DI		DI
	Compression ratio	20.3:1		20.5:1
Emission compliance	ECE R 24 / EPA TIER IV		-	
Performance	Rating (kW/HP) N (80/1269/CEE)ISO 1585 NB ISO 3046 IFN NA ISO 3046 ICXN	8.0 /10.9 7.4 /10.1 6.7 /9.1	7.0 /9.5 6.4 /8.7	7.3 /10.0 6.8 /9.2 6.2 /8.4
	Max torque (Nm@rpm)	24.5@2200 23@2200		22.5@2100
	Min idling speed	1050 ÷1150		1150
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)	5		5
	Oil sump capacity (l)	1.5		1.5
	Oil consumption (kg/h)	0.0048		0.0048
	Oil consumption (% fuel)	<0.2		<0.2
	Min allowable oil pressure (bar)	0.6		0.6
	Oil change interval std/synthetic (hr)	250**		250**
	Oil filter change interval std/synthetic (hr)	500		500
	Dry air cleaner change interval (hr)	500		500
	Valve adjustment	not required		not required
Physical characteristics	H×L×W (fan excluded) (mm)	493.1×412.8×340		493.1×412.8×340
	Dry weight (kg)	45		45
	Daily service points - positions	1 side service		1 side service
	Ambient operating temps (°C)	-10 to +50		-10 to +50
	Gradeability-all round (continuous) (deg)	25		25
	Gradeability-all round (intermitent-1min) (deg)	35		35
	Cap. of air required for correct combustion @3600 (l/min)	640		640
	Cap. of air required for correct cooling @3600 (l/min)	5500		5500
Lubrication	Oil type	SAE 5W 40 API SERVICE CF		SAE 5W 40 API SERVICE CF

* With restrictions ** According to operating conditions

KOHLER®

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Lombardini has manufacturing facilities in Italy, Slovakia
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