

KOHLER® Diesel KD15

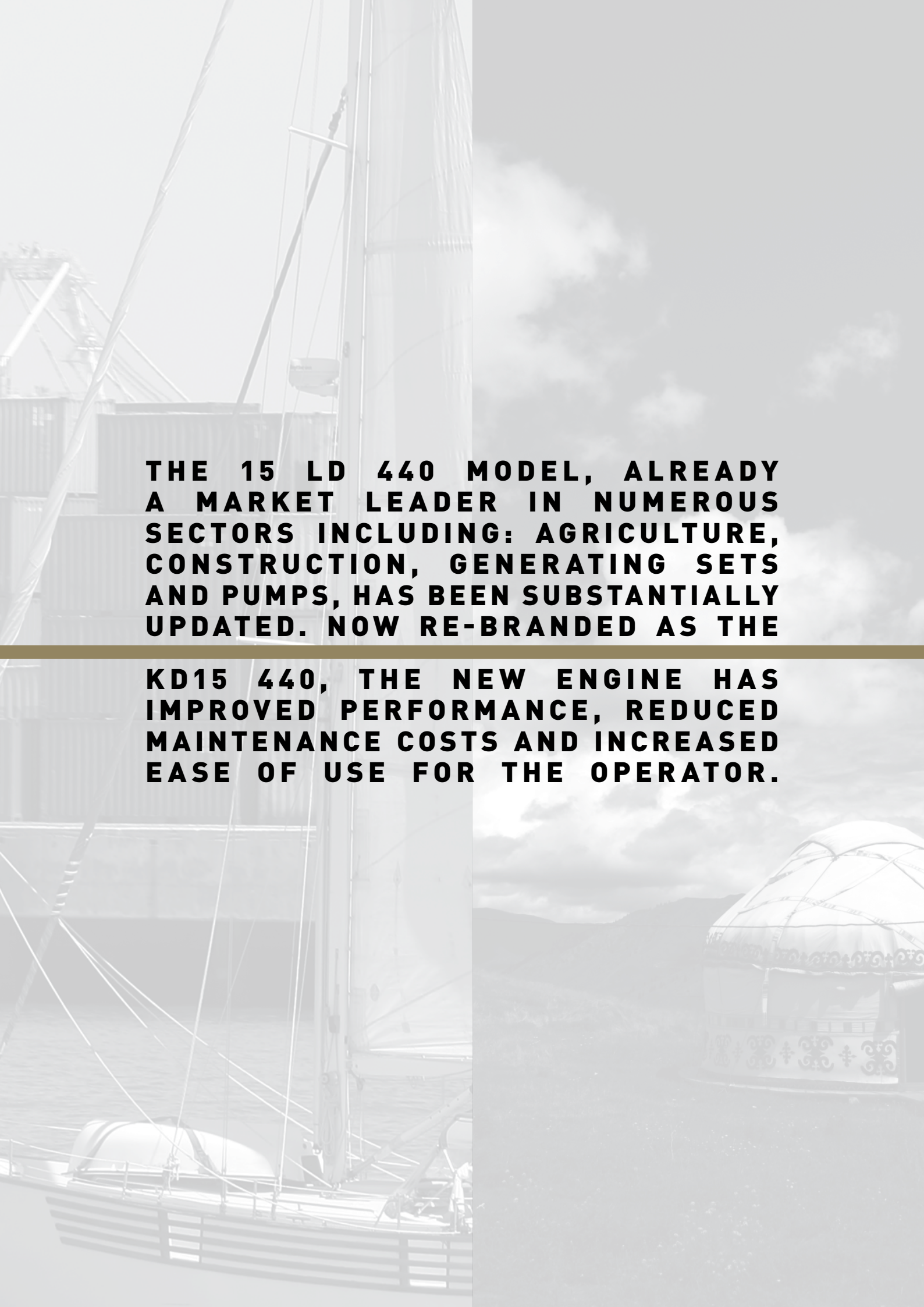


KOHLER®



**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-BRANDED 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)

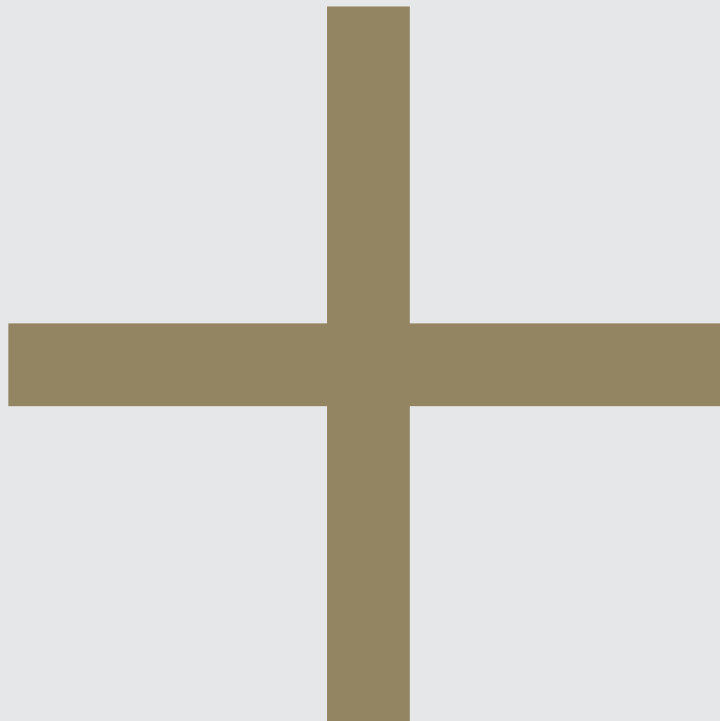
The larger oil sump increases the intervals between maintenance to 500 hours as opposed to 250 hours in standard versions.

HEAVY DUTY ROBUSTNESS

BEST AIR CLEANER SERVICE

EASY MAINTENANCE

LONG SERVICE INTERVALS



BENEFITS

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

HP

8

kW

@ 3600 rpm

24.5

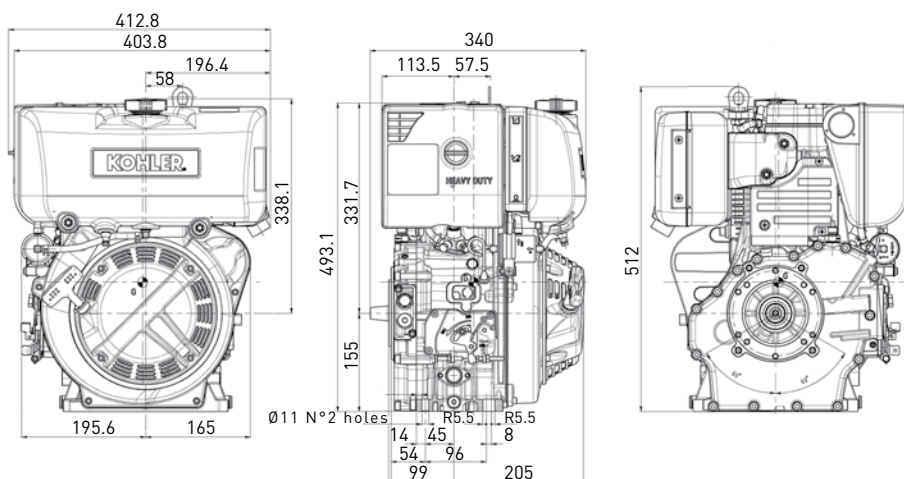
Nm

@ 2200 rpm

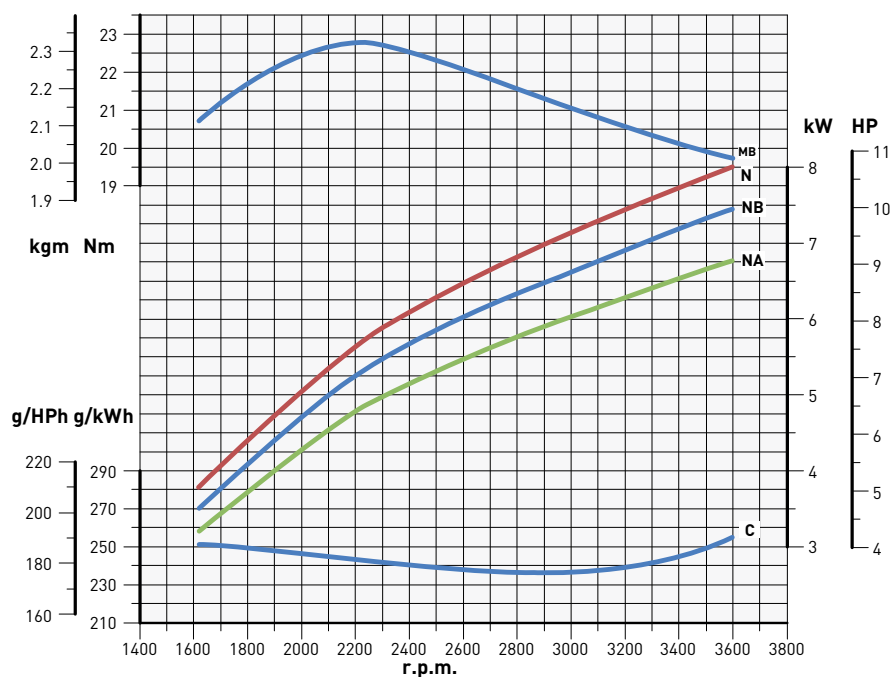


DATA

DIMENSIONS (mm)



PERFORMANCE CURVE (IFN- ISO 3046 AND ISO 14396)



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)

Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. Power levels drop by 1% every 100 m altitude and by 2% every 5°C above +25°C.



KD15 440S

QUICK SPECIFICS

1

CYLINDER

10

HP

7.3

kW

@ 3600 rpm

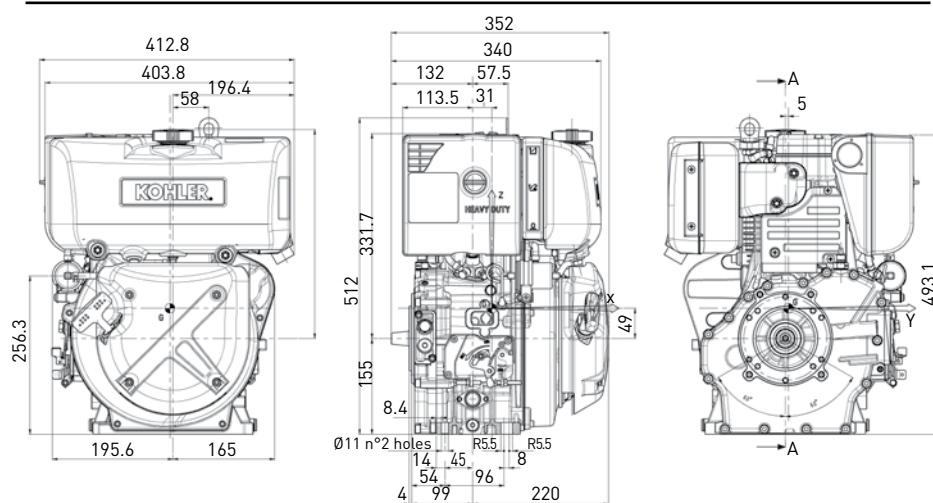
22.5

Nm

@ 2100 rpm

DATA

DIMENSIONS (mm)

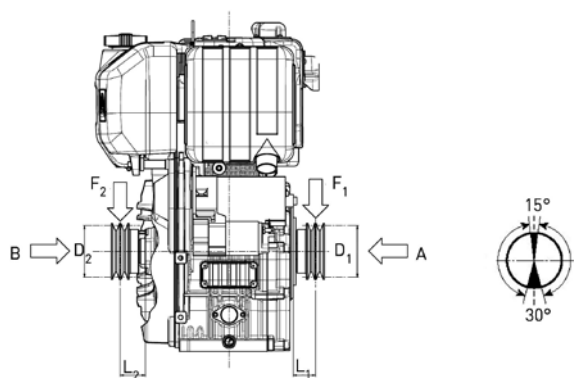


AVAILABLE FLANGES*

| 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

$$F_1 \text{ (N)} \leq \frac{89000}{53 + L_1 \text{ (mm)}} \quad F_2 \text{ (N)} \leq \frac{92000}{66 + L_2 \text{ (mm)}}$$

GENSET RATINGS

| Freq. | Rpm | Engine model | NET ENGINE POWER* | | ELECTRICAL POWER** | | | | Flanging | Emission compliance | Max. Emission compliance available*** |
|-------|------|--------------|-------------------|-----------|-------------------------|-----|--------------------|-----|------------|---------------------|---------------------------------------|
| | | | Stand-by | Prime | Intermittent (Stand-by) | | Continuous (Prime) | | | | |
| | | | kW-HP | kW-HP | kVA | kW | kVA | kW | | | |
| 50 Hz | 3000 | KD15 440 | 6,8 - 9,3 | 6,2 - 8,4 | 7,0 | 5,6 | 6,2 | 5,0 | Ø 23 TAPER | EU not required | EU not required |
| 60 Hz | 3600 | | 7,4 - 10,1 | 6,7 - 9,1 | 7,5 | 6,0 | 6,8 | 5,4 | Ø 23 TAPER | Tier 4 i | Tier 4 F |

* Engine power rating ISO IFN (Stand-by) and ICXN (Prime) according to ISO 3046 and ISO 14396, after running-in period at ambient condition +25°C, relative humidity 30%, and ambient pressure 100 kPa (1 bar). Fuel specification EN590

**Electrical power includes fan power absorption, typical alternator efficiency and a power factor (cos φ) of 0.8.

Continuous (Prime) power can be overloaded of 10% for 1 h every 12 hours operation. Intermittent (Standby) power cannot be overloaded.

*** Possible de-rating might have to be taken in consideration to ensure emission compliance.

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 (cm³) | 441 | | 441 |
| | Injection system | DI | | DI |
| | Compression ratio | 20.3:1 | | 20.5:1 |
| Performance | Emission compliance | ECE R 24 | EPA TIER 4 Final | - |
| | 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 | 6.8 /9.2 6.1 /8.2 | 7.3 /10.0 6.8 /9.2 6.2 /8.4 |
| | Max torque (Nm@rpm) | 24.5@2200 | 18.0@3600 | 22.5@2100 |
| | Min idling speed | 1050 ÷1150 | | 1150 |
| | EN 590 | • | | • |
| Fuel compatibility | 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 |
| Physical characteristics | Valve adjustment | not required | | not required |
| | H×L×W (fan excluded) (mm) | 493.1×412.8×340 | | 493.1×412.8×352 |
| | 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 |
| Lubrication | Cap. of air required for correct cooling @3600 (l/min) | 5500 | | 5500 |
| | Oil type | SAE 5W 40 API SERVICE CF | | SAE 5W 40 API SERVICE CF |

* With restrictions ** According to operating conditions

KOHLER®

Lombardini s.r.l. is a part of Kohler Group.
Lombardini has manufacturing facilities in Italy, Slovakia
and India and sales subsidiaries in France, Germany, UK,
Spain and Singapore.

Kohler/Lombardini reserves the right to make
modifications without prior notice.

For the latest version please visit our website:

www.lombardini.it

EUROPE

Lombardini Srl
Via Cav. del lavoro
A. Lombardini n° 2
42124 Reggio Emilia, ITALY
T. +39-(0)522-389-1
F. +39-(0)522-389-503

DEUTSCHLAND

Lombardini Motoren GmbH
Silostr. 41,
65929 FRANKFURT
Hessen, DEUTSCHLAND
T. +49-(0)69-9508160
F. +49-(0)69-5073410

UK

Lombardini U.K. Ltd
1, Rochester Barn - Eynsham Road
OX2 9NH
Oxford, UK
T. +44-(0)1865-863858
F. +44-(0)1865-861754

ESPAÑA

Lombardini ESPAÑA, S.L.
P.I. Cova Solera 1-9
08191 - Rubí (Barcelona)
ESPAÑA
T. +34-(0)9358-62111
F. +34-(0)9369-71613

FRANCE

Lombardini France S.a.s.
47 Allée de Riottier,
69400 Limas, FRANCE
T. +33-(0)474-626500
F. +33-(0)474-623945

ROAPAC

Lombardini Singapore
26 Keong Saik Road (3rd floor)
Asia Pacific Represent. Offices
089154- Singapore
T. +65-(0)622-50556
F. +65-(0)622-50551