



KOHLER®

KD Series

| Air Cooled Diesel Engines

2.7 – 8.8 kW | 3.7 – 12.0 hp

Single Cylinder Air-cooled Diesel Engines

Standard equipment

RECOIL STARTING WITH
AUTOMATIC COMPRESSION
RELEASE

FUEL TANK

FUEL FILTER

DRY AIR CLEANER

MUFFLER WITH GUARD

ACCELERATOR AND STOP
MANUAL CONTROL

AUTOMATIC DEAERATION ON
INJECTION PUMP

WIRE MESH OIL FILTER

CONICAL POWER TAKE-OFF
EXTERNAL SAFETY FUEL
FILTER

AUTOMATIC FUEL CONTROL
DURING START

USER MAINTENANCE AND SPARE
PARTS BOOKLET

SPECIFIC FOR KD15-440 MODEL:

HYDRAULIC TAPPETS

HIGH CAPACITY DRY AIR

CLEANER

FUEL TANK DRAIN TAP

3 YEARS WARRANTY



Single Cylinder Air-cooled Diesel Engines

Accessories on demand

| | |
|---|---|
| POWER TAKE-OFF FLYWHEEL SIDE (ENGINES WITH ELECTRICAL STARTING) | OIL BATH AIR CLEANER |
| POWER TAKE-OFFS WITH FLANGING AND SPECIAL SHAFT | CYLINDER HEAD TEMPERATURE SWITCH |
| LATERAL POWER TAKE-OFF* | GLOW PLUG ON INTAKE MANIFOLD STOP WITH SOLENOID VALVE RECOIL WITH DENOISING COVER |
| INTERNAL DYNAMIC BALANCER | GRASS PROTECTION FOR ENGINE COOLING |
| ELECTRIC START 12V / 24 V | ALTERNATOR WITH VOLTAGE REGULATOR 12 V OR 24 V |
| KEYSWITCH PANEL FUEL LIFT PUMP | OIL LEVEL SENSOR SWITCH |
| EMERGENCY STOP THROUGH ELECTROVALVE | HIGH CAPACITY OIL SUMP (KD15-350 AND KD15-440) |
| ACCELERATOR AND STOP REMOTE CONTROL | HIGH CAPACITY OIL AND FUEL FILTERS FOR REMOTE ASSEMBLY* |
| OIL PRESSURE SWITCH | SINGLE LEVER CONTROL |
| OIL TEMPERATURE SWITCH | CONTROL LEVER GUARD |

SPECIFIC FOR KD15-440 MODEL:

- IN-TANK FUEL PRE-FILTER
- CYCLONIC AIR INTAKE PRE-FILTER
- AIR FILTER CLOGGING INDICATOR,
INTEGRATED INTO THE ENGINE
- EXTERNAL SPIN ON OIL FILTER

*On KD15-350 and KD15-440

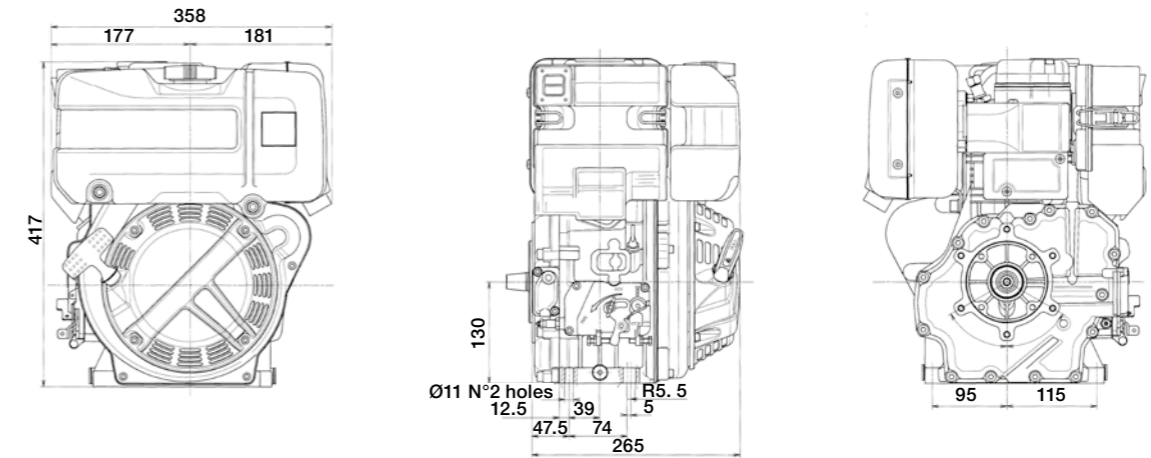


KD15 225



Data

Dimensions (mm)

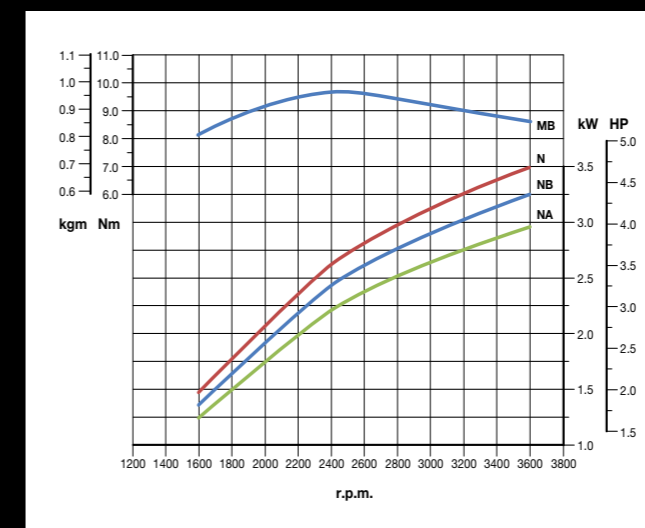


| QUICK SPECIFICATIONS | KD15 225 |
|----------------------------|------------------|
| CYLINDERS | 1 |
| MAX POWER kW (HP) @ rpm | 3.5 (4.7) @ 3600 |
| MAX TORQUE Nm @ rpm | 10.4 @ 2400 |

Performance curves

(ACCORDING TO ISO 14396)

KD15 225



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve
- NA - Power curve
- MB - Torque curve - (NB curve)

Performances measured according to ISO 14396 without final intake and exhaust line. Actual engine performances may be affected by accessories (intake and exhaust line, charging, cooling fan, etc.), application, ambient operating conditions (temperature, humidity, and altitude) and other factors.



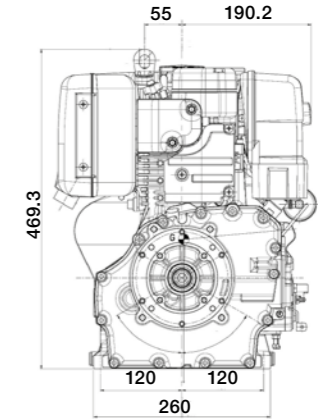
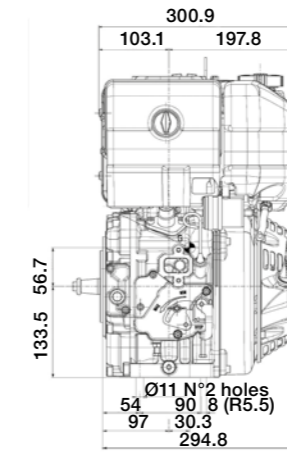
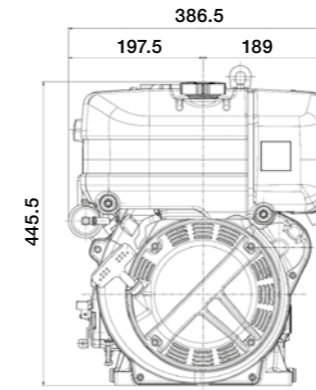
(Power & torque N curve - 80/1269/CE E-ISO 1585)

KD15 350



Data

Dimensions (mm)

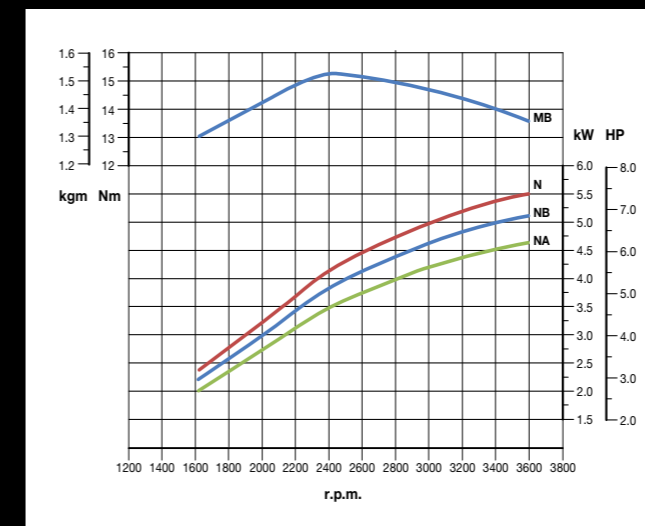


| QUICK SPECIFICATIONS | KD15-350 NE36 | KD15-350 E536 |
|----------------------------|------------------|------------------|
| CYLINDERS | 1 | 1 |
| MAX POWER kW (HP) @ rpm | 5.1 (6.8) @ 3600 | 5.5 (7.4) @ 3600 |
| MAX TORQUE Nm @ rpm | 15.3 @ 2400 | 16.0 @ 2500 |
| EMISSION COMPLIANCE | - | EU STAGE V |
| OPERATING SPEED | VARIABLE SPEED | VARIABLE SPEED |

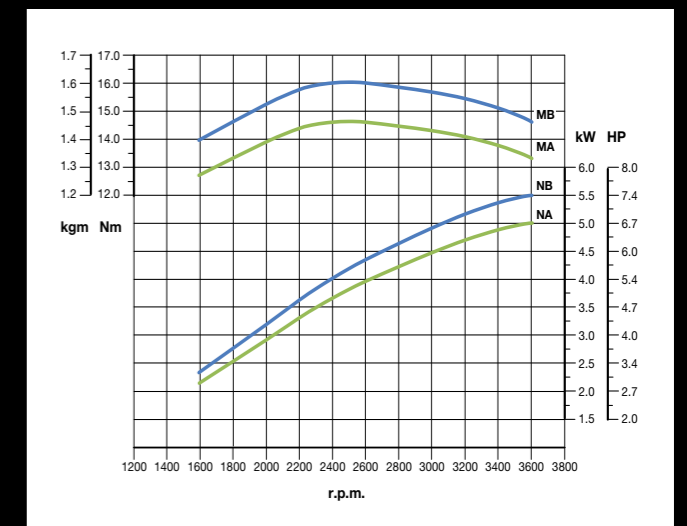
Performance curves

(ACCORDING TO ISO 14396)

KD15-350 NE36



KD15-350 E536



- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve
- NA - Power curve
- MB - Torque curve - (NB curve)
- MA - Torque curve - (NA curve)

Performances measured according to ISO 14396 without final intake and exhaust line. Actual engine performances may be affected by accessories (intake and exhaust line, charging, cooling fan, etc.), application, ambient operating conditions (temperature, humidity, and altitude) and other factors.



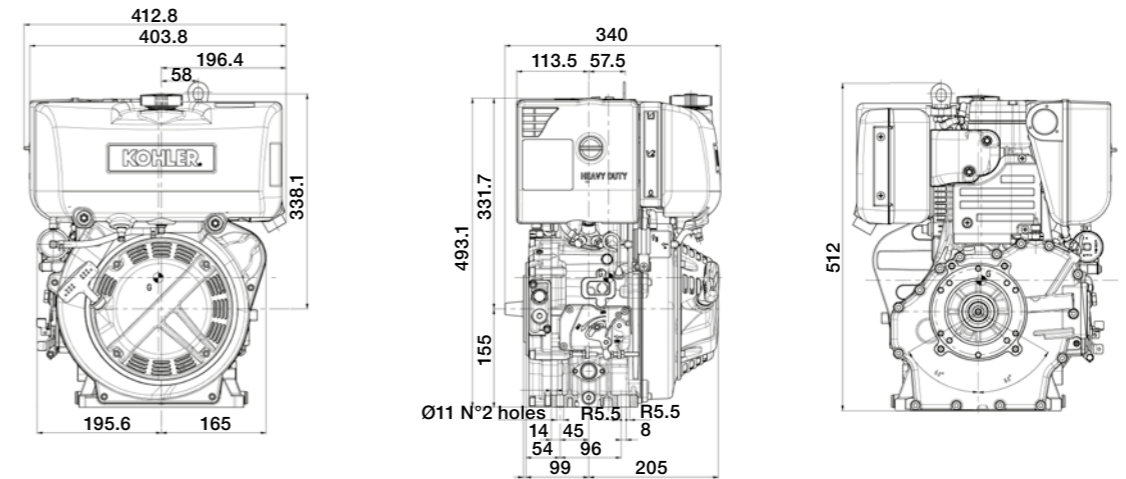
(Power & torque NB curve - ISO 3046/1 - IFN)

KD15 440



Data

Dimensions (mm)

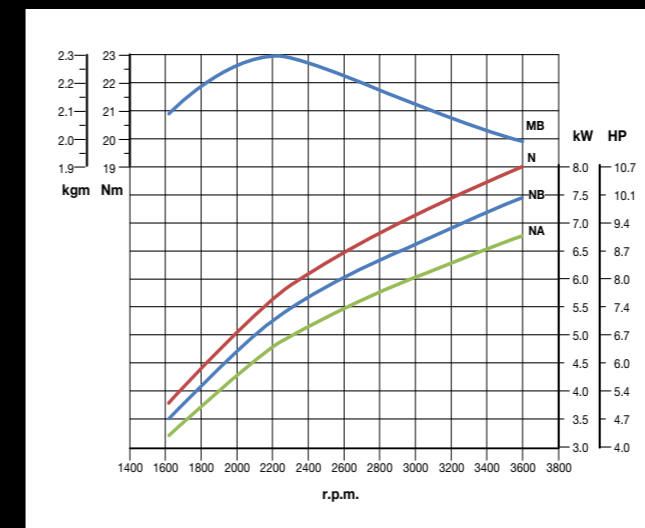


| QUICK SPECIFICATIONS | KD15-440 NE36 | KD15-440 U436 | KD15-440 E536 |
|----------------------------|-------------------|------------------|-------------------|
| CYLINDERS | 1 | 1 | 1 |
| MAX POWER kW (HP) @ rpm | 7.5 (10.1) @ 3600 | 7.0 (9.4) @ 3600 | 7.5 (10.1) @ 3600 |
| MAX TORQUE Nm @ rpm | 23 @ 2200 | 23 @ 2200 | 24.5 @ 2200 |
| EMISSION COMPLIANCE | - | US TIER 4 FINAL | EU STAGE V |
| OPERATING SPEED | VARIABLE SPEED | SINGLE SPEED | VARIABLE SPEED |

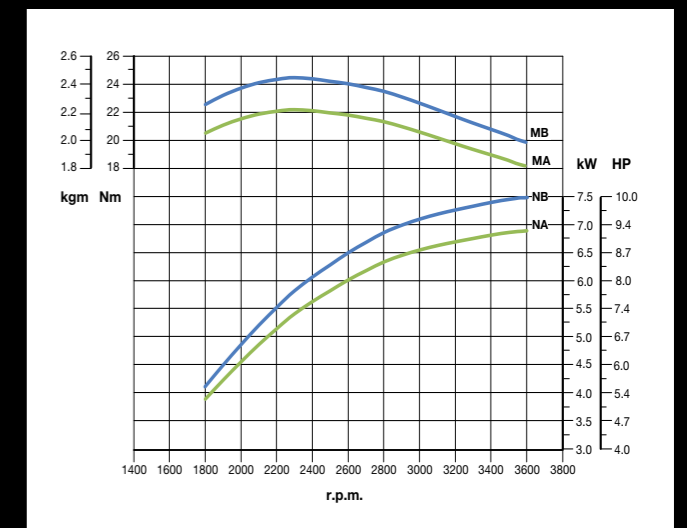
Performance curves

(ACCORDING TO ISO 14396)

KD15-440 NE36



KD15-440 E536



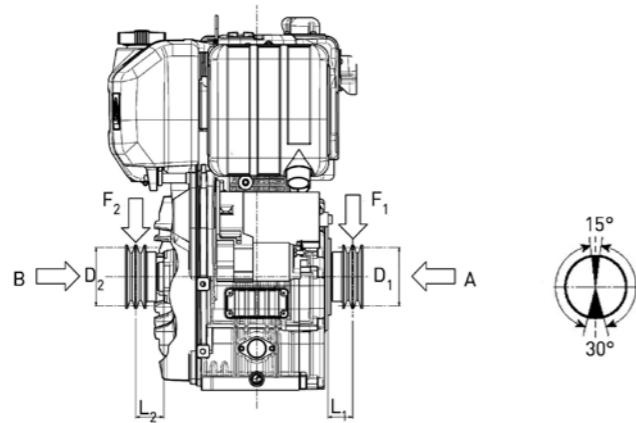
- N - Power curve - 80/1269/CE E-ISO 1585
- NB - Power curve
- NA - Power curve
- MB - Torque curve - (NB curve)
- MA - Torque curve - (NA curve)

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.



(Power & torque NB curve - ISO 3046/1 - IFN)

Application specs



KD15-225

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 740 [90 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 820 [55 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 150 kg

Max radial force on pulley for belt drive

$$F_2 \text{ (N)} \leq \frac{77000}{90 + L_2 \text{ (mm)}}$$

$$F_1 \text{ (N)} \leq \frac{70000}{55 + L_1 \text{ (mm)}}$$

KD15-350

Minimum pulley diameters for belt drive

$$D_2 \text{ (mm)} \geq 860 [60 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

$$D_1 \text{ (mm)} \geq 820 [55 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (rpm)}}$$

Max intermittent axial load in both directions A - B = 200 kg

Max radial force on pulley for belt drive

$$F_2 \text{ (N)} \leq \frac{67000}{60 + L_2 \text{ (mm)}}$$

$$F_1 \text{ (N)} \leq \frac{70000}{55 + L_1 \text{ (mm)}}$$

KD15-440

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

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

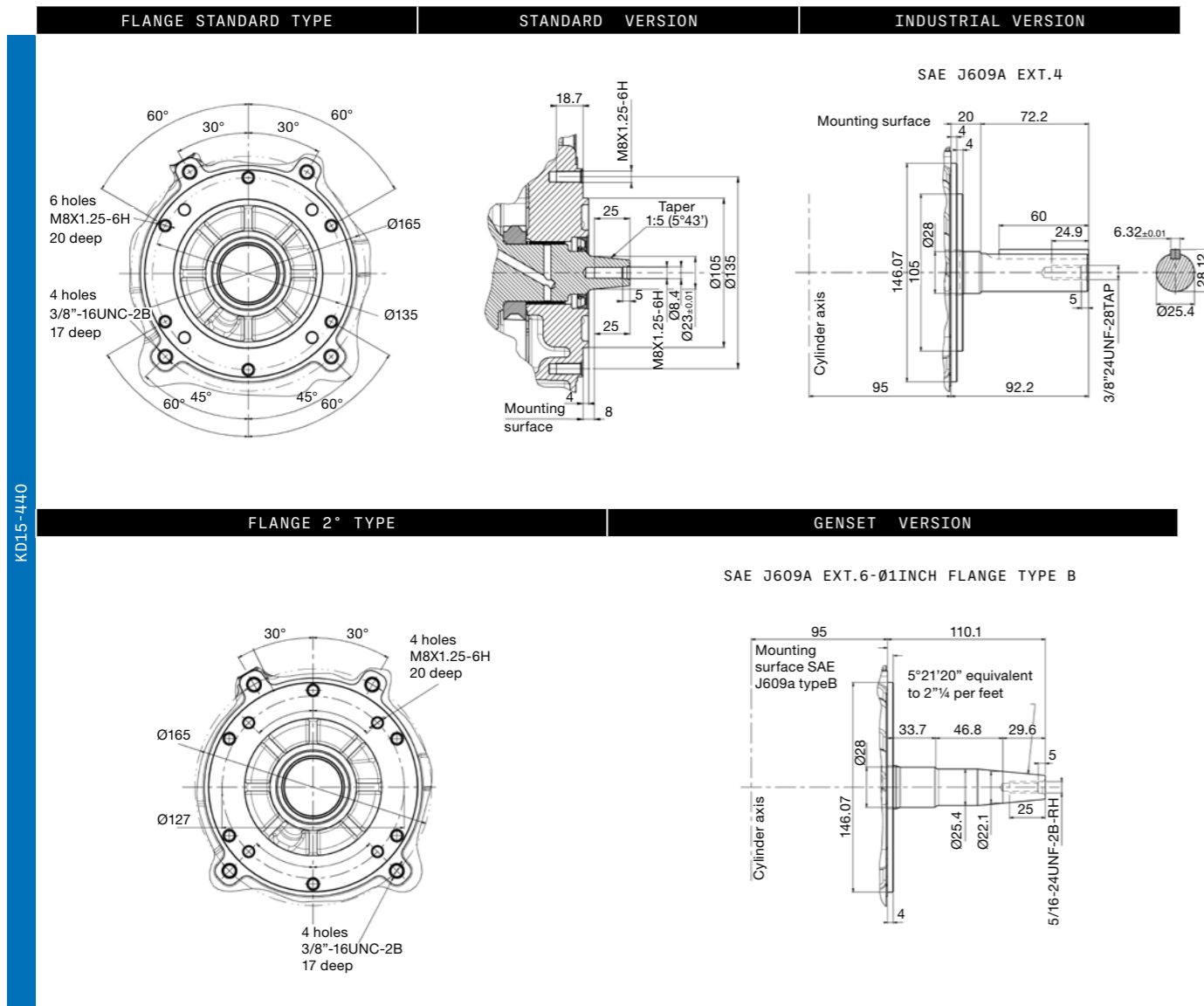
$$F_2 \text{ (N)} \leq \frac{92000}{66 + L_2 \text{ (mm)}}$$

Available Flanges*

| | FLANGE STANDARD - KD15-225 AND KD15-350 | INDUSTRIAL VERSION | |
|--|---|--------------------------|-----------------|
| STANDARD VERSION - KD15-225 AND KD15-350 | | | |
| | | FLANGE TYPE A - KD15-225 | GENSET VERSION |
| KD15-225 | | | |
| | FLANGE SAE J609A | EXT A4 J609A | EXT 3 SAE J609A |
| KD15-350 | | | |
| | FLANGE TYPE B - KD15-350 | EXT 6 SAE | EXT.4 SAE |

*Other flanges available on request

Available Flanges*



KD15-440

*Other flanges available on request

Technical Specifications

| MODEL | KD15-225 | KD15-350 | | |
|---|--|-------------------------|-------------------------|-----------------|
| 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 | • | • | |
| | RE-BORABLE INDEPENDENT CAST IRON CYLINDERS | - | - | |
| | ALUMINUM CYLINDER HEAD | • | • | |
| BUILT-IN RIGID FEET | • | • | | |
| HYDRAULIC TAPPETS | - | - | | |
| TECHNICAL FEATURES | CYLINDER | 1 | 1 | |
| | BORE (mm) | 69 | 82 | |
| | STROKE (mm) | 60 | 66 | |
| | ENGINE DISPL (cm³) | 224 | 349 | |
| | INJECTION SYSTEM | DI | DI | |
| COMPRESSION RATIO | 21:1 | 20.3:1 | | |
| PERFORMANCE | EMISSION COMPLIANCE | ECE R 24 | ECE R 24 | EU STAGE V |
| | RATING (kW/HP) N (80/1269/CEE) ISO 1585 | (3600 rpm) 3.5 / 4.8 | (3600 rpm) 5.5 / 7.4 | (3600 rpm) - |
| | NB | 3.3 / 4.5 | 5.1 / 6.8 | 5.5 / 7.4 |
| | NA | 3.1 / 4.2 | 4.7 / 6.2 | - |
| | MAX TORQUE (Nm @ rpm) | 10.4 @ 2400 | 15.3 @ 2400 | 16.0 @ 2500 |
| MIN IDLING SPEED | 950 ± 1000 | 950 ± 1000 | | |
| FUEL COMPATIBILITY | EN 590 | • | • | |
| | 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* | • | • | | |
| HVO - HYDROTREATED VEGETABLE OIL | • | • | | |
| SERVICE FEATURES | FUEL TANK CAPACITY (l) | 3 | 4.3 | |
| | OIL SUMP CAPACITY (l) | 0.9 | 1.2 | |
| | OIL CONSUMPTION (kg/h) | 0.0021 | 0.0032 | |
| | OIL CHANGE INTERVAL STD/SYNTHETIC (hr) | 250** | 250** | |
| | OIL FILTER CHANGE INTERVAL STD/SYNTHETIC (hr) | 500 | 500 | |
| | DRY AIR CLEANER CHANGE INTERVAL (hr) | 250 | 250 | |
| | VALVE ADJUSTEMENT | 500 | 500 | |
| PHYSICAL CHARACTERISTICS | H x L x W (FAN EXCLUDED) (mm) | 417 x 358 x 265 | 445.5 x 386.5 x 300.9 | |
| | DRY WEIGHT (kg) | 28 | 33 | |
| | DAILY SERVICE POINTS - POSITIONS | 1 SIDE SERVICE | 1 SIDE SERVICE | |
| | AMBIENT OPERATING TEMPS (°C) | -10 TO +50 | -10 TO +50 | |
| | GRADEABILITY-ALL ROUND (INTERMITTENT-30MIN)(DEG) | 25° | 25° | |
| | GRADEABILITY-ALL ROUND (PEAK VALUE-1 MIN)(DEG) | 35° | 35° | |
| | CAP. OF AIR REQUIRED FOR CORRECT COMBUSTION @ 3600 (l/min) | 350 | 540 | |
| CAP. OF AIR REQUIRED FOR CORRECT COOLING @ 3600 (l/min) | 3800 | 5000 | | |
| LUBRICATION | OIL TYPE | SAE 5W 40 / API CF4 | SAE 5W 40 / API CF4 | |

Technical Specifications

| MODEL | KD15-440 | | | | |
|----------------------------------|--|---------------------|-------------|------------|--|
| 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 | • | | | |
| | RE-BORABLE INDEPENDENT CAST IRON CYLINDERS | - | | | |
| | ALUMINUM CYLINDER HEAD | • | | | |
| | BUILT-IN RIGID FEET | • | | | |
| | HYDRAULIC TAPPETS | • | | | |
| | TECHNICAL FEATURES | CYLINDER | 1 | | |
| | | BORE (mm) | 86 | | |
| | | STROKE (mm) | 76 | | |
| ENGINE DISPL (cm³) | | 441 | | | |
| INJECTION SYSTEM | | DI | | | |
| COMPRESSION RATIO | | 20.3:1 | | | |
| PERFORMANCE | EMISSION COMPLIANCE | ECE R 24 | US TIER 4 F | EU STAGE V | |
| | RATING (kW/HP) | (3600 RPM) | (3600 RPM) | (3600 RPM) | |
| | N (80/1269/CEE) ISO 1585 | - | - | - | |
| | NB | 7.5 / 10.1 | 7.0 / 9.4 | 7.5 / 10.1 | |
| | NA | - | - | - | |
| MAX TORQUE (Nm @ rpm) | 23 @ 2200 | 23 @ 2200 | 24.5 @ 2200 | | |
| MIN IDLING SPEED | 950 ÷ 1000 | | | | |
| FUEL COMPATIBILITY | EN 590 | • | | | |
| | 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* | • | | | | |
| HVO - HYDROTREATED VEGETABLE OIL | • | | | | |
| SERVICE FEATURES | FUEL TANK CAPACITY (l) | 4.3 | | | |
| | OIL SUMP CAPACITY (l) | 1.2 | | | |
| | OIL CONSUMPTION (kg/h) | 0.0032 | | | |
| | OIL CHANGE INTERVAL STD/SYNTHETIC (hr) | 250** | | | |
| | OIL FILTER CHANGE INTERVAL STD/SYNTHETIC (hr) | 500 | | | |
| | DRY AIR CLEANER CHANGE INTERVAL (hr) | 500 | | | |
| | VALVE ADJUSTEMENT | NONE | | | |
| PHYSICAL CHARACTERISTICS | H x L x W (FAN EXCLUDED) (mm) | 493.1 x 412.8 x 340 | | | |
| | DRY WEIGHT (kg) | 45 | | | |
| | DAILY SERVICE POINTS - POSITIONS | 1 SIDE SERVICE | | | |
| | AMBIENT OPERATING TEMPS (°C) | -10 TO +50 | | | |
| | GRADEABILITY-ALL ROUND (INTERMITTENT-30MIN)(DEG) | 25 | | | |
| | GRADEABILITY-ALL ROUND (PEAK VALUE -1 MIN)(DEG) | 35 | | | |
| LUBRICATION | CAP. OF AIR REQUIRED FOR CORRECT COMBUSTION @ 3600 (l/min) | 640 | | | |
| | CAP. OF AIR REQUIRED FOR CORRECT COOLING @ 3600 (l/min) | 5500 | | | |
| | OIL TYPE | SAE 5W 40 / API CF4 | | | |

Technical Specifications

| MODEL | KD15-441 | |
|--------------|--------------------------|------------------|
| ENGINE SPECS | MAX. POWER kW (hp) @ rpm | 7.0 (9.4) @ 3600 |
| | MAXIMUM TORQUE Nm @ rpm | 21.0 @ 2200 |
| | EMISSION COMPLIANCE | NO REGULATIONS |
| | NUMBER OF CYLINDERS | 1 |
| | BORE AND STROKE mm | 86 x 76 |
| | DISPLACEMENT cm³ | 441 |
| | FUEL TANK CAPACITY (l) | 5 |
| | OIL SUMP CAPACITY (l) | 1.5 |
| | LENGTH mm | 412.8 |
| | WIDTH mm | 340 |
| | HEIGHT mm | 493.1 |
| | DRY WEIGHT/IRON kg | 45 |

Notes

For more information, contact your KOHLER source of supply.
Kohler Co. reserves the right to make modifications without prior notice.

KOHLER[®]

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KOHLER CO.

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