rehlko

Kohler Engines
is now Rehlko

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)

Power take-offs with flanging and special shaft

Lateral power take-off*

Internal dynamic balancer

Electric start 12V / 24 V

Keyswitch panel
Fuel lift pump

Emergency stop through electrovalve

Accelerator and stop remote control

Oil pressure switch

Oil temperature switch

Oil bath air cleaner

Cylinder head temperature switch

Glow plug on intake manifold
Stop with solenoid valve
Recoil with denoising cover

Grass protection for engine cooling

Alternator with voltage regulator 12 V or 24 V

Oil level sensor switch

High capacity oil sump (KD15-350 and KD15-440)

High capacity oil and fuel filters for remote assembly*

Single lever control

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

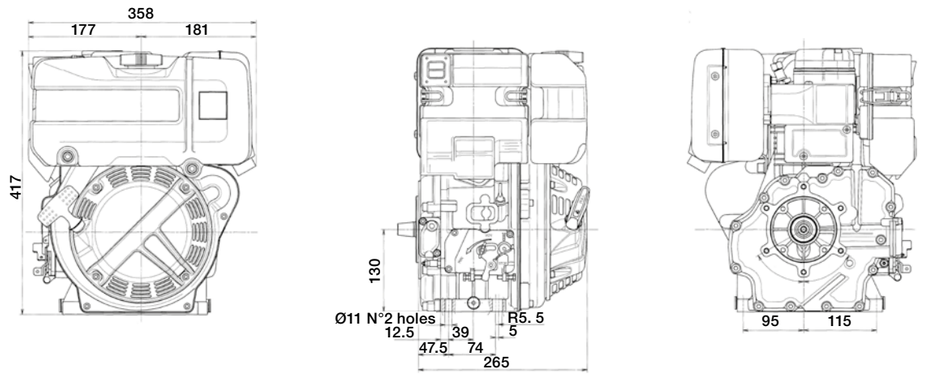
QUICK SPECIFICATIONS	**KD15 225**
CYLINDERS	1
MAX POWER kW (HP) @ rpm	3.5 (4.7) @ 3600
MAX TORQUE Nm @ rpm	10.4 @ 2400

HVO APPROVED FOR HVO RENEWABLE FUEL

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

Data

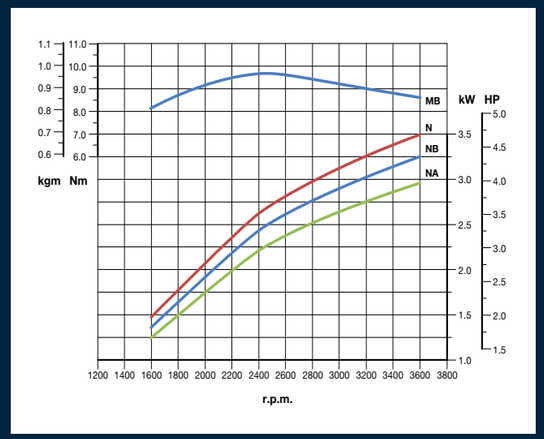
Dimensions (mm)



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.

KD15 350

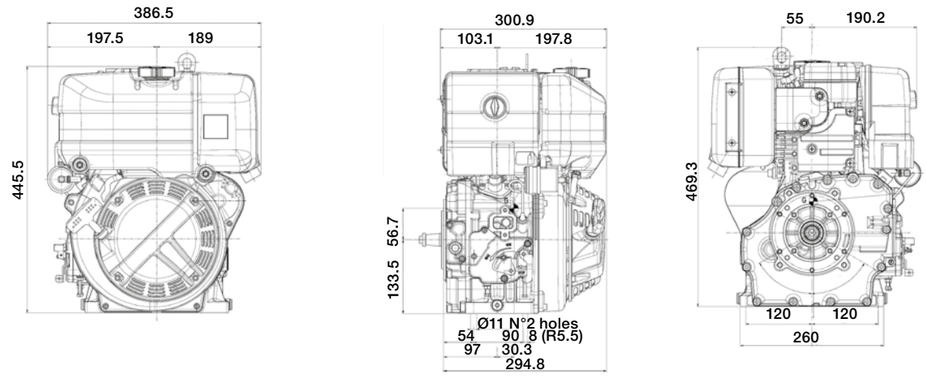
QUICK SPECIFICATIONS	KD15 – 350 NE36	KD15 – 350 E536
CYLINDERS	1	1
MAX POWER kW (HP) @ rpm	5.1 (6.8) @ 3600	5.5 (7.4) @ 3600
MAX TORQUE Nm @ rpm	15.3 @ 2400	16.0 @ 2500
EMISSION COMPLIANCE	–	EU STAGE V
OPERATING SPEED	VARIABLE SPEED	VARIABLE SPEED

HVO APPROVED FOR HVO RENEWABLE FUEL

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

Data

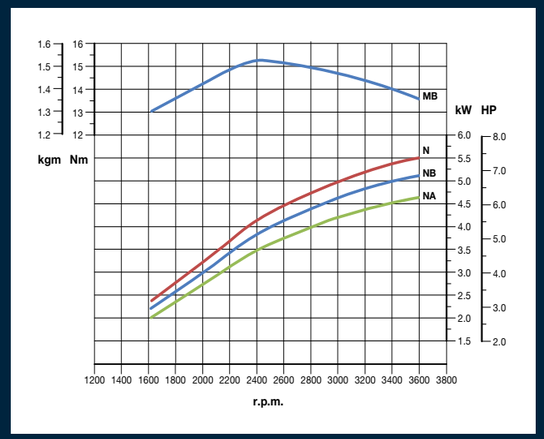
Dimensions (mm)



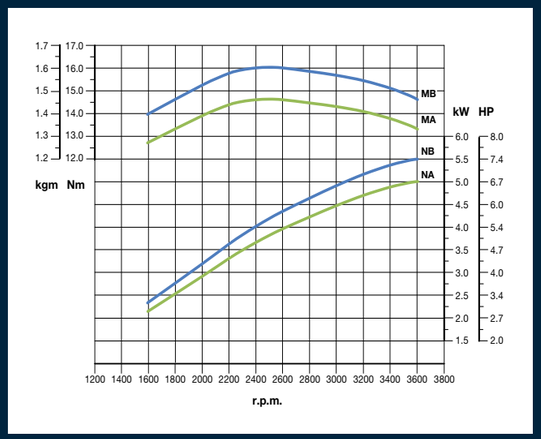
Performance curves

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.

KD15 440

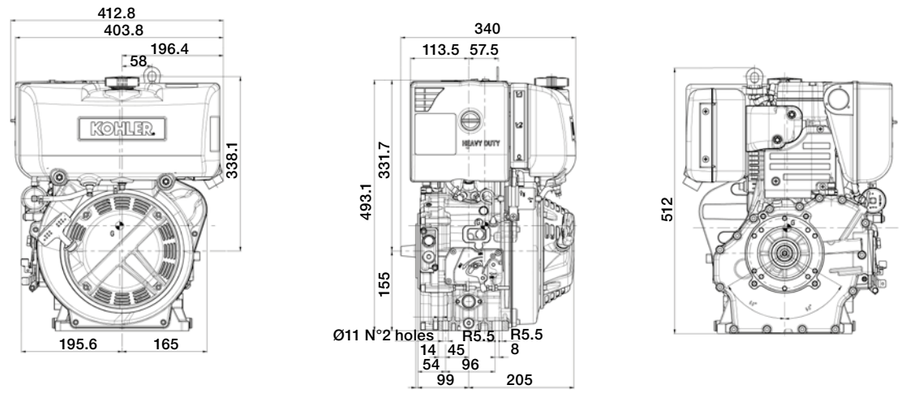
QUICK SPECIFICATIONS	KD15 – 440 NE36	KD15 – 440 E536	KD15 – 440 E536
CYLINDERS	1	1	1
MAX POWER kW (HP) @ rpm	7.5 (10.1) @ 3600	7.0 (9.4) @ 3600	7.5 (10.1) @ 3600
MAX TORQUE Nm @ rpm	23 @ 2200	23 @ 2200	24.5 @ 2200
EMISSION COMPLIANCE	–	US TIER 4 FINAL	EU STAGE V
OPERATING SPEED	VARIABLE SPEED	SINGLE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

HVO APPROVED FOR HVO RENEWABLE FUEL

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

Data

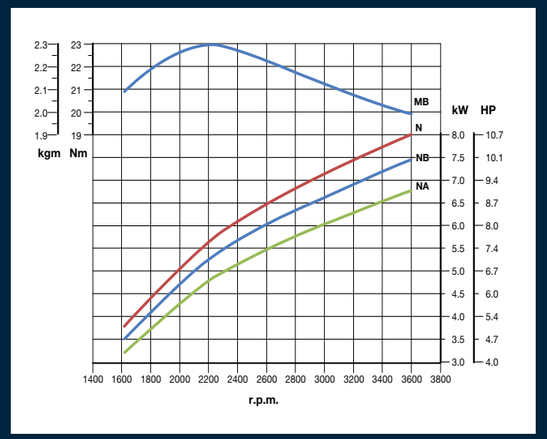
Dimensions (mm)



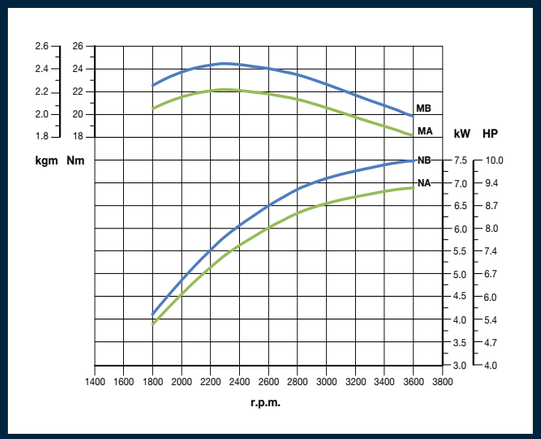
Performance curves

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.

KD15 441

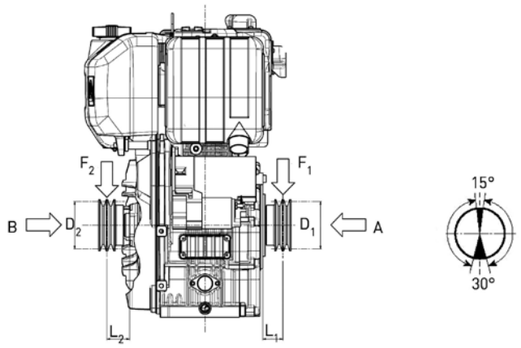
QUICK SPECIFICATIONS	KD15-441
CYLINDERS	1
MAX POWER kW (HP) @ rpm	7.0 (9.4) @ 3600
MAX TORQUE Nm @ rpm	21.0 @ 2200
EMISSION COMPLIANCE	-

HVO APPROVED FOR HVO RENEWABLE FUEL

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

Notes

Application specs



KD15–225

Minimum pulley diameters for belt drive

$$D2\ (mm) \geq 740\ [\ 90 + L2(mm)\ ]\ \frac{N\ (kW)}{n\ (rpm)}$$

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

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

Max radial force on pulley for belt drive

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

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

KD15–350

Minimum pulley diameters for belt drive

$$D2\ (mm) \geq 860\ [\ 60 + L_2(mm)\ ]\ \frac{N\ (kW)}{n\ (rpm)}$$

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

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

Max radial force on pulley for belt drive

$$F2\ (N) \leq \frac{67000}{60 + L_2\ (mm)}$$

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

KD15–440

Minimum pulley diameters for belt drive

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

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

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

Max radial force on pulley for belt drive

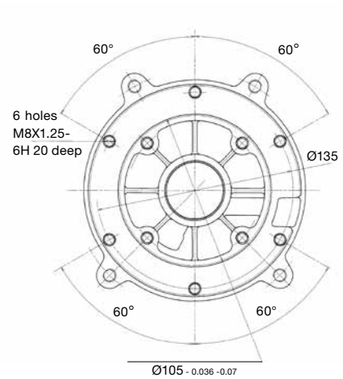
$$F_1\ (N) \leq \frac{89000}{53 + L_1\ (mm)}$$

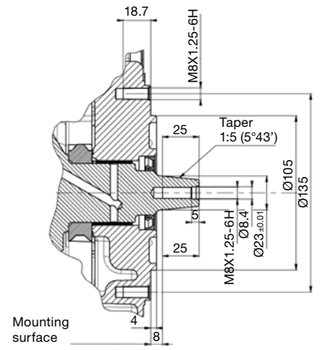
$$F_2\ (N) \leq \frac{92000}{66 + L_2\ (mm)}$$

Available Flanges*

STANDARD VERSION – KD15–225 AND KD15–350

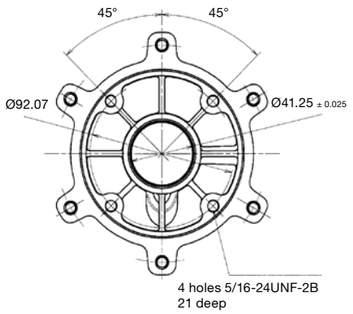
FLANGE STANDARD – KD15–225 AND KD15–350	INDUSTRIAL VERSION

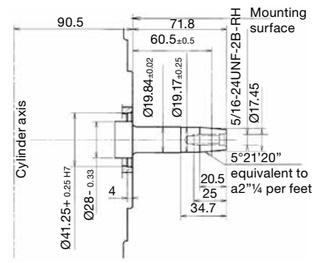


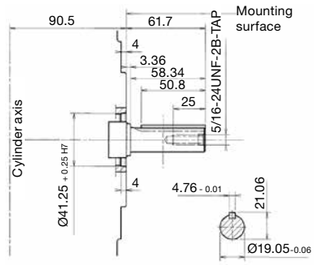


KD15–225

FLANGE TYPE A – KD15–225	GENSET VERSION	INDUSTRIAL VERSION
FLANGE SAE J609A	EXT A4 J609A	EXT 3 SAE J609A

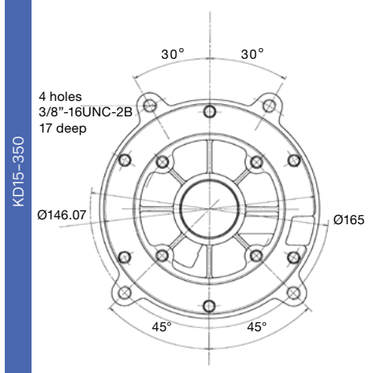


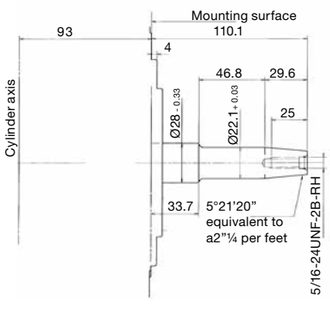


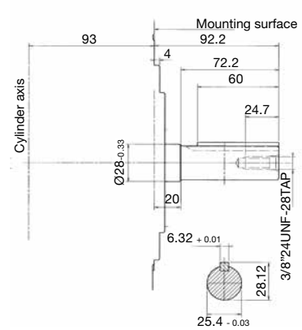


KD15–350

FLANGE TYPE B – KD15–350	GENSET VERSION	INDUSTRIAL VERSION
FLANGE SAE J609A	EXT 6 SAE	EXT.4 SAE





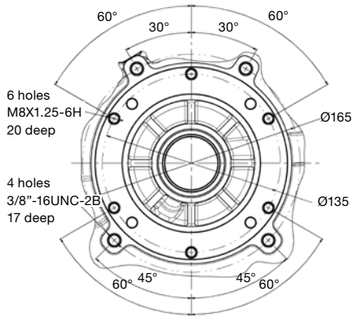


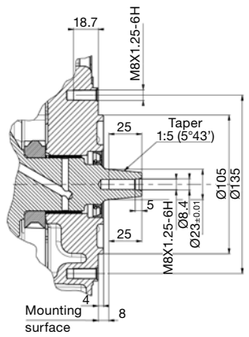
*Other flanges available on request

Available Flanges*

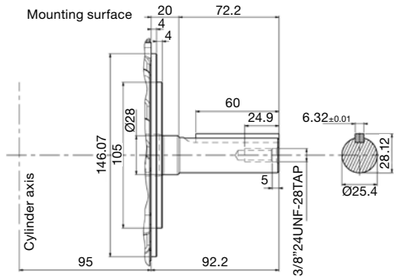
KD15-440

FLANGE STANDARD TYPE	STANDARD VERSION	INDUSTRIAL VERSION

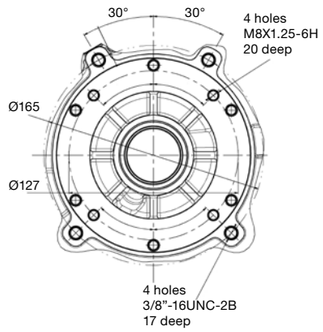




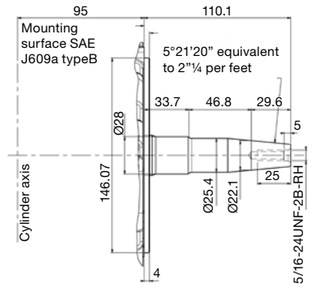
SAE J609A EXT.4



FLANGE 2" TYPE	GENSET VERSION



SAE J609A EXT.6-Ø1INCH FLANGE TYPE B



*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 (cm^3)	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 NB NA	(3600 rpm) 3.5 / 4.8 3.3 / 4.5 3.1 / 4.2	(3600 rpm) 5.5 / 7.4 5.1 / 6.8 4.7 / 6.2	(3600 rpm) – 5.5 / 7.4 –
	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×L×W (FAN EXCLUDED) (mm)	417×358×265	445.5×386.5×300.9	
	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 -30 MIN)(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 (cm^3)	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) N (80/1269/CEE) ISO 1585 NB NA	(3600 RPM) - 7.5 / 10.1 -	(3600 RPM) - 7.0 / 9.4 -	(3600 RPM) - 7.5 / 10.1 -
	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×L×W (FAN EXCLUDED) (mm)	493.1×412.8×340		
	DRY WEIGHT (kg)	45		
	DAILY SERVICE POINTS - POSITIONS	1 SIDE SERVICE		
	AMBIENT OPERATING TEMPS (°C)	-10 TO +50		
	GRADEABILITY-ALL ROUND (INTERMITTENT -30 MIN)(DEG)	25		
	GRADEABILITY-ALL ROUND (PEAK VALUE -1 MIN)(DEG)	35		
	CAP. OF AIR REQUIRED FOR CORRECT COMBUSTION @ 3600 (l/min)	640		
	CAP. OF AIR REQUIRED FOR CORRECT COOLING @ 3600 (l/min)	5500		
LUBRICATION	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 cm^3	441
	FUEL TANK CAPACITY (l)	5
	OIL SUMP CAPACITY (l)	1.5
	LENGHT mm	412.8
	WIDTH mm	340
	HEIGHT mm	493.1
	DRY WEIGHTIRON kg	45

Notes

For more information, contact your Rehlko source of supply.

Discovery Energy, LLC reserves the right to make modifications without prior notice.

engines.rehlko.com

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