AIR COOLED DIESEL ENGINES

12.0 – 26.0 kW | 16.3 – 35.4 hp

AIR COOLED DIESEL ENGINES

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 (KD-625/2; KD-626/3)
Power take-off on crankshaft (KD-330/2; KD-425/2; KD-477/2)
Fuel tank with filter
Guard for belt (KD-626/3)

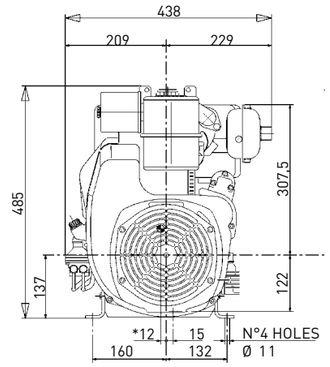
ACCESSORIES ON DEMAND

Different guards according to use
24V alternators and starter motors
Automatic release decompression system
Flanges
Dry air filter
External fuel filter
Clutches
Range of fuel tanks of various sizes
Hydraulic pump adapters
Range of flywheels for various clutches
Mufflers and exhaust pipes
Controls
Pulleys
Oil cooler (KD-625/2; KD-330/2; KD-425/2; KD-626/3)
Crank starter (KD-625/2)
Keyswitch panel and wiring harness

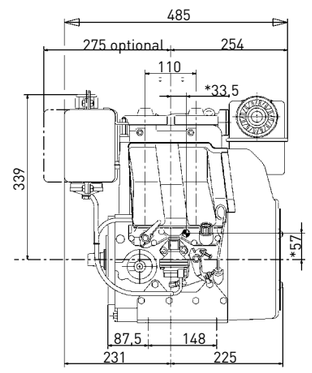
KD
330/2

DATA

Dimensions (mm)



* gravity center of the engine



* gravity center of the engine

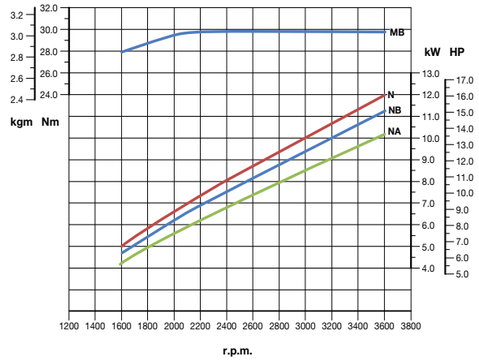
Quick specifics	
CYLINDERS	2
MAX POWER kW (hp)@rpm	12.0 (16.1) @ 3600
MAX TORQUE Nm@rpm	32.0 @ 2400

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

PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD-330/2 ECE R 24



- 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)

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.

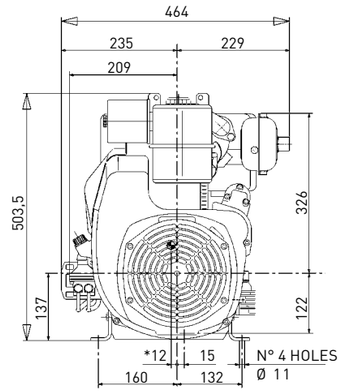
KD
425/2

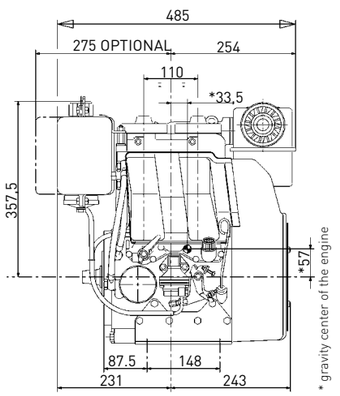
Quick specifics	KD-425/2 NE36 / KD-425/2 E536	KD-425/2 U436
CYLINDERS	2	2
MAX POWER kW (hp)@rpm	13 (17.4) @ 3600	12.2 (16.3) @ 3600
MAX TORQUE Nm@rpm	40 @ 2200	37.8 @ 2200
EMISSIONS COMPLIANCE	ECE R 24 / EU STAGE V	US TIER 4 FINAL
OPERATING SPEED	Variable speed	Single speed

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

DATA

Dimensions (mm)

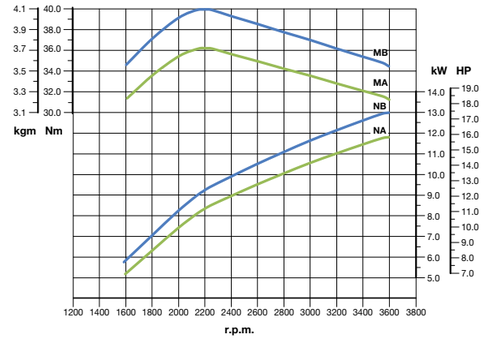




PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD-425/2 NE36 - KD-425/2 E536



NB - Power curve - ISO 3046/1 - IFN
NA - Power curve - ISO 3046/1 - ICXN
MB - Torque curve - (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.

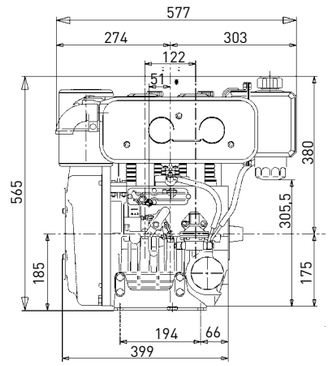
Setting @ 3000 rpm - Stage V

Power NB (kW)	Torque NB (Nm)
11.5 @ 3000 rpm	40 @ 2200 rpm

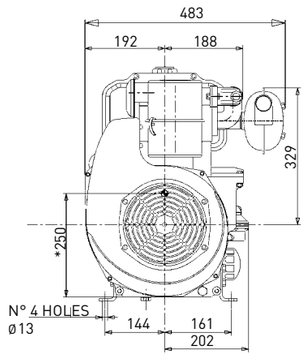
KD
477/2

DATA

Dimensions (mm)



* gravity center of the engine



* gravity center of the engine

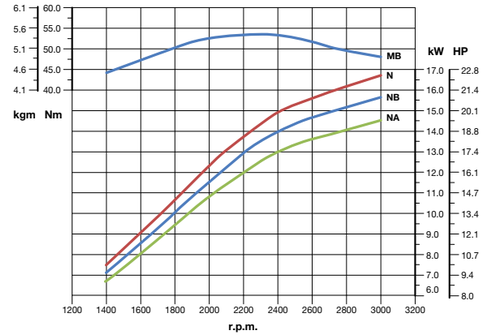
Quick specifics	
CYLINDERS	2
MAX POWER kW (hp)@rpm	16.8 (22.5) @ 3600
MAX TORQUE Nm@rpm	55.0 @ 2100

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

PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD-477/2 ECE R 24



- 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)

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.

KD

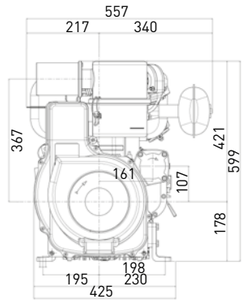
625/2

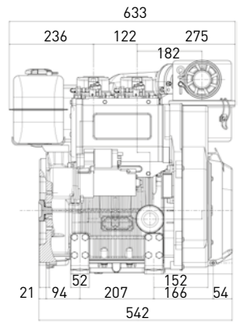
Quick specifics	
CYLINDERS	2
MAX POWER kW (hp)@rpm	18.8 (25.2) @ 3000
MAX TORQUE Nm@rpm	67.0 @ 2200

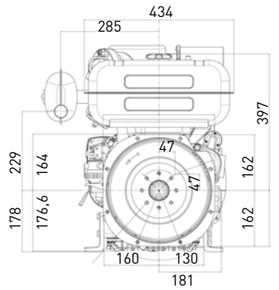
(Power & torque NB curve - ISO 3046/1 - IFN)

DATA

Dimensions (mm)



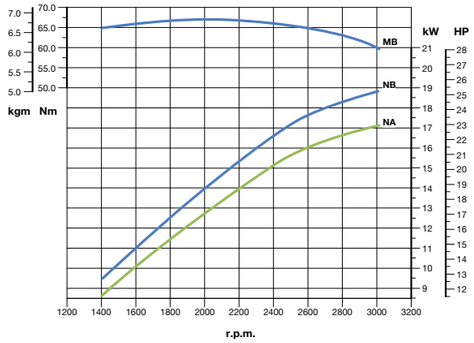




PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD-625/2 ECE R 24



- 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)

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.

Setting @ 2800 RPM

Power NB (kW)	Torque NB (Nm)
18.2 @ 2800 rpm	67.0 @ 2000 rpm

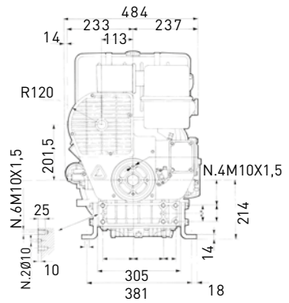
KD
626/3

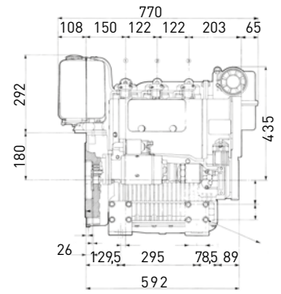
Quick specifics	
CYLINDERS	3
MAX POWER kW (hp)@rpm	26.0 (34.8) @ 3000
MAX TORQUE Nm@rpm	102.0 @ 2000

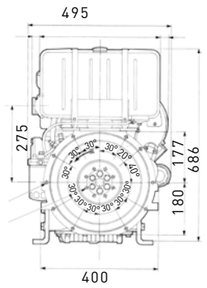
(Power & torque NB curve - ISO 3046/1 - IFN)

DATA

Dimensions (mm)



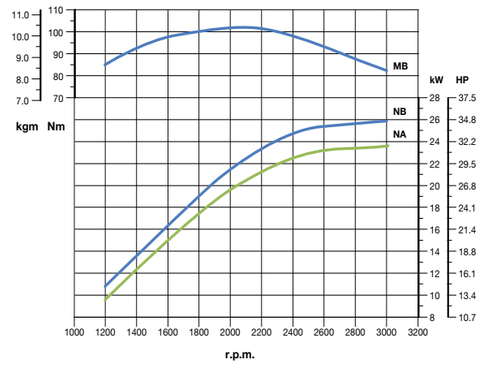




PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KD-626/3 ECE R 24

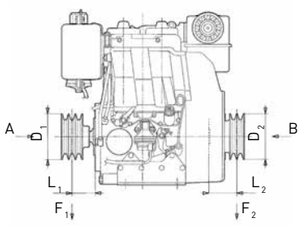


NB - Power curve - ISO 3046/1 - IFN
NA - Power curve - ISO 3046/1 - ICXN
MB - Torque curve - (NB curve)

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.

APPLICATION SPECS

KD-330/2 ; KD-425/2



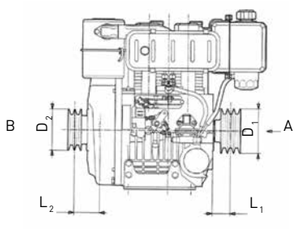
Minimum pulley diameters for belt drive

330/2: $D_1\ (mm) \geq 585\ [49 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 1030\ [31 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

425/2: $D_1\ (mm) \geq 700\ [45 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 1540\ [17 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

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

KD-477/2

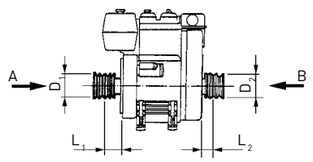


Minimum pulley diameters for belt drive

$D_1\ (mm) \geq 220\ [78 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 196\ [150 + L_2\ (mm)]\frac{N\ (kW)}{n\ (rpm)}$

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

KD-625/2

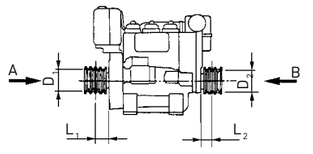


Minimum pulley diameters for belt drive

$D_1\ (mm) \geq 136\ [162 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 204\ [260 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

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

KD-626/3



Minimum pulley diameters for belt drive

$D_1\ (mm) \geq 100\ [185 + L_1(mm)]\frac{N\ (kW)}{n\ (rpm)}$ $D_2\ (mm) \geq 113\ [169 + L_2(mm)]\frac{N\ (kW)}{n\ (rpm)}$

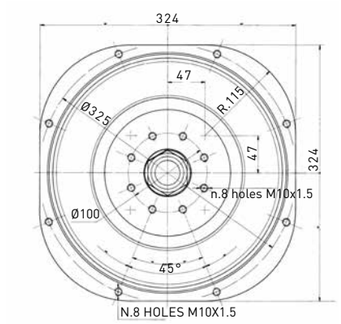
Max intermittent axial load in both directions A - B = 300 kg

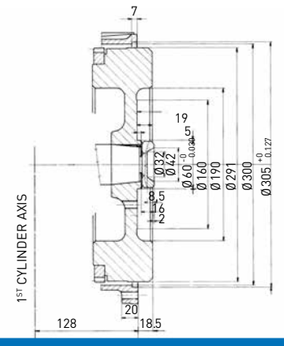
NOTE

AVAILABLE FLANGES*

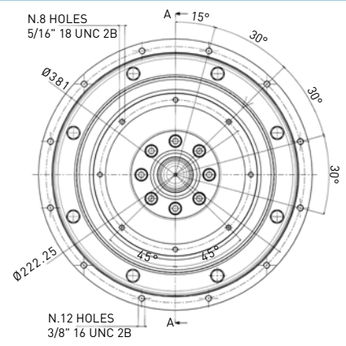
KD-625/2

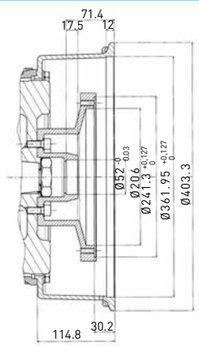
Flange standard type	Standard version





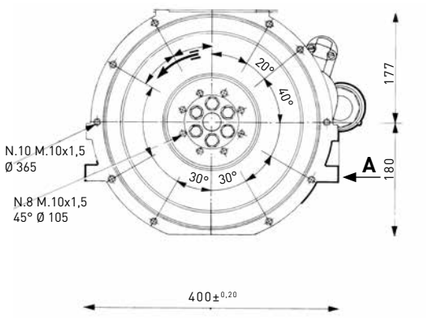
Flange type B	SAE 4, 7"½

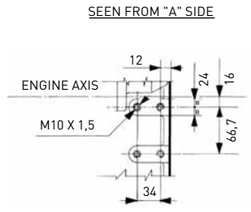


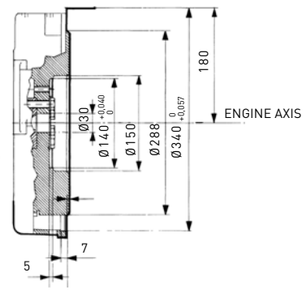


KD-626/3

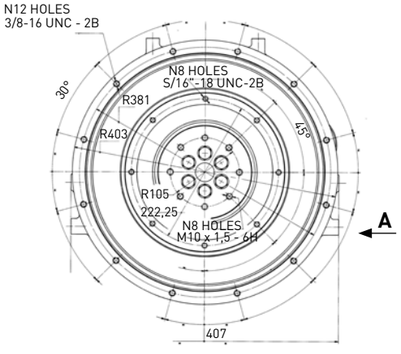
Flange standard type	Standard version

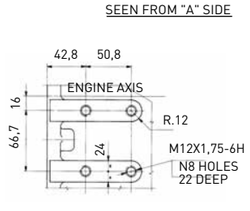


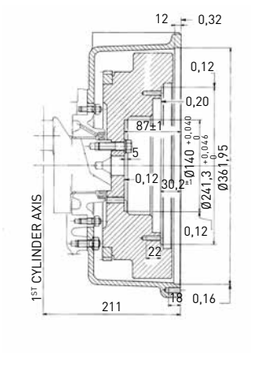




Flange type B	SAE 4, 7"½





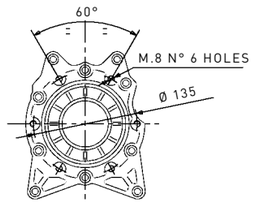


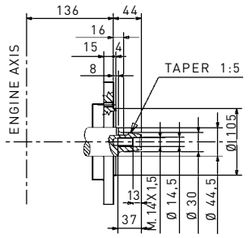
*Other flanges available on request

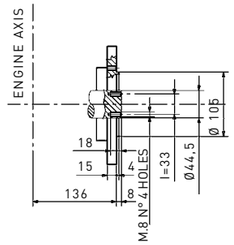
AVAILABLE FLANGES*

KD-330/2

Flange standard type	Standard version	Flange type crankshaft version

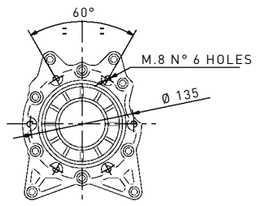


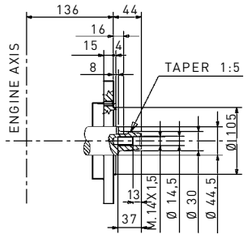


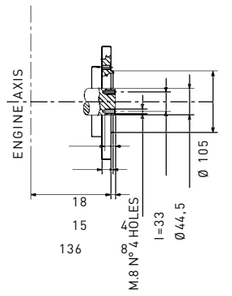


KD-425/2

Flange standard type	Standard version	Flange type crankshaft version

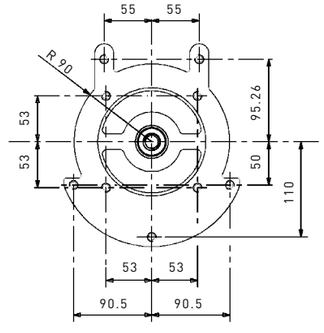


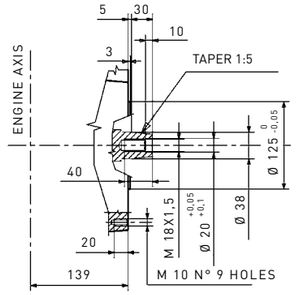




KD-477/2

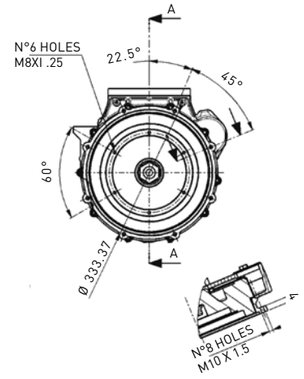
Flange standard type	Standard version

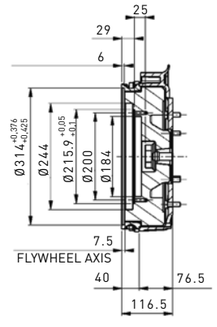




KD-477/2

Flange type B	SAE 5, 6" ½





*Other flanges available on request

TECHNICAL SPECIFICATIONS

Model		KD-330/2	KD-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 adapter	•	•	
	Centrifugal speed governor	•	•	
	Crankcase in die-cast aluminum	•	•	
	Electric starting	•	•	
	Counter-clockwise rotation (from power take-off side)	•	•	
	Aluminum alloy independent heads	•	•	
	Independent and replaceable 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	
Performance	Emission compliance	ECE R 24	ECE R 24 / EU STAGE V	US TIER 4 FINAL
	Rating (kW/HP) NB ISO 3046 IFN NA ISO 3046 ICXN	 12.0/16.1 10.0/13.4	 13/17.4 11.8/15.8	 12.2/16.3 -
	Max torque (Nm@rpm)	32.0@2400	40.0@2200	37.8@2200
	Min idling speed (rpm)	1000	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*	•	•	
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 adjustement	500	500	
Physical characteristics	H×L×W (fan excluded) (mm)	485x485x438	503.5x485x464	
	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

TECHNICAL SPECIFICATIONS

Model		KD-477/2	KD-625/2	KD-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	•	•	•
	Indipendent 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
	Stroke (mm)	75	88	88
	Engine displ (cm^3)	954	1248	1870
	Injection system	DI	DI	DI
	Compression ratio	19:1	17.5:1	17:1
Performance	Emission compliance	ECE R 24	ECE R 24	ECE R 24
	Rating (kW/HP) N (80/1269/CEE)ISO 1585 NB ISO 3046 IFN NA ISO 3046 ICXN	 16.8 /22.5 15.7 /21.0 14.5 /19.4	 - 18.8/25.2 16.8/22.5	 - 26.0/34.8 23.5/31.5
	Max torque (Nm@rpm)	55.0@2100	67.0@2000 52.5@3000	102.0@2000
	Min idling speed (rpm)	1000	1000÷1100	800-900
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*	•	•	•
Service features	Fuel tank capacity (l)	7	10	15
	Oil sump capacity (l)	2.5	2.8	5
	Oil consumption (kg/h)	0.011	0.013	0.017
	Oil change interval std/synthetic (hr)	200 **	250 **	250 **
	Oil filter change interval std/synthetic (hr)	200 **	250 **	250 **
	Valve adjustement	300	250	500
Physical characteristics	H×L×W (fan excluded) (mm)	565x577x483	599x633x557	686x770x495
	Dry weight (kg)	78	115	170
	Daily service points - positions	1 side service	1 side service	1 side service
	Ambient operating temps (°C)	-10° +45° ***	-10° +45° ***	-10° +45° ***
	Gradeability-all round (intermittent-30 min) (deg)	25°	25°	25°
	Gradeability-all round (peak value-1min) (deg)	35°	35°	35°
	Cap. of air required for correct combustion @3600 (l/min)	1500/1220	1600 (@3000)	2400 (@3000)
	Cap. of air required for correct cooling @3600 (l/min)	15800/13200	26300 (@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

For more information, contact your KOHLER source of supply.
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