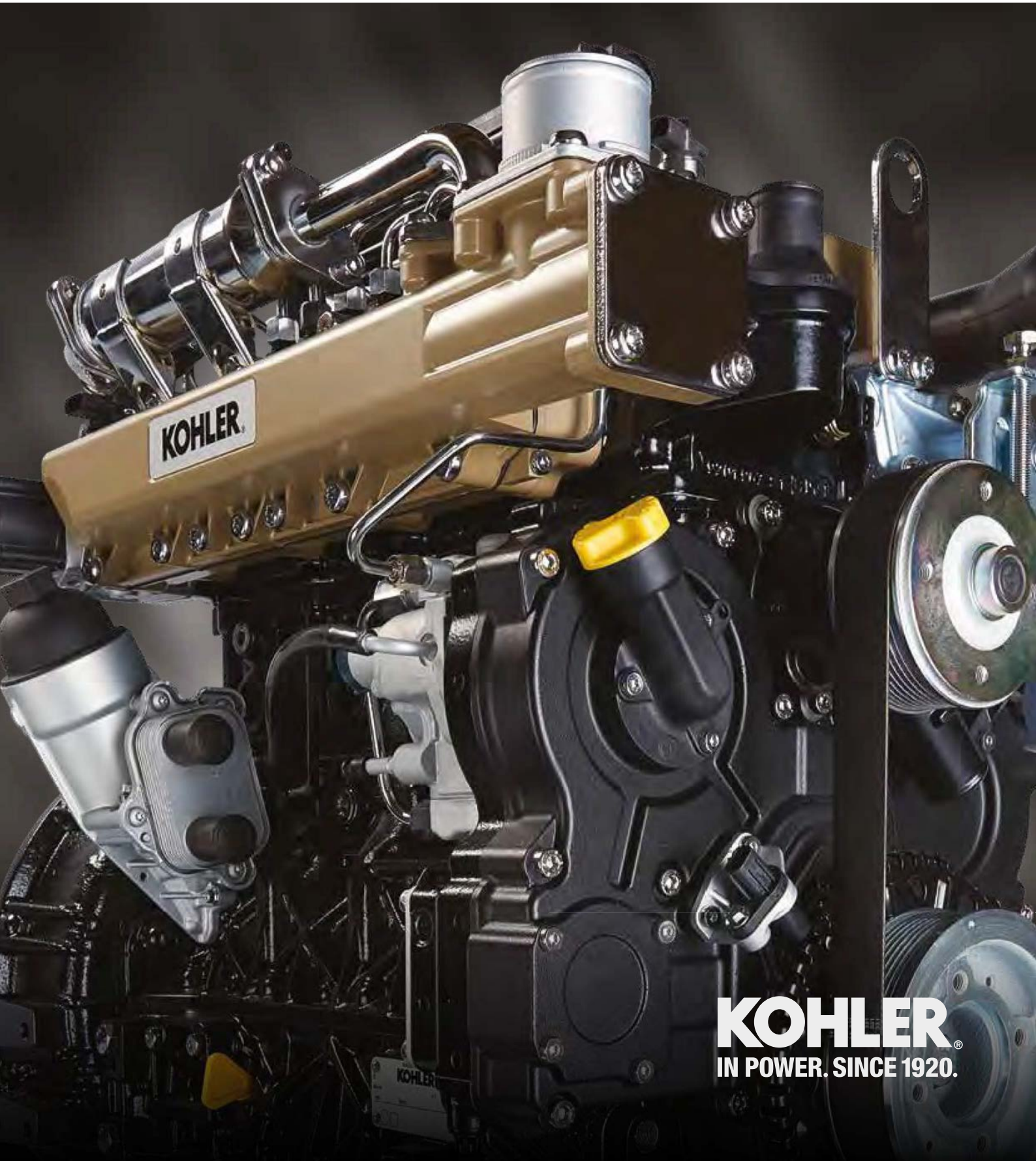


KOHLER® DIESEL KDI

31.0 – 55.4 kW | 42 – 75 hp



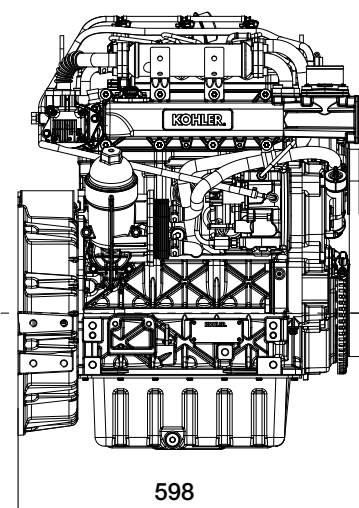
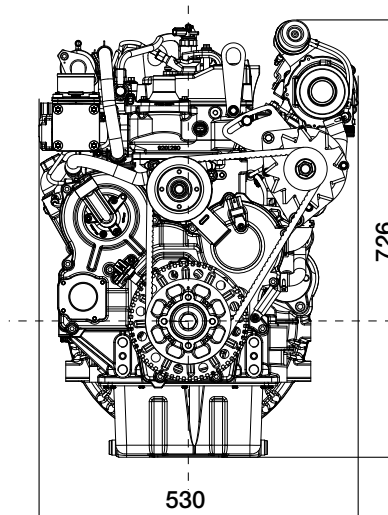
KOHLER®
IN POWER. SINCE 1920.

KDI 1903



DATA

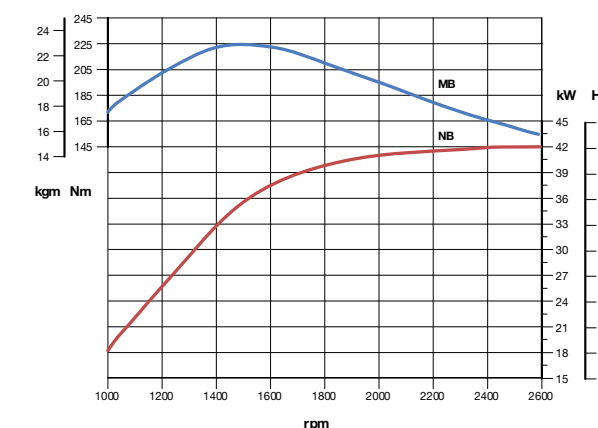
Dimensions (mm)



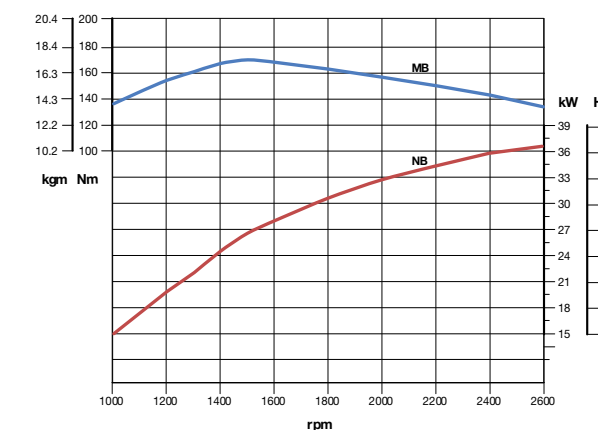
PERFORMANCE CURVES

(IFN-ACCORDING TO ISO 3046 and ISO 14396)

KDI-TCQ 1903U3/26 - KDI-TCF 1903U4/26
KDI-TCR 1903E5/26



KDI-TC 1903E5/26



— MB - Torque curve - ISO 3046/1 - IFN
— NB - Power curve - ISO 3046/1 - IFN

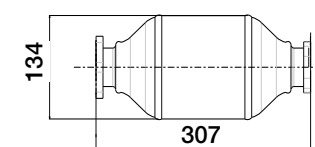
Power ratings refer to engines equipped with air filter, standard muffler, after running-in period at ambient conditions of +25°C, relative humidity 30% and 1 bar. De-rating depending on applications.

Quick specifications	KDI-TCQ 1903U3/26	KDI-TCF 1903U4/26	KDI-TCR 1903E5/26	KDI-TC 1903E5/26
CYLINDERS / FIE	3 / Turbo Common Rail	3 / Turbo Common Rail	3 / Turbo Common Rail	3 / Turbo Common Rail
MAX POWER kW (hp)@rpm	42 (56) @ 2600	42 (56) @ 2600	42 (56) @ 2600	37 (50) @ 2600
MAX TORQUE Nm@rpm	225 Nm @ 1500	225 @ 1500	225 @ 1500	170 Nm @ 1500
EMISSION COMPLIANCE	US Tier 3 Equivalent	EU Stage IIIB US TIER 4 Final	EU STAGE V US TIER 4 Final	EU STAGE V US TIER 4 Final
KOHLER Flex Emissions Management system	U3 (EGR)	U4 (EGR+DOC)	E5 (EGR+DOC+DPF)	E5 (EGR+DOC+DPF)
AFTERCOOLER	•	•	•	-

KOHLER Flex ENVELOPE

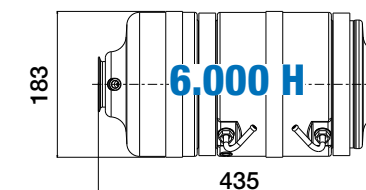
Dimensions (mm)

Flex U4

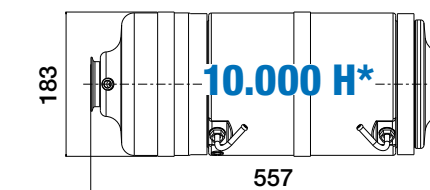


DOC

Flex E5



DOC + DPF

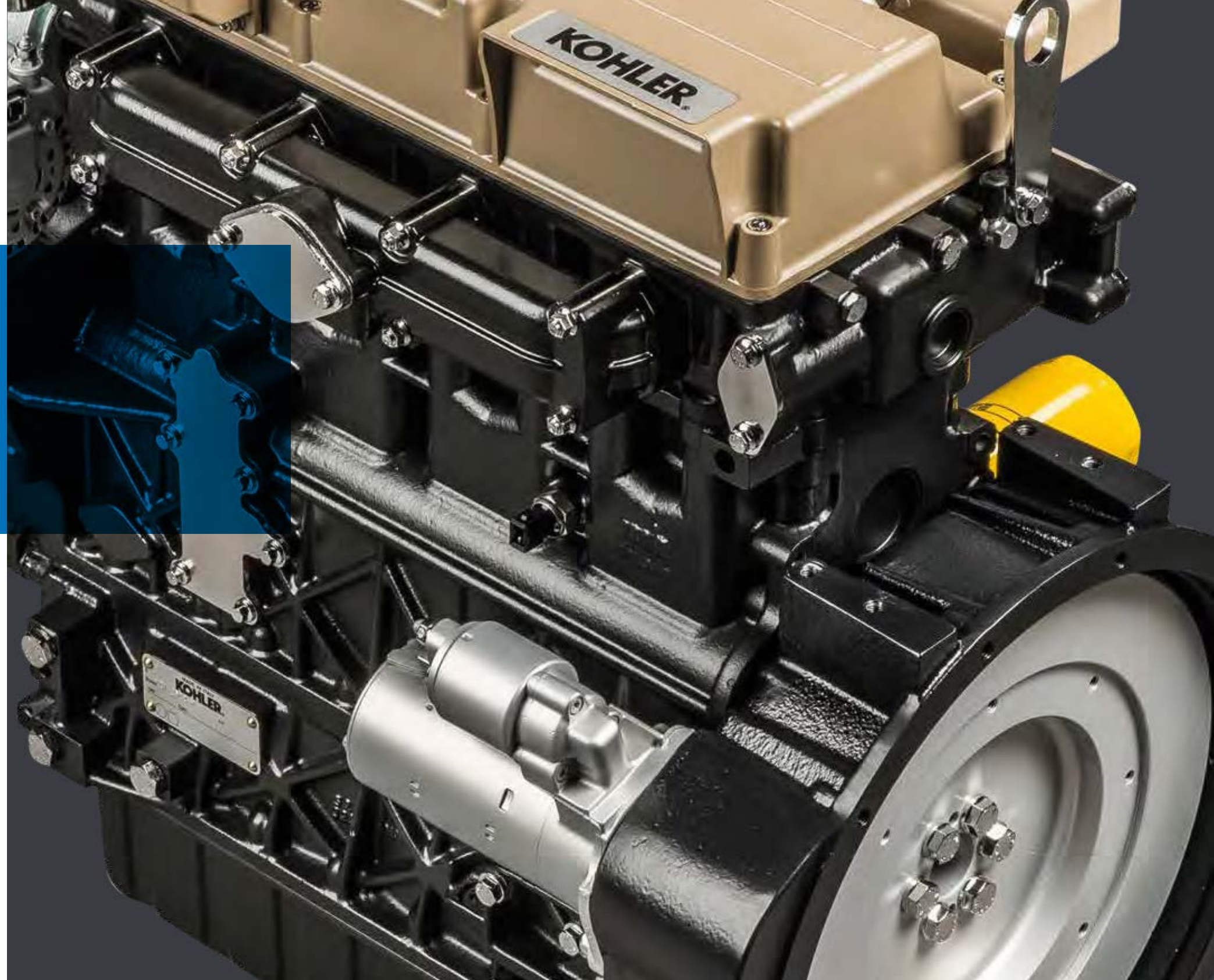


*available on demand

MECHANICAL ENGINES

STANDARD EQUIPMENT

- Intake manifold
- Exhaust manifold
- Side oil refilling
- Electric starter
- 55A alternator
- SAE 4 (7" 1/2)
- Cabin heating provision
- Engine mounted oil filter
- Fuel filter
- Oil sump capacity 8.5 L (KDI-M 1903) and 11.3 L (KDI-M 2504)



ACCESSORIES ON DEMAND

- | | |
|---|---|
| SAE 3 (11" 1/2) | High fan configuration |
| Radiators | Fuel feeding pump |
| Hydraulic pump provision on 3rd and 4th PTO | Balancer shafts (for KDI-M 2504 only) |
| Structural oil sump and bell housing | 100% Power take-off front PTO (for KDI-M 2504 only) |
| Heavy duty air cleaner | |

TURBO COMMON RAIL ENGINES



Model	KDI 1903				KDI 2504					
Engine specs	4 stroke diesel with cylinder in line	•				•				
	Liquid cooling	•				•				
	4 valves per cylinder	•				•				
	In crankcase camshaft, gear train driven	•				•				
	Pushrod - rocker arms timing with hydraulic tappets	•				•				
	Cast iron crankcase with bed-plate	•				•				
	Cast iron cylinder head	•				•				
	Closed crankcase ventilation system	•				•				
Technical features	Cylinder	3				4				
	Bore (mm)	88				88				
	Stroke (mm)	102				102				
	Engine displ (cm³)	1861				2482				
	Injection system	DI				DI				
	Injection Equipment	Turbo high pressure common rail				Turbo high pressure common rail				
	Aftercooler	•	•	•	-	•	•	•	-	
	Performance	Max power (IFN - ISO 3046 and ISO 14396) (kW(hp)@rpm) @2600	42 (56)	42 (56)	42 (56)	37 (50)	55.4 (74)	55.4 (74)	55.4 (74)	50 (67)
Max torque (IFN - ISO 3046 and ISO 14396) (Nm@rpm) @1500		225	225	225	170	300	300	315	236	
Low-end torque (Nm@1000 rpm)		172	172	172	135	242	242	242	185	
KOHLER Flex solution		U3	U4	E5	E5	U3	U4	E5	E5	
KOHLER Flex Emissions Management system	EGR	•	•	•	•	-	•	•	•	
	DOC	-	•	•	•	-	•	•	•	
	DPF	-	-	•	•	-	-	•	•	
	Emission compliance	US TIER 3 EQUIV.	EU STAGE IIIB	EU STAGE V US TIER 4 FINAL	EU STAGE V US TIER 4 FINAL	US TIER 3 EQUIV.	EU STAGE IIIB US TIER 4 FINAL	EU STAGE V US TIER 4 FINAL	EU STAGE V TIER 4 FINAL	
		Best point (g/kWh)	215				210			
		Max power (g/kWh@2600 rpm)	237				226			
		Startability	Unaided (°C)	down to -19				down to -19		
	Aided (°C) [Manifold grid heater]		below -19				below -19			
Aided (°C) [Manifold grid heater + coolant heater]	/				below -25					
Fuel compatibility	EN 590	•				•				
	No 1 Diesel (US) - ASTM D 975-09 B - Grade 1-D S 15	•				•				
	No 2 Diesel (US) - ASTM D 975-09 B - Grade 2-D S 15	•				•				
	Arctic EN 590/ASTM D 975-09 B (No petroleum added)	•				•				
	High Sulfur Fuel < 2000 ppm *	-				•	-	-	-	
Service features	Oil/filter change interval std/synthetic (hr)	500-750**				500-750**				
	Alternator belt replacement	36mth				36mth				
	Coolant change	24 mth				24 mth				
	Oil consumption (% fuel)	<0.1				<0.1				
Physical characteristics	H x L x W (fan excluded) (mm)	726 x 598 x 530				720 x 704 x 523				
	Weight (kg)	233				267				
	Daily service points - positions	1 side service				1 side service				
	Ambient operating temps (°C)	-40 to +50				-40 to +50				
	Gradeability-all round (continuous) (deg)	25				25				
	Gradeability-all round (intermittent-1min) (deg)	35				35				
Lubrication	Oil type	SAE 5W 40 low SAPS/ EURO 6 API CJ-4				SAE 5W 40 low SAPS/ EURO 6 API CJ-4				
Auxiliary PTOs (3rd & 4th) (optional)	Max torque (Nm)	100				100				
	Drive ratio	1.23 times engine speed				1.23 times engine speed				
	Provision for a double Gr.2 tandem hydraulic pump	•				•				

* With restrictions ** According to operating conditions

MECHANICAL ENGINES



Model	KDI-M 1903				KDI-M 2504				
Engine specs	4 stroke diesel with cylinder in line	•				•			
	Liquid cooling	•				•			
	4 valves per cylinder	•				•			
	In crankcase camshaft, gear train driven	•				•			
	Pushrod - rocker arms timing with hydraulic tappets	•				•			
	Cast iron crankcase with bed-plate	•				•			
	Cast iron cylinder head	•				•			
	Closed crankcase ventilation system	•				•			
Technical features	Waste-gate turbocharger	-				-			
	Cylinder	3				4			
	Bore (mm)	88				88			
	Stroke (mm)	102				102			
	Engine displ (cm³)	1861				2482			
	Injection system	DI				DI			
	Injection Equipment	Mech-Rotary pump				Mech-Rotary pump			
	Performance	Emission compliance	EU STAGE III A (EA)				EU STAGE III A (EA)		
Max power (IFN - ISO 3046 and ISO 14396) (kW@rpm)		31 (41.5) @2600				36.4 (48.8) @2600			
Max torque (IFN - ISO 3046 and ISO 14396) (Nm@rpm)		133@1500				170@1500			
Low-end torque (Nm@1000 rpm)		80				110			
Fuel economy	Best point (g/kWh)	223				220			
	Max power (g/kWh@2600)	237				234			
Startability	Unaided (°C)	down to -15				down to -15			
	Aided (°C) [Manifold grid heater]	below -15				below -15			
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 < 2000 ppm*	•				•			
	Military NATO Fuels F34 - F35 - F44 - F63 - F64 - F65 *	•				•			
	Military US Fuels JP5 - JP8 (AVTUR) *	•				•			
	Jet Fuels - Jet A/ A1*	•				•			
Service features	Oil/filter change interval std/synthetic (hr)	500-750**				500-750**			
	Valve adjustment	-				-			
	Alternator belt replacement	36mth				36mth			
	Coolant change	24 mth				24 mth			
Physical characteristics	Oil consumption (% fuel)	<0.1				<0.1			
	H x L x W (fan excluded) (mm)	667.5 x 598.3 x 452.5				667.5 x 704.3 x 452.5			
	Weight (kg)	210				244			
	Daily service points - positions	1 side service				1 side service			
	Ambient operating temps (°C)	-40 to +50				-40 to +50			
	Gradeability-all round (intermittent-1min) (deg)	25				25			
Lubrication	Oil type	SAE 15W40 / API CH4				SAE 15W40 / API CH4			
Auxiliary PTOs (3rd & 4th) (optional)	Max torque (Nm)	100				100			
	Drive ratio	1.23 times engine speed				1.23 times engine speed			
	Provision for a double Gr.2 tandem hydraulic pump	•				•			

* With restrictions ** According to operating conditions

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

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