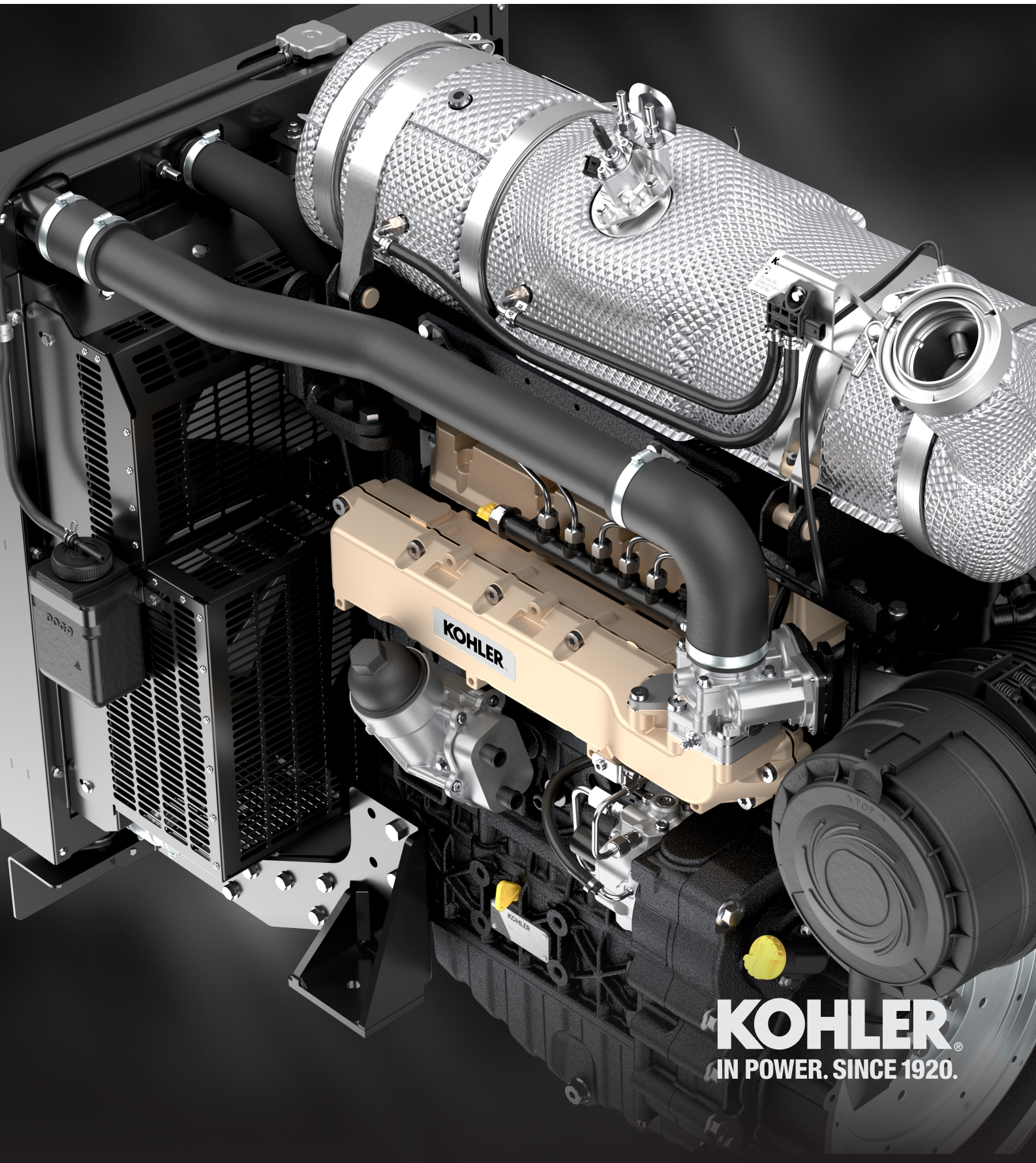
KOHLER® DIESEL KDI

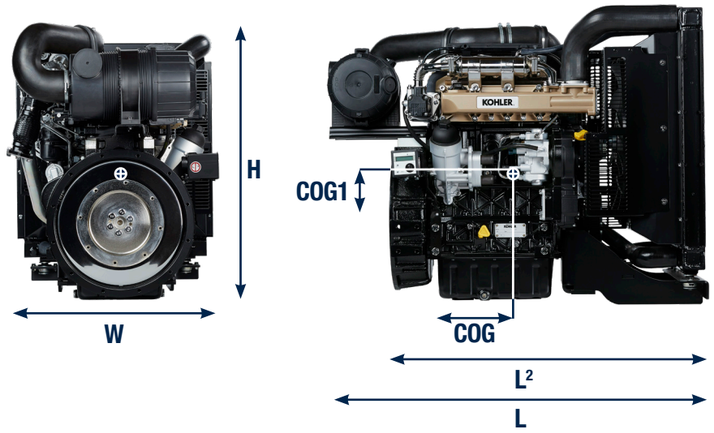
Power Pack version



KDI POWER PACK
DIESEL ENGINES

STANDARD EQUIPMENT

- Waste-gate turbocharger
- Charge-air cooling
- Blower fan
- Fan guard
- Radiator
- Air cleaner
- Oil filter
- Fuel filter
- Aftertreatment System[1]
- Muffler



TECHNICAL DATA

MODEL		KDI 1903TCR	KDI 2504TCR
PHYSICAL CHARACTERISTICS	Dimensions (L - L² - H - W) (mm)	1061 - 863 - 893 - 727	1151 - 969 - 893 - 717
	COG - Center of gravity	223	275
	COG1 - Center of gravity height	118	122
	Dry weight (kg)	300	335
	Daily service points - positions	1 side service	1 side service
	Ambient operating temps (°C)	-30 to +50	-30 to +50
	Gradeability-all round (continous) (deg)	25	25
	Gradeability-all round (intermittent-1min) (deg)	35	35

QUICK SPECIFICATIONS	KDI-TCQ 1903U3/26	KDI-TCF 1903U4/26	KDI-TCR 1903E5/26
CYLINDERS / FIE	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
MAX TORQUE Nm@rpm	225 Nm @ 1500	225 @ 1500	225 @ 1500
EMISSION COMPLIANCE	US Tier 3 Equivalent	EU Stage IIIB 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)
AFTERCOOLER	•	•	•

QUICK SPECIFICATIONS	KDI-TCK 2504U3/26	KDI-TCF 2504U4/26	KDI-TCR 2504E5/26
CYLINDERS / FIE	4 / Turbo Common Rail	4 / Turbo Common Rail	4 / Turbo Common Rail
MAX POWER kW (hp)@rpm	55.4 (74) @ 2600	55.4 (74) @ 2600	55.4 (74) @ 2600
MAX TORQUE Nm@rpm	300 @ 1500	300 @ 1500	315 @ 1500
EMISSION COMPLIANCE	EU Stage IIIA US Tier 3 Equivalent	EU Stage IIIB US TIER 4 Final	EU Stage V US TIER 4 Final*
KOHLER Flex Emissions Management system	U3 -	U4 (EGR+DOC)	E5 (EGR+DOC+DPF)
AFTERCOOLER	•	•	•

[1] when requested
* homologation process for US – Tier 4 Final in 2024

MODEL		KDI 1903TCR	KDI 2504TCR
ENGINE SPECS	In crankcase camshaft, gear train driven	•	•
	Pushrod - rocker arms timing with hydraulic tappets	•	•
	Cast iron cylinder head	•	•
	Closed crankcase ventilation system	•	•
	Electronic engine management	•	•
TECHNICAL FEATURES	Cylinder	3	4
	Bore (mm)	88	88
	Stroke (mm)	102	102
	Engine displ (cm³)	1861	2482
	Air intake	Turbo charged aftercooled	Turbo charged aftercooled
	Injection system	DI	DI
	Injection Equipment	Common rail (2000 bar)	Common rail (2000 bar)
	Valves per cylinder	4	4
	Cooling	Liquid	Liquid
STARTABILITY	Unaided (°C)	down to -15	down to -15
	Aided (with manifold grid heater)(°C)	below -15	below -15
FUEL CONSUMPTION	Best point (g/kWh)	215	210
	Max power (g/kWh@2400 rpm)	237	226
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)	•	•
	HVO - Hydrotreated Vegetable Oil	•	•
LUBRICATING SYSTEM	Maximum oil temperature at full rated speed: continuous (C°)	110	110
	Maximum oil temperature at full rated speed: intermittent (C°)	110	110
	Total system capacity - including pipes, filters etc. (l)	8.9	11.5
	Oil type	SAE 10W 40 low SAPS/ API CJ-4/ API CK-4/ ACEA E6-E7-E9	SAE 10W 40 low SAPS/ API CJ-4/ API CK-4/ ACEA E6-E7-E9
	Oil consumption at maximum rating (%of fuel consumption)	0.1	0.1
COOLING SYSTEM	Coolant capacity (radiator only) (l)	6.5	6.5
	Cooling fluid: 50/50 water/antifreeze	•	•
	Cooling liquid maximum temperature (C°)	110°	110°
	Coolant specification approved	Etylenglycol/ Propylenglycol	Etylenglycol/ Propylenglycol
	Maximum working ambient temperature (C°)	55°	55°
	Fan type	400 pusher / suction	450 pusher / suction
BATTERY	Battery -minimum capacity recommended (Ah)	90	90
	Battery - minimum cold cranking capacity (Ah)	110	110
SERVICE FEATURES	Oil/filter change interval std/synthetic (hr)	500	500
	Alternator belt replacement	36mth	36mth
	Coolant change	24 mth	24 mth
VIBRATION	Max engine excitation at mounting locations	5g	5g
AUXILIARY PTO (3RD 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	•	•

For complete power and torque curves please refer to specific literature available on website Kohlerpower.it

KDI POWER PACK
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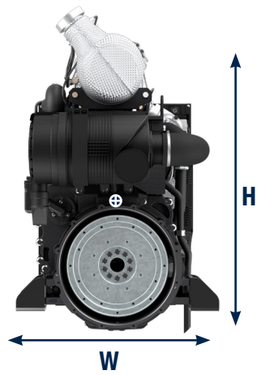

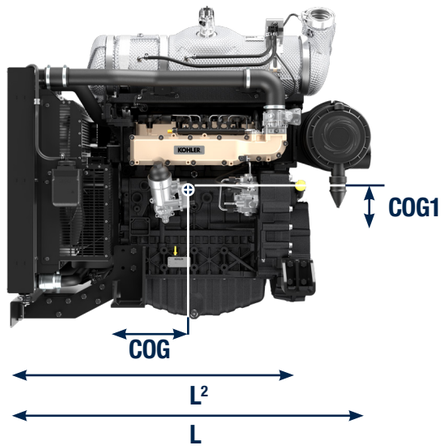

TECHNICAL DATA

MODEL		KDI 3404TCR	KDI 3404TCR-SCR
PHYSICAL CHARACTERISTICS	Dimensions (L - L² - H - W) (mm)	1316.5 - 1101 - 1178 - 753	1366 - 1101 - 1207 - 1198 - 753
	COG - Center of gravity	408	404
	COG1 - Center of gravity height	166	183
	Dry weight (kg)	532	546
	Daily service points - positions	1 side service	1 side service
	Ambient operating temps (°C)	-30 to +50	-30 to +50
	Gradeability-all round (continous) (deg)	40	40
	Gradeability-all round (intermittent-1min) (deg)	45	45

QUICK SPECIFICATIONS	KDI-TCL 3404U4/22	KDI-TCV 3404U4/22	KDI-TCN 3404E5/22	KDI-TCP 3404E5/22
CYLINDERS / FIE	4 / Turbo Common Rail	4 / Turbo Common Rail	4 / Turbo Common Rail	4 / Turbo Common Rail
MAX POWER kW (hp)@rpm	55.4 (74) @ 2200	100 (136) @ 2200	55.4 (74) @ 2200	105 (141) @ 2200 112 (152) @ 1800
MAX TORQUE Nm@rpm	375 @ 1400	500 @ 1400	465 @ 1100	650 @ 1400
EMISSION COMPLIANCE	US TIER 4 Final	US TIER 4 Final	EU Stage V US TIER 4 Final*	EU Stage V US TIER 4 Final**
KOHLER Flex Emissions Management system	U4 (EGR+DOC)	U4 (EGR+DOC+SCR)	E5 (EGR+DOC+DPF)	E5 (DOC+DPF+SCR)
AFTERCOOLER	•	•	•	•

[1] when requested

* homologation process for US – Tier 4 Final in 2024

** homologation process for US – Tier 4 Final in 2023

MODEL		KDI 3404TCR	KDI 3404TCR-SCR US TIER 4 Final	KDI 3404TCR-SCR EU Stage V
ENGINE SPECS	In crankcase camshaft, gear train driven	•	•	•
	Pushrod - rocker arms timing with hydraulic tappets	•	•	•
	Cast iron cylinder head	•	•	•
	Closed crankcase ventilation system			
	Open Crankcase Ventilation System	•	•	•
	Electronic engine management	•	•	•
TECHNICAL FEATURES	Cylinder	4	4	4
	Bore (mm)	96	96	96
	Stroke (mm)	116	116	116
	Engine displ (cm³)	3359	3359	3359
	Air intake	Turbo charged aftercooled	Turbo charged aftercooled	Turbo charged aftercooled
	Injection system	DI	DI	DI
	Injection Equipment	Common rail (2000 bar)	Common rail (2000 bar)	Common rail (2000 bar)
	Valves per cylinder	4	4	4
	Cooling	Liquid	Liquid	Liquid
STARTABILITY	Unaided (°C)	down to -15	down to -15	down to -15
	Aided (with manifold grid heater)(°C)	below -15	below -15	below -15
FUEL CONSUMPTION	Best point (g/kWh)	210	205	203
	Max power (g/kWh@2200 rpm)	226	210	210
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)	•	•	•
	HVO - Hydrotreated Vegetable Oil	•	•	•
LUBRICATING SYSTEM	Maximum oil temperature at full rated speed: continuous (C°)	130	130	130
	Maximum oil temperature at full rated speed: intermittent (C°)	130	130	130
	Total system capacity - including pipes, filters etc. (l)	15.6	15.6	15.6
	Oil type	API CK-4 / API CJ-4 / ACEA E6 E7 E9	API CK-4 / API CJ-4 / ACEA E6 E7 E9	API CK-4 / API CJ-4 / ACEA E6 E7 E9
	Oil consumption at maximum rating (%of fuel consumption)	0.1	0.1	0.1
COOLING SYSTEM	Coolant capacity (radiator only) (l)	7.6	7.6	7.6
	Cooling fluid: 50/50 water/antifreeze	•	•	•
	Cooling liquid maximum temperature (C°)	110°	110°	110°
	Coolant specification approved	Etylenglycol/ Propylenglycol	Etylenglycol/ Propylenglycol	Etylenglycol/ Propylenglycol
	Maximum working ambient temperature (C°)	55°	55°	55°
	Fan type	500 pusher / suction	500 pusher / suction	500 pusher / suction
BATTERY	Battery -minimum capacity recommended (Ah)	90	90	90
	Battery - minimum cold cranking capacity (Ah)	145	145	145
SERVICE FEATURES	Oil/filter change interval std/synthetic (hr)	500	500	500
	Alternator belt replacement	36mth	36mth	36mth
	Coolant change	24 mth	24 mth	24 mth
VIBRATION	Max engine excitation at mounting locations	5g	5g	5g
AUXILIARY PTO (3RD OPTIONAL)	Drive ratio 3° PTO	SAE A 150Nm 1:1.13 times engine speed	SAE A 150Nm 1:1.13 times engine speed	SAE A 150Nm 1:1.13 times engine speed
	Drive ratio 4° PTO	SAE B 250Nm 1:1 times engine speed	SAE B 250Nm 1:1 times engine speed	SAE B 250Nm 1:1 times engine speed

For complete power and torque curves please refer to specific literature available on website Kohlerengines.com

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