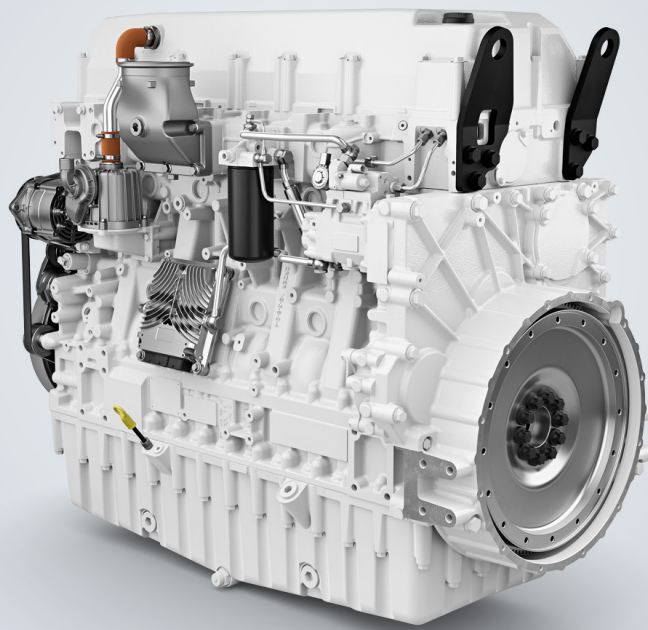


D976 engine for off-road applications



HVO ready

Designed and manufactured by Liebherr, the D976 is a best-in-class combustion engines for off-road applications such as agriculture, construction industry as well as mining. Thanks to its robust design and Liebherr's extensive experience, this 6-cylinder in-line engine is perfectly suited for the toughest environmental conditions. Delivering up to 620 kW with 18 L displacement, the engine provides high power density, and reaches a peak torque of 4000 Nm at 1300 rpm. Not only does the D976 achieve high performance, it also reduces the total cost of ownership by featuring high oil change intervals of more than 1000 hours, and low fuel consumption.

Our engine diagnostic solution LiDIA, together with long-life service, further extends reliability and minimises engine down time.

Features:

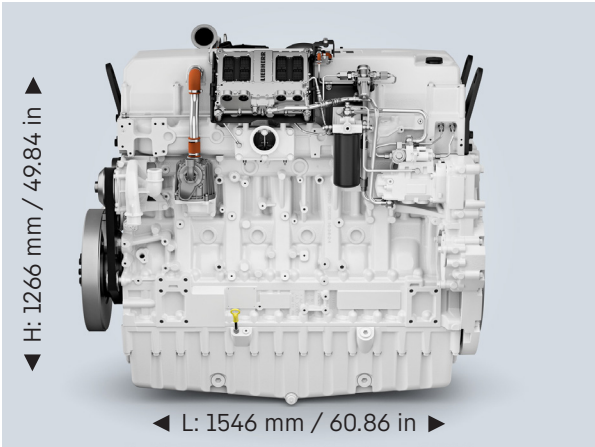
- Robust and highly efficient
- Low total cost of ownership
- Low maintenance effort with maintenance-free valve train and crankcase ventilation systems
- High efficiency turbocharger for more efficiency
- 2 PTO (power take-off)
- Liebherr engine control unit: in-house software development and function capabilities

LIEBHERR

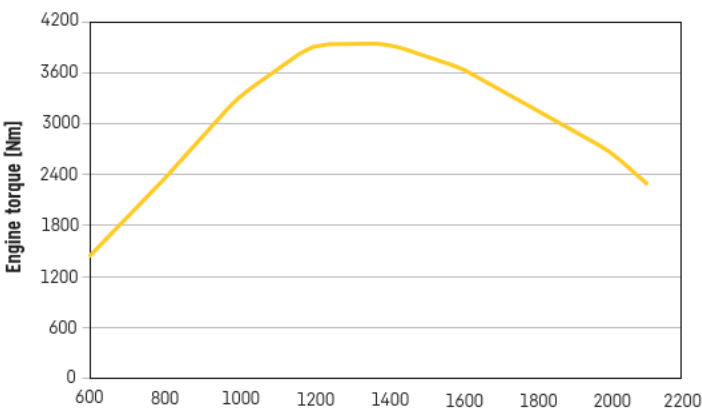
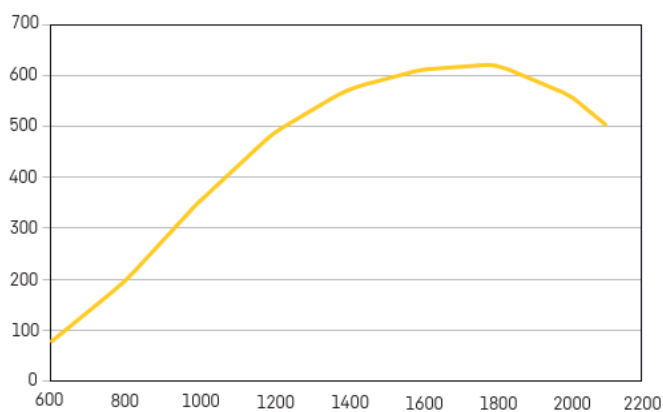
Product features and technical data

D976*

Country of manufacture		Switzerland	
Configuration		Cylinders in-line	
Aspiration		Turbocharger	
Fuel injection control system		High pressure common rail	
Bore	mm (in)	148	5.8
Stroke	mm (in)	174	6.85
Displacement	L (in3)	18	1098
Compression ratio		16,5 : 1	684hp - 831hp
Power rating	kW (hp)	510 kW - 620kW	
Rated speed	rpm	1,700-1,900	
Peak torque	Nm (lb-ft)	4000 at 1300 rpm	2950 at 1300 rpm
Coolant capacity	L	39,5	
Maximum tilt angle feature		(+/- 45° trans. +/- 45° long.)	
Lubricant capacity	L	87	
Estimated dry weight	kg (lbs)	1763	3887



Engine power and torque curves*



* Tolerance at nominal power and nominal torque declaration are according to standard ECE-R.24/ISO 9249.
Tolerance at nominal specific fuel consumption declaration are valid for diesel fuel fulfilling standard DIN EN 590 with a min of LHV 42780 kJ/kg.

Product specifications and options

Product specifications

Twin scroll turbocharger

Belt driven water pump

Automatic valve lash adjustment (maintenance free)

Integrated crankcase ventilation system (maintenance free)

Engine control unit and control strategies by Liebherr

High performance injection system by Liebherr

Available options

Exhaust flap for emission purpose (Stage V – Tier4F) and engine braking

Water cooled turbocharger (bearing housing)

Cold start (-25 °C)

Double starter

Oil pan (flat or deep)

Different oil filling and oil dipstick

Oil level sensor

Remote oil filter

Remote fuel filter

Several air and water connections

Flywheel housing SAE1 or SAE0

Two PTO (SAE B flange)

Air Compressor

Generator 24 V (140 or 180A)

A/C Compressor

Different fan drive solution

Hydrogenated vegetable oil (HVO)

D976 engine for off-road applications



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