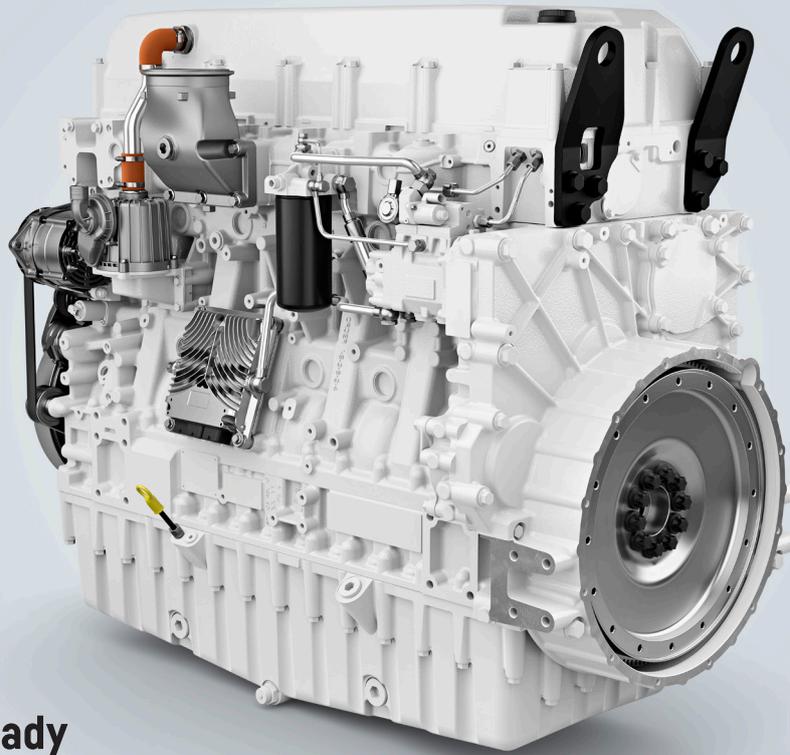


D976 engine for the agriculture industry



HVO ready

Designed and manufactured by Liebherr, the D976 is one of the best-in-class combustion engines for off-road applications, such as agriculture. 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 (up to 670 kW in development) 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 condition monitoring solution and LiDIA diagnostic tool, together with a long life service further extend reliability and minimise 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 and reduced fuel consumption
- Limited leakage risk and increased safety
- 2 PTO (power take-off) possibilities with different powers
- Liebherr Engine Control Unit: In-house software development and function capabilities

LIEBHERR

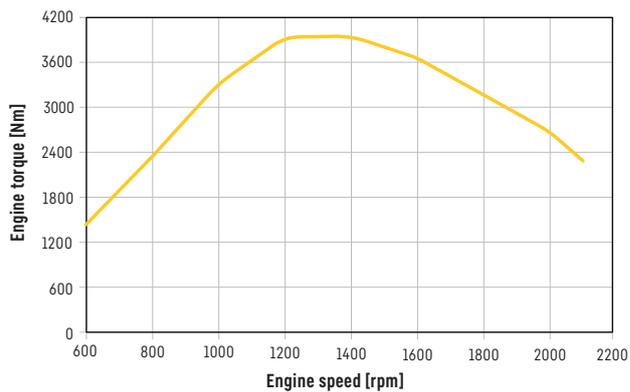
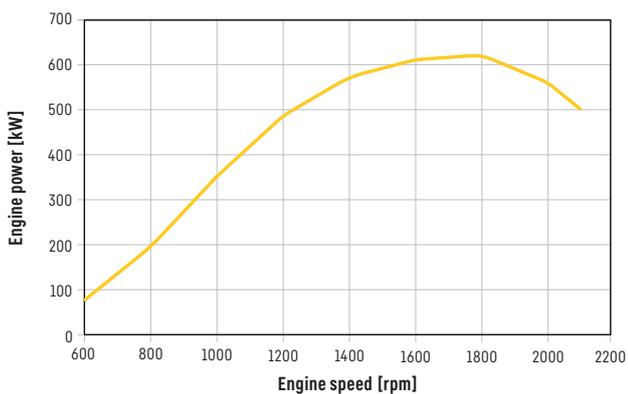
Product features and technical data

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)	17 (6.9)
Displacement	L (in ³)	18 (1,098.4)
Compression ratio	16.5 : 1	
Power rating	kW (hp)	460- 620 kW (617- 831 hp)
Rated speed	rpm	1,700-1,900
Peak torque	Nm (lb-ft)	4,000 at 1,300 rpm (2,950 at 1,300 rpm)
Fuel consumption at 1900 rpm - full load	g/kWh	208
Fuel consumption at 1900 rpm - full load	L/h	154
Coolant capacity	L	38
Maximum tilt angle feature	(+/- 35° trans. +/- 35° long.)	
Lubricant capacity	L	108
Estimated dry weight	kg (lbs)	1,830 (4,034)



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

Integrated centrifugal water pump

Integrated closed crankcase ventilation system

Fuel cooled Engine Control Unit by Liebherr

Automatic poly-V belt tensioner for higher change interval time

Liebherr high performance injection system

Ultrafine fiber oil filter

Flywheel SAE2

Fuel fine filter on engine

Engine Control Unit: Liebherr ECU3

Optional specifications

Air compressor upon request

Exhaust flap upon request

Cold start (-25/-40 °C) upon request

Oil filter upon request

Coolant inlet & outlet (90° elbow) upon request

Oil pan (flat or central) upon request

Oil level sensor dipstick & fill-in side to be chosen upon request

Fuel filter (removed or assembled) upon request

Oil filling pan (cold or hot side) upon request

Generator 24 V (140 or 180A) upon request

A/C Compressor upon request

Flywheel housing SAE1 & Flywheel SAE14 upon request

Engine feet (transport bracket) upon request

Flywheel housing SAE0 & Flywheel SAE18 upon request

Several air and water connections upon request

Hydraulic valve adjuster upon request

Hydrogenated vegetable oil (HVO) approval upon request

LiDIA diagnostic tool upon request

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Want to know more?
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