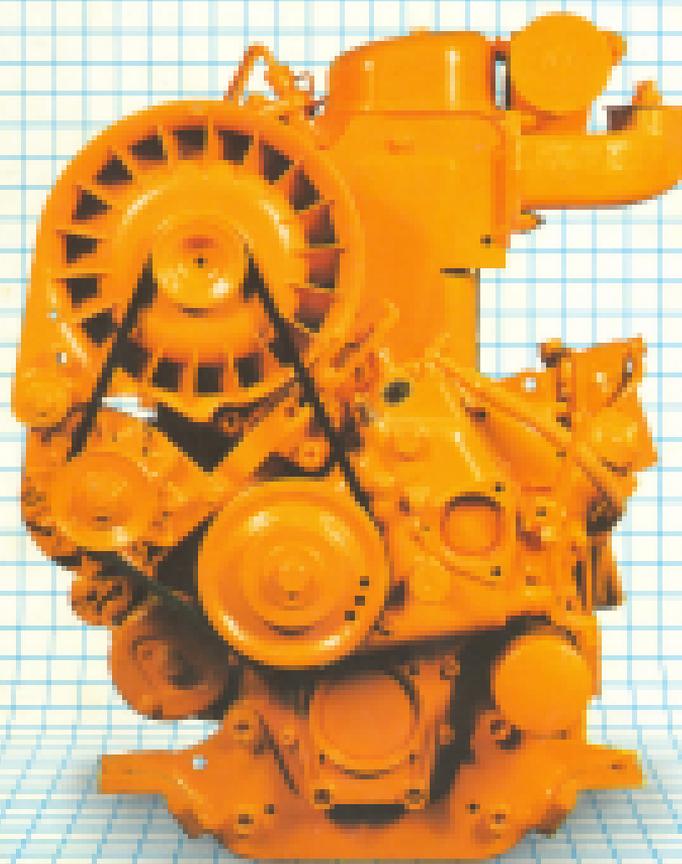


# FL511/W



## DEUTZ air-cooled four-stroke diesel engines of the FL 501 series

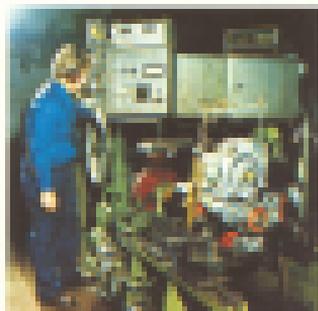
The trend towards higher outputs is also reflected in the lower output range of the equipment engine sector. To meet these market requirements, KHD developed the FL 501 series engines distinguished by their compact design and low weight. Here KHD made use of the latest achievements in basic research and engine technology made at its R & D Centre at Pösch, one of the most advanced centres of this kind.

In conjunction with air-cooling these sturdy engines offer optimal stability and efficiency. The design is based on the modular construction system throughout, thus allowing simplified spare parts stocking thanks to many identical components. The engines are produced on modern factory lines featuring the famous DEUTZ precision and quality.

The series comprises vertical single and two-cylinder four-stroke engines covering a power range from 5.2 kW (7.1 HP) to 25.7 kW (35 HP) at speeds between 1,500 and 2,800 1/p.m.

DEUTZ AG

The FL 501W engine, with 105-mm bore and 105-mm stroke, flows a 0.825 litre displacement per cylinder and with a max. cylinder output of 12.8 kW (17.5 HP) it was well into the full-line production programme of DEUTZ which extends from 2 to 1,350 kW (3 to 1,850 HP).



When designing the FL 511W series, the components were adapted to the latest technical standards, which applies, for instance, to the noise-optimized cooling air blower, label filtration with flow-away or washable filter cartridges, integrally mounted housing box and crankcase breather which ensures smooth operation even on high inclinations – the max. permissible inclination is 35° in all sides.



The highlights of these engines are:

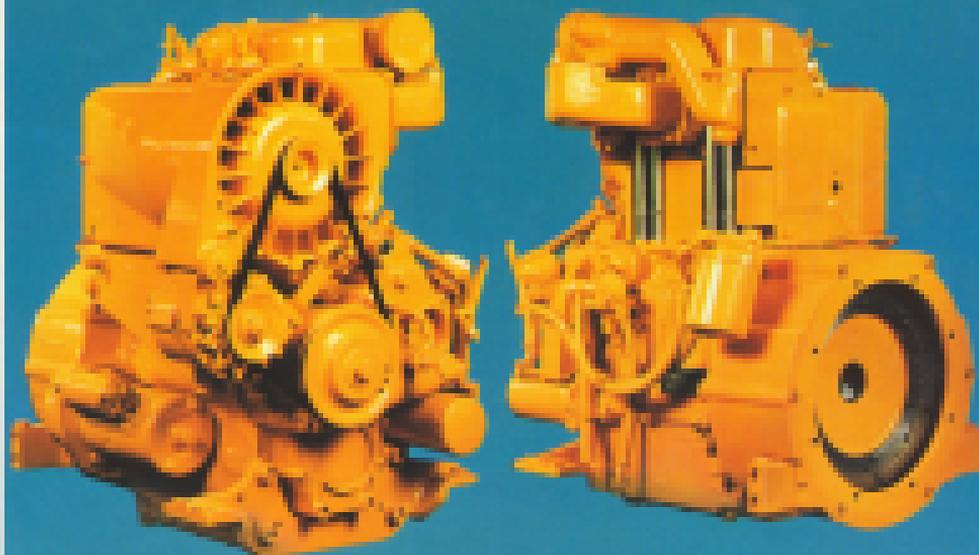
- Good fuel economy
- Single-cylinders and single-cylinder heads
- Integrated axial cooling air blower with high efficiency and therefore a low noise emission level
- Integrated hydraulic oil cooler. Cooling by means of the engine air blower for hydrostatic or hydrodynamic PTO's
- Numerous optional components for a wide spectrum of applications
- Several PTO's, air blower and fly-wheel ends, as well as the possibility of mounting a hydraulic pump directly on the air blower end with a maximum power requirement of up to 25.5 kW
- Standard design with direct injection for high output and optimal economy
- Optimal delivery of engines with two-stage combustion system for special requirements of exhaust gas quality (Design W) (Prospectus: "Environmental Protection by Pollution Control Technology")

Engines of this series are used mainly for operation in light construction machinery, small loaders, rollers, pump and compressor sets, power generating sets, vehicles and other equipment.

## **DEISE MOTOR**

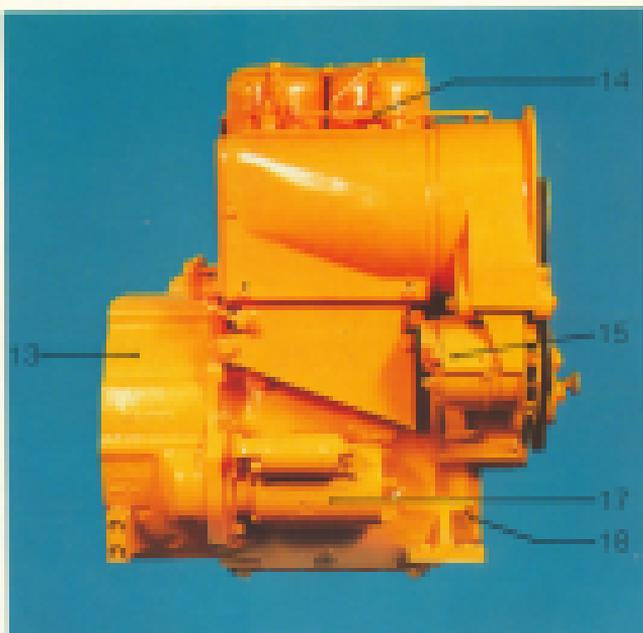
Waldhof, 8162, West  
 Ischle in Silesia, Poland



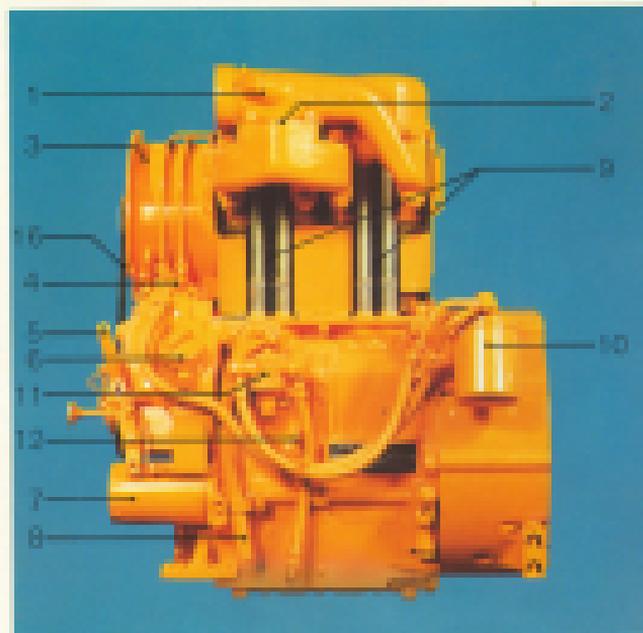


**Air-cooled two-cylinder diesel engine P2L 811**

1. Air intake manifold with connecting flange for air cleaner
2. Exhaust pipe-connection
3. Cooling air blower
4. Fuel injection pump
5. Speed control and shut-down lever
6. Lub oil filter neck
7. Lub oil filter (with throw-away or washable-cartridge)
8. Crankcase breather
9. Cooling air-outlet
10. Single fuel filter (with filter)
11. Lub oil dip-stick
12. SAE adapter housing
13. Injection nozzle
14. Three-phase generator
15. 4 bolts for air blower drive (one or two belt drive)
16. Starter motor (manual cranking device)
17. Mounting possibility for hydraulic pump



All the parts enclosed in brackets are alternatives available. The supply scope is to be taken from the technical data.



## Optional Components

### Versatile Adaptability

As with all DEUTZ air-cooled diesel engines, standardized optional components were developed for the FL 54 LW series, which, in conjunction with the different PTO possibilities, allow such a large number of versions that an ideal solution may be found for practically all drive and installation problems.



One of the numerous optional components is the fuel solenoid valve for engine shutdown.



Easy repair and maintenance

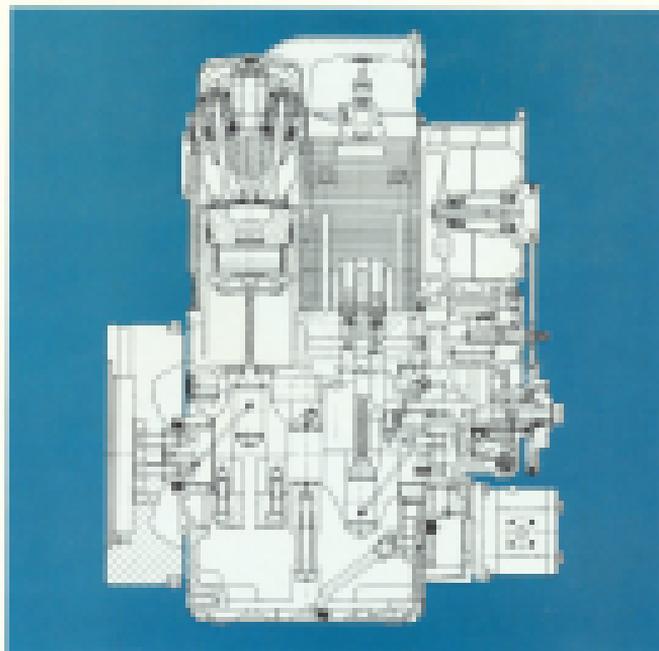
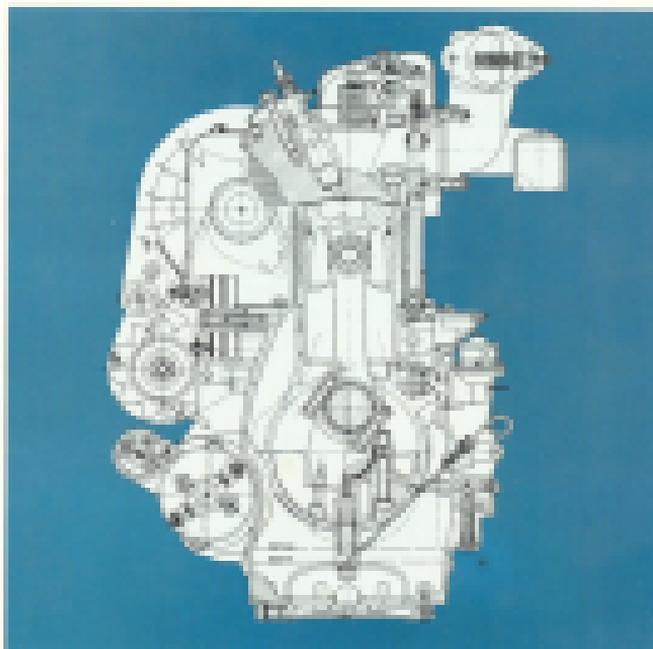


Modules for two-stage  
compression process and direct  
injection



Rational stock-keeping of spares  
since 80% of components of  
one engine series are identical







**KHD**

**DEUTZ**

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