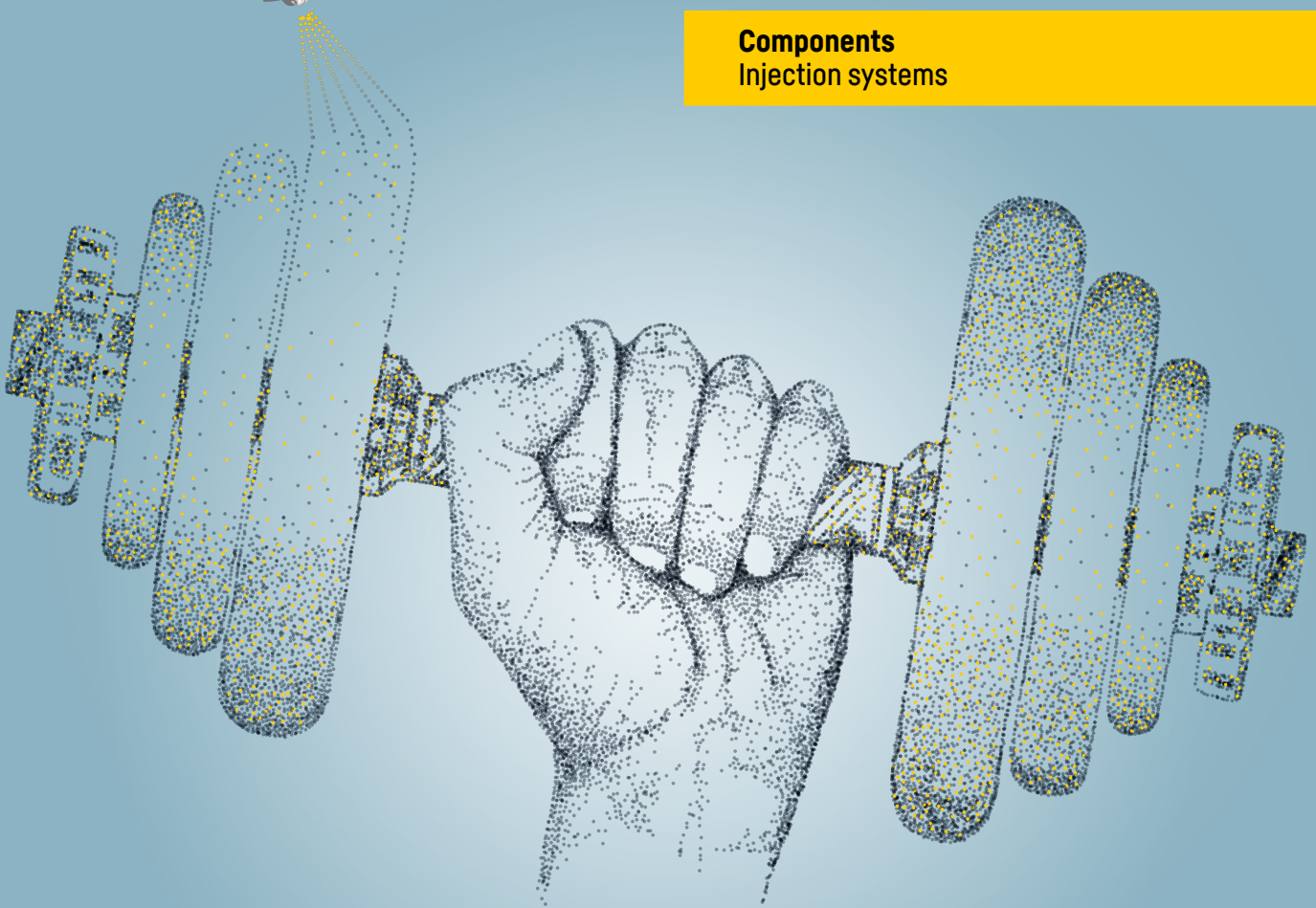

Injecting power

Common rail solutions for
large engines

LIEBHERR

Components
Injection systems





Compact and powerful

Liebherr offers robust common rail systems for large high and medium speed engines. Injectors with integrated high pressure accumulators ensure a very low pressure drop and precise metering of the injection quantity. With regard to their compact design, the high pressure pumps deliver above-average fuel quantities.

Individual drive flanges and high pressure interfaces mean the injector and pump can be flexibly adapted to specific installation situations. A double-walled housing on the injectors ensure maximum safety and an oil-lubricated drive on the pumps allow the large diesel components to meet the requirements of aggressive fuels. All components in the field of large engines are certified according to common marine standards.



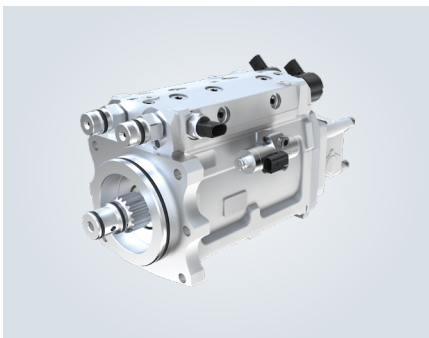
Technical Data

System pressure	400 - 2,200 bar
Engine power / displacement	up to 500 kW / cyl
Number of injections	4
Hydraulic flow rate	1,400 - 6,000 ml / 30 sec
Nozzle diameter	13 or 26 mm
Max. hydraulic flow (pump)	970 l / h
Control leakage / injector	< 50 ml / min



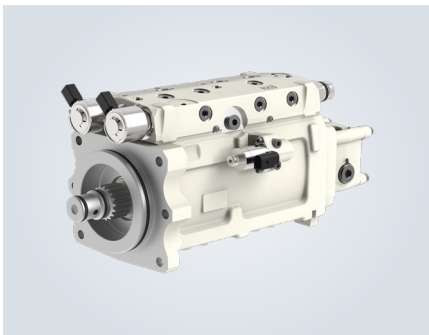
Injector LI3

System pressure	2,200 bar
Nozzle diameter	13 mm
Hydraulic flow rate	1,600 – 4,000 ml / 30 sec



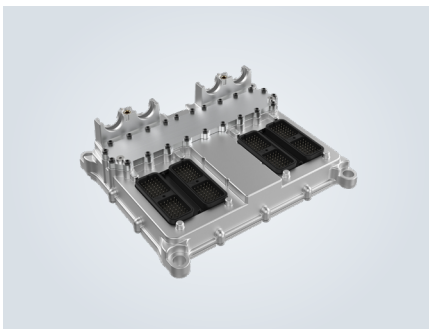
High pressure pump LP11.5

System pressure	2,200 bar
Max. hydraulic flow	810 l / h
Rated pump speed	4,500 rpm



High pressure pump LP11.6

System pressure	2,200 bar
Max. hydraulic flow	970 l / h
Rated pump speed	4,500 rpm



Engine Control Unit ECU2-HD

Supported emission standards	Euro V / EPA Tier 4f / EU Stage IV / EU Stage V
Supported engines	Diesel engines / stationary gas engines (CNG)
Number of supported cylinders	12 / 24 (with two control units)

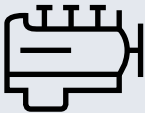
Components

From A to Z – the components division of the Liebherr Group offers a broad range of solutions in the area of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at a total of ten production sites around the world to the highest standards of quality. Central contact persons for all product lines are available to our customers at

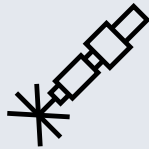
Liebherr-Components AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to development, manufacture and commissioning right through to customer service solutions like remanufacturing.

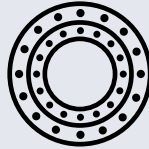
components.liebherr.com



Engines



Fuel injection systems



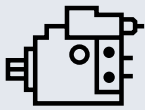
Slewing bearings



Gearboxes



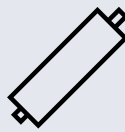
Winches



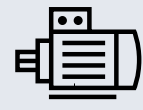
Hydraulic pumps and motors



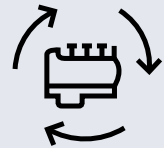
Hydraulic cylinders



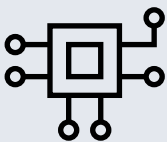
Piston accumulators



Electric machines



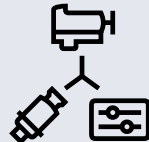
Remanufacturing



Industrial electronics



Electrical drive and control technology



Drive systems



Aerospace electronics



Fibre composite

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