

Short description

# Common Rail Injector LI2



The LI2 injector has been developed for demanding applications in off-highway conditions. For such kinds of applications, robustness against aggressive fuels due to solid materials and the high-resistance flat-seat control valve, high efficiency with a minimum fuel consumption as well as accuracy and stability of the injection volumes are of vital importance. The hydraulic design provides functional resistance against internal deposits (IDID). Different types of housing geometries and nozzle variants are possible. A 9 mm nozzle alongside the classic 7 mm variant for very high throughputs up to 2,200 ml/30 sec can be chosen. For maximum efficiency, the LI2 features a continuous leak-free operation and is configured to ensure minimum control leakage < 30 ml/min. The innovative 3-way valve allows separate adjustment of the needle opening and closing speed. This results in stable multiple injections with high precision. Supreme flexibility for customer-specific adaptation is achieved through the in-house manufacturing of the nozzles, control valves and other function-relevant micro-precision parts.

## Features

- Modular 7 and 9 mm nozzle variants available for nozzle flow up to 2,600 ml/30 sec and cylinder outputs up to 180 kW/cyl
- Continuous leak-free operation
- Minimum control leakage (< 30 ml/min under full load)
- Extremely robust against aggressive fuels (compatible with EN590, Jet A1 fuels, B10 S10/B30, SS 155435, ASTM, BS 2863, NATO F, GB 19147, ISO-F DMX/DMA/DMZ)
- Different injection rates possible due to a 3-way valve
- Stable multiple injections, up to five injections possible per power stroke
- Low pressure loss in the injector due to high internal pressure tank capacity and low hydraulic throttling
- Individual housing geometries possible
- Side-feed and top-feed variants
- Robust and reliable in the harshest environments according to VDI 3838, ISO 10816-6, IP6K9K
- Euro VI, US 10, EU Stage V, US EPA Tier 4f compatible

# LIEBHERR

## Technical Data

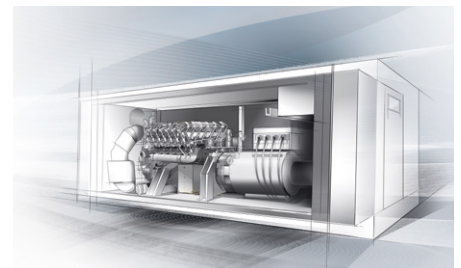
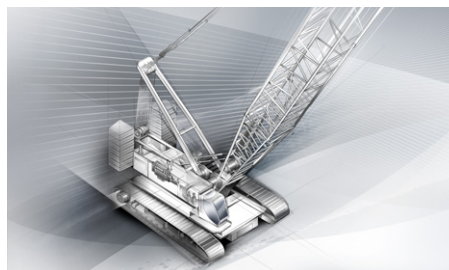
# Common Rail Injector LI2

### Technical Information

System pressure	250 – 2,200 bar
Nozzle diameter	7 mm / 9 mm
Nozzle flow	600 – 2,600 ml / 30sec
No. of injections	5
Min. injection separation	250 µs
Max. power per engine cylinder	7 mm: 95 kW / cyl, 9 mm: 180 kW / cyl*
Permanent leakage	0
Control leakage	< 30 ml / min @ 2,200 bar
Injector configuration	Side-feed / top-feed
Weight	~ 0,450 kg
Service life on-highway	1.6 million km
Service life off-highway	15,000 hours
No. of holes	6 – 10 in one row
K-factor	0 – 2.5
HE factor	10 – 35 %
Ambient conditions	-30 °C to +125 °C
Vibration specification	VDI 3838 / ISO 10816-6

\* Reference values. Real engine performance depending on engine specifications.

### Applications: Agriculture / Forestry, Civil Engineering, Marine, Power Generation



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