Truck Mounted Concrete Pumps

Optimum Conveyance of Concrete

LIEBHERR
More profit by way of investment

Sound investment – Financial savings over the long term

Maximum life-expectancy and reduced servicing costs ensure smooth and cost-effective operation over many years. Superior resale prices are an additional customer benefit.
There are many reasons for choosing a Liebherr truck mounted concrete pump:

When purchasing from Liebherr, you are guaranteed high-performance „Made in Germany“ products for the most exacting requirements. With utmost importance attached to quality, we only install components supplied by renowned manufacturers. Extensive test series and field testing, as well as material inspections ensure long life-expectancy of the concrete pumps. The innovative pump units, hydraulic system and state-of-the-art control ensures cost-effective operation of the concrete pump. Numerous technical details simplify servicing: For example, easier and quicker replacement of wear parts.

Over the long-term, a concrete pump from Liebherr will prove a profitable investment as the outlay for servicing and energy costs yield a positive overall balance with regard to life cycle costs.

The higher resale value of German quality products from Liebherr proves yet another positive aspect in the total cost balance.

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Rugged
The rugged design ensures reliable operation over several years with low operating costs.

Optimised servicing requirements
Various design details simplify the replacement of wear parts, thus optimising servicing.

High-Tech
Advanced structural designs and state-of-the-art manufacturing technologies produce a dependable, sturdy construction for the toughest of everyday applications.
The distributor booms

Uniform movements

Design of the distributor booms ensures uniform, low-vibration operation during the placing of concrete.
Sturdy
Liebherr booms are sturdier with improved torsional resistance due to their welding system.

Powerful
Largely-dimensioned hydraulic cylinders and sturdy hinged pins ensure even and vibration-free movements, contributing to a longer life-expectancy.

Compact
Reduced boom width is highly advantageous when inserting into openings in buildings.

Distributor booms from Liebherr are available in roll-fold, Z-fold or multi-fold designs (depending on the respective type) featuring three, four or five boom elements.

The balanced weight distribution resulting from alternating pipeline guidance on the left-hand and right-hand boom side, as well as the torsional resistant steel structure, ensures low-vibration guidance of the boom. Arrangement of the pipeline close to the boom, combined with the large-sized pins and hydraulic cylinders contribute to a safe and consistent guidance of the boom.

Pipe bends are predominantly the same, making the storage of wear parts easier. Due to their large radius (R=275), the pipe bends reduce resistance in the concrete line.

High pressure filtering in the boom ensures exceptionally clean hydraulic oil to improve operational safety. Considerably smaller particles can be filtered out in the high-pressure range.

Reduced boom width
Innovative outriggers

Flexible and safe support

The patented XXT-outrigger allows particular flexibility when supporting in spatially restricted conditions.
Liebherr offers various support systems, ensuring an ideal configuration solution for every respective requirement. The XXT is particularly innovative and is exclusive to Liebherr, providing specific advantages for everyday applications on the building site:

With the narrow support option, the front outriggers can be extended up to the front of the vehicle, allowing a greater working range of up to 70% (green). In particular, pumping concrete over the operator’s cab is extremely advantageous.

**Advantages of the XXT-outrigger:**
- Direct power transmission from boom to outrigger
- No forces directed towards the frame/chassis by the distributor boom
- Only simple telescoping of front outrigger necessary
- Front and rear support arm rotatable around the same centre of rotation
- Optimum possibilities for narrow support
- Flexible set-up possibilities
- Weight reduction

**Optimum stability**
The sturdy support guarantees maximum stability and safe operation.

**Narrow support**
Working over the roof of the operator’s cab possible, even with the narrow support option.

**XXA**
The stability control system XXA guarantees a reliable and safe operation in every situation. Depending on the position of the outrigger system and the boom only safe movements are allowed.
The powerful pump units

Maximum pump output – Smooth running

The hopper geometry and the size of the suction openings ensure maximum pump output with an outstanding degree of efficiency. The double end-of-stroke damping of the S-pipe changeover cylinder facilitates a particularly smooth and quiet operation.
Improved concrete flow
The shape of the discharge hopper and the large-sized suction openings at the cylinder contribute towards unobstructed pump operation and outstanding suction performance. The left and right-hand agitator paddles are powered by separate motors, therefore no connection shaft is required between the paddles.

Reduced soiling
The discharge hopper is designed with smooth surfaces and no protruding edges. Deposits of residual concrete are kept to a minimum and cleaning is completed quickly and smoothly.

Powerful changeover
Largely-dimensioned hydraulic cylinders allow a powerful change-over with hydraulic pressures of up to 320 bar. Double end-of-stroke damping guarantees smooth and quiet running.

Easy replacement of wear plate
The sturdy S-pipe is designed to ensure a long service life. A split spectacle wear plate can be easily replaced without having to dismantle the S-pipe.

Optimum hopper shape
The optimised hopper shape benefits concrete flow and minimises concrete deposits.
Reliable hydraulics

User-friendly

Liebherr machines are equipped with an open hydraulic circuit. This system is reliable, easy to service and does not require any pressure accumulator.
Open hydraulic system
Liebherr concrete pumps function with an open hydraulic circuit and precision control. This ensures high pump outputs with excellent efficiency, as well as a powerful changeover from the S-pipe.

High-grade components
The hydraulic system is significantly responsible for operation of the concrete pump. Reliability, as well as the extent of servicing work which may be required is largely dependent upon the quality of components in the hydraulic system. Liebherr therefore only use components from renowned manufacturers which have undergone meticulous testing.

The advantages are astounding
Pump cylinder and S-pipe changeover are pressurised by the main pump:
• No storage charging pump necessary
• No feed pump necessary
• No pressure storage necessary
• Therefore full pressure or increased power with S-pipe changeover (up to 320 bar)
• Servicing is simplified
• Improved oil cooling due to increased oil volumes
• Constant swing times for S-pipe, independent of concrete consistency

Optimum arrangement
All hydraulic lines are arranged with protection and are secured or routed with sturdy retainers.

Easy accessibility
All valves are installed with user-friendliness and service-friendliness in mind.

The hydraulic control at a glance
Hydraulic circuits are monitored via a diagnostics module.
The control: Safe and highly sensitive

All commands can be transferred to the machine from any unobstructed operator position using the state-of-the-art radio remote-control. The boom can thus be manoeuvred smoothly and practically across the building site.
Colour display
The radio remote-control features a colour display, on which various operating conditions may be viewed, for example the XXA stability control during the supporting procedure (see Fig.). Alternatively, operation is also possible via proportional cable-operated remote-control wherever radio control is not permitted on respective application site, for example in military zones.

Operation without radio control
- Liebherr concrete pumps are also equipped with a 100% self-sustaining, proportional cable-operated remote-control.
- All signals/commands are issued directly to the valves of the machine via a separate cable-operated remote control featuring a 32-wire cable.
- This will continue to function in the event of the radio control failing.

Protection against corrosion
All housings for the control are made of stainless steel.

Improved operational safety
Additionally, Liebherr truck mounted concrete pumps feature alternative control options, guaranteeing continued pumping in all situations.
- O = Normal control mode (operation via sensors and controller)
- B = Emergency mode I: Operation without sensors (hydraulic pressure relay)
- A = Emergency mode II: Operation without controller (backup control via relay in the switch cabinet)
Variety on wheels

The XH and XXT outrigger systems equipped with stability control XXA, depending on the respective country of application.

47 M5 ST
47, m vertical reach
42, m horizontal reach

46 M4 XH
23,7 m vertical reach
19,7 m horizontal reach

41 M5 XXT
40,5 m vertical reach
36,5 m horizontal reach

37 Z4 XXT
36,8 m vertical reach
32,8 m horizontal reach

37 Z5 XXT
31,7 m vertical reach
27,7 m horizontal reach

35 Z5 XXT
34,7 m vertical reach
30,7 m horizontal reach

37 Z5 ST
36,8 m vertical reach
32,8 m horizontal reach

33 R4 ST
32,4 m vertical reach
28,4 m horizontal reach

32 Z5 ST
26,7 m vertical reach
22,7 m horizontal reach

32 Z4 ST
36,8 m vertical reach
32,8 m horizontal reach

37 Z5 ST
36,8 m vertical reach
32,8 m horizontal reach

43 R4 XXT
42,1 m vertical reach
38,1 m horizontal reach

47 M5 XXT
46,2 m vertical reach
42,2 m horizontal reach

32 Z4 XXT
36,8 m vertical reach
32,8 m horizontal reach

32 R4 XXT
36,8 m vertical reach
32,8 m horizontal reach

24 M4 XH
23,7 m vertical reach
19,7 m horizontal reach

50 M5 XXT
49,1 m vertical reach
44,4 m horizontal reach

27 Z4 XXT
36,8 m vertical reach
32,8 m horizontal reach

35 R4 XXT
36,8 m vertical reach
32,8 m horizontal reach

28 Z4 XH
27,7 m vertical reach
23,7 m horizontal reach

36 Z4 ST
36,8 m vertical reach
32,8 m horizontal reach

39 Z5 XXT
36,8 m vertical reach
32,8 m horizontal reach

32 Z4 XXT
36,8 m vertical reach
32,8 m horizontal reach

32 Z5 ST
31,7 m vertical reach
27,7 m horizontal reach

37 Z4 XXT
36,8 m vertical reach
32,8 m horizontal reach

37 R4 ST
36,8 m vertical reach
32,8 m horizontal reach

47 M5 ST
46,7 m vertical reach
42,0 m horizontal reach

ST outrigger system without stability control XXA
Model overview
Liebherr truck mounted concrete pumps are available with boom sizes from 24 to 50 m. Various fold designs are possible, depending on the respective type. Output sizes of between 110 and 170 m³/h can be combined for the pump units.

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R = roll-folding, Z = Z-folding, M = multi-folding

Outrigger possibilities

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**ST**

**XH**

**XXT**
Fittings and accessories
Your wish is our command

Liebherr offer an extensive selection of fittings and accessories. An optimum solution can be configured for your truck mounted pump to satisfy all requests and requirement.

More storage space

Regardless of the respective configuration of the machine, Liebherr can provide various options for storage facilities. This will ensure that all materials being transported on the vehicle can be tidily arranged in its own safe storage space.

Convenient for everyday operations

For example, a high-pressure lance or the spraying equipment can ease the daily routine of cleaning, saving both time and money.

The list of fittings supplied by Liebherr is extremely extensive. We are therefore always available to offer any advice in this regard.

1. LED working floodlight
2. High-pressure cleaner
3. Hinged fall arrester
4. Spraying equipment
5. Box for delivery notes
6. Magnetic rotating beacon
7. Pipe or hose storage
8. Hose storage on the support arm
9. Square timbers and support plates
10. Cleaning opening
11. Pinch valve on end hose and pneumatic end hose release mechanism
12. Pivoting pipe bend
Utilisation on a global scale ...
Concrete technology from Liebherr

Liebherr provide a comprehensive range which encompasses the whole of concrete technology from a single source, from the production of concrete, to concrete transport and installing concrete on the building site. More than 60 years of experience and continued further development has guaranteed Liebherr status as a globally-renowned provider in the concrete production sector.

Many years of experience
Featuring capacities of 5 to 15 m³ nominal volume for the transport of concrete, the fixed-mounted truck mixers provided by Liebherr are compatible with all established chassis. Configuration as a semi-trailer is available in 9 to 15 m³ nominal volume. An extremely comprehensive accessories catalogue completes the range.

The correct solution for every requirement
Liebherr truck mounted concrete pumps featuring various configurations with boom sizes of up to 50 metres radius are perfectly designed for cost-effective supply of concrete onto the building site. Powerful stationary concrete pumps are available as trailer concrete pumps or as self moving concrete pumps mounted on a crawler. The concrete pump range also includes concrete distributors or climbing booms. Truck mixer concrete pumps are ideal for smaller building sites.

System solutions from a single source
The conveyor belt mounted on the truck mixer is also perfectly suited for applications on smaller building sites. Featuring a radius of up to 16.4 m, the conveyor belt is operational in no time. As well as concrete, the conveyance of materials such as sand and gravel is also possible.

Quality and state-of-the-art technologies
Liebherr concrete mixing plants are employed reliably and cost-effectively on a worldwide scale. The product range includes stationary plants in horizontal and vertical configurations, as well as mobile mixing plants for short term building site applications. Liebherr’s own mixing systems, capable of discharge rates between 30 and 300 m³, are installed in the concrete mixing plants. Liebherr also provide optimum solutions for residual concrete. The residual concrete recycling plants are available in „trough“ and „screw“ type series and feature washing outputs of between 10 and 22 m³ per hour.

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