

# **The Truck Mixers: Increased value with improved technology**



# **LIEBHERR**

Mixing drum, spirals and wear protection strips are manufactured from high-strength LH 37 steel for extended service life.

The mixer sub-frame is manufactured from S 500, the same steel type as that of the chassis frame. Improved travel stability, even over rough terrain.

High quality drive train for reliable drum drive over several years.

Low overall centre of gravity, ensuring improved driveability.

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Ladder with spacious access platform allowing work to be carried out safely on the rear of the vehicle's upper section.

Smooth surfaces and fewer edges to ensure quick and easy cleaning.

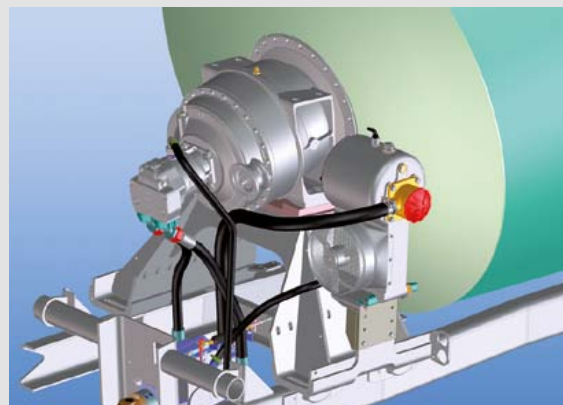
Pivoting chute with mono-support arm, user-friendly, support arm can be slewed to one side for easier cleaning.

U-bolt mounting allows improved application of forces and dynamics.

Innovative and fuel-saving "Litronic®-EMC" drum control system on request.



Mixing drum, spirals and wear-protection strips are manufactured from high-strength LH 37 steel for reduced wear.



# Economic Due To Extended Service Life



## High-grade components

The drive train and the hydraulic system are manufactured exclusively from high-grade components. This ensures torque reserves and a long service life.

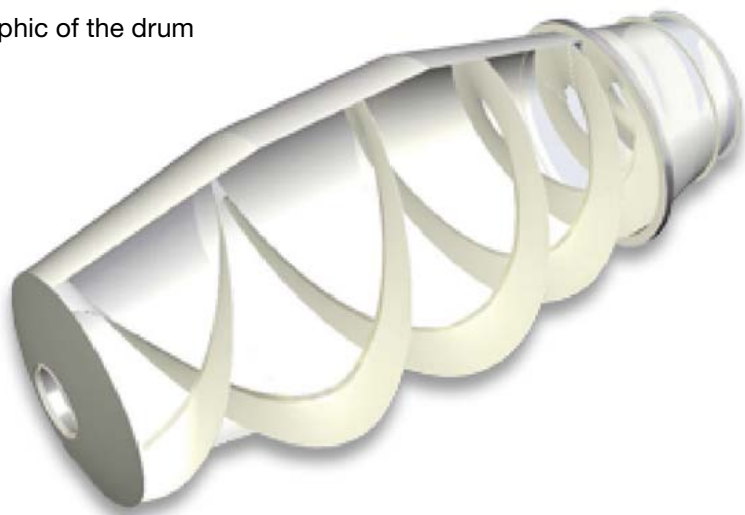
## Steel quality LH 37

A special steel featuring extremely tough titanium carbon nitrides is used by Liebherr for manufacturing the mixing drum, ensuring exceptional wear-protection due to the composition of this high-grade steel (titanium carbon nitrides feature a hardness of approx. 3200 HV). LH 37 steel was developed specially for this application in co-operation with well-known steel manufacturers. Fabrication of this steel type is reserved exclusively for Liebherr.

## Additional wear-protection

All components of Liebherr truck mixers susceptible to major wear are equipped with additional wear-protection. Service life of these components is thus increased considerably.

3D graphic of the drum



Enhanced drive train for the drum drive is spaciouly dimensioned. This ensures high torque reserves and improved durability. Only high-grade components from renowned manufacturers are installed.



The mixer sub-frame is manufactured from the same steel type as that of the chassis, ensuring consistent properties for both frames. Mixer body and chassis are perfectly co-ordinated with one another, with particular regard to building site applications.



Improved comfort with minimum consumption!  
Featuring innovative and fuel-saving "Litronic®-EMC" drum control upon request.  
An ergonomic single-hand operated control lever with button for easy operation.



# Cost-Effective Due To State-Of-The-Art Control



## Reduced fuel consumption

Speed of the diesel engine is controlled in accordance with the respective requirements by way of intelligent electronics, ensuring considerable fuel-saving. This is facilitated via "CanBus" communication between the mixer control and the vehicle.

## Extended service life of the drum

Furthermore, service life of the drum is also increased by restricting unnecessary rotations of the drum (Constant-Speed-Drive). A soft stop and soft start feature reduces forces to the drive train or the chassis, thus minimising the risk of damage and the need for repairs.

## Improved comfort during operation

The operator is free to carry out his work intuitively, and can therefore devote his full attention to the building site. The drum can be stopped gently and easily by pressing the button on the top of the control lever. Pressing the button again will activate the memory function. If the button is held pressed for several seconds during discharging, the drum automatically reverses half of a full rotation.

## The Litronic®-EMC (optional) saves money on every journey



The in-cab control panel allows comfortable operation of the drum. Additionally, two softkey buttons are integrated in the panel for programming of drum speeds. This would be practical for example, in setting the optimum loading speed for a specific mixing plant.



The electronics of the truck mixer control are installed in a protected location, only the operating unit is fitted at the rear of the vehicle.



Smooth surfaces and fewer edges to ensure quick and easy cleaning.



Pivoting chute featuring mono-support arm, user-friendly, support arm can be slewed to one side for easier cleaning.



# Cost-Effective Daily Operation



## Reduced soiling

Particular attention was focused on smooth surfaces and fewer edges during the design phase of the truck mixer. Furthermore, there is a multitude of options available, such as covers or a second drip ring, to minimise soiling. This ensures considerable savings in time and costs during daily operation.

## Exceptional service

Truck mixers from Liebherr are renowned for their high availability, not least due to the provision of an exceptional service. Liebherr maintain a global service network with professionally-trained personnel. You too can benefit from this excellent service simply by opting for a reliably functioning Liebherr truck mixer for your daily operations.



The second drip ring (optional) prevents soiling of the drum as it rotates.

In daily operation rear mudguards often sustain damage on building sites. Liebherr mudguards are therefore divided to ensure quick and easy replacement.





U-bolt mountings ensure that forces are applied dynamically in the mixer frame. The U-bolts are arranged as a perfect fit against the frame.



All key components, such as mixer drums for example, are manufactured by Liebherr in our own factories.

# Top Technology And Top Quality



## Carefully-conceived details

A multitude of details, for example design of the connecting elements between chassis and body, ensure reliability over several years. This allows a certain dynamic and prevents the formation of cracks during operation in rough terrain.

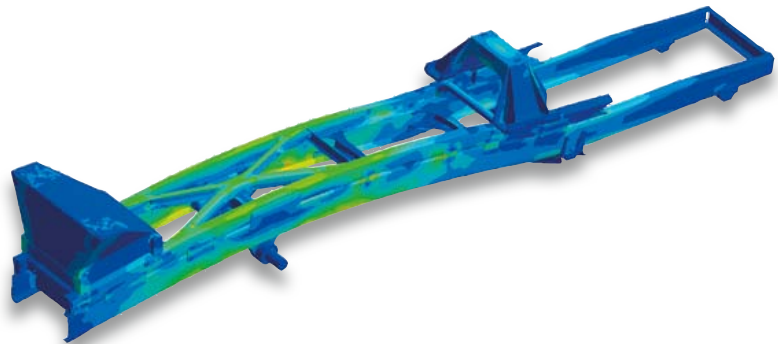
## Precision sub-frame

Over 180 different mixer sub-frames have been designed by Liebherr for the multitude of chassis designs and types. Not only are these sub-frames manufactured to absolute precision, they also guarantee optimum weight distribution across the axles.

## Perfect co-ordination with the chassis

Every Liebherr truck mixer body has been designed in close co-operation with the truck manufacturers to ensure perfect co-ordination with the respective chassis. Moreover, Liebherr has been the first manufacturer of truck mixers certified in accordance with the ISO 9001 standard.

The 3D-CAD applied during the design phase allows exceptional precision. A finite element evaluation replicates potential stresses using the computer, the results of which are applied to considerably improve the overall quality.



The mixer sub-frames are pressed to the shapes relevant to the respective chassis using CNC-guided laser precision.

The connecting elements are welded by robots, and the sub-frames then undergo shot blasting and priming.





Low overall centre of gravity,  
leading to improved driveability.



Ladder with spacious access platform  
allowing work to be carried out safely  
on the vehicle's rear upper section.

# Safety First



## Safe driving

The low overall centre of gravity improves stability during driving, both on road and off-road. The wide-set rollers ensure optimum support of the drum, especially when driving off-road.

## Safe handling

A generously-dimensioned ladder with spacious access platform, designed in compliance with the respective statutory guidelines, is tremendously beneficial for the operator during daily operation.

## Safety during maintenance

For inspection, the drum can be fixed securely with an interlocking drum safety device.

## Improved safety via the Litronic®-EMC (optional)

This system prevents any potential operating errors, for example it will not allow rotational direction of the drum to be changed when the drum is rotating at full speed. It also allows alternative operation with buttons without using the control lever, or using the in-cab control.

The operating unit on the rear of the vehicle can be blocked to prevent actuation by unauthorised personnel.

During driving, the rear-mounted control unit is blocked automatically.



The wide-set rollers ensure optimum support of the drum. It is possible to fix the drum securely with an integrated interlocking drum safety device before commencing maintenance and inspection work.



The optional reversing camera allows improved visibility on the building site, as well as ensuring safe handling.



Design "Longlife"



Design with LTB conveyor belt



# Diversity Of Variants



## Lightweight design

Liebherr offer weight-optimised truck mixer bodies in a lightweight design for countries where axle load restrictions are in effect. Considerable reductions in weight can be achieved with certain design features and the utilisation of lighter materials, such as plastic or aluminium. A lighter chassis can also offer additional weight advantages. For example, 8 m<sup>3</sup> of concrete can be transported legally with a 4 axles mixing truck at an overall permissible weight of 32 tons (depending on the respective chassis).

Moreover, LH 37 spiral blades with a thickness of 4 mm are also installed in the lightweight design. Life-expectancy of the spiral blades is approximately the same as the drum walls.

## Longlife design

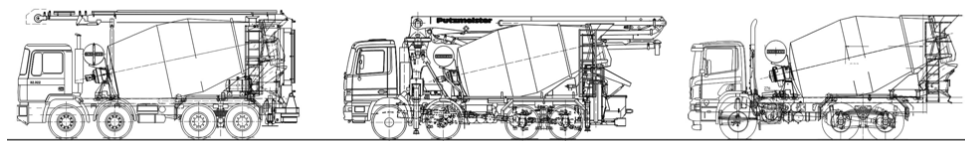
The modified Longlife version has been designed for particularly tough applications. This would be practical for applications involving extremely abrasive material, such as hard crushed rock. Thicker spiral blades (5 mm) made of LH 37 special steel ensure longer service life for tougher applications.

## LTB - the conveyor belt from Liebherr

Liebherr truck mixers are also available in combination with a conveyor belt. The LTB allows materials other than concrete, such as sand, gravel or crushed stones, to be transported directly to the building site. This service is particular favoured by customers and it is often decisive in securing additional contracts. Liebherr truck mixers and conveyor belts are perfectly co-ordinated as they are designed and manufactured from the same source.

## Quick-lock system

Design of the truck mixer as a quick-lock system allows the chassis to be used with different superstructures, such as a tipping body for example.



... or as a quick-lock system



The Pumi also features a Liebherr mixer body





A wider, continuous frame provides optimum stability with minimum proper weight.





# The Semitrailer



## Semitrailers currently in trend

Truck mixers as semitrailers are becoming more and more popular. The addition of a semitrailer to your vehicle fleet will cover peaks at large-scale concreting projects. Interchangeability is another significant advantage, whereby with lower volumes of orders for the transport of concrete, the tractor unit can be used to carry sand, gravel or cement.

## Outstanding driving characteristics

Excellent driving characteristics due to a wide, extremely torsion-resistant frame, designed as a continuous unit without crank. Also the low centre-of-gravity has a positive influence on driving behaviour. The rear section is designed exceptionally functional with smooth surfaces for easy cleaning.

The semitrailer is also available in a Lightweight version.

Depending on the respective country and axle load restrictions, twin-axle trailers are also available with extended axle-base for extra payload.

This photo shows an HTM 1004 ZA in 38 ton configuration.



A low centre-of-gravity, wide spring track and high-grade axles guarantee outstanding driving characteristics.



Version with separate engine, different tractor units can be used.

# Options



## Compressed air tank for liquid admixture

Pneumatically actuated tank allows the addition of liquid admixture directly at the vehicle.



## Non-pressurised tank for liquid admixture

This tank allows the addition of liquid admixture directly into the truck mixer.



## Cover for chassis frame

Plastic cover for the chassis frame as added protection against soiling.



## Extension chutes

The using of plastic extension chutes improves handling and reduces weight by 50 %.



## Reducing chute

When discharging fluid concrete, a reducing chute equipped with a pipe can be implemented.



## Folding chute

A folding chute with safety hoop allows simple extension of the pivoting chute. Available in steel or plastic.



**Plastic cover**

A cover between mudguard and mixer sub-frame protects the drum against soiling from below.



**Outer cover of the rear drum pedestal**

An aluminium outer cover can be mounted onto the rear drum pedestal to effectively prevent soiling and encrustations during loading and unloading.



**Inner cover of the rear drum pedestal**

Fitted with the outer cover, a fully enclosed structure is formed around the rear drum pedestal.



**Chute flap**

The chute flap features a sealing edge made of durable plastic. This prevents any subsequent dripping and soiling.



**Mortar bucket holder**

For PTO driven truck mixers a holder designed for maximum 10 mortar buckets can be mounted.



**Aluminium rear mudguards**

As an alternative option, the rear mudguards are also available in aluminium design.

# Options



## Second drip ring

The second drip ring further reduces soiling of the mixer drum.



## Drum gate systems

Liebherr offer gates in fully-closed and partially-closed designs for the transport of fluid materials. This guarantees a perfect seal, even when the drum is rotating.



## Rubber elevation on the inlet hopper

To ensure that the truck mixer drum does not become soiled during loading, a rubber elevation can be fitted to the inlet hopper.



## Sliding ladder

A sliding ladder is also available in place of the standard folding ladder.



## Pressure gauge on hydraulic system

A pressure gauge assists to evaluate the consistency of the loaded concrete over several loads.



## Working headlight

The working headlight allows optimum visibility when discharging the truck mixer in darkness.



#### Water shut-off tap

To prevent the water line from freezing in colder weather conditions, a shut-off tap can be mounted underneath the water tank.



#### Water meter

Addition of water can be determined and regulated using the water meter.



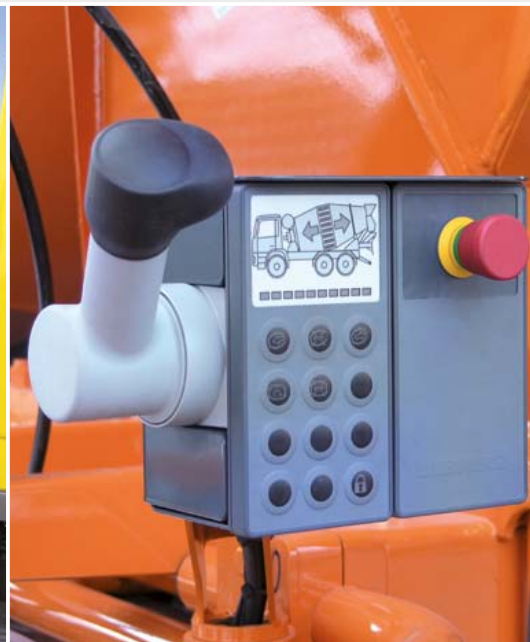
#### Step on the underrun guard

For safe standing on the underrun guard, a slip-resistant step can be fitted.



#### Spare wheel holder

Permanent spare wheel holder with crane and rope winch.



#### Intelligent drum control Litronic®-EMC

The easy-to-use, Liebherr electrical drum control Litronic®-EMC minimises wear and reduces considerably fuel consumption.



#### Separate engine










Alternatively, power can also be acquired from a separate Deutz engine which can be equipped with a soundproofing hood.

# Diversity On Wheels





# Technical Data:

	Superstructures	Nominal filling in m <sup>3</sup> hardened concrete	Water volume in m <sup>3</sup>	Geometric drum volume in m <sup>3</sup>	Mixer weight in configuration	
					Vehicle drive in kg	Sep. engine in kg
	HTM 604	6	6,8	11,0	3360	3860
	HTM 704	7	7,7	12,3	3480	3980
	HTM 804	8	9,1	14,3	3855	4355
	HTM 904	9	10,2	16,0	4030	4660
	HTM 1004	10	11,0	17,6	4350	4980
	HTM 1004 K	10	11,0	17,4	4480	5110
	HTM 1204	12	12,9	20,7	4990	5620
	HTM 1204 K	12	12,6	18,3	4900	5530
	HTM 1504	15	15,3	24,5	5600	–

K = Short design

	Semitrailer*				Mixer weight including semitrailer	
	HTM 904 ZA	9	10,2	16,0	6930	7830
	HTM 1004 ZA	10	11,0	17,6	7290	8190
	HTM 1004 ZA/38	10	11,0	17,6	7380	8280
	HTM 1204 ZA	12	12,9	20,7	7820	8720
	HTM 1204 DA	12	12,9	20,7	8560	9460
	HTM 1504 DA	15	15,3	24,5	11450	12350

ZA = Twin-axle semitrailer, DA = Triple-axle semitrailer.

\* Weights dependent on tractor units and axle aggregates of semitrailer.

Weight specifications complete mounted/ready for operation in accordance with DIN 70020, deviations +/- 5 %.

Applicable for all Liebherr truck mixers: Drum speed: 0–12/14 rpm.

Noise emission level at operator's station: 85 dB/A in accordance with 89/392/1.7.4 F EWG and 3 GSGV

