

Telescopic Handlers

T 46-7s **T 55-7s** **T 60-9s**

Lifting Height

7.0 – 9.0 m/23' – 26'6" ft in

Lifting Capacity

4.6 – 6.0 t

Engine

Stage V

Stage IIIA/Tier 3



LIEBHERR

Performance

Impressive High-flyer –
the Jack of all Trades of Recycling

Efficiency

Make the Right Choice –
Sustainable and Economical

T 46-7s

Lifting Height 7.0 m/23' ft in

Lifting Capacity 4.6 t

Engine Power 100 kW/136 HP

Hydraulics 200 l/min./35.2 Imp.gpm
Pump flow max.

T 55-7s

Lifting Height 7.0 m/23' ft in

Lifting Capacity 5.5 t

Engine Power 115 kW/156 HP

Hydraulics 200 l/min./35.2 Imp.gpm
Pump flow max.

T 60-9s

Lifting Height 9.0 m/26'6" ft in

Lifting Capacity 6.0 t

Engine Power 115 kW/156 HP

Hydraulics 200 l/min./35.2 Imp.gpm
Pump flow max.



Reliability

Telescopic Handlers Developed
for Extreme Jobs

Comfort

A Liebherr Product is an Investment
in Productive Staff

Maintainability

Don't Settle for the Right Spare Part



Performance



Impressive High-flyer – the Jack of all Trades of Recycling

In industrial material transshipment and particularly, in recycling companies, the challenge is to maximally utilise available storage space – length times width times height. This is where the Liebherr telescopic handlers show their strengths as high-performance do-it-all machines: swift and nimble, equipped with strong work hydraulics and capable of lifting large material loads up to even the tallest storage shelves.

A Powerhouse for Every Situation

When Driving or Stockpiling

Its hydrostatic drive system provides plenty of get-up-and-go and high tractive power from a standstill. During the seamless transition to loading operation, the load-independent flow distribution system guides the power to the functions you need at any given moment. At the same time all hydraulic functions are operated simultaneously and allow quick stockpiling up to maximum height while having large power reserves.

When Unloading

Even with cohesive material dumping at large height works effortlessly thanks to the maximum dumping angle and the optional vibration function. The standard end position damper for all hydraulic functions is easy on the machine's components and provides outstanding comfort.

Auto Power for Quick Work Cycles

To always be able to access the required power from the work hydraulics the optional Auto Power function automatically adapts the engine speed – without changing the drive speed.



Dynamic and Precise Material Transshipment

Productive in Confined Spaces

The next step is all about sorting the valuable raw material and transshipping it as fast as possible. Dynamically and precisely switching between acceleration and deceleration is when the Liebherr drive system – which does without gear changes – shows all its strengths. Using the “All wheel steering” mode with its tight turning circle the material can be taken up and transferred to the sorting system in even the most confined spaces.

Safe Transport

The loading shovel's large adjustment angle allows for safe material transport and simple dumping. A drive vibration damper prevents rocking and loss of loads. Always having a perfect view of the work equipment operators can furthermore identify and sort out foreign objects.

Four Electronically Selectable Steering Modes for Maximum Agility

Front wheel and all wheel steering, crab steering as well as front wheel steering with freely selectable rear axle position: The compact Liebherr telescopic handlers allow for small turning circles in confined spaces.



Quick Acceleration, Quick Tool Change

40 km/h/27.7 mph – Not just on the Speedometer

When transferring material across large distances Liebherr telescopic handlers impress with genuine speeds of up to 40 km/h/24.7 mph thanks to their high-performance drive systems. An enormous bonus when efficiently transporting full bale clamp loads.

Large Quick Coupler Selection

Quick and effortless tool change thanks to built-in hydraulic quick coupler – also works with third-party tools from Manitou, Kramer or JCB. Liebherr's strong work hydraulics with optional fine control function also supply particularly power-hungry attachment tools.

Ideal Industrial Machinery for Multi Shift Operation

The comprehensive visibility and lighting concept turns night into day and extends its possible uses when light conditions change.



Efficiency



Make the Right Choice – Sustainable and Economical

More and more industrial companies rely on intelligent technology for more economic sustainability. The best example for this is modern regional district heating supply. This is where Liebherr's telescopic handlers guarantee adaptive adjustment of tractive and lifting power at low fuel consumption thanks to electronically controlling both drive system and work hydraulics.

Smart Means Universal – Take the Timber Industry, for Example

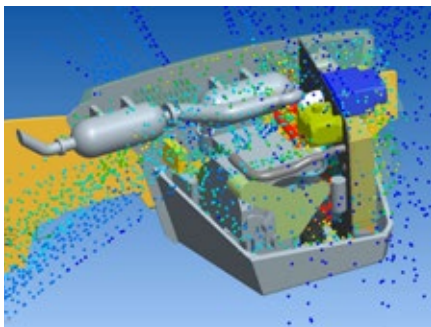
Best Manoeuvrability

Particularly due to their versatile application Liebherr telescopic handlers are the first choice in timber processing: Thanks to all-wheel drive, a short wheelbase and great turning angles they effortlessly manoeuvre on the entire premises, both inside and outside.

Strong Work Hydraulics for all Tools

When stacking or loading using the fork or lightweight bucket they wow with a high load capacity and a great view of the load. Thanks to the standard work circuit 3 on the telescopic head furthermore allows for the use of tools that require an additional hydraulic function (example: timber grab with downholder).

Using its high-performance work hydraulics (200 l/min./35.2 Imp.gpm) with leakage oil line and high volume flow one can furthermore use special tools such as timber tongs or branch saws.



Flow-optimised Cooling System

The sophisticated air guidance, in combination with the suction fan and large size cooling unit, keeps the machine at an ideal operating temperature even on hot days. As an option, a reversible fan can be used to free the air intake surface of any dirt or contamination and thereby ensure optimum cooling.



Economical Interaction Between all Drive Components

The powerful hydrostatic drive system provides maximum tractive power (up to 103 kN) in every work situation. The interaction of the electronically controlled drive components with the diesel engine and the work hydraulics reduces the fuel consumption while maximising output.



Modern Engines and Efficient Exhaust Gas After-Treatment

Utilising diesel engines (100/115 kW) of emission stage V including electronic drive control systems makes Liebherr telescopic handlers particularly energy-efficient. The exhaust gas is cleaned in two stages via a diesel oxidation catalytic converter (DOC), a diesel particle filter (DPF) combined with an SCR catalytic converter.

Protecting Resources is the Smart Way

The Hydrostatic Liebherr Drive System

In our modern district heating grids, “using energy intelligently” means utilising the right technology around the clock. Even storing biomass right after delivery can make a significant difference: Liebherr’s hydrostatic drive system sets an ideal balance between maximum speed and ample tractive power at any given time. This speeds up work cycles.

Auto Hill Assist

When stockpiling the standard Auto Hill Assist function automatically prevents the vehicle from rolling backwards on inclines. The independently (un)locking parking brake makes stopping and setting off on inclines child’s play.

Electronic Pilot Controls

The electronic pilot controls allow for extremely swift communication between all components and makes it possible to automate certain movements. The optional bucket return – from dumping at great height back to loading position – happens automatically and its angle can be programmed freely.

Reliability



Wear Intensive or Weighing in at Several Tonnes – Telescopic Handlers Developed for Extreme Jobs

Protecting machine and components is extremely important to Liebherr – from development to testing to assembly. Thanks to realistic computer simulations, extensive endurance tests and modern production methods all telescopic handlers are built for the toughest industrial applications.

Recycling Version Telescopic Handlers

Protection when Driving

To make sure operator and machine always operate safely around the scrap yard Liebherr telescopic handlers can be equipped with the right tires. The underbody protector and special protective grids reduce the risk of foreign objects entering the machine.

Load Pick-up Protection

If the operator decides to pick up some material afterwards the standard boom guide prevents the telescope boom from bending. An optional wiping tool makes sure that material sticking to the boom does not reach its inside after picking up the load.

Perfect Work Station Lighting

Special lighting packages are available for special jobs or working under unfavourable lighting conditions such as unloading containers.



Strong and Precise, even in the Maximum Load Range

4x4 Forklift in Construction Site Operation

Customers from the building industry use Liebherr telescopic handlers where conventional forklifts and fast-erecting cranes reach their limits – for example when tasked with loading and unloading on uneven ground, driving into buildings or manoeuvring building material into buildings through windows at great height.

Built to be Used Off-road

When transporting material off-road its all-wheel drive and full locking differential assure safe driving. When lifting and stacking goods Liebherr machines benefit from their high structural stability while their level compensation system compensates for slants. Furthermore, their intelligent overload warning system constantly informs the operator about the current load carrying situation. In hazardous situations only stabilising movements of the work hydraulics are possible.



When even Paper can't get to you

Highly Resistant in Production and Recycling

Paper dust and cellulose are aggressive substances that can cling to and bake onto machine components during transshipment. In order to prevent them from entering the telescope boom one can attach special dirt guards. Furthermore, one can use wax instead of grease to lubricate the boom. Reversible fans allow for the automatic regular or spontaneous cleaning of the cooling elements. It is also recommended to opt for a central lubrication unit that – on Liebherr machines – also lubricates the telescopic head.



Continuously Variable Hydrostatic Drive System

- Jolt-free driving without gear changes
- Virtually zero brake wear thanks to self-contained hydrostatic system
- Precise, rapid and safe manoeuvring

Load Moment Plus

Liebherr telescopic handlers have a high load capacity at maximum reach and lifting height. With the optional "Load Moment Plus" package the load moment can be increased by up to 25 per cent at fully extended telescope boom.

Telescopic Handlers as Professional Sweeping Machines

- Manual control package for pre-selectable drive speeds
- Constant flow rate to adjust sweeping rate
- Hydraulic work circuit 3
- Power outlet to operate a water spray device

Comfort



You don't Just Decide to Buy a Liebherr Product. You Invest in Productive Staff.

Liebherr telescopic handlers are more than just ancillary equipment. Industrial customers use them as multi-functional key machines in single or multi shift operation. This is why we have designed our telescopic handlers around the operator – pursuing the goal of making him get into his machine with a smile on his lips in the morning and leaving it relaxed in the evening.

It's all a Question of Perspective and Overview

Get in the Operator's Seat ...

Before starting work proper all Liebherr telescopic handlers provide a high level of comfort. Thanks to wide-opening doors and a swivelling steering column operators can enter the large cabin effortlessly.

... Adjust ...

Once in the cabin the operator uses a few simple steps to adjust his seat, steering column and armrest to his requirements.

... and be on Top of Things

Liebherr telescopic handlers always provide perfect views of tires, attachment tools and load. Apart from comfortable standard equipment such as the spherical wide-angle mirrors several camera options provide additional perspectives.



“Logical” Means not Overloaded and Clearly Arranged

The most important machine parameters and other useful information is displayed on the large, TFT colour display. Unambiguous colour coding of drive, work hydraulics, safety and lighting buttons allows for intuitive operation.

Precisely Position and Delicately Place Loads

Unobstructed Views

When stacking shelves no cross-beam obstructs the operator's view through the front and roof windows. Positions in his line of sight the ribs of the protective grid and the single-part roof and front wipers allow unobstructed views of the load at all times. The continuously variable sunblinds follow the cabin roof's contour lines, thus increasing headroom.

Full Control with One Hand

Attached to the seat the multi-functional joystick moves with it and controls up to six functions: Changing direction, controlling the telescopic boom, selecting drive speed ranges, work cycle 3 controls, bucket return (optional) and differential lock.



Safe Placing Thanks to Fine Control

To precisely put down goods to be stacked at great height the operator can activate the fine controls via a toggle switch. This reduces the work hydraulics' speed.

Getting In and Out with a Smile on Your Lips

Driving and Operating Comfort for Long Jobs

Working with Liebherr telescopic handlers is supposed to be fun – no matter how long the job takes. This is why we place great importance on ergonomics, for example with our newly designed suspended inching/brake pedal or the joystick which is attached to and moves with the operator's seat. The cabin's hydro suspension furthermore filters impacts and bumps. Spacious storage options, cooled storage compartment, stereo as well as built-in USB charging port complete the cabin's comfort equipment.



Seating Comfort to the Power of Three

The standard mechanical seat in the new telescopic handlers already provides a high comfort level. The air-sprung or low-frequency sprung seats – both heated – are even more comfortable.

Maintainability



Don't Settle for the Right Spare Part

When it comes to “service quality” Liebherr customers think short paths and quick response. This is why 98 per cent of our spare parts are not only stored in a central location but are dispatched in the shortest possible time. Our dense international service network, modern service stations as well as outstandingly trained technicians guarantee swift on-site support.

The Highlight of your Work Day

Why Complicated When it can be Done in a Simple Way?

Daily maintenance prior to start-up should never be a tedious duty. After all it's an important factor to ensure your machine's long service life.

Maintenance Friendliness is Key

All maintenance points on Liebherr telescopic handlers are easy to access. Thanks to their wide opening bonnet daily inspection is done quickly and easily.



We Think Service

Standstill is not an Option

Despite long and predictable service intervals: Service notifications usually surprise customers and interrupt work processes. This is why the entire Liebherr service chain strives to achieve "maximum machine availability". Short response times and fast deliveries are topmost priorities.

Less Effort – Lower Costs

Thanks to service-oriented machine layouts all maintenance points are always easy to access. This facilitates maintenance as well as installing spare parts and minimises maintenance costs.



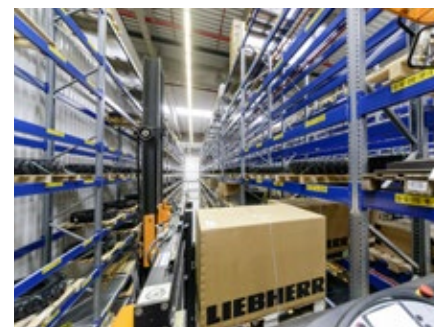
Strong Service Partner

Safe Partnership with First-rate Service

A dense network of competent Liebherr service partners – from dealerships to own locations – guarantees uninterrupted spare parts supply. The logistics centre in Oberopfingen serves as the central hub to supply customers all over the world. 47,000 m² of space house some 100,000 different earth moving equipment spare parts.

From Oberopfingen to the Whole Wide World

Mostly automated warehouse technology and picking allow for the dispatch of 1,600 individual orders per day – almost all of them on the same day the order was received. Using "sales order tracking" every delivery can be tracked in real time from shipping to delivery.



Dependable Lubrication

The following versions are available to make machine maintenance even easier:

- "Easy Lube" with easy-access lubrication points on the outside
- "Centralised Lube" via three combined points
- "Auto Lube" via an automated central lubrication system

Our Most Important Measuring Tool Wears an Overall

- All Liebherr customer service technicians receive intensive training and further education
- Not only in terms of remote diagnosis and error analysis but most of all on how to provide the right solution for individual machines at the customer's site

30 Hectares of Spare Parts

The Oberopfingen high-bay warehouse is equipped with some 60,000 automated pallet and 33,000 manual storage pitches while the small parts warehouse has 122,000 container pitches. This is where we store spare parts of various weights – from one gram to 40 tonnes.

Technical Data



Engine

Deutz Diesel engine	TCD 3.6 L4 ¹⁾ or TCD 4.1 L4 ²⁾ Emissions regulations EU Stage V or IIIA
Rated power ISO 14396	100 kW/136 HP at 2,200 rpm ¹⁾ 115 kW/156 HP at 2,200 rpm ²⁾
Max. torque	500 Nm at 1,600 rpm ¹⁾ 609 Nm at 1,600 rpm ²⁾
Displacement	3.6 l/220 in ³ ¹⁾ 4.1 l/250 in ³ ²⁾
Design	4-cylinder in-line engine, water-cooled, turbocharger, air-to-air aftercooler
Injection system	Electronic common-rail injection
Air filter	Dry air filter with safety cartridge and dust ejector
Cooling system	Hydrostatically powered, thermostatically controlled fan
Operating voltage	12 V
Batteries	12 V/180 Ah
Alternator	14 V/150 A
Starter	3.2 kW/4 HP ¹⁾ 4.0 kW/5 HP ²⁾



Travel Drive

Design	Stepless hydrostatic travel drive with axial piston variable displacement pump and Liebherr hydro motor in a closed circuit, forward and reverse travel achieved by changing the flowdirection of the variable displacement pump
Filter system	Pressure filter for closed circuit
Control	Via electronic accelerator and combined brake-inch pedal, constant adjustment of tractive force at maximum diesel engine speed. Changes of direction can be selected using multifunction joystick
Travel speed	Stepless variable 0 – 40 km/h/24.7 mph 0 – 30 km/h/18.6 mph (optional) 0 – 20 km/h/12.4 mph (optional)



Sound Levels

Operator sound exposure ISO 6396:1992	
L _{pA} (at the cab)	79 dB(A)
Exterior sound pressure 2000/14/EC	
L _{WA} (to the environment)	107 dB(A) ¹⁾ 108 dB(A) ²⁾



Brakes

Service brake	Deceleration effective on all four wheels by hydrostatic travel drive, hydrostatically operated wet multiple-disc brakes in the front axle (internal)
Parking brake	Internal hydraulic spring-loaded brakes inside the front axle



Operator's Cab

Cab	Resiliently mounted, closed cab with positive pressure ventilation. Integrated ROPS/FOPS structure, tinted safety glass for the single front and roof panel, windscreen wiper and washing system for front and rear windscreen, steering column inclination adjustable using foot pedal. The upper part of the cabin door can be opened 180° and locked at this position.
Operator's seat	Cushioned driver's seat, adjustable, with safety belt. Adjustable to suit weight of the driver
Ventilation	3-speed fan with fresh-air intake and filtering, 6 adjustable air nozzles, 2 air outlets on front windscreen, hinged rear window
Heating	Warm-water heating



Tyres

Standard tyre equipment	Michelin XMCL 460/70-24 for T 46-7s and T 55-7s Michelin XMCL 500/70-24 for T 60-9s
Design	Tubeless tyres on one-piece rims
Special tyre equipment	As specified by manufacturer



Steering

Design	Hydraulic steering of front and rear axles
Types of steering	Steering modes 3 + 1 electronically switchable: – Front wheel steering (for road driving) – Four-wheel steering – Crab steer – 4th steering type is the lockable rear axle in any position

¹⁾ T 46-7s

²⁾ T 55-7s and T 60-9s

Axels

Drive	All-wheel drive
Front axles	Steering knuckle control, rigid mounting, at 9 m model level adjustment with 8° oscillation
Rear axles	Steering knuckle control, fitted to swing with a 10° oscillation (for T 60-9s: 9° oscillation)
Differential	100 % Slip differential in the front axle
Transmission	Planetary gear in the wheel hubs

Refill Capacities

	T 46-7s	T 55-7s	T 60-9s
Fuel tank	190/41.8 Imp.gal	190/41.8 Imp.gal	190/41.8 Imp.gal
Cooling system	18.5/4.1 Imp.gal	24/5.3 Imp.gal	24/5.3 Imp.gal
Engine oil (incl. filter change)	8.5/1.9 Imp.gal	9.5/2.1 Imp.gal	9.5/2.1 Imp.gal
Hydraulic tank	160/35.2 Imp.gal	160/35.2 Imp.gal	160/35.2 Imp.gal
Total hydraulics	230/50.6 Imp.gal	230/50.6 Imp.gal	260/57.2 Imp.gal
Differential gears front	9.0/2.0 Imp.gal	12/2.6 Imp.gal	12/2.6 Imp.gal
Differential gears rear	9.0/2.0 Imp.gal	13.5/3 Imp.gal	13.5/3 Imp.gal
Front axle hub, each	1.0/0.2 Imp.gal	2.0/0.4 Imp.gal	2.0/0.4 Imp.gal
Rear axle hub, each	1.0/0.2 Imp.gal	2.0/0.4 Imp.gal	2.0/0.4 Imp.gal
Diesel Exhaust Fluid (DEF) tank	10/2.2 Imp.gal	20/4.4 Imp.gal	20/4.4 Imp.gal

Performance Data

	T 46-7s	T 55-7s	T 60-9s
Operating weight with standard forks, with a full fuel tank, minimum configuration, Michelin XMCL (460/70-24) tyres for T 46-7s and T 55-7s Michelin XMCL 500/70-24 for T 60-9s and without operator	kg 8,995/19,831 lb	10,600/23,369 lb	11,700/25,794 lb
Max. lift capacity	kg 4,600/10,141 lb	5,500/12,125 lb	6,000/13,228 lb
Max. lift height	mm 7,032/23'1" ft in	7,032/23'1" ft in	8,780/28'10" ft in
Max. forward reach to front carriage	mm 3,800/12'6" ft in	3,930/12'11" ft in	4,880/16'0" ft in

Hydraulics

Hydraulic system	Load sensing-pump
Pump flow max.	200 l/min./35.2 Imp.gpm at 2,200 rpm (Diesel engine)
Max. operating pressure	240 bar/3,480 psi ¹⁾ or 270 bar/3,915 psi ²⁾
Filter system	Return oil filter and intake filter
Control	Multifunction joystick
Controlled functions	Lift, lower, tipping inwards, tipping outwards, retract, extend, close, open, forwards, backwards „subdivision of 3 speed ranges“
Control valves	Load-control valves on lifting, tilt and telescopic cylinders
End position damping	Lift, lower, tilt, dump and tipping inwards

¹⁾ T 46-7s

²⁾ T 55-7s and T 60-9s

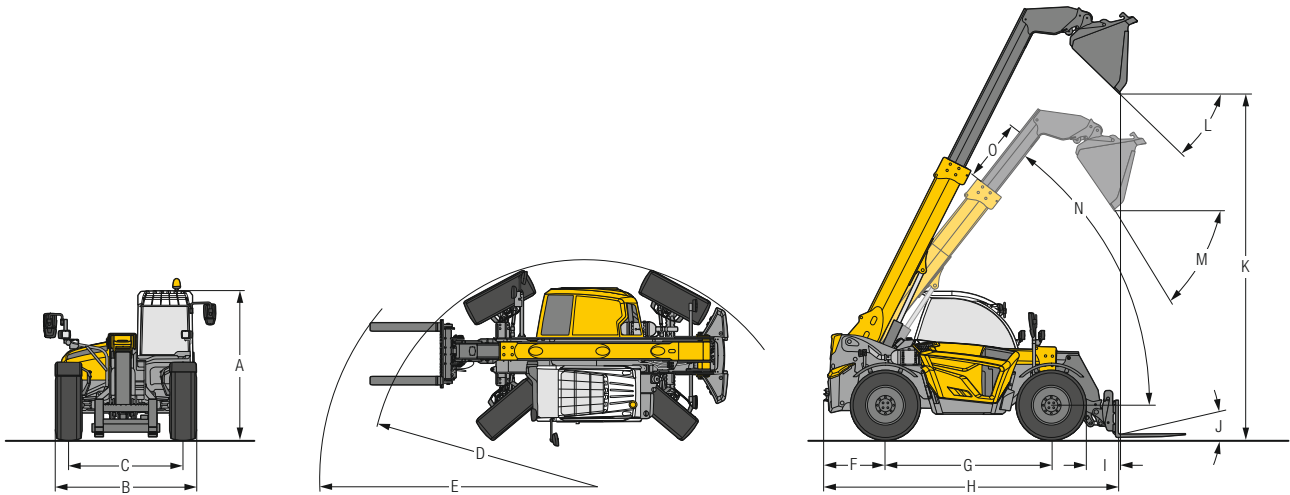
Cycle Times (without load, without end position damping)

	T 46-7s	T 55-7s	T 60-9s
Lifting	sec 5.5	7.0	9.0
Lowering	sec 6.0	6.5	8.4
Extend	sec 4.6	5.2	7.5
Retract	sec 3.8	4.5	6.0
Tilting inwards, full angle	sec 2.9	3.1	3.2
Tilting outwards, full angle	sec 3.2	3.2	3.3

¹⁾ T 46-7s

²⁾ T 55-7s and T 60-9s

Dimensions

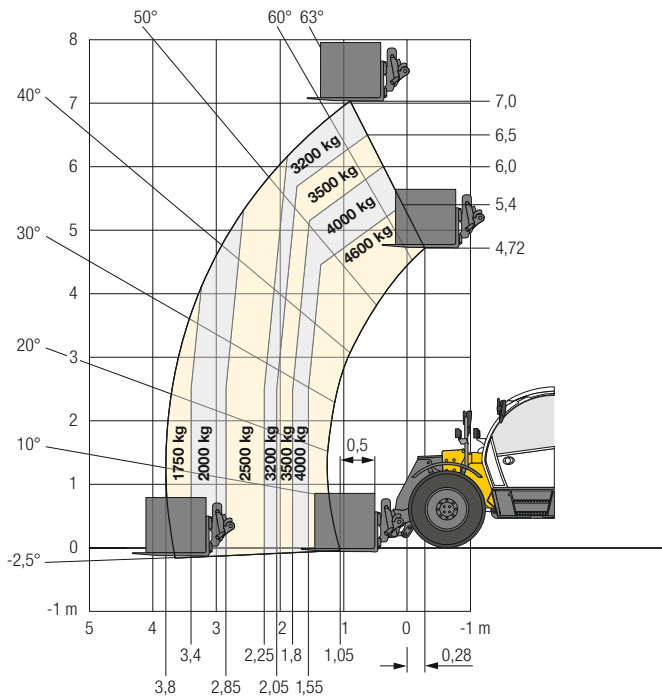


Dimensions (all specifications with standard tyres, standard fork or standard bucket)

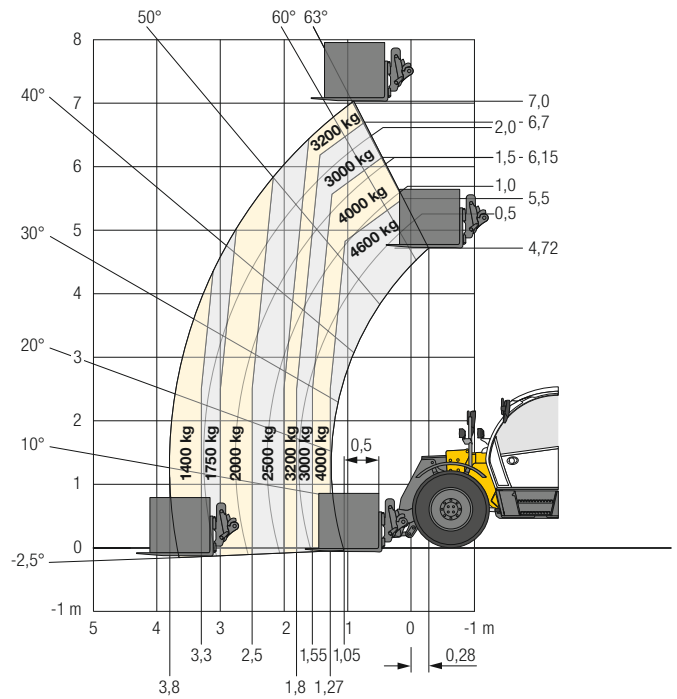
		T 46-7s	T 55-7s	T 60-9s
A	Height over cab	mm 2,590/8'6" ft in	2,655/8'9" ft in	2,622/8'10" ft in
B	Overall width over standard tyres	mm 2,514/8'3" ft in	2,521/8'3" ft in	2,521/8'3" ft in
C	Track gauge	mm 2,040/6'8" ft in	2,040/6'8" ft in	2,040/6'8" ft in
D	Outside turning radius over tyres	mm 3,833/12'7" ft in	3,902/12'10" ft in	4,090/13'5" ft in
E	Outside turning radius over forks	mm 4,706/15'6" ft in	4,757/15'7" ft in	5,215/17'1" ft in
F	Rear overhang	mm 977/3'2" ft in	1,019/3'4" ft in	1,217/4' ft in
G	Wheels base	mm 2,950/9'8" ft in	2,950/9'8" ft in	3,150/10'4" ft in
H	Overall length to front carriage	mm 5,145/16'11" ft in	5,145/16'11" ft in	5,939/19'6" ft in
I	Reach at max. lifting height with extended telescope and max. tip out angle	mm 625/2'1" ft in	625/2'1" ft in	310/1'2" ft in
J	Max. tip out angle, lower pallet fork	20°	20°	20°
K	Dumping height at max. lifting angle of 63° at 7 m and 68° at 9 m with extended telescope and max. tip out angle	mm 6,100/20'0" ft in	6,100/20'0" ft in	7,945/26'1" ft in
L	Max. tip out angle, standard bucket at max. lifting angle	42°	43,8°	43,8°
M	Max. tip out angle, standard bucket at 4 m loading edge	55°	55°	58,5°
	Ground clearance (middle of vehicle)	mm 410/1'4" ft in	410/1'4" ft in	438/1'5" ft in
	Max. rotation angle, machine mounting	152°	152°	152°

Load Charts (acc. to EN 1459) All specifications with standard quick coupler, load centre 500 mm / 1'8" ft in¹⁾ or 600 mm / 2' ft in²⁾, standard tyres and standard fork

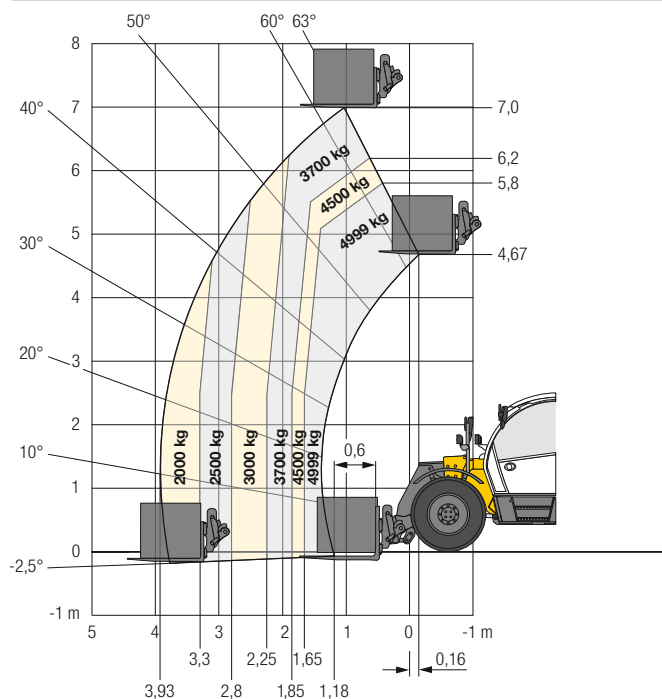
T 46-7s Load Moment Plus



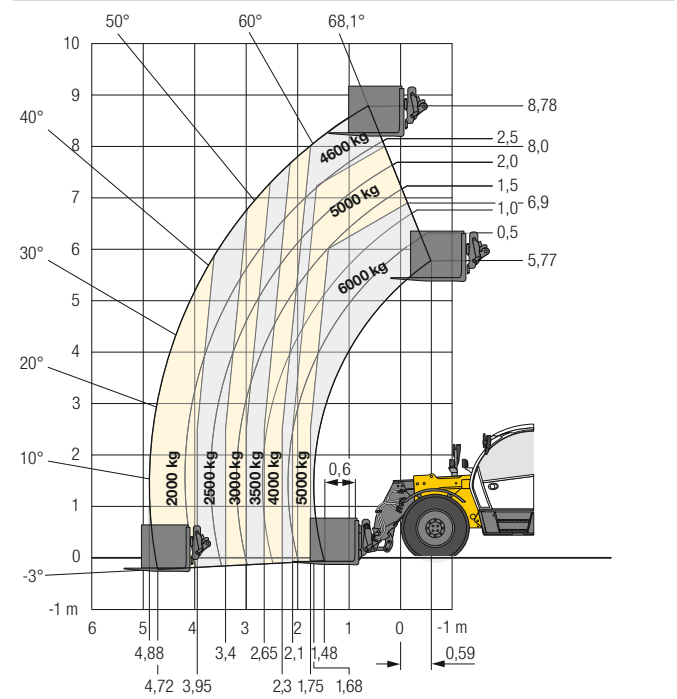
T 46-7s



T 55-7s



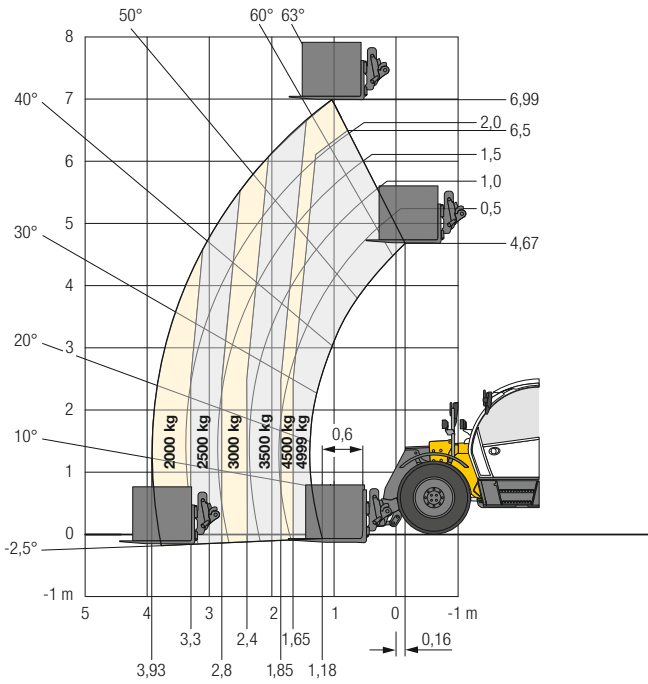
T 60-9s



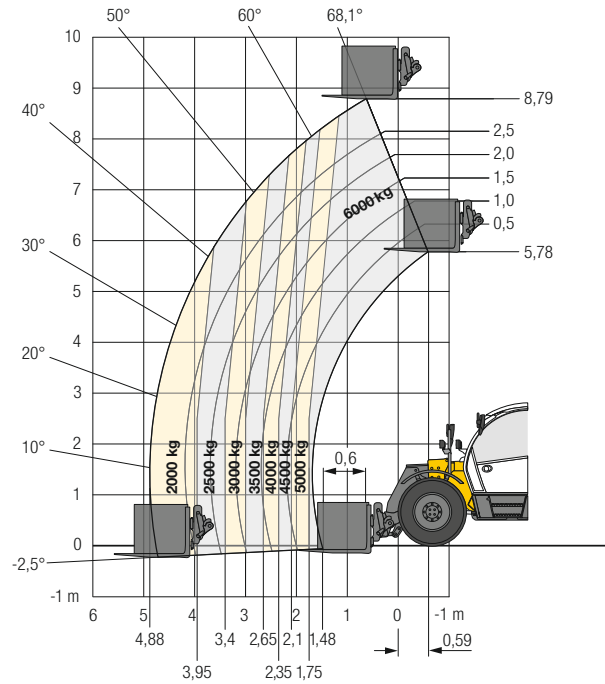
¹⁾ T 46-7s

²⁾ T 55-7s and T 60-9s

T 55-7s with Pivoting Axle Lock

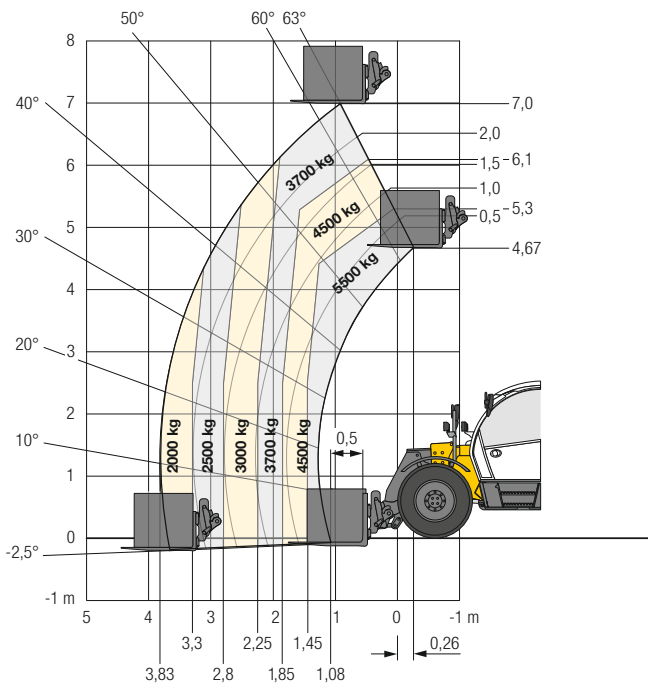


T 60-9s with Pivoting Axle Lock




Comparative Load Charts T 55-7s All specifications with standard quick coupler, load centre 500 mm / 1'8" ft, in standard tyres and standard fork


T 55-7s




- 1) T 46-7s
- 2) T 55-7s and T 60-9s


Equipment

 Base Machine	T46-7s	T55-7s	T60-9s
100 % Slip differential in front axle	•	•	•
2 piece telescopic boom	•	•	•
3 + 1 steering modes electronic switchable	•	•	•
7 pin rear plug socket	+	+	+
Armrest multiple adjustable	•	•	•
Auto Hill Assist	•	•	•
Boom guidance on the base frame	•	•	•
Boom suspension – Comfort Drive	+	+	+
Hydraulic fluid level monitor	+	+	+
Illuminated licence plate holder	+	+	+
Inch brake pedal	•	•	•
Level compensation front axle (for 9 m model)	–	–	•
LiDAT – Data transmission system	+	+	+
Load moment plus load increase	+	–	–
Lubrication preparation for Auto-Lube	+	+	+
Lubrication through automatic central lube unit (also in telescopic head) – Auto-Lube	+	+	+
Lubrication through outward extended lubrication points – Easy-Lube	+	+	+
Lubrication through three central points – Centralised-Lube	+	+	+
Main frame and under chassis cover ¹⁾	+	+	+
Main frame cover	+	+	+
Mirror for the right front area	+	+	+
Mirror with view of towing hitch	+	+	+
Rear floating axle lock hydraulic	–	–	+
Rear floating axle lock mechanical	–	+	+
Rear axle with 10° oscillation angle (for T 60-9s: 9° oscillation angle)	•	•	•
Road-use registration Germany	+	+	+
Special paint	+	+	+
Tool kit	+	+	+
Towing hitch front	+	+	+
Towing hitch rear	+	+	+
Towing hitch with automatic interlock	+	+	+
Wax protection for aggressive media (wax protection on telescopic head and on the unit front)	+	+	+
Wax protection for sea transport	+	+	+
Wide-angle mirror	•	•	•


 Hydraulic System	T46-7s	T55-7s	T60-9s
Autopower Function	+	+	+
Bucket return/vibrating bucket function	+	+	+
Constant flow rate for hydraulic system at telescopic head	+	+	+
Constant flow rate for rear hydraulic system	+	+	+
Dirt deflector on boom	+	+	+
Extension for hydraulic circuit-3 (hydraulic and electric)	+	+	+
Fine tuning for working hydraulics	+	+	+
Hydraulic circuit-3 at telescopic head	•	•	•
Hydraulic fluid preheat via external 230 V power supply ¹⁾	+	+	+
Hydraulic pump, flow rate 200 l/min./44 Imp.gpm	•	•	•
Hydraulic system can be deactivated (for road travel)	•	•	•
Leakage oil line ¹⁾	+	+	+
Preparation for electric on telescopic head	+	+	+
Pressure release for hydraulic system at telescopic head	+	+	+
Rear hydraulics, preparation	+	+	+
Rear hydraulics, single acting	+	+	+
Rear hydraulics, single acting and double acting	+	+	+
Socket on telescopic head	+	+	+
Tipping cylinder lock	+	+	+
Weighing system ¹⁾	+	+	+

• = Standard
 + = Option
¹⁾ available track shoes on demand at your dealer

 Operator's Cab	T46-7s	T55-7s	T60-9s
12 V power socket	•	•	•
2 part driver's door (upper part can be opened 180°)	•	•	•
Air-conditioner	+	+	+
Coat hook and storage compartments	•	•	•
Color display 3.5"	•	•	•
Color display 7"	+	+	+
Dome light	•	•	•
Halogen drive lighting and working lights (cab front, cab rear and right front, right rear facing)	•	•	•
Heated rear and right screen ¹⁾	+	+	+
Heater	•	•	•
Interior mirror	+	+	+
Multifunction bracket	+	+	+
Multifunction joystick (mounted directly at operator's seat)	•	•	•
Operator's seat, air-suspended including heated seat and back rest extension	+	+	+
Operator's seat, low frequency air-suspended including heated seat and back rest extension	+	+	+
Operator's seat, manually adjustable with fabric cover and backrest extension	•	•	•
Radio preparation kit	+	+	+
Radio with USB	•	•	•
Steering column inclination adjustable using foot pedal	•	•	•
Steering column with multiple adjustment (height, inclination and steering wheel angle)	+	+	+
Stowage compartment below the seat	•	•	•
Sun visor for roof and front window	+	+	+
USB charging socket (2 outlet)	•	•	•
Windshield wiper and washer system right side window	+	+	+
Windshield wipers and washer system front and roof with intermittent function	•	•	•
Windshield wipers and washer system, rear	•	•	•
Working lights directed onto towing hitch (Halogen or LED)	+	+	+
Working lights directed to the left and right (LED)	+	+	+
Working lights on boom (Halogen or LED)	+	+	+
Working lights on the cab, front (LED)	+	+	+
Working lights on the cab, rear (LED)	+	+	+

 Tyres	T46-7s	T55-7s	T60-9s
Alliance A580 – 460/70 R 24	+	+	–
Alliance A580 – 500/70 R 24	+	+	–
Alliance Multiuse 500/70 R 24 ¹⁾	+	+	+
Camso MPT 793S 375/85-R 24 solid tyres	+	+	+
Firestone Duraforce-Utility – 460/70 R 24	+	–	–
Firestone Duraforce-Utility – 500/70 R 24 ¹⁾	+	–	–
Michelin BibLoad – 500/70 R 24 ¹⁾	+	+	+
Michelin BibLoad foamed – 460/70 R 24	+	+	+
Michelin PowerCL 440/80 R 24 ¹⁾	+	+	+
Michelin XMCL – 460/70 R 24	•	+	–
Michelin XMCL – 500/70 R 24	+	•	•


Equipment


 Safety	T46-7s	T55-7s	T60-9s
Angle display on the boom	+	+	+
Anti-theft protection CESAR (Construction Equipment Security and Registration)	+	+	+
Anti-theft protection via ignition key ¹⁾	+	+	+
Back-up alarm, acoustic	•	•	•
Emergency exit via the rear window	•	•	•
Emergency package (first aid kit, warning vest and warning triangle)	+	+	+
Emergency stop	•	•	•
End position damping for lifting, lowering, tilting, dumping and tipping inwards	•	•	•
Fire extinguisher 2 kg/4 lb	+	+	+
Hazard warning lights	•	•	•
Level indicator via spirit level	•	•	•
Lifting cylinder support (for maintenance work)	+	+	+
Overload warning system with acoustic and visual signal in compliance with EN 15000	•	•	•
Protective grille for front windscreen	+	+	+
Protective grille for top windscreen	•	•	•
Rear view and side view camera	+	+	+
Rear view camera	+	+	+
ROPS/FOPS integrated	•	•	•
Rotating beacon yellow, hinged	+	+	+
Wheel chock (1x)	+	+	+
Wheel chock (2x)	+	+	+


• = Standard
+ = Option

¹⁾ available track shoes on demand at your dealer


Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr in order to retain warranty.

 Travel Drive	T46-7s	T55-7s	T60-9s
Air filter with automatic dust ejector	+	-	-
Deactivation of all wheel drive (only for 40 km/h version) ¹⁾	-	+	+
Emission stage IIIA/Tier 3	+	+	+
Emission stage V	•	•	•
Fan drive hydrostatic, stepless	•	•	•
Fan drive, reversible	+	+	+
Four-wheel drive, permanent	•	•	•
Manual control pack for engine and drive speed	+	+	+
Travel drive, hydrostatic	•	•	•
Travel drive: 20 km/h/12.4 mph/100 kW/82 kN/18,428 lbf drawbar pull ¹⁾	+	-	-
Travel drive: 20 km/h/12.4 mph/115 kW/103 kN/23,147 lbf drawbar pull ¹⁾	-	+	+
Travel drive: 30 km/h/18.6 mph/100 kW/82 kN/18,428 lbf drawbar pull ¹⁾	+	-	-
Travel drive: 30 km/h/18.6 mph/115 kW/103 kN/23,147 lbf drawbar pull ¹⁾	-	+	+
Travel drive: 40 km/h/24.7 mph/100 kW/62 kN/13,933 lbf drawbar pull	•	-	-
Travel drive: 40 km/h/24.7 mph/115 kW/77 kN/17,304 lbf drawbar pull	-	•	•

 Attachments	T46-7s	T55-7s	T60-9s
Hydraulic quick coupler, JCB Q-Fit	+	+	+
Hydraulic quick coupler, Liebherr	+	+	+
Hydraulic quick coupler, Manitou	+	+	+
Hydraulic quick coupler, Scorpion	+	+	+
Mechanical quick coupler, Manitou	+	+	+
Mechanical quick coupler, Scorpion	•	•	•
Universal mounting plate for Scorpion	+	+	+

 **WARNING**

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.P65warnings.ca.gov.

 **WARNING**

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- ▶ Always start and operate the engine in a well-ventilated area.
- ▶ If in an enclosed area, vent the exhaust to the outside.
- ▶ Do not modify or tamper with exhaust system.
- ▶ Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.