



# PIPELAYERS

RL 24 · RL 44 · RL 54 · RL 64 LITRONIC<sup>®</sup>



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## PIPELAYERS

|              | ENGINE OUTPUT   | MAX. LIFT CAPACITY      |
|--------------|-----------------|-------------------------|
| <b>RL 24</b> | 90 KW / 122 HP  | 23.900 KG<br>52,690 LB  |
| <b>RL 44</b> | 175 KW / 238 HP | 45.900 KG<br>101,192 LB |
| <b>RL 54</b> | 210 KW / 286 HP | 70.000 KG<br>154,323 LB |
| <b>RL 64</b> | 275 KW / 374 HP | 90.800 KG<br>200,179 LB |

## ABOUT US

For nearly 40 years, Maats has been one of the leading suppliers of pipeline construction equipment and services to the pipeline industry and has a large fleet of equipment available for rental and for sale. Maats supply a wide variety of specialised construction machinery such as pipelayers, welding tractors, bending machines and related equipment for new pipeline construction as well as for pipeline maintenance and repairs.

Maats is global representative for the sale of new Liebherr pipelayers. Maats and Liebherr developed a range of pipelayers with lifting capacities up to 98 metric tons.

# PERFORMANCE

Maats and Liebherr pipelayers are designed to provide maximum performance and handle the most difficult jobs. High lifting forces, outstanding maneuverability and heavy-duty components in the travel and working hydraulics ensure peak performance when laying pipelines.

## POWERFUL AND INFINITELY ADJUSTABLE TRAVEL DRIVE

In combination with the innovative hydrostatic travel drive, the powerful Liebherr diesel engine provides optimum power in every situation. Whether transporting pipe on soft soil, lowering the pipeline when travelling uphill, or when pulling heavy pipe bending machines – the hydrostatic travel drive reliably provides the required power.

## STEPLESS AND PRECISE CONTROL OF THE TRAVEL SPEED

The stepless travel drive enables traveling without sudden movements and is very accurate without shifting gears. This reduces vibrations during pipe transport and provides essentially millimetre-accurate joining during pre-assembly.

## POWER FOR TRAVELLING ON SLOPES

The hydrostatic travel drive allows the operator to maneuver the machine easily and with maximum precision, even on steep slopes. The parking brake also acts as a safety brake and is automatically activated. Thus preventing the machine moving out of control, even when operating on slopes.

## HIGH STABILITY

The compact arrangement of the drive components results in an extremely low centre of gravity for the machine. Through use of the extra-long undercarriage, Liebherr pipelayers offer maximum stability, especially on inclines.

## HIGH LIFTING CAPACITIES

Resulting from the favorable weight distribution, centre of gravity, the extended position of the counterweight and the extra-long undercarriage, maximum lifting capacities are available over the entire working range.



**MAATS AND LIEBHERR PIPELAYERS WILL IMPRESS YOU WITH THEIR OUTSTANDING PERFORMANCE CAPABILITIES.**





## HIGHLIGHTS PERFORMANCE

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POWERFUL AND STEPLESS TRAVEL DRIVE

---

HIGH STABILITY

---

HIGH LIFTING CAPACITIES

---

LATEST TECHNOLOGY

---

EXCELLENT MANOEUVRABILITY

---

EXTRA LONG UNDERCARRIAGE

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LONG BOOM



# RELIABILITY

## MAATS & LIEBHERR QUALITY

Maats and Liebherr pipelayers have been developed to meet requirements at construction sites around the world and designed throughout for a long service life. Whether at low temperatures in Siberia or in hot desert regions, the rugged and time-tested construction of Liebherr pipelayers provides maximum reliability and availability.

### INTELLIGENT HYDRAULICS

Very precise control of the boom and winch. The pipe is placed with millimetre accuracy - this is a major benefit when connecting pipes during pre-assembly as well as when repairing the pipeline. The boom positioning cylinder stabilises heavy loads in every position.

### LOW GROUND PRESSURE

All Maats and Liebherr pipelayers are equipped with very wide track shoes and an extra long undercarriage, which results in a very low ground pressure.

### STATE-OF-THE-ART COOLING SYSTEM

The cooling air is drawn in from clean regions, reducing contamination from dust particles. A reversible fan for cleaning the radiator automatically in environments with a high dust level in the air is available as an option.

### HYDROSTATIC FAN DRIVE

The hydrostatically powered fan regulates the cooling capacity to meet requirements. This allows the engine to reach the optimal operating temperature faster.

### LOW - TEMPERATURE OPERATION (OPTION)

Liebherr and Maats pipelayers can be fitted with a variety of features to permit operation at low temperatures, such as preheating of the engine, battery preheating, auxiliary cab heater, electrically heated fuel water separator or insulated windows.

### RUGGED AND WELL-THOUGHT- OUT DESIGN

The main frame is constructed using a proven box design. This results in a torsionally rigid frame that perfectly absorbs all applied forces. Components subjected to high loads are manufactured from cast steel.

The wear-resistant, braided PVC-fibre cable sleeving with a Teflon core provides maximum protection against mechanical damage. Damage and moisture uptake is also prevented.



**TIME-TESTED  
AND PROVEN  
TECHNOLOGY AS  
WELL AS HIGH MATERIAL  
AND MANUFACTURING  
QUALITY ENSURE  
MAXIMUM RELIABILITY  
EVEN UNDER THE  
HARSHEST CONDITIONS.**





## HIGHLIGHTS RELIABILITY

TORSION RESISTANT MAIN FRAME

KEY TECHNOLOGIES FROM LIEBHERR

ENDURANCE TESTED COMPONENTS

STATE OF THE ART COOLING SYSTEM

LOW TEMPERATURE OPERATION

MILLIMETER ACCURATE CONTROL OF BOOM

WORK UNDER HARSH WEATHER CONDITIONS

POWERFUL WORKING CYLINDERS



# SAFETY

Safety is always a priority at Maats and Liebherr. Accordingly, all pipelayers have a well thought out safety concept. Important details such as the ROPS cab, the boom-positioning cylinder, the automatic parking brake, optional load moment limiting and the extremely precise hydraulics make Maats and Liebherr pipelayers among the safest in the industry.

## CAB WITH INTEGRATED ROPS PROTECTION

Maats and Liebherr pipelayer cabs come with integrated roll-over protection as a standard feature. This provides convenient and good visibility in the working area.

## HYDRAULIC CYLINDER FOR BOOM POSITIONING

Instead of a second winch, Liebherr install a boom cylinder on all pipelayer models. This cylinder is maintenance-free and also prevents unintentional folding of the boom in critical situations.

## LOGICAL JOYSTICK CONTROL

All primary machine movements can be initiated intuitively and without reaching for another operating lever. This always allows the operator to focus his attention on the load being moved. Safety on the construction site is increased considerably as a result.

## PRECISION WHEN TRAVELLING ON SLOPES

Maats and Liebherr pipelayers always move with no loss of traction. This prevents the machine's rolling away unintentionally, especially when travelling on slopes. When the machine is no longer moving, an automatically activated parking brake provides additional safety. Thanks to the hydrostatic system, the operator can control braking simply by eliminating any joystick deflection.

## HOSE-BREAK PROTECTION

All cylinders on Maats and Liebherr pipelayers features hose-break protection that prevents lowering of the boom in the event of hose breakage.

## FREE-FALL FUNCTION

If the operator must lower the load quickly, in case of emergency, it is possible to switch the winch to free-fall.

## LOAD MONITORING SYSTEM

Maats and Liebherr pipelayers can be fitted with a Load Monitoring System.



**SAFETY IS PRIORITY  
AT LIEBHERR AND  
MAATS, WHICH  
IS WHY ALL PIPELAYERS  
ARE BASED ON A WELL-  
THOUGHT-OUT SAFETY  
CONCEPT THAT SETS  
STANDARDS IN PIPELINE  
CONSTRUCTION.**







## HIGHLIGHTS SAFETY

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SAVE ACCESS TO THE CAB

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NON-SLIP STEPS

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PIPE PROTECTION ON THE BOOM (OPTION)

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NUMEROUS HANDHOLDS ON THE MACHINE

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AUTOMATIC LIFT KICK OUT

---

OVERLOAD WARNING DEVICE

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WELL THOUGHT OUT LIGHTING CONCEPT



# ECONOMY

Clear economic benefits - the Liebherr advantage: Like all other Liebherr and Maats equipment, these pipelayers are characterised by their service friendliness. This reduces both downtime and maintenance costs. The Liebherr diesel engines combine high performance and economy - the combination of an efficient drive system and load sensing hydraulics guarantees minimum fuel consumption.

## LOW SERVICE COSTS

Maximum accessibility to all maintenance points. All service points on the diesel engine are centralised, easily accessible on one side of the machine. Separate compartments for the batteries, the electronics and the diagnostic tools offer the best protection, while providing easy and quick access.

## UNMATCHED OIL CHANGE INTERVALS

Liebherr oils and lubricants are specially formulated for the harsh operating conditions of pipelayers. Thanks to the special properties of these oils, achievable oil change intervals can be as much as four times longer than those for conventional oils. This lowers the amount of services required, reduces the amount of oil used and protects the environments.

**SPECIAL ATTENTION  
WAS DEVOTED TO  
ENSURING LONG  
COMPONENT SERVICE  
LIVES, LOW SERVICE  
COSTS AND LOW FUEL  
CONSUMPTION.**

## LOW FUEL CONSUMPTION

The Liebherr diesel engine runs at a constant low speed - in an economical range - regardless of the travel speed. The result is exceptionally low fuel consumption.

## ECONOMICAL HYDRAULICS

The load sensing on demand controls supply only the exact amount of oil needed. This protects the components and saves fuel.

## INNOVATIVE COOLING SYSTEM

The hydrostatically powered fan regulates the cooling capacity to meet requirements, regardless of the diesel engine rpm. This ensures optimal cooling capacity and saves fuel.

## COMPONENTS AND SPARE PARTS LOGISTICS

The main components of Liebherr and Maats pipelayers are identical to those used in the crawler tractors, greatly simplifying maintenance and repair as well as spare parts supply.

## TILTING OPERATOR CAB

The standard tilting operator cab provides fast and easy access to all important components of the travel drive and hydraulics.





## HIGHLIGHTS ECONOMY

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LONG COMPONENT SERVICE LIFE

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LOW SERVICE COSTS

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WIDE OPENING ENGINE COMPARTMENT

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DOORS PROVIDE EASY ACCESS

---

PROTECTED COMPONENTS

---

EXCEPTIONALLY LOW FUEL CONSUMPTION

---

TILTING OPERATOR CAB PROVIDES FAST  
AND EASY ACCESS



# BASE MACHINE

RL 24



## ENGINE

RL 24

|                    |                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------|
| Diesel engine      | John Deere PowerTech 6068H, emission regulations according to 2004/26/EG stage IIIA and EPA/CARB Tier 3 |
| Rating (ISO9249)   | 90 kW / 122 HP                                                                                          |
| Rating (SAE J1349) | 90 kW / 121 HP                                                                                          |
| Rated speed        | 2,100 rpm                                                                                               |
| Displacement       | 6,8 l / 414 cu. in.                                                                                     |
| Design             | 6-cylinder-in-line engine, water cooled, turbocharged, air-to-air intercooler                           |
| Injection system   | Common Rail system with direct injection, electronic engine management                                  |
| Engine lubrication | Pressurized lube system, engine lubrication guaranteed for inclinations up to 45 degrees                |
| Operating voltage  | 24 V                                                                                                    |
| Alternator         | 80 A                                                                                                    |
| Starter            | 7,5 kW                                                                                                  |
| Batteries          | 2 x 117 Ah / 12V                                                                                        |
| Air cleaner        | Dual stage dry type with safety element, pre-cleaner, service gauge in the cab                          |
| Cooling system     | Combi radiator, comprising radiators for water, hydraulic fluid and charge air                          |



## REFILL CAPACITIES

RL 24

|                         |                 |
|-------------------------|-----------------|
| Fuel tank               | 227 l / 50 gal  |
| Cooling system          | 23 l / 5.1 gal  |
| Engine oil with filters | 24 l / 5.3 gal  |
| Transmission oil tank   | 65 l / 14.3 gal |
| Hydraulic oil tank      | 70 l / 15.4 gal |
| Final drives each       | 13 l / 2.9 gal  |



## UNDERCARRIAGE

RL 24

|                               |                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------|
| Design                        | Track frame, rigid                                                                             |
| Mount                         | Via separate pivot shafts and a fixed equalizer bar                                            |
| Chains                        | Lubricated, single grouser shoes; track chain tensioning via steel spring and grease tensioner |
| Links, each side              | 49                                                                                             |
| Track rollers/carrier rollers | 9/2                                                                                            |
| Sprocket segments             | 5                                                                                              |
| Track shoes standard          | 762 mm / 30"                                                                                   |
| Track shoes option            | 610 mm / 24" and 710 mm / 28"                                                                  |



## TRAVEL DRIVE, CONTROL

RL 24

|                      |                                                                                                                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transmission system  | Infinitely variable hydrostatic travel drive, independent drive for each track                                                                                                                               |
| Travel speed         | - Infinitely variable from 0 to 8,9 km/h / 5.5 mph<br>- Setting of travel speed ranges on the travel joystick<br>Reverse speed can be set at 80, 100, 115 or 130% of forward speed (max. 8,9 km/h / 5.5 mph) |
| Drawbar pull         | 161 kN at 1,0 km/h - 0.6 mph                                                                                                                                                                                 |
| Electronic control   | Electronic engine speed control automatically adjusts travel speed and drawbar pull to match changing load conditions                                                                                        |
| Steering             | Hydrostatic                                                                                                                                                                                                  |
| Service brake        | Hydrostatic (dynamic braking), wear free                                                                                                                                                                     |
| Automatic park brake | Wet multiple disc brake, wear free, automatically applied                                                                                                                                                    |
| Cooling system       | Transmission oil cooler integrated in combi radiator                                                                                                                                                         |
| Filter system        | Micro cartridge filter                                                                                                                                                                                       |
| Final drive          | Triple reduction final drives, spur gears                                                                                                                                                                    |
| Control              | Single joystick for all travel and steering function; Decelerator pedal                                                                                                                                      |
| Adjustments          | Operator can individually adjust travel drive parameters via the monitor, e.g. joystick response, decelerator pedal response, etc.                                                                           |
| Decelerator pedal    | Decelerator pedal allows reduction of ground speed with or without reduction of engine rpm                                                                                                                   |



## HYDRAULIC SYSTEM

RL 24

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| System              | Load sensing proportional pump flow control           |
| Pump type           | Swash plate, variable displacement piston pump        |
| Pump flow max.      | 155 l/min / 34.1 gpm                                  |
| Pressure limitation | 320 bar / 4640 PSI                                    |
| Control valve       | 3 Segments, expandable to 5                           |
| Filter system       | Return filter with magnetic rod in the hydraulic tank |



## HYDRAULIC WINCH

RL 24

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| Hoist winch           | Variable flow hydraulic pump                                   |
| Safety brake          | Spring-loaded disc brake holds the load safely in any position |
| Drum diameter         | 248 mm / 10"                                                   |
| Drum length           | 349 mm / 13.75"                                                |
| Flange diameter       | 416 mm / 16.38"                                                |
| Cable diameter        | 16 mm / 0.63"                                                  |
| Cable length          | 55 m / 60.15 yd                                                |
| Hook block            | 2 sheaves / 3 strand                                           |
| Hook speed (up, down) | 0-33 m/min 0-108 ft/min                                        |



## OPERATOR'S CAB

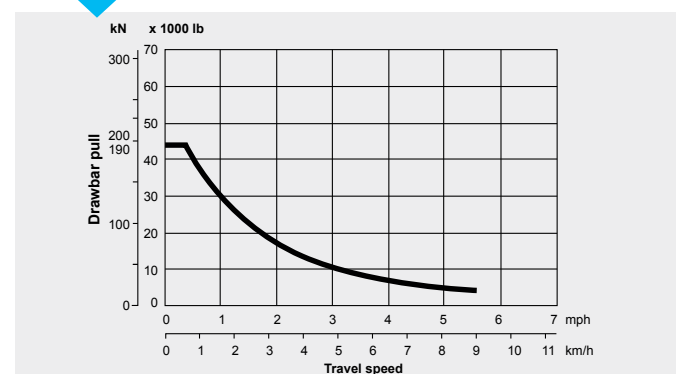
RL 24

|                          |                                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Cab                      | Resiliently mounted cab with positive pressure ventilation, integrated ROPS Rollover Protective Structure (ISO 3471). |
| Canopy (option)          | Resiliently mounted canopy. Integrated ROPS Rollover Protective Structure (ISO 3471)                                  |
| Operator's seat (cab)    | Fully adjustable air-suspended comfort seat; adjusts automatically to operator's weight                               |
| Operator's seat (canopy) | Fully adjustable mechanical suspension comfort seat                                                                   |
| Monitoring               | Combined analogue / LC display. Automatic monitoring, display and warning of deviating operating parameters           |



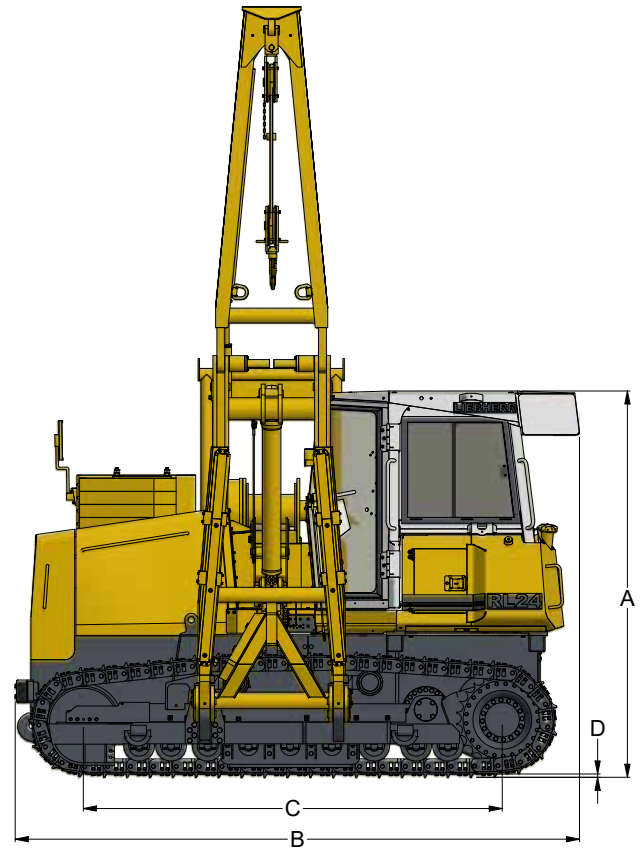
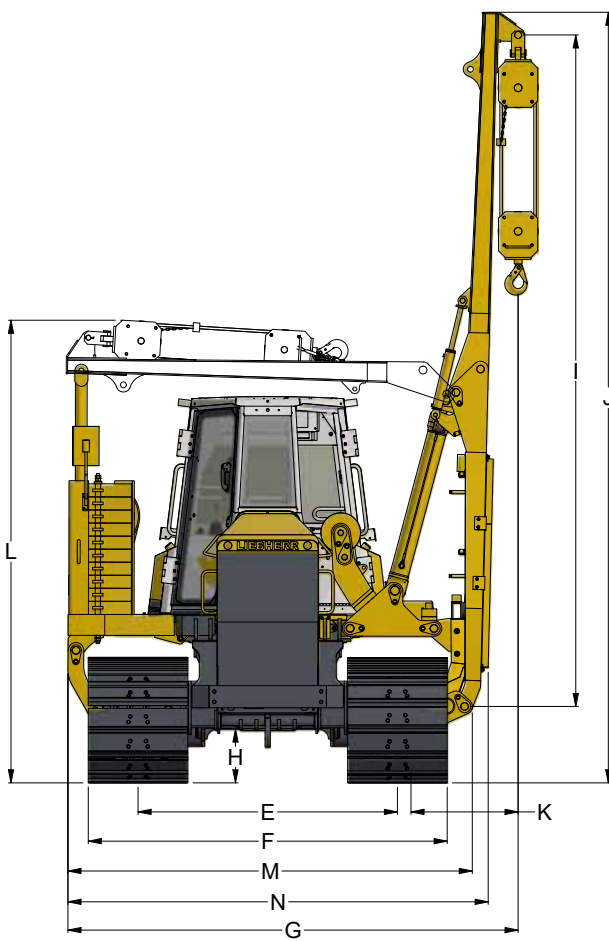
## DRAWBAR PULL

RL 24



# DIMENSIONS AND WEIGHTS

RL 24



## DIMENSIONS

RL 24

|   |                                  |                     |
|---|----------------------------------|---------------------|
| A | Height over cab                  | 3.050 mm / 10.01 ft |
| B | Overall length                   | 4.326 mm / 14.19 ft |
| C | Distance idler/sprocket center   | 3.215 mm / 10.55 ft |
| D | Height of grousers               | 56 mm / 0.18 ft     |
| E | Track gauge                      | 1.988 mm / 6.52 ft  |
| F | Total width over undercarriage   | 2.751 mm / 9.03 ft  |
| G | Width (counterweight to hook)    | 2.450 mm / 8.04 ft  |
| H | Ground clearance                 | 413 mm / 1.35 ft    |
| I | Boom length                      | 5.150 mm / 16.90 ft |
|   | Optional boom length 7m boom     | 7.000 mm / 22.97 ft |
| J | Total height                     | 5.907 mm / 19.38 ft |
|   | Total height 7m boom             | 7.760 mm / 25.46 ft |
| K | Distance (chain to hook)         | 821 mm / 2.69 ft    |
| L | Transport height (foldable boom) | 3.552 mm / 11.65 ft |
| M | Width (transport without boom)   | 3.100 mm / 10.17 ft |
| N | Width (transport with boom)      | 3.214 mm / 10.54 ft |

## WEIGHTS

RL 24

|                                           |                                    |
|-------------------------------------------|------------------------------------|
| Operating weight                          | 21.860 kg / 48,193 lb              |
| Ground pressure<br>(with standard plates) | 0,44 kg/cm <sup>2</sup> / 6.26 PSI |



# BASE MACHINE

RL 44 - RL 54 - RL 64



## ENGINE

|                        | RL 44                                                                                 | RL 54                        | RL 64                      |
|------------------------|---------------------------------------------------------------------------------------|------------------------------|----------------------------|
| Liebherr diesel engine | D 936 L A6                                                                            | D 936 L A6                   | D 946 L A6                 |
|                        | Emission regulations according to 97/68/EC, 2004/26/EC Stage IIIA and EPA/CARB Tier 3 |                              |                            |
| Rating (ISO 9249)      | 175 kW/238 HP                                                                         | 210 kW/286 HP                | 275 kW/374 HP              |
| Rating (SAE J1349)     | 175 kW/235 HP                                                                         | 210 kW/282 HP                | 275 kW/368 HP              |
| Rated speed            | 1,800 1/min                                                                           | 1,800 1/min                  | 1,800 1/min                |
| Displacement           | 10.5 l / 641 in <sup>3</sup>                                                          | 10.5 l / 641 in <sup>3</sup> | 12 l / 733 in <sup>3</sup> |
| Design                 | 6 cylinder in-line-engine (wet-sleeve)<br>water-cooled, turbocharged, intercooled     |                              |                            |
| Injection system       | Direct fuel injection, pump-line-nozzle system, electronic control                    |                              |                            |
| Lubrication            | Force-feed lubrication, engine lubrication in an inclined position up to 45°          |                              |                            |
| Operating voltage      | 24 V                                                                                  | 24 V                         | 24 V                       |
| Alternator 80 A        | 80 A                                                                                  | 80 A                         | 80 A                       |
| Starter                | 7.8 kW / 11HP                                                                         | 7.8 kW / 11HP                | 7.8 kW / 11HP              |
| Batteries              | 2 x 170 Ah/12 V                                                                       | 2 x 180 Ah/12 V              | 2 x 225 Ah/12 V            |
| Air cleaner            | Dry-type air cleaner with safety element, aspirated pre-cleaner, service gauge in cab |                              |                            |
| Cooling system         | Combi radiator, comprising a radiator for water and charge air, hydrostatic fan drive |                              |                            |



## UNDERCARRIAGE

|                               | RL 44                                                                                                   | RL 54         | RL 64         |
|-------------------------------|---------------------------------------------------------------------------------------------------------|---------------|---------------|
| Design                        | Track frame, rigid                                                                                      |               |               |
| Mount                         | Elastic components at a separate pivot                                                                  |               |               |
| Chains                        | Lubricated, single-bar grouser shoes, track chain tension via grease tensioner and hydraulic cylinders. |               |               |
| Links, each side              | 43                                                                                                      | 45            | 45            |
| Track rollers/carrier rollers | 8/2 each side                                                                                           | 9/2 each side | 9/2 each side |
| Sprocket segments             | 5 each side                                                                                             | 5 each side   | 5 each side   |
| Track shoes                   | 914 mm / 36"                                                                                            | 914 mm / 36"  | 914 mm / 36"  |
|                               | 711 mm / 28"                                                                                            | 914 mm / 36"  | 914 mm / 36"  |



## HYDRAULIC SYSTEM

|                     | RL 44                                                                                                                                                | RL 54 | RL 64 |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| System              | Load Sensing proportional pump flow control                                                                                                          |       |       |
| Pump type           | Swash plate, variable displacement piston pump                                                                                                       |       |       |
| Pump flow max.      | 283 l/min / 62.3 gpm                                                                                                                                 |       |       |
| Pressure limitation | 280 bar / 4,060 PSI                                                                                                                                  |       |       |
| Control valve       | 3 segments, expandable to 4                                                                                                                          |       |       |
| Filter system       | Return filter with magnetic rod in the hydraulic tank                                                                                                |       |       |
| Control             | Single joystick for hoist winch and adjustable boom cylinder, free fall device of hook in case of danger. Further single joystick for counterweight. |       |       |



## TRAVEL DRIVE, CONTROL

|                         | RL 44                                                                                                                                                                | RL 54                        | RL 64                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|
| Transmission system     | Infinitely variable hydrostatic travel drive, independent drive for each frame                                                                                       |                              |                              |
| Travel speed*           | Continuously variable                                                                                                                                                |                              |                              |
| Speed range 1 (reverse) | 0 - 4.0 km/h / 2.5 mph (4.8 km/h / 2.9 mph)                                                                                                                          |                              |                              |
| Speed range 2 (reverse) | 0 - 6.5 km/h / 4.0 mph (7.8 km/h / 4.8 mph)                                                                                                                          |                              |                              |
| Speed range 3 (reverse) | 0 - 10.5 km/h / 6.5 mph (10.5 km/h / 6.5 mph)                                                                                                                        |                              |                              |
|                         | * Pre-adjusted, all speed ranges can be customized on the travel joystick (memory function)                                                                          |                              |                              |
| Drawbar pull            | 300 kN at 1.7 km/h / 1.1 mph                                                                                                                                         | 387 kN at 1.6 km/h / 1.0 mph | 510 kN at 1.5 km/h / 0.9 mph |
| Electronic control      | Electronic engine speed sensing control (load sensing feature) automatically adjusts travel speed and drawbar pull to match changing load conditions                 |                              |                              |
| Steering                | Hydrostatic                                                                                                                                                          |                              |                              |
| Service brake           | Wear-free, hydrostatic (dynamic braking)                                                                                                                             |                              |                              |
| Automatic park brake    | Wear-free, wet multiple-disc brakes, automatically applied with neutral joystick position                                                                            |                              |                              |
| Cooling system          | Hydraulic oil<br>Separate hydraulic oil cooler<br>Cooler integrated in combi radiator<br>Hydraulic oil cooler hydrostatically driven and thermostatically controlled |                              |                              |
| Filter system           | Micro cartridge filters in replenishing pressure circuit                                                                                                             |                              |                              |
| Final drive             | Heavy-duty combination spur gear with planetary final drives, double sealed with electronic seal-integrity indicator                                                 |                              |                              |
| Control                 | Single-lever for all travel and steering motions, as well as for counter rotation                                                                                    |                              |                              |



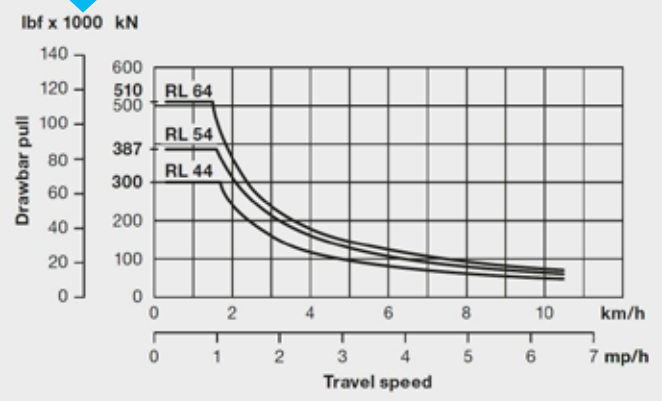
## HYDRAULIC WINCH

|                      | RL 44                                                          | RL 54                       | RL 64                       |
|----------------------|----------------------------------------------------------------|-----------------------------|-----------------------------|
| Hoist winch          | Variable flow hydraulic pump                                   |                             |                             |
| Safety brake         | Spring-loaded disk brake holds the load safely in any position |                             |                             |
| Drum diameter        | 254 mm/10"                                                     | 254 mm/10"                  | 254 mm/10"                  |
| Drum length          | 279 mm/10.98"                                                  | 274 mm/10.78"               | 279 mm/10.98"               |
| Flange diameter      | 610 mm/24"                                                     | 610 mm/24"                  | 610 mm/24"                  |
| Cable diameter       | 20 mm/0.8"                                                     | 20 mm/0.8"                  | 20 mm/0.8"                  |
| Cable length         | 65 m/71.08 yd                                                  | 80 m/87.49 yd               | 100 m/109.36 yd             |
| Hook block           | 2 sheaves                                                      | 3 sheaves                   | 4 sheaves                   |
| Hook speed (up,down) | 0-30.2 m/min<br>0-99 ft/min                                    | 0-20.0 m/min<br>0-66 ft/min | 0-16.0 m/min<br>0-52 ft/min |
| Security             | Free fall device                                               |                             |                             |



## DRAWBAR PULL

RL 44 - RL 54 - RL 64



Usable drawbar pull will depend on traction and weight of pipe layer.



## OPERATOR'S CAB

|                 | RL 44                                                                                                                                                         | RL 54 | RL 64 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| Cab             | Resiliently mounted cab with positive pressure ventilation, can be tilted with hand pump 40° to the rear. With ROPS Rollover Protective Structure (ISO 3471). |       |       |
| Operator's seat | Comfort seat, adjustable to operator's weight                                                                                                                 |       |       |
| Monitoring      | Combined analogue / LC display, automatic monitoring, display of abnormal operating conditions                                                                |       |       |

# BASE MACHINE

RL 44 - RL 54 - RL 64

# MAATS®

PIPELINE PROFESSIONALS



## NOISE EMISSION

**RL 44      RL 54      RL 64**

|                                        |                                                                       |                                                                       |                                                                       |
|----------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| Operator sound exposure (ISO 6396:208) | $L_{pA} = 78 \text{ dB(A)}$<br>(emission at the operator's position)  | $L_{pA} = 78 \text{ dB(A)}$<br>(emission at the operator's position)  | $L_{pA} = 78 \text{ dB(A)}$<br>(emission at the operator's position)  |
| Exterior sound pressure (2000/14/EC)   | $L_{wA} = 108 \text{ dB(A)}$<br>(emission at the operator's position) | $L_{wA} = 108 \text{ dB(A)}$<br>(emission at the operator's position) | $L_{wA} = 108 \text{ dB(A)}$<br>(emission at the operator's position) |



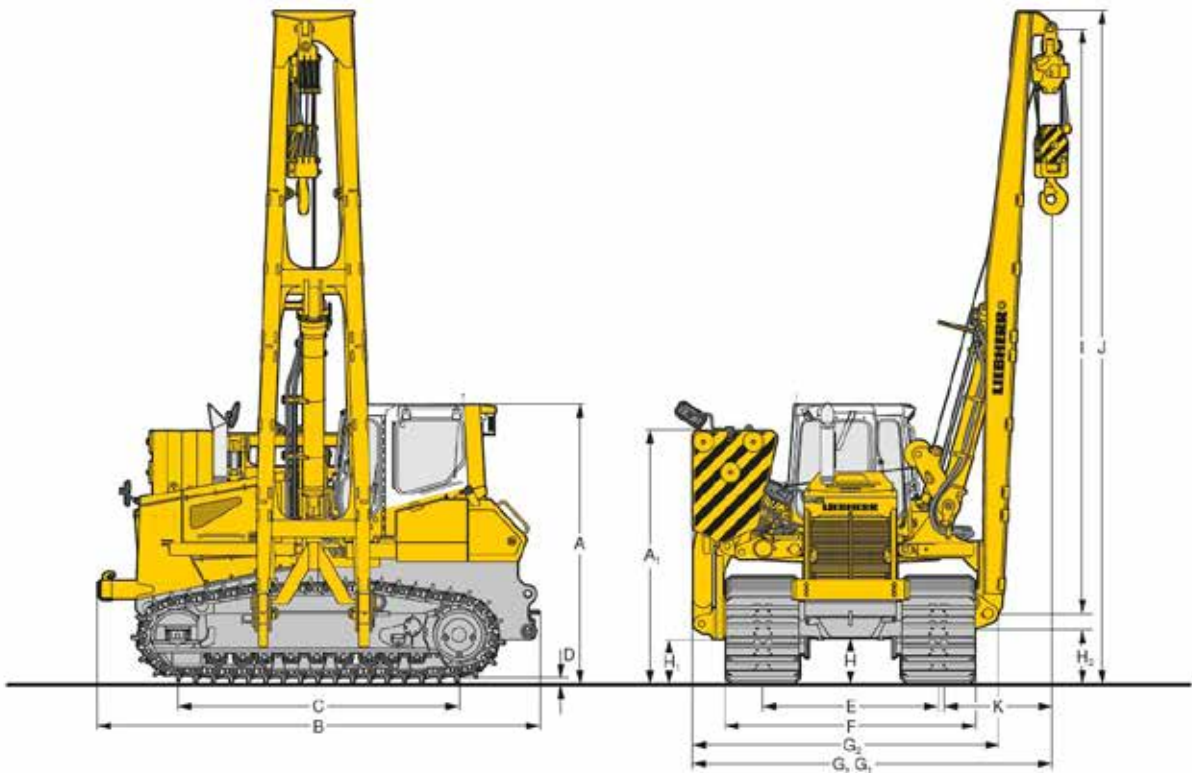
## REFILL CAPACITIES

**RL 44      RL 54      RL 64**

|                             |                 |                  |                 |
|-----------------------------|-----------------|------------------|-----------------|
| Fuel tank                   | 400 l/88 gall   | 535 l/117.7 gall | 650 l/143 gall  |
| Cooling system              | 55 l/12.1 gall  | 62 l/13.6 gall   | 74 l/16.3 gall  |
| Engine oil with oil filters | 43 l/9.5 gall   | 43 l/9.5 gall    | 43 l/9.5 gall   |
| Splitter box                | 3.1 l/0.7 gall  | 6.5 l/1.4 gall   | 6.3 l/1.4 gall  |
| Hydraulic tank              | 126 l/27.7 gall | 169 l/37.2 gall  | 215 l/47.3 gall |
| Final drive, left           | 21 l/4.6 gall   | 19.5 l/4.3 gall  | 26 l/5.7 gall   |
| Final drive, right          | 14 l/3.1 gall   | 19.5 l/4.3 gall  | 26 l/5.7 gall   |

# DIMENSIONS AND WEIGHTS

RL 44 - RL 54 - RL 64



## DIMENSIONS

**RL 44**

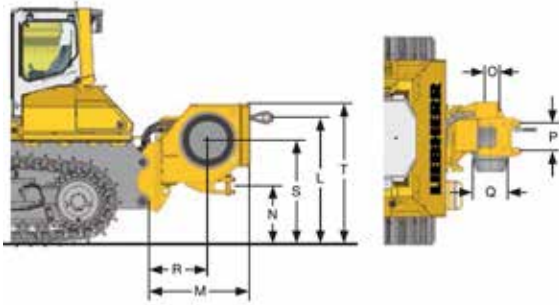
**RL 54**

**RL 64**

|    | Boom                                        | RL 44                |                      | RL 54                |                      | RL 64                |                       |                |
|----|---------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|----------------|
|    |                                             | Standard<br>6,000 mm | Optional<br>7,320 mm | Standard<br>7,300 mm | Optional<br>8,500 mm | Standard<br>8,500 mm | Optional<br>10,500 mm |                |
| A  | Height over cab                             | mm/ft-in             | 3,226 / 10'7"        |                      | 3,464 / 11'4"        |                      | 3,555 / 11'8"         |                |
| A1 | Height over counterweight                   | mm/ft-in             | 2,876 / 9'5"         |                      | 3,068 / 10'1"        |                      | 3,543 / 11'7"         |                |
| B  | Overall length                              | mm/ft-in             | 5,146 / 16'11"       |                      | 5,446 / 17'10"       |                      | 5,795 / 19'0"         |                |
| C  | Distance idler/sprocket center              | mm/ft-in             | 3,315 / 10'11"       |                      | 3,504 / 11'6"        |                      | 3,610 / 11'10"        |                |
| D  | Height of grouser                           | mm/in                | 71.5 / 2.81"         |                      | 71 / 2.8"            |                      | 84 / 3.31"            |                |
| E  | Track gauge                                 | mm/ft-in             | 2,075 / 6'10"        |                      | 2,180 / 7'2"         |                      | 2,420 / 7'11"         |                |
| F  | Total width over undercarriage              | mm/ft-in             | 2,887 / 9'6"         |                      | 3,094 / 10'2"        |                      | 3,334 / 10'11"        |                |
| G  | Width (counterweight retracted)             | mm/ft-in             | 4,104 / 13'6"        |                      | 3,785 / 12'5"        |                      | 5,651 / 18'6"         |                |
| G1 | Width (counterweight extended)              | mm/ft-in             | 5,745 / 18'10"       |                      | 5,544 / 18'2"        |                      | 7,291 / 23'11"        |                |
| G2 | Width (console to boom)                     | mm/ft-in             | 3,565 / 11'8"        |                      | 3,785 / 12'5"        |                      | 4,245 / 14'0"         |                |
| H  | Ground clearance                            | mm/ft-in             | 461 / 1'6"           |                      | 501 / 1'8"           |                      | 552 / 1'10"           |                |
| H1 | Ground clearance of console                 | mm/ft-in             | 573 / 1'11"          |                      | 548 / 1'10"          |                      | 565 / 1'10"           |                |
| H2 | Ground clearance of boom                    | mm/ft-in             | 674 / 2'3"           |                      | 747 / 2'5"           |                      | 682 / 2'3"            |                |
| I  | Boom length                                 | mm/ft-in             | 6,000 / 19'8"        | 7,320 / 24'          | 7,300 / 23'11"       | 8,500 / 27'11"       | 8,500 / 27'11"        | 10,500 / 34'5" |
| J  | Total height                                | mm/ft-in             | 6,999 / 1'6"         | 7,319 / 24'          | 8,281 / 27'2"        | 9,481 / 31'1"        | 9,515 / 31'3"         | 11,515 / 37'9" |
| K  | Distance (outer edge of chain link to hook) | mm/ft-in             | 1,178 / 3'10"        |                      | 1,200 / 3'11"        |                      | 1,380 / 4'6"          |                |
|    | Operating weight                            | kg/lb                | 35,100/77,382        | 35,360/77,955        | 45,900/101,192       | 46,133/101,706       | 58,800/129,632        | 59,349/130,842 |
|    | Counterweight without frame                 | kg/lb                | 5,030 / 11,089       |                      | 9,534 / 21,019       |                      | 12,000 / 26,455       |                |
|    | Counterweight                               | kg/lb                | 7,222 / 15,922       |                      | 12,730 / 28,065      |                      | 15,985 / 35,241       |                |
|    | Weight of boom                              | kg/lb                | 1,701 / 3,750        | 1,961 / 4,323        | 2,264 / 4,991        | 2,497 / 5,505        | 3,305 / 7,286         | 3,854 / 8,497  |

# DIMENSIONS AND WEIGHTS

RL 44 - RL 54 - RL 64



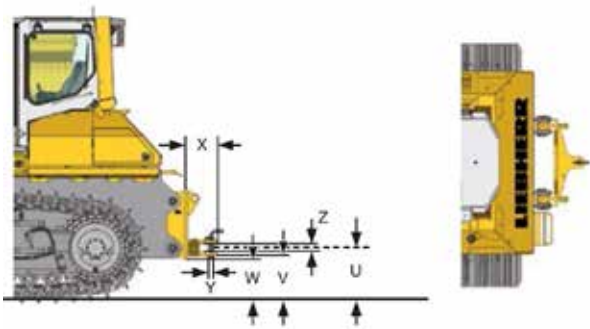
## REAR WINCH

**RL 44**

**RL 54**

**RL 64**

|   |                            |                | <b>RL 44</b>   | <b>RL 54</b>  | <b>RL 64</b>  |
|---|----------------------------|----------------|----------------|---------------|---------------|
| L | Height, cable exit         | mm/ft-in       | 1,571 / 5'2"   | 1,565 / 5'2"  | 1,608 / 5'3"  |
| M | Overall length             | mm/ft-in       | 1,203 / 3'11"  | 1,200 / 3'11" | 1,180 / 3'10" |
| N | Height drawbar             | mm/ft-in       | 763 / 2'6"     | 757 / 2'6"    | 800 / 2'7"    |
| O | Drum diameter              | mm/ft-in       | 318 / 1'1"     | 318 / 1'1"    | 318 / 1'1"    |
| P | Coiling width              | mm/ft-in       | 337 / 1'1"     | 337 / 1'1"    | 337 / 1'1"    |
| Q | Flange diameter            | mm/ft-in       | 610 / 2'0"     | 610 / 2'0"    | 610 / 2'0"    |
| R | Distance to center of drum | mm/ft-in       | 696 / 2'3"     | 639 / 2'1"    | 673 / 2'2"    |
| S | Height of drum center      | mm/ft-in       | 1,314 / 4'4"   | 1,308 / 4'3"  | 1,351 / 4'5"  |
| T | Total height               | mm/ft-in       | 1,763 / 5'9"   | 1,757 / 5'9"  | 1,800 / 5'11" |
|   | Max. line pull             | kN/lb          | 667 / 129,669  |               |               |
|   | Max. line speed            | m/min / yd/min | 0 - 30 / 32.81 |               |               |
|   | Cable diameter             | mm/ft-in       | 28 / 1.1"      |               |               |
|   | Cable length               | mm/in          | 60 / 65.62     |               |               |
|   | Weight                     | kg/lb          | 2,565 / 5,655  | 2,600 / 5,732 | 2,650 / 5,842 |



## DRAWBAR, RIGID

**RL 44**

**RL 54**

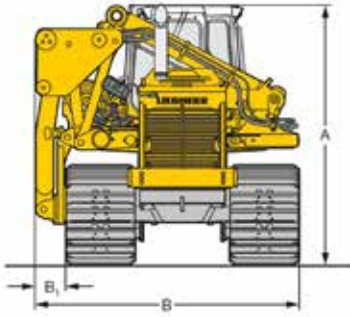
**RL 64**

|   |                                           |          | <b>RL 44</b> | <b>RL 54</b> | <b>RL 64</b> |
|---|-------------------------------------------|----------|--------------|--------------|--------------|
| U | Height of drawbar                         | mm/ft-in | 542 / 1'9"   | 576 / 1'11"  | 620 / 2'0"   |
| V | Ground clearance below drawbar            | mm/ft-in | 454 / 1'6"   | 474 / 1'7"   | 517 / 1'8"   |
| W | Ground clearance below drawbar suspension | mm/ft-in | 429 / 1'5"   | 424 / 1'5"   | 467 / 1'6"   |
| X | Overall length                            | mm/ft-in | 413 / 1'4"   | 435 / 1'5"   | 455 / 1'6"   |
| Y | Pin diameter                              | mm/in    | 50 / 1.97"   | 60 / 2.36"   | 60 / 2.36"   |
| Z | Size of opening                           | mm/in    | 95 / 3.74"   | 105 / 4.13"  | 105 / 4.13"  |
|   | Weight                                    | kg/lb    | 212 / 467    | 460 / 1'6"   | 577 / 1,272  |

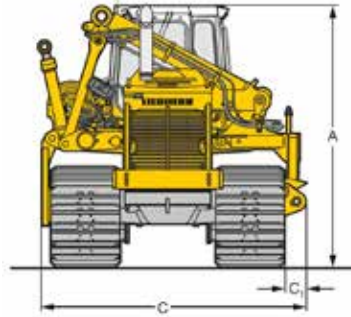


# TRANSPORT DIMENSIONS AND WEIGHTS

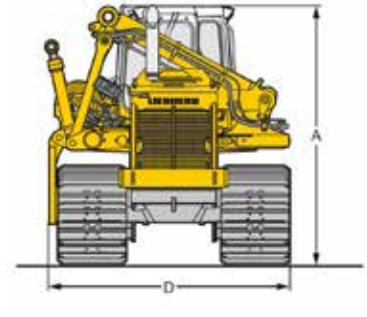
RL 44 - RL 54 - RL 64



Pos. 1



Pos. 2



Pos. 3



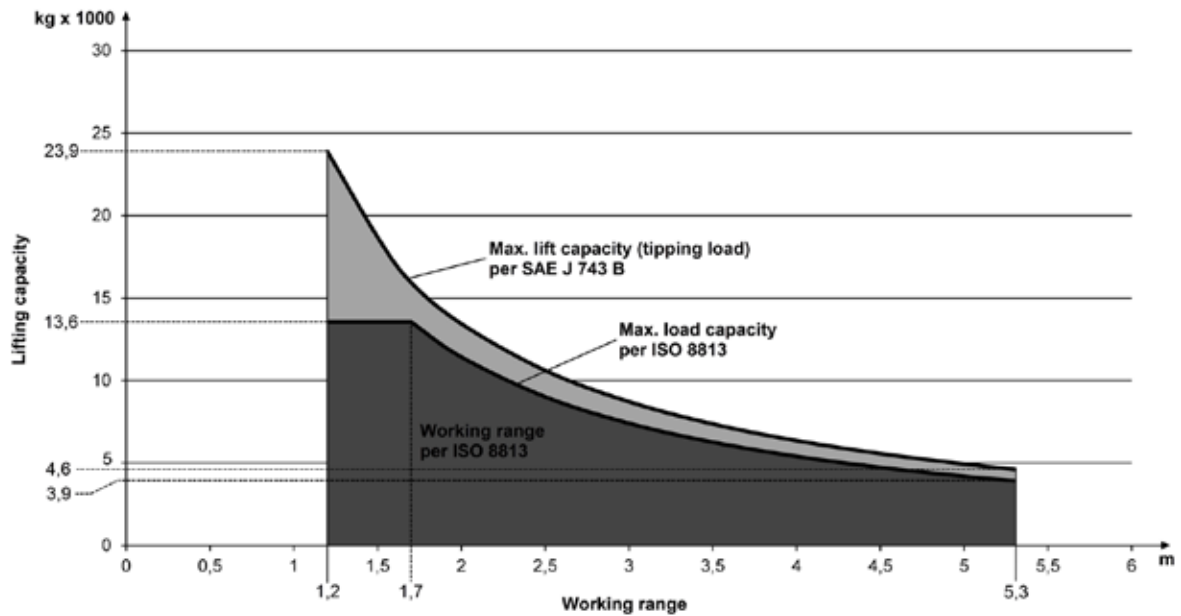
## TRANSPORT DIMENSIONS, DISPLAYED POSITION

|                |                                     | <b>RL 44</b> | <b>RL 54</b>  | <b>RL 64</b>    |                 |
|----------------|-------------------------------------|--------------|---------------|-----------------|-----------------|
| A              | Total height                        | mm/ft-in     | 3,467/11'4"   | 3,464 / 11'4"   | 3,639/11'11"    |
| B              | Overall width                       | mm/ft-in     | 3,283/10'9"   | 3,500 / 11'6"   | 3,935/12'11"    |
| B <sub>1</sub> | Width (from console to left track)  | mm/ft-in     | 395 / 1'4"    | 406 / 1,4"      | 481 / 1'7"      |
|                | Weight (Pos. 1)                     | kg/lb        | 27,898/61,504 | 33,656 / 74,199 | 42,590/93,895   |
| C              | Overall width                       | mm/ft-in     | 3,189/10'6"   | 3,497 / 11'6"   | 3,824/12'7"     |
| C <sub>1</sub> | Width (from console to right track) | mm/in        | 192 / 7.56"   | 285 / 11.22"    | 327 / 12.87"    |
|                | Weight (Pos. 2)                     | kg/lb        | 26,555/58,544 | 31,690 / 69,864 | 40,102//88,410  |
| D              | Overall width                       | mm/ft-in     | 2,997/9'10"   | 3,212 / 10'6"   | 3,497 / 11'6"   |
|                | Weight (Pos. 3)                     | kg/lb        | 26,084/57,505 | 31,023 / 68,394 | 39,219 / 86,463 |

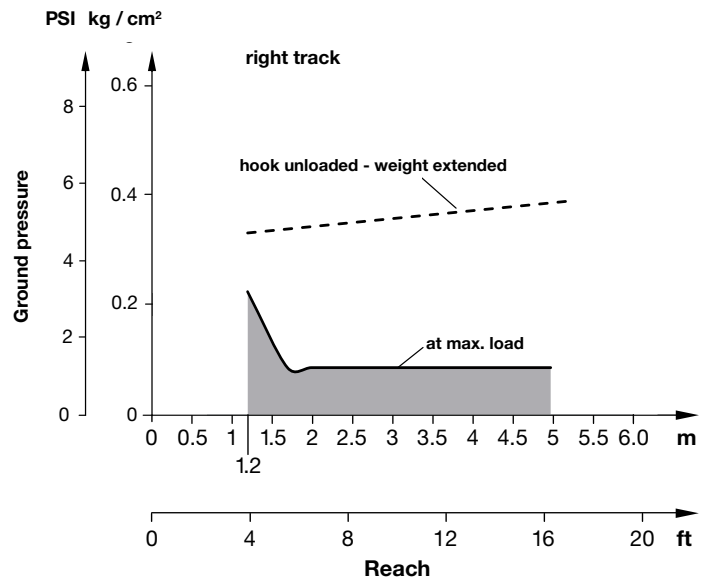
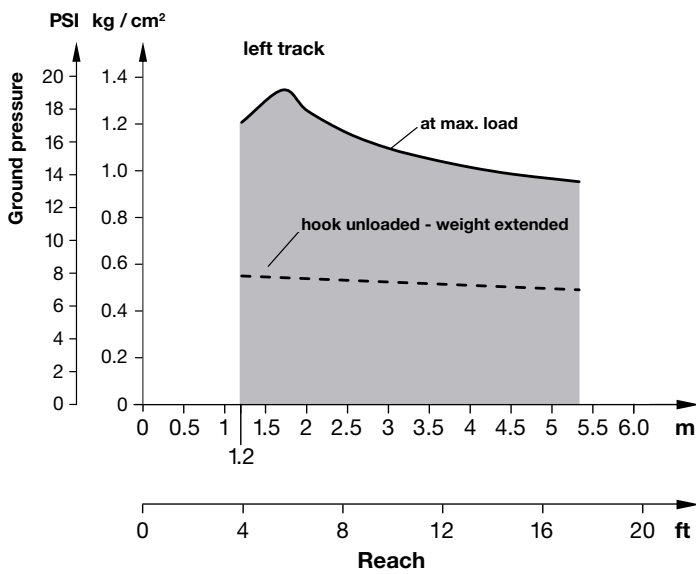


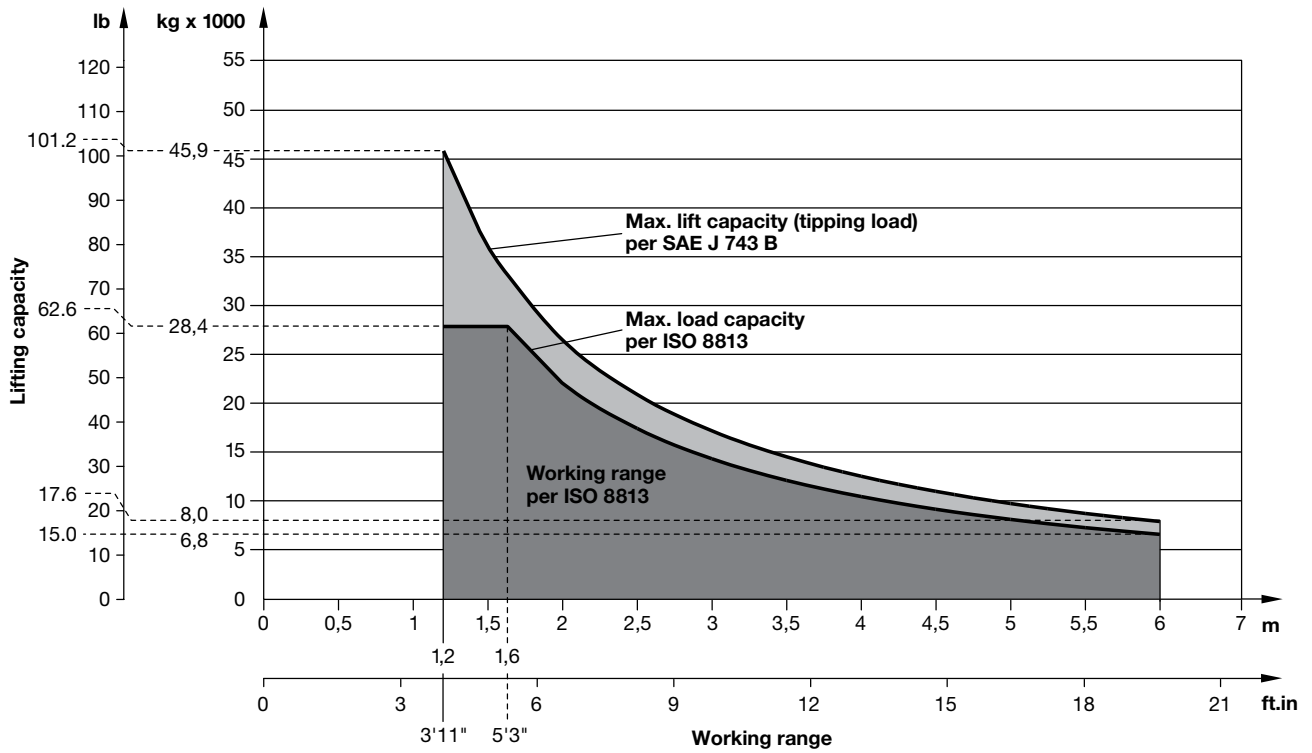
# LIFTING CAPACITY RL 24 (ISO 8813)

Foldable boom

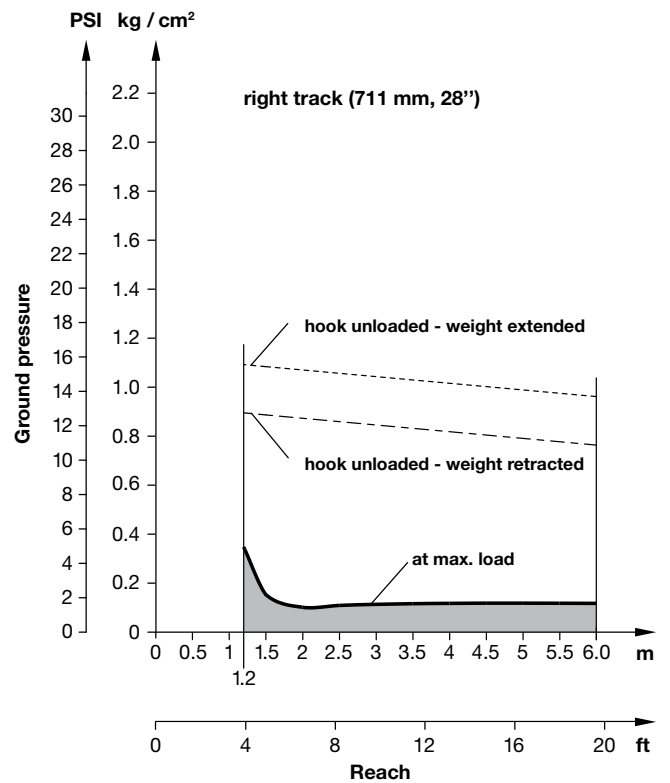
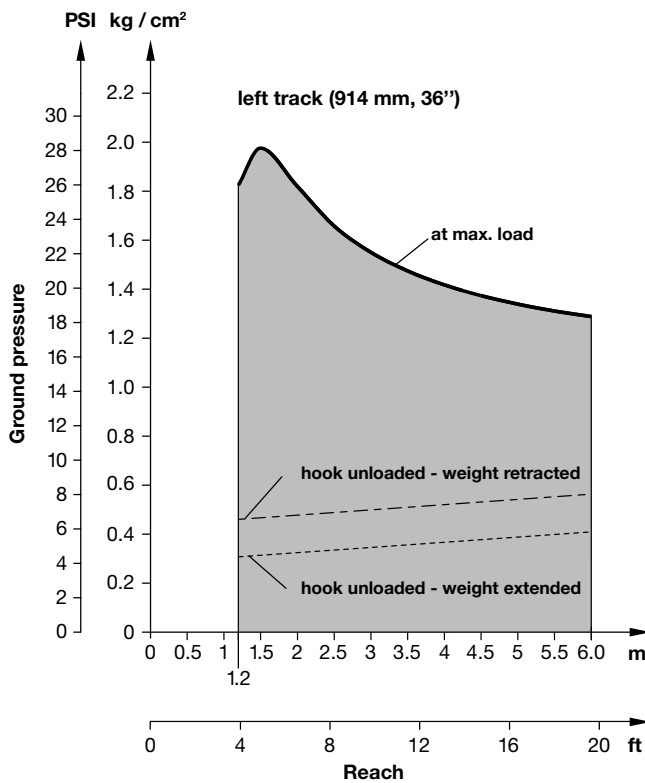


# GROUND PRESSURE RL 24 (ISO 8813)



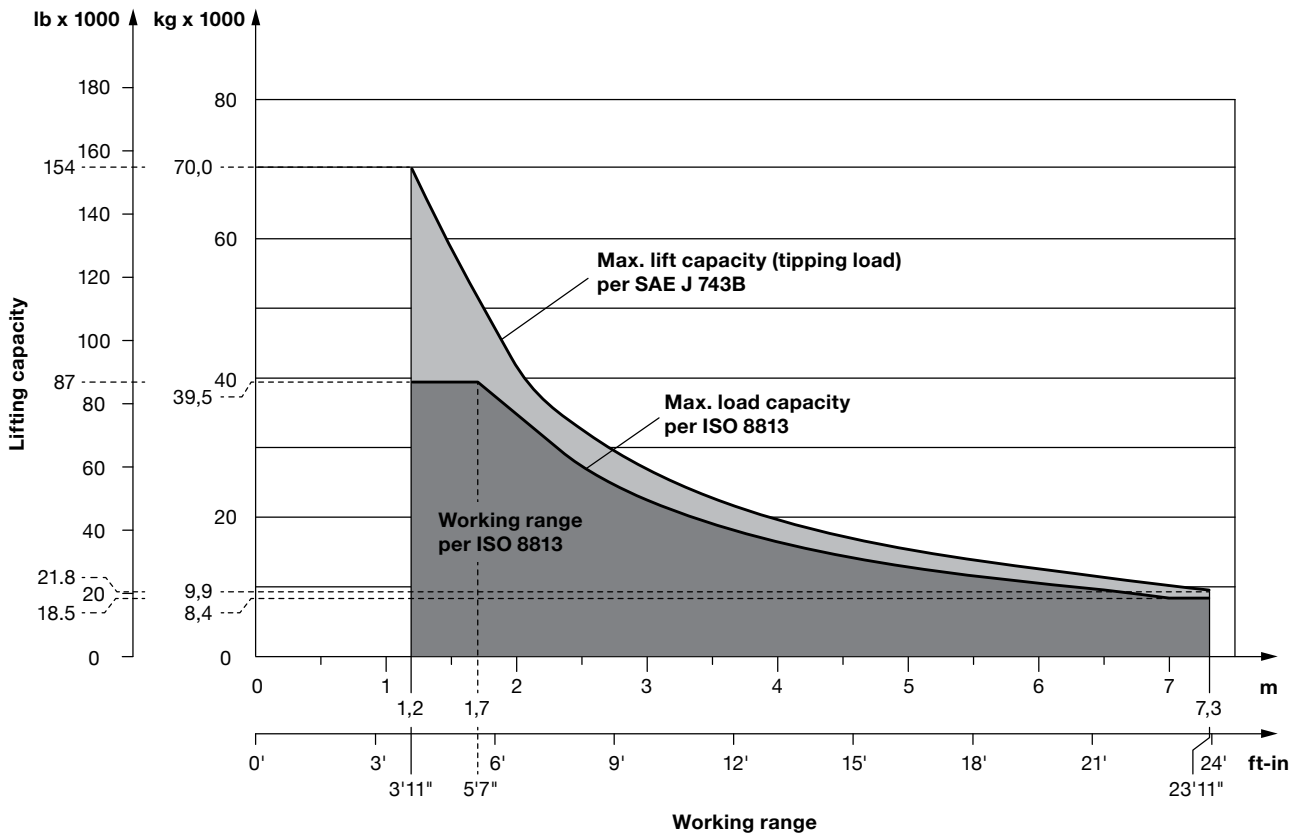


## GROUND PRESSURE RL 44 (ISO 8813)

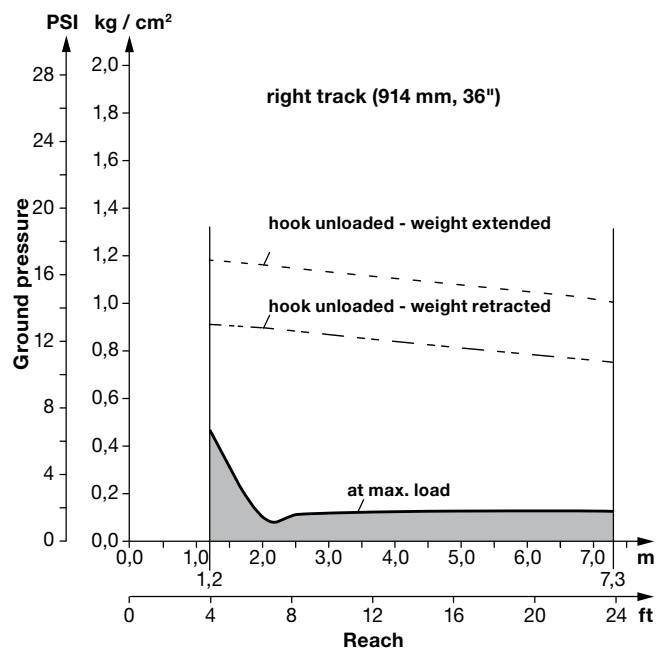
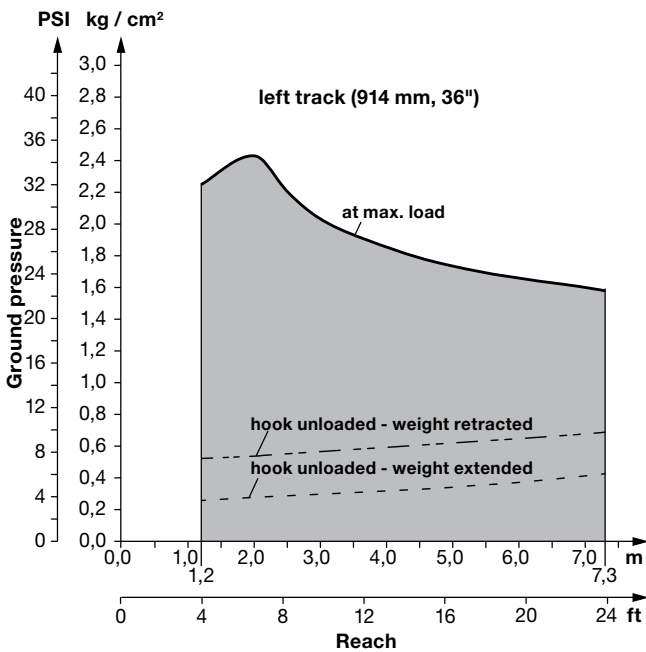


With standard boom 6,000 mm / 19'8"

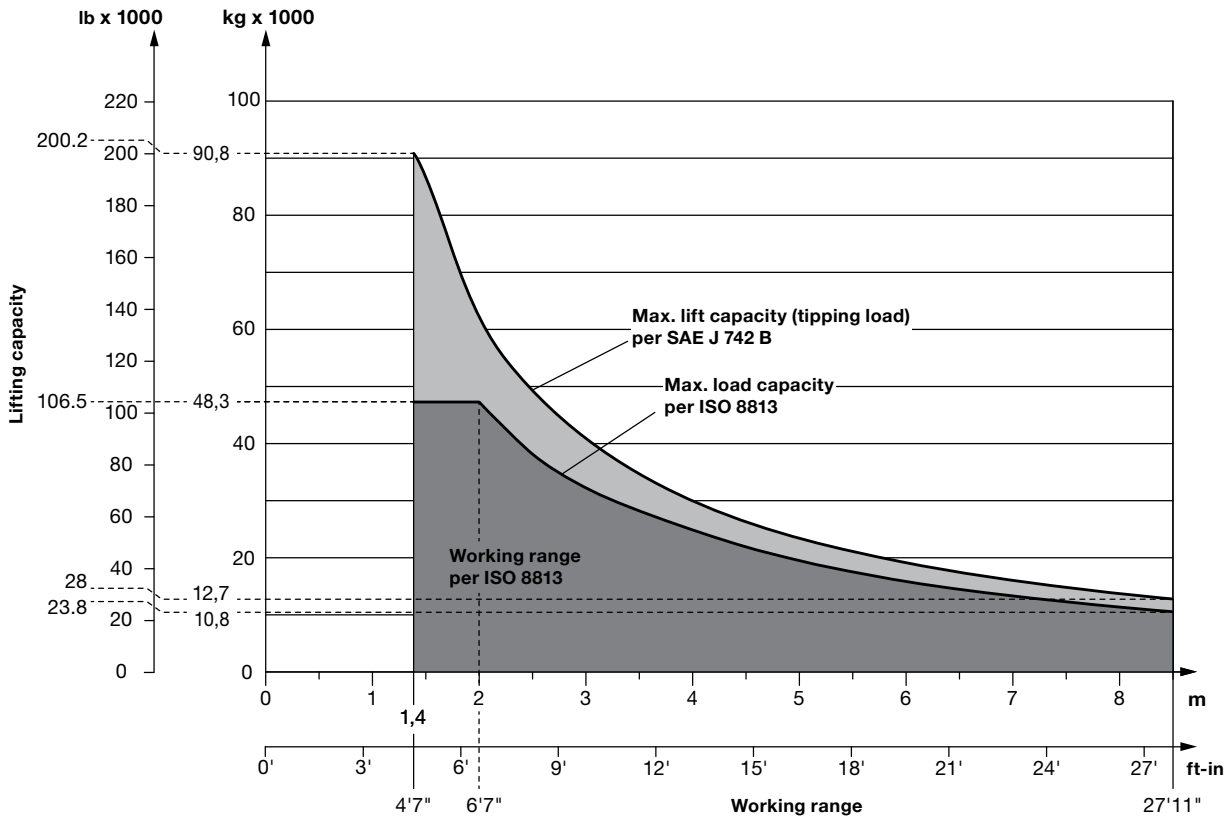
# LIFTING CAPACITY RL 54 (ISO 8813)



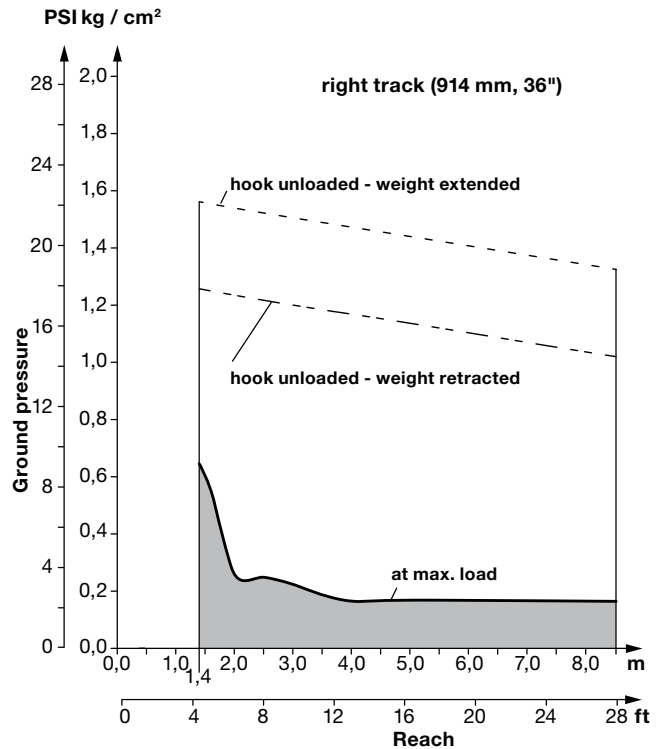
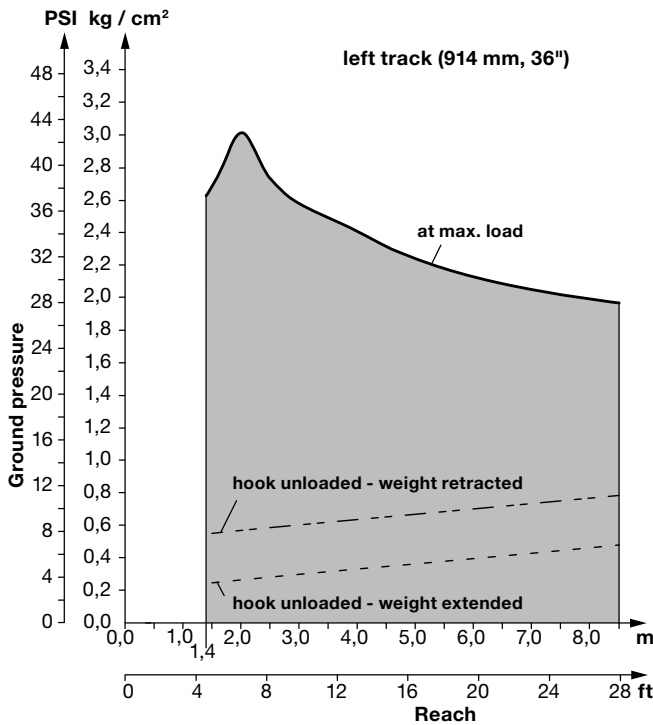
# GROUND PRESSURE RL 54 (ISO 8813)



With standard boom 7,300 mm / 23'11"



## GROUND PRESSURE RL 64 (ISO 8813)



With standard boom 8,500 mm / 27'11"

# EQUIPMENT

RL 24



## BASE MACHINE

|                                     |   |
|-------------------------------------|---|
| Towing hitch rear, 145 mm           | • |
| Tow switch                          | • |
| Towing lug front                    | • |
| Battery compartment, lockable       | • |
| Ether start aid                     | • |
| Fan guard                           | • |
| Engine doors, hinged, lockable      | • |
| Lugs for crane lifting              | • |
| Fuel / water separator              | • |
| Air-filter, dry-type, dual stage    | • |
| Toolkit                             | • |
| Engine air pre-cleaner              | + |
| GOST/EAC features and certification | + |
| Arctic kit, for -40°C               | + |



## TRAVEL DRIVE

|                                 |   |
|---------------------------------|---|
| Parking brake, automatic        | • |
| Function monitoring, automatic  | • |
| Control, single joystick        | • |
| Load limit control, electronic  | • |
| Electronic transmission control | • |
| Triple-reduction final drives   | • |
| Multiple speed settings         | • |
| Hydrostatic travel drive        | • |
| Inching brake pedal             | • |
| Oil cooler                      | • |
| Safety lever                    | • |



## UNDERCARRIAGE

|                            |   |
|----------------------------|---|
| Track frame, closed        | • |
| Sprocket segments, bolted  | • |
| Master link, two piece     | • |
| Tracks oil lubricated      | • |
| Full length track guard    | • |
| LGP track plates (762 mm.) | • |
| Track plates 610 mm / 24"  | + |
| Track plates 710 mm / 28"  | + |
| Pivot shafts, separate     | • |
| Rubber track pads          | + |



## ELECTRICAL SYSTEM

|                                            |   |
|--------------------------------------------|---|
| Starter motor 7,5 kW                       | • |
| Working lights, front                      | + |
| Working lights, rear                       | • |
| Batteries, heavy duty, cold start, 2 units | • |
| Battery main switch, mechanical            | • |
| On-board system 24V                        | • |
| Alternator 80A                             | • |
| Back-up alarm                              | • |
| Beacon                                     | + |
| Horn                                       | • |
| Additional lights                          | + |



## OPERATOR'S CAB

|                                                                     |   |
|---------------------------------------------------------------------|---|
| Storage tray                                                        | • |
| Armrests 3D adjustable                                              | • |
| Pressurized cab with air filter                                     | • |
| Operator's seat, 6-way adjustable                                   | • |
| Operator's seat, air suspended, tiltable                            | • |
| Dome light                                                          | • |
| Air conditioning                                                    | • |
| Knee cushion pads                                                   | • |
| Lumbar support, adjustable                                          | • |
| AM/FM radio                                                         | • |
| ROPS                                                                | • |
| Rear view mirror, inside cab                                        | • |
| Safety glass, tinted                                                | • |
| Windshield washer system                                            | • |
| Windshield wipers, front, rear and doors with intermittent function | • |
| Sliding window, left                                                | • |
| Sliding window, right                                               | • |
| Socket, 12V                                                         | • |
| Back rest extension                                                 | • |
| Warm water heating                                                  | • |
| Fire extinguisher                                                   | + |



## CONTROL AND WARNING LIGHTS

|                                                       |   |
|-------------------------------------------------------|---|
| Display travel speed range (digital)                  | • |
| Display engine coolant temperature (analogue)         | • |
| Display charging voltage (digital)                    | • |
| Display engine oil pressure (analogue)                | • |
| Display servo-pressure implement hydraulics (digital) | • |
| Display fuel level (analogue)                         | • |
| Hour meter (digital)                                  | • |
| Indicator light battery charging                      | • |
| Indicator light parking brake                         | • |
| Indicator light decelerator mode                      | • |
| Indicator light joystick neutral position             | • |
| Indicator light transmission oil temperature          | • |
| Indicator light implement hydraulics oil temperature  | • |
| Indicator light fuel / water separator                | • |
| Indicator light transmission oil filter               | • |
| Indicator light implement hydraulics oil filter       | • |
| Indicator light air filter restriction                | • |
| Indicator light seat belt                             | • |



## ATTACHMENTS

|                                                                          |   |
|--------------------------------------------------------------------------|---|
| Boom 5.160 mm foldable                                                   | • |
| Boom 5.100 mm fixed                                                      | + |
| Boom 7.000 mm fixed                                                      | + |
| Boom extension (JIB), 2.700 mm, 1.000 kg capacity                        | + |
| Boom protection strips for 5.100 mm boom                                 | + |
| Boom protection strips for 7.000 mm boom                                 | + |
| Counterweight                                                            | • |
| Hook with rope                                                           | • |
| Enclosed operator's cab                                                  | • |
| Open operator's canopy                                                   | + |
| Drawbar rear, rigid, 530 mm                                              | + |
| Rear winch, line pull 115,3kN / 11.757 kg                                | + |
| Hydraulic PTO for powering external equipment (pipe facing machine etc.) | + |
| Rear platform with generator and two welding machines                    | + |
| Front platform with HIAB crane XS099                                     | + |



• = standard  
+ = option

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

# EQUIPMENT

RL 44 - RL 54 - RL 64

# MAATS®

PIPELINE PROFESSIONALS



## BASE MACHINE

|                                           |   |
|-------------------------------------------|---|
| Tow switch                                | • |
| Towing hitch rear                         | • |
| Towing lug front                          | • |
| Battery compartment, lockable             | • |
| Belly pans, heavy-duty                    | • |
| Radiator, wide-meshed                     | • |
| Radiator guard, heavy-duty                | • |
| Radiator guard, hinged                    | • |
| Liebherr diesel engine                    | • |
| Fan, hydraulically driven                 | • |
| Fan guard                                 | • |
| Engine cover, perforated                  | • |
| Engine doors, perforated                  | • |
| Engine doors, hinged, lockable            | • |
| Fuel water separator                      | • |
| Air filter dry-type, dual step            | • |
| Pre-cleaner with automatic dust ejector   | • |
| Toolkit                                   | • |
| Arctic kit, for -40° C                    | + |
| Refueling pump, electric                  | + |
| GOST/EAC features and certification       | + |
| LiDAT Plus, date transmission system      | + |
| Lugs for crane lifting                    | + |
| Special paint                             | + |
| Fuel water separator with electric heater | + |



## UNDERCARRIAGE

|                           |   |
|---------------------------|---|
| Track frame, closed       | • |
| Sprocket segments, bolted | • |
| Master link, two-piece    | • |
| Tracks oil lubricated     | • |
| Track frame, rigid        | • |
| Pivot shaft, separate     | • |
| Track guide center part   | + |
| Track guard               | + |



## CONTROL AND WARNING LIGHTS

|                                                 |   |
|-------------------------------------------------|---|
| Control travel speed range (digital)            | • |
| Control engine coolant temperature (analogue)   | • |
| Fuel gauge (analogue)                           | • |
| Hour meter (analogue)                           | • |
| Warning lights battery charging                 | • |
| Warning lights diesel engine                    | • |
| Warning lights electronic travel control system | • |
| Warning lights travel drive seal, each side     | • |
| Warning lights travel brake                     | • |
| Warning lights pump replenishing pressure       | • |
| Warning lights oil return filter                | • |
| Warning lights air filter                       | • |
| Warning lights heater diesel engine             | • |
| Main warning light                              | • |
| Warning hydraulic oil temperature               | + |
| Overload warning system                         | + |



## ELECTRICAL SYSTEM

|                                 |   |
|---------------------------------|---|
| Starter motor                   | • |
| Working lights, front, 2 units  | • |
| Working lights, rear, 2 units   | • |
| Working lights, side 2 units    | • |
| Working lights, winch, 2 units  | • |
| Batteries, cold start, 2 units  | • |
| Battery main switch, mechanical | • |
| On-board system 24 V            | • |
| Alternator 80 A                 | • |
| Back-up alarm                   | • |
| Horn                            | • |
| Beacon                          | + |
| Start Lock, Electronic          | + |
| Additional lights, rear         | + |



## HYDRAULIC SYSTEM

|                                            |   |
|--------------------------------------------|---|
| Hydraulic control counterweight            | • |
| Hydraulic control winch and boom           | • |
| Variable flow pump, load sensing           | • |
| Oil filter with strainer in hydraulic tank | • |
| Free fall device                           | • |
| Hydraulic servo control                    | • |
| Control valve for 1 circuit                | + |
| Hydraulic tank oil level control           | + |



## TRAVEL DRIVE

|                                 |   |
|---------------------------------|---|
| Parking brake, automatic        | • |
| Function control, automatic     | • |
| Control, single joystick        | • |
| Load limit control, electronic  | • |
| Electronic control              | • |
| Travel control 3-speed ranges   | • |
| Hydrostatic travel drive        | • |
| Oil cooler                      | • |
| Final drive with planetary gear | • |
| Safety lever                    | • |
| Emergency stop                  | • |
| Inching brake pedal             | + |



## OPERATOR'S CAB

|                                            |   |
|--------------------------------------------|---|
| Storage compartment front                  | • |
| Armrest 3D adjustable                      | • |
| Pressurized cab                            | • |
| Operator's seat, 6-way adjustable          | • |
| Dome light                                 | • |
| Coat hook                                  | • |
| ROPS                                       | • |
| Rear mirror, inside                        | • |
| Safety glass, tinted                       | • |
| Windshield wiper left door and left window | • |
| Windshield wipers front, rear              | • |
| Dormer window                              | • |
| Sun visor front                            | • |
| Socket 12 V                                | • |
| Warm water heating                         | • |
| Operator's seat, air-suspended             | + |
| Fire extinguisher in cabin                 | + |
| Air conditioning                           | + |
| FM radio                                   | + |
| Radio installation kit                     | + |
| Windshield wiper dormer window             | + |
| Extension, seat back                       | + |



## ATTACHMENTS

|                             |   |
|-----------------------------|---|
| Boom RL 44 6,000 mm/19'8 "  | • |
| Boom RL 54 7,300 mm/23'11 " | • |
| Boom RL 64 8,500 mm/27'11 " | • |
| Counterweight               | • |
| Hook with rope              | • |
| Boom RL 44 7,320 mm/24'     | + |
| Boom RL 54 8,500 mm/27'11 " | + |
| Boom RL 64 10,500 mm/34'5 " | + |
| Boom protection strips      | + |
| Drawbar rear, rigid         | + |
| Counterweight, rear         | + |
| Winch rear                  | + |



• = standard  
+ = option

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



## MAATS PIPELINE PROFESSIONALS

Maats manufactures, sells and rents out high quality equipment for the construction of pipelines with all common diameters from 6 up to 60 inches. With branch offices in Indonesia (PT. Maats), partnerships in Algeria (Maats Afrique) and Turkey (Maats Insaat) and a close cooperation with the global network of Liebherr companies, Maats' presence is truly global.

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