

# Liebherr Specialist Machines for Waste Management



# LIEBHERR

# Liebherr Specialist Machines for Waste Management





The recycling industry is growing rapidly—and it is changing. In recent years, many waste disposal companies have developed from generalists to highly specialised recycling operations. This has brought with it a whole new set of challenges to be met by the machines used in the recycling industry. Liebherr acknowledges this and develops machines and equipment options for every need and application. Because we manufacture many different components ourselves, for example engines, fuel injection systems, hydraulic cylinders, etc. which have to be optimally configured for each other, Liebherr offers extremely capable, yet efficient machines. Even during the development of these components, the requirements of later applications are taken into account to ensure that Liebherr specialist machines are optimally prepared for every feasible working situation. Liebherr material handling machines are used for a wide variety of tasks in the recycling and waste management sector. Mobile material handling machines, crawler material handlers, wheel loaders, telescopic handlers, bulldozers and crawler loaders all sort, separate and load recyclables and solid waste quickly and reliably. These materials include glass, metal, wood, paper and agricultural waste, to name just a few.



#### **Material Handling Machines**

#### **Electric Material Handling Machines**

#### **Wheel Loaders**

#### **Crawler Dozers**

#### **Crawler Loaders**



# Material Handling Machines



### **Performance**

The recycling industry is highly varied. The new generation of Liebherr material handlers are adept at a wide range of tasks: feeding a conditioner or crusher, loading and unloading trucks and containers, sorting materials and waste products and piling up and moving materials of any kind. There are many challenges but Liebherr has the right solutions. The optimal interaction between the hydraulics and electronics guarantees fast and powerful movements when handling materials and at the same time sensitive and precise work for challenging sorting tasks.

### **Economy**

The new generation of material handling machines are powerful and efficient. Liebherr achieves this difficult balancing act with its own engine technology manufactured in-house and optimised to meet the requirements of controlled hydraulics. Liebherr relies here on state-of-the-art engine technology with intelligent machine controls that optimise the interplay of the drive components in terms of efficiency. Liebherr Power Efficiency (LPE) enables machine operation in the area of the lowest specific fuel use for less consumption and greater efficiency with maximum performance.

### **Reliability**

The Liebherr material handling machines ensure smooth operation in waste handling thanks to their sturdy and durable design. Equipment such as air filters with dust extraction, reversible fans or coarse matrix radiators have been especially developed for deployment in areas heavily contaminated with dust and also guarantee maximum reliability under these demanding conditions. Long service life along with maximum machine availability are also assured by the in-house production of all key components. Diesel engine, hydraulic components, electronic components, slew ring, swive drive and steel structure, developed, tested and produced by Liebherr all at the high level of quality one would expect.

### **Comfort**

The newly developed Liebherr cab gives the operator the necessary space and comfort to make the best possible use of his or her machine's capability. Large glass panels, different types of cab elevations and rear and side area monitoring enable optimum viewing of the working area and the area around the machine at all times for the operator. In addition, the driver seat Comfort, the intuitive touchscreen colour display and central lubrication systems for the machine and its working tool provide the necessary comfort for the driver to allow him to concentrate on what is important – the handling capacity.

### **Maintainability**

The service-based machine design guarantees short servicing times, thus minimising maintenance costs due to the time it saves. All the maintenance points are easily accessible due to the large, wide-opening service doors. The enhanced service concept places the maintenance points close to each other and reduces their number to a minimum. This means that service work can be completed even more quickly and efficiently.

# Material Handling Machines Overview

## Superbly Designed

### Attachment for Maximum Reliability

- Liebherr sorting grabs
- Liebherr multi-tine grabs
- Liebherr quick coupling systems
- Liebherr hydraulic cylinders
- FEM-enhanced components
- Pipe fracture safety valves for hoist and stick cylinders
- Overload warning device
- Working range limiters
- Load holding valve on stabilization cylinder
- Regeneration system for hoist and stick cylinder
- Safety equipment
- Hydraulic lines internally routed in stick

### Ergonomic Operator's Work Station for Maximum Comfort

- Hydraulic cab elevation with emergency lowering
- Front guard, adjustable
- Operator's seat Comfort
- Automatic air-conditioning system
- 7" large colour touchscreen display
- Direct access keys
- Adjustable armrests
- Resonant, ergonomic joysticks
- Joystick control
- Proportional control with mini-joystick
- Tool Control for working tools
- Large windows
- Easy radio control
- Windows made from impact-resistant laminated safety glass
- LED headlights
- Rear and side area monitoring





### **Clever Technology for Maximum Performance and Economy**

- Liebherr diesel engine
- Load-sensing-control
- Liebherr-Power Efficiency (LPE)
- MODE selection (Sensitive, ECO, Power, Power-Plus)
- Preheating system for fuel, coolant, engine oil and hydraulic oil
- Sensor-controlled automatic idling system
- Automatic engine shut-down
- Close-mesh protective grid in front of cooler intake
- Radiator, large-mesh, for dust-intensive operation
- Reversible fan drive
- Air pre-filter with dust discharge
- Closed hydraulic circuit for the swing mechanism from machine class LH 30

### **Elaborate Maintenance Concept for Maximum Productivity**

- Fully automatic central lubrication system for uppercarriage and attachment, undercarriage and working tool
- Large, wide-opening service doors
- Easily accessible maintenance points
- Hydraulic shut-off lock
- Magnetic rod in the hydraulic system
- Liebherr hydraulic oil
- Retractable air-conditioning condenser
- Cab air filter can be replaced quickly and conveniently from outside
- Two lockable storage boxes
- Long change intervals of motor oil (up to 2,000 h) and hydraulic oil (up to 8,000 h)

# Technical Data

## LH 22 M Industry Litronic

Reach	11 m
Operating weight*	ca. 21,000–21,800 kg
Engine output	100 kW / 136 HP
Emission stage	Stage IIIB      Stage IIIA/Tier 3
Sorting grab capacity	0.50–0.75 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 24 M Industry Litronic

Reach	12 m
Operating weight*	ca. 22,600–23,100 kg
Engine output	105 kW / 143 HP
Emission stage	Stage IIIB
Sorting grab capacity	0.50–0.90 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 26 M Industry Litronic

Reach	13 m
Operating weight*	ca. 24,200–24,700 kg
Engine output	110 kW / 150 HP
Emission stage	Stage IIIB      Stage IIIA/Tier 3
Sorting grab capacity	0.50–0.90 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 30 M Industry Litronic

Reach	14 m
Operating weight*	ca. 26,500–29,100
Engine output	140 kW / 190 HP
Emission stage	Stage IV/Tier 4f      Stage IIIA
Sorting grab capacity	0.75–1.15 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 35 M Industry Litronic

Reach	15 m
Operating weight*	ca. 30,700–31,900 kg
Engine output	140 kW / 190 HP
Emission stage	Stage IV/Tier 4f
Sorting grab capacity	0.75–1.15 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 22 C Industry Litronic

Reach	10 m
Operating weight*	ca. 21,500–22,100 kg
Engine output	100 kW / 136 HP
Emission stage	Stage IIIB      Stage IIIA/Tier 3
Sorting grab capacity	0.50–0.75 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

## LH 30 C Industry Litronic

Reach	14 m
Operating weight*	ca. 27,100–30,200 kg
Engine output	140 kW / 190 HP
Emission stage	Stage IV / Tier 4f      Stage IIIA
Sorting grab capacity	0.75–1.15 m <sup>3</sup>
Multi-tine grab capacity	0.40–0.60 m <sup>3</sup>

\* Without working tool



## Examples of Use



# Electric Material Handling Machines



## **Performance**

The new electrically-powered material handling range has been specially developed to deal with the particular requirements of industrial material handling. A large spectrum of equipment and an uppercarriage optimised for large reaches makes it possible to cater for all waste and cargo handling requirements. With all of its major components manufactured inhouse and combined with the power of an electric motor, the drive train output maximises the machine's performance in terms of lift capacity, precision and work pace. The scope of this high performing equipment is enhanced considerably thanks to a track-fitted undercarriage.

## **Economy**

Investing in an electric material handling concept pays dividends in the long term. Continually rising costs from conventional energies are a burden on operating costs and reduce profit margins considerably. Environmental factors and CO<sub>2</sub> emissions, in particular, are growing in importance with the choice of engines/motors and working methods. With the electric drive system, Liebherr offers an economically interesting alternative to conventional machines and, moreover, an eco-friendly solution. Furthermore, the material handling machine is always available because refuelling is no longer necessary. Requirements such as particulate filters, AdBlue, etc. are superfluous.

## **Reliability**

With more than 30 years of experience in designing electric material handling equipment, Liebherr developed the new models EP 934 C, EP 944 C and EP 954 C to comply with every demand from the market. The layout of the machines was completely revised due to the components of the electric drive system, which means the unit is more than just a conversion of a conventional vehicle with diesel drive system. All of the important components of the electric drive system have been integrated within the existing exterior dimensions of the uppercarriage. Liebherr electric material handling machines offer a high level of reliability so that they can consistently fulfil their key functions when deployed in industrial areas. The already long service life of the hydraulic components is further enhanced by the low noise electric drive system. The drive concept, with just one electric motor, ensures that the high voltage is limited to the range of the switch cabinet and drive system and the low voltage functions are capable of being enclosed in one terminal box.

## **Comfort**

To allow the operator to focus fully on his/her work and utilise the machine's maximum performance, all electric material handling machines feature an ergonomically designed driver's cab with high level of comfort and good all-round vision. The new electric material handling machines offer the same level of comfort as conventionally-driven material handling machines (layout of control elements, operator's seat, climate control, large glazed surfaces, etc.). Thanks to low noise generation and the elimination of vibrations, the electric drive system provides greater comfort. For Liebherr, comfort also means easily accessible service and check points for all daily maintenance tasks on the machine in order to keep downtime to a minimum.

## **Maintainability**

The large, wide-opening service hatch allows optimal service access. All daily servicing points can be accessed conveniently and safely resulting in short servicing times for more productivity.

# Electric Material Handling Machines Overview

## Large range of equipment

- Range of stationary excavators covering all requirements for scrap handling
- Special design upon consultation (here, live heel)

## Cab elevation

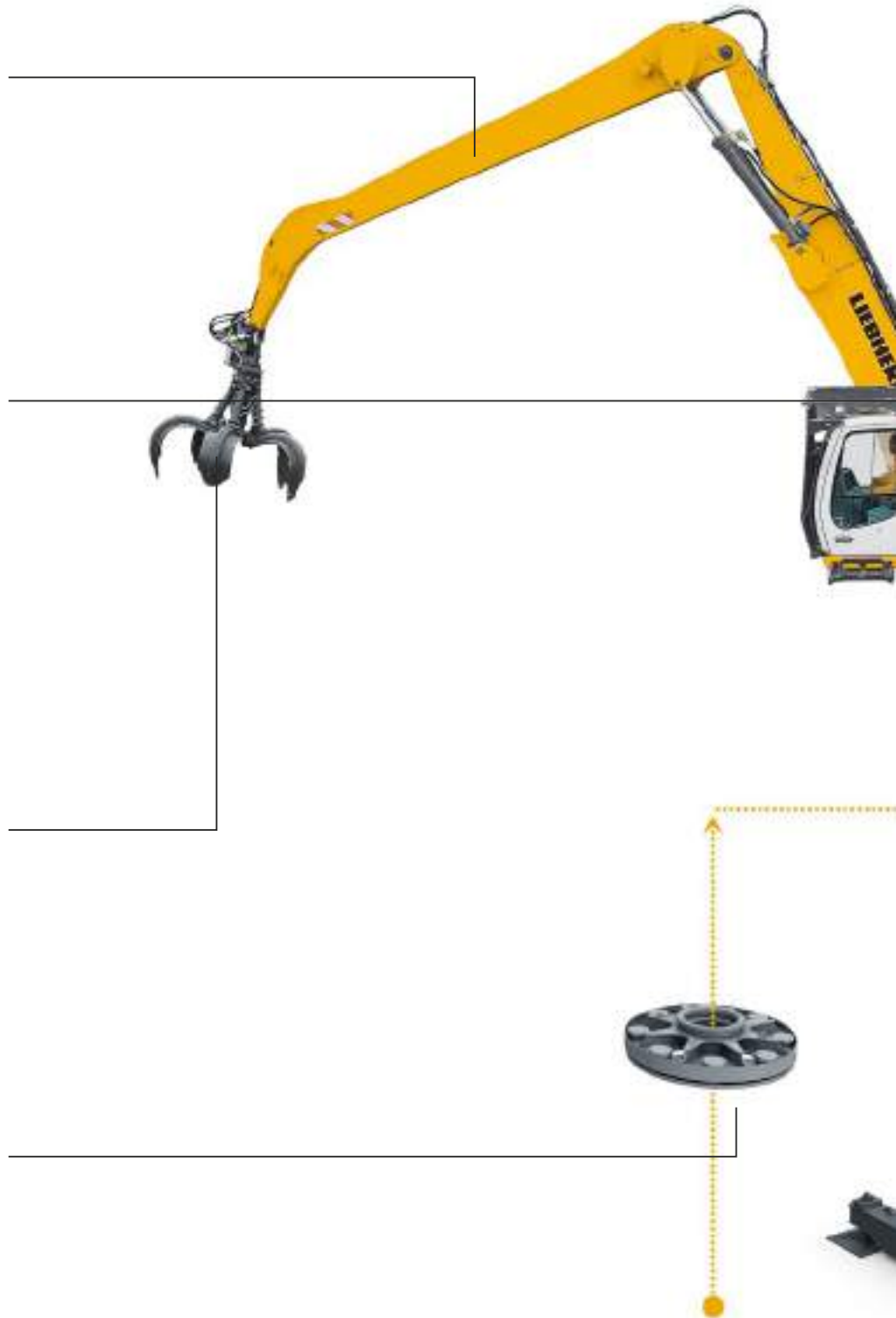
- Large range of fixed and hydraulically adjustable height adjustment devices
- Excellent view of work area and site

## Large range of tools, including

- Grapples
- Sorting grapple
- Wood grapples
- Quick-change system

## Spring base

- Absorption of dynamic loads for mounting the machine on rigid barrel
- Number of platforms based on size of machine
- Assembly kit for customer (for concrete, steel)





**Integrated switchgear cabinet**

- Harsh environment conditions
- Overpressure system to prevent ingress of dust
- Fastenings with standard padlocks
- Robust

**Access**

- In series production, safety and comfort for accessing the workstation
- Secured anti-slip ladders

**Electric motor**

- Harsh environment conditions
- Constant speed whatever the load rating
- Integrated sensors for maximum availability

**Freestanding barrel**

- Performance of machine based on a detachable support
- Reduced ground space
- Modular and upgradeable

# Technical Data

## EP 934 C Handling

Reach	13 to 20 m
Operating weight	39,100 kg
Engine output	160 kW/218 PS
Capacity	0.80–1.10 m <sup>3</sup>

## EP 944 C Handling

Reach	15 to 22 m
Operating weight	51,900 kg
Engine output	200 kW/272 PS
Capacity	1.10–1.70 m <sup>3</sup>

## EP 954 C Handling

Reach	16 to 24 m
Operating weight	64,500 kg
Engine output	250 kW/340 PS
Capacity	1.10–1.70 m <sup>3</sup>

## ER 934 C Handling

Reach	12 to 16 m
Operating weight	38,050 kg
Engine output	160 kW/218 PS
Capacity	0.80–1.10 m <sup>3</sup>

## ER 944 C Handling

Reach	15 to 18 m
Operating weight	52,050 kg
Engine output	200 kW/272 PS
Capacity	1.10–1.70 m <sup>3</sup>

## ER 954 C Handling

Reach	15 to 20 m
Operating weight	75,400 kg
Engine output	250 kW/340 PS
Capacity	1.10–1.70 m <sup>3</sup>

## ER 934 C High Rise

Reach	13 to 20 m
Operating weight	56,200 kg
Engine output	160 kW/218 PS
Capacity	0.80–1.10 m <sup>3</sup>

## ER 944 C High Rise

Reach	15 to 22 m
Operating weight	73,400 kg
Engine output	200 kW/272 PS
Capacity	1.10–1.70 m <sup>3</sup>

## ER 954 C High Rise

Reach	16 to 24 m
Operating weight	95,800 kg
Engine output	250 kW/340 PS
Capacity	1.10–1.70 m <sup>3</sup>

## Examples of Use



# Wheel Loaders





**Performance**

With the Liebherr wheel loaders L 514 Stereo–L 566 XPower® and L 580 XPower®, a choice can be made between industrial lift arm/parallel linkage and Z-bar linkage. The wheel loaders are therefore versatile and universal. The ideal machine is available for specific tasks such as loading and compressing bulk cargo in high walking floor containers. Such machine versatility ensures maximum efficiency and productivity.

**Economy**

The innovative drive concepts of the Liebherr wheel loaders reduces fuel consumption by up to 30%. In addition there is minimal tyre wear and hardly any brake wear, at maximum handling capacity and efficiency, thus reducing operating costs.

**Reliability**

Liebherr wheel loaders satisfy Liebherr's exacting standards in even the toughest conditions. They feature many components which are produced in-house and are therefore perfectly tailored to work in synergy. This ensures machine reliability and availability

**Comfort**

The modern, ergonomic cabin design provides the operator with maximum comfort enabling him to concentrate on his work without fatigue, which once again means more safety and productivity. The Liebherr joy sticks allow precise and sensitive control of the machine. This ensures accurate and safe handling. The generous glass surfaces of the cab offer excellent all-round visibility thus ensuring maximum site safety

**Maintainability**

The Liebherr wheel loaders offer excellent service accessibility. All points for daily maintenance can be reached safely and conveniently. A clear benefit which saves time and money!

# Wheel Loaders L 526–L 580 XPower® Overview

## Maximum Operator Comfort for Greater Productivity

- Automatic central lubrication system (optional)
- Premium display (Touchscreen)
- Liebherr control lever with mini joystick (optional)
- Joystick steering or 2-in-1 steering (optional)
- Ride control (L 526–L 546 optional / L 550–L 580 as standard)
- Preparation for protective ventilation and dust filtration device (optional)

## Highest Level of Performance

- Industrial lift arm / parallel linkage or Z-bar linkage (L 526–L 566 and L 580 optional)
- LIKUFIX quick hitch (L 526–L 546 optional)

## Robustness and Quality for Durable Machines

- Tilt cylinder protection (optional)
- Comprehensive range of special equipment for waste management (optional)
- Lamp carrier in steel design (L 526–L 546 as standard / L 550–L 580 optional)
- Guard for headlights (optional)
- Special tyres for waste management (optional)





#### **Productive and Safe Working**

- Soundproof ROPS/FOPS cab
- Windscreen guard (optional)
- Additional working lights, front/rear (optional)
- Safe, non-slip ladder access to cabin

#### **Short Service Times for Greater Productivity**

- Radiator easy to maintain
- Fluff trap for radiator (optional)
- Large-mesh radiator (optional)
- Reversible fan drive (optional)
- Air pre-cleaner (optional)

#### **Productive and Safe Working**

- Anti-slip steps and sturdy handrails
- Rear space monitoring camera via Liebherr display
- Reversing obstruction detector with smart alarm (optional)

#### **Robustness and Quality for Durable Machines**

- Crash protection, rear (optional)
- Chassis protection (optional)
- Widening for mudguard (optional)

# Technical Data

## L 507 Stereo

Tipping load	3,491–3,712 kg
Bucket capacity	0.9–1.6 m <sup>3</sup>
Operating weight	5,470–5,654 kg
Engine output	50 kW/68 HP
Emission stage	Stage IIIB/Tier 4f

## L 509 Stereo

Tipping load	4,268–4,430 kg
Bucket capacity	1.2–2.0 m <sup>3</sup>
Operating weight	6,390–6,480 kg
Engine output	54 kW/73 HP
Emission stage	Stage IIIB/Tier 4f

## L 514 Stereo

Tipping load	4,040–4,920 kg
Bucket capacity	1.4–2.5 m <sup>3</sup>
Operating weight	8,520–9,700 kg
Engine output	77 kW/105 HP
Emission stage	Stage IIIB/Tier 4i

## L 526

Tipping load	6,510–7,750 kg
Bucket capacity	2.1–5.5 m <sup>3</sup>
Operating weight	12,620–13,690 kg
Engine output	103 kW/140 HP
Emission stage	Stage IV/Tier 4f

## L 538

Tipping load	7,720–9,100 kg
Bucket capacity	2.3–6.5 m <sup>3</sup>
Operating weight	13,900–15,000 kg
Engine output	114 kW/155 HP
Emission stage	Stage IV/Tier 4f

## L 546

Tipping load	8,200–9,750 kg
Bucket capacity	2.5–7.5 m <sup>3</sup>
Operating weight	14,300–15,800 kg
Engine output	123 kW/167 HP
Emission stage	Stage IV/Tier 4f

## L 550 XPower®

Tipping load	9,300–11,100 kg
Bucket capacity	3.0–9.0 m <sup>3</sup>
Operating weight	18,700–20,300 kg
Engine output	140 kW/191 HP
Emission stage	Stage IV/Tier 4f

## L 556 XPower®

Tipping load	10,500–12,400 kg
Bucket capacity	3.3–10.0 m <sup>3</sup>
Operating weight	19,500–21,200 kg
Engine output	165 kW/224 HP
Emission stage	Stage IV/Tier 4f

## L 566 XPower®

Tipping load	12,100–15,000 kg
Bucket capacity	3.5–12.0 m <sup>3</sup>
Operating weight	24,800–26,900 kg
Engine output	200 kW/272 HP
Emission stage	Stage IV/Tier 4f

## L 576 XPower®

Tipping load	17,400–17,600 kg
Bucket capacity	4.7–5.2 m <sup>3</sup>
Operating weight	25,700–25,800 kg
Engine output	215 kW/292 HP
Emission stage	Stage IV/Tier 4f

## L 580 XPower®

Tipping load	14,800–17,750 kg
Bucket capacity	4.5–14.0 m <sup>3</sup>
Operating weight	28,050–30,100 kg
Engine output	230 kW/313 HP
Emission stage	Stage IV/Tier 4f

All data including quick hitch. L 526–L 546 correspond to the data in parallel linkage and L 550 XPower®–L 566 XPower® and L 580 XPower® correspond to the data in industrial lift arm.

## Examples of Use



# Crawler Dozers



**Performance**

Trash racks specially designed for the density and properties of the material in landfill sites are available for the different blades. They increase blade volume and at the same time give the operator a better view of the material being transported. This guarantees high pushing performance and efficient operation.

**Economy**

Liebherr diesel engines offer performance and economy – this combined with the efficient hydrostatic drive system guarantees exceptional pushing power with low fuel consumption. The intelligent cooling system saves fuel and enables regular self-cleaning of the radiator.

**Reliability**

Liebherr crawler dozers feature a wide range of protective guards for landfill applications. These prevent damage to the machine caused by oversized items of solid waste and reduce the ingress of dust and dirt. This prolongs the service life of the machines and prevents unnecessary downtimes.

**Comfort**

Liebherr crawler dozers offer operators a spacious workspace, designed with the latest ergonomic aspects in mind. The spacious and comfortable cab provides an optimal all-round view of the working area and equipment. With the intuitive single lever control the machine can be controlled safely and with precision at all times.

**Maintainability**

Thanks to their minimal maintenance requirements, Liebherr crawler tractors make a reliable contribution to your economic success. A dense service network means quick and efficient response times for the user.

# Crawler Dozers Overview

## Temperature management for highest operational safety

- The hydraulic fans cool when required to save fuel
- A hydraulic oil thermometer monitors the oil temperature constantly
- The reversible fans clear the radiator automatic of deposits

## Protection of components against contamination for long service life

- A pre-filter separates particles of dirt before they reach the air filter
- The external air supply provides the alternator with clean cooling air
- Seals at critical positions keep dust and dirt away from inside the machine

## Application-specific equipment for highest level of productivity

- Waste grille extensions on the blade increase its capacity
- Counterweights provide optimum balance even with heavy duty front equipment
- Rear rippers enable work to be carried out away from the rubbish tip







#### **Options for additional safety during operation**

- Auxiliary headlights and rotating beacons
- Turbocharger cover
- Fire extinguishers

#### **Reliable protection against damage from waste material**

- Solid protective plates prevent damage to the containers and tanks
- Special covers protect the hydraulic cylinders
- Rear scraper plates (not shown) prevent waste material from being drawn into the chain and causing damage

#### **Deployment-specific running gear components**

- Base plates with trapezoidal holes and track drive segments with recesses prevent unwanted congestion of material in the running gear
- Protective rings on the final drive protect the double slide ring seal

# Technical Data

## PR 724 Litronic

Operating weight	16,800–20,300 kg
Blade capacity	3.14–4.27 m <sup>3</sup>
Engine output	120 kW/163 HP
Emission stage	Stage IIIA/Tier 3

## PR 744 Litronic

Operating weight	24,600–39,900 kg
Blade capacity	4.90–7.20 m <sup>3</sup>
Engine output	185 kW/252 HP
Emission stage	Stage IIIA/Tier 3

## PR 754 Litronic

Operating weight	35,000–42,400 kg
Blade capacity	4.97–11.70 m <sup>3</sup>
Engine output	250 kW/340 HP
Emission stage	Stage IIIA/Tier 3

## PR 764 Litronic

Operating weight	45,200–53,600 kg
Blade capacity	13.6–17.0 m <sup>3</sup>
Engine output	310 kW/422 HP
Emission stage	Stage IIIA/Tier 3

## Examples of Use



# Crawler Loaders



**Performance**

Crawler loaders are not just used for pushing and compressing solid waste, but also for loading, sorting, breaking and crushing the materials. In addition, at waste disposal sites they perform tasks such as filling, levelling, clearing and building embankments. Whatever the application the crawler loader excels with its high handling capacity and fast work cycles.

**Economy**

With their low fuel consumption and minimum service and maintenance requirements, Liebherr crawler loaders can be a great alternative to expensive compactors with high operating costs.

**Reliability**

The landfill configuration offers additional options to protect the base machine even under the most demanding of conditions (for example aggressive acidic materials or extreme dirt). The relevant components have been specially developed for operation on waste disposal sites and are continually evaluated and optimized in conjunction with customer feedback and requirements.

**Comfort**

The cab is generously proportioned and designed according to ergonomic principles to provide optimum view of the working equipment. Single-Joystick control enables sensitive and precise operation of the machine. The balance of the machine allows comfortable navigation over the rough terrain of the waste disposal site.

**Maintainability**

Thanks to their minimal maintenance requirements, Liebherr crawler loaders make a reliable contribution to your economic success. A dense service network means quick and efficient response times for the customer.

# Crawler Loaders Overview

## Sturdy and well-conceived equipment for optimum reliability

- Heavy duty tilt cylinder guard protects against falling parts
- Lift cylinder line guard for best protection of hydraulic lines as well as greater reliability of components in exposed areas
- Attachment grille for bucket increases bucket capacity and makes it easier to shift bulky material

## High level of safety

- Polycarbonate windscreen made from impact resistant glass for increased safety of the operator, while maintaining clear view to the front
- Container protection made from solid steel provides protection of the hydraulic tank or AdBlue tank and minimises the risk to external damage
- Hydraulic oil thermometer as gauge on touchscreen display





#### **Well-conceived maintenance concept**

- Seal between basic unit and cab prevents the accumulation of dirt in cavities and recesses as well as their ingress into the cab
- Fine grille on engine compartment doors prevent the ingress of small particles into the engine compartment
- Folding and reversible fans for good accessibility of the radiator. Interval and duration of reversible fans can be adjusted individually

#### **Wear-optimised detailed solutions for running gear**

- Base plates with engineered holes facilitate the discharge of deposits that accumulate between the sleeves and base plates. Particularly effective in combination with removed track drive segments
- Final drive protective ring as additional protection for double slide ring seal
- Scraper plate on rear for better self-cleaning of chain running gear

# Technical Data

## LR 624

Operating weight	16,900 – 18,500 kg
Bucket capacity	1.50 – 1.80 m <sup>3</sup>
Engine output	105 kW / 143 HP
Emission stage	Stage IIIA / Tier 3

## LR 634

Operating weight	20,700 – 22,700 kg
Bucket capacity	1.90 – 2.40 m <sup>3</sup>
Engine output	129 kW / 175 HP
Emission stage	Stage IIIA / Tier 3

## LR 636

Operating weight	21.100 – 22.700 kg
Bucket capacity	1,90 – 4,60 m <sup>3</sup>
Engine output	135 kW / 184 HP
Emission stage	Stage IV / Tier 4f



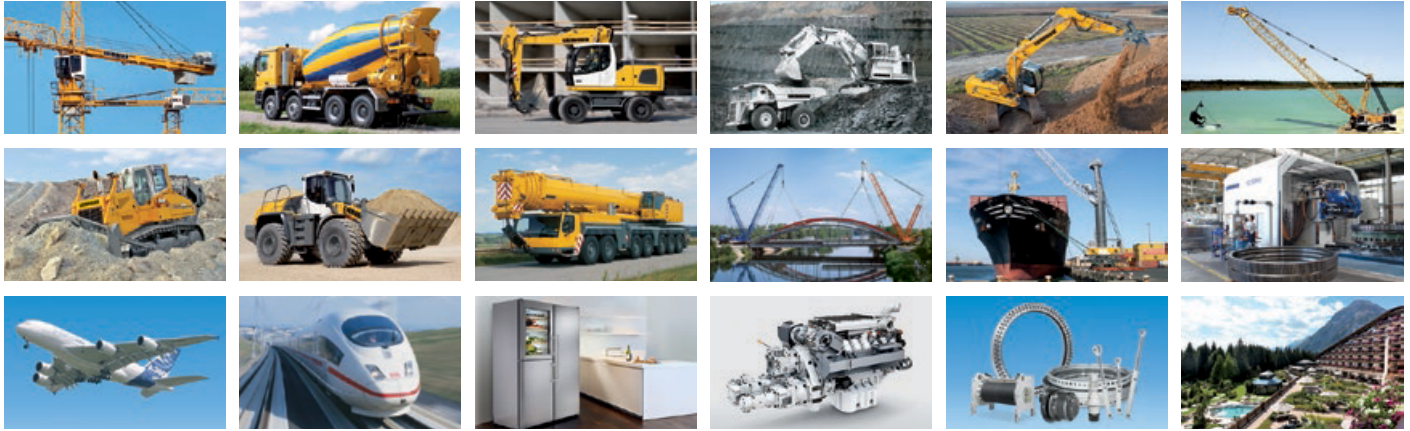
## Examples of Use





A series of horizontal lines spanning the width of the page, intended for handwritten input.

# The Liebherr Group of Companies



## Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

## Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

## State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

## Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

[www.liebherr.com](http://www.liebherr.com)