## **Stereoloaders®**

L 506 - L 514
Stereo Stereo

Tipping load limits: 3,231 - 5,680 kg



# LIEBHERR

### L 506 Stereo

Tipping load, articulated: 3,231 kg
Bucket capacity: 0.8 m³
Operating weight: 5,120 kg
Engine output: 46 kW

### L 507<sub>Stereo</sub>

Tipping load, articulated: 3,501 kg
Bucket capacity: 0.9 m³
Operating weight: 5,240 kg
Engine output: 48 kW

### L 508<sub>Stereo</sub>

Tipping load, articulated: 3,824 kg
Bucket capacity: 1.0 m³
Operating weight: 5,480 kg
Engine output: 48 kW

### L 509 Stereo

### L 510 Stereo



#### **Performance**

The new Liebherr Stereoloaders® are flexible 'power allrounders'. Their unique steering system gives them exceptional manoeuvrability and with their compact articulation angle of only 30 degrees they can move exceptionally heavy payloads.

#### **Economy**

The new-generation Stereoloaders® are unbeatable value for money. The water-cooled diesel engine guarantees economical performance and long life. For high speeds on the road, the L 507stereo and L 509stereo Speeder models are also available.

#### Reliability

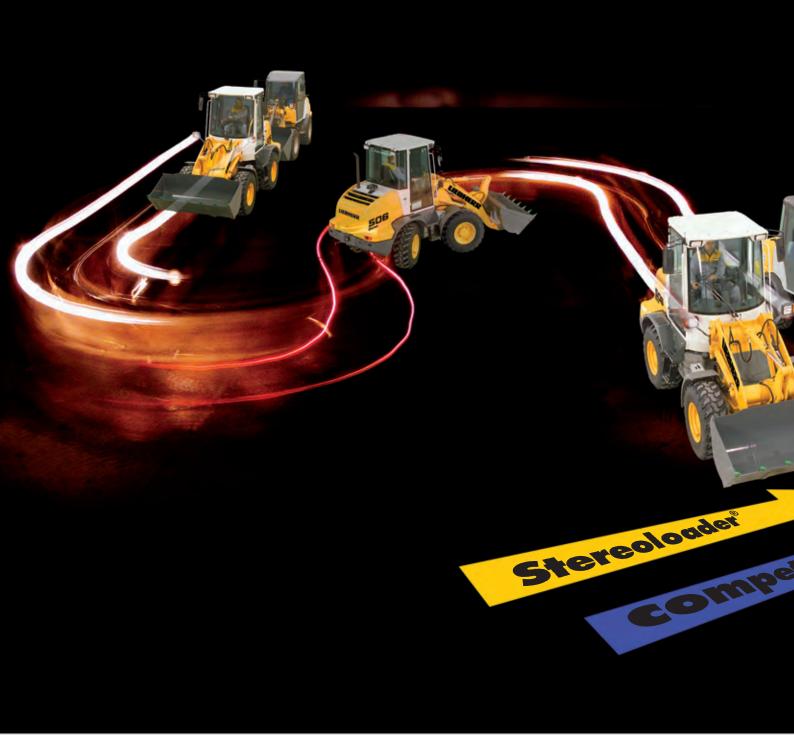
Since 1994, Liebherr has systematically developed its highly successful "Stereo" concept. The latest Stereoloaders® have been tested in the toughest imaginable operating conditions and even stronger materials are specified for components subject to particularly severe loads. Water-cooled Liebherr 4-cylinder diesel engines are used as a strong, reliable, source of power.

#### Comfort

A unique Liebherr wheel-loader feature: Stereo steering combined with an oscillating centre pivot reduces the maximum cab tilt angle when crossing rough surfaces to the half.

Safe, convenient and extremely wide entrance steps en-







#### Unique steering system

- The Stereoloaders<sup>®</sup> steering geometry combines a centre pivot with a steered rear axle, for maximum operating efficiency even in the most confined spaces
- Amazingly tight turning circle: up to 20% smaller than comparable conventional steered wheel loaders





### **Performance**

The unique steering principle used on the new Stereoloaders® loaders makes them exceptionally manoeuvrable. The articulation angle is only 30 degrees, so that higher payloads can be moved. This too makes these loaders genuinely versatile and capable of tackling a wide variety of jobs at maximum efficiency.

#### **Outstanding manoeuvrability**

20% more flexibility

The new Stereoloaders<sup>®</sup>, turning circles, measured at the outer extremity of the working equipment, are as much as 20% smaller than vehicles with centre-pivot steering only. This can provide as much as 500 mm more clearance, for greater working efficiency.

#### **High payloads**

Small articulation angle

Since the articulation angle is smaller (only 30°, compared with 40° on conventional loaders), heavier loads can be carried – more payload for the equivalent operating weight.

#### Full selection of working equipment

For every task

A wide range of attachments can be used on the new Stereoloaders®, making them exceptionally versatile. Special requirements can be handled and the loaders operated profitably in every work area.

The Z-pattern linkage has been optimised, but existing Z-pattern working equipment can still be used on these loaders.

#### High payloads

- High payload with low operating weight and the hightest possible stability are the results of the unique stereo steering system with a maximum articulation angle of 30°
- Unblocked view of the entire working and manoeuvring area, for a maximum of safety



#### A true all-purpose machine

 With a big selection of working equipment and attachments, these new Stereoloaders® are high-performance 'jacks of all trades' and profitable to operate





 Cooling air is drawn in from the 'cleanest' zone directly behind the rear window



with a top speed of 30 km/h that makes them ideal if the work involves a high proportion of journeys on the public highway



### **Economy**

The new-generation Stereoloaders® have advantages that you can see on the bottom line. They are excellent value for money and extremely economical in day-to-day operation. An optimised cooling system reduces fuel consumption and also cuts routine maintenance costs still further.

For tasks that call for quick movement from point to point on the road, two models are also available as **Speeder** versions.

#### Low operating costs

Demand-controlled cooling

Cuts energy consumption and costs: the optimised cooling system for the diesel engine and the hydraulic system supplies precisely the power needed at the cooling fan in all operating conditions. The improved cooling system also cuts maintenance and cleaning costs.

#### "Speeder"

Higher top speed

The L 507**stereo** and L 509**stereo** are also available in a **Speeder** version. They then have a top speed of 30 km/h – ideal for rapid journeys between working sites and fast load handling movements.

#### **Adaptable equipment**

**Optimised kinematics** 

The optimised Z-pattern linkage, with its generous dumping height and outreach, has a performance that could formerly only be obtained with two different systems (parallel and Z linkages). The dimensions for connecting the previous and latest Z-pattern linkages are identical, so that equipment is fully interchangeable and older items can still be used.

#### **Easy maintenance**

**Unobstructed access** 

When the compact engine cover is opened, all maintenance points can be reached easily.



#### **Optimised kinematics**

- The optimised Z-pattern linkage with its generous dumping height and vertical clearance satisfies the highest performance standards applicable to work on construction sites and in industry
- The mounting points have not changed, so that existing Z-pattern linkages can be attached to the new Stereoloaders® without difficulty
- Standard equipment for the powerful Z-pattern linkage is an integral hydraulic quick-change system



#### Easy access

 The engine compartment has a compact hinge-up cover which gives unobstructed access to all maintenance points





- The familiar, much-praised stan-dards of quality and reliability are shared by new 4-cylinder water-cooled diesel engines
- A reliable, powerful driveline





The new Liebherr Stereoloaders® are a combination of mature, well-proven technology and innovations designed to boost performance still further. Since 1994 the "Stereo concept" has been steadily developed, and the new models have proved their worth in trials of unmatched severity. Water-cooled 4-cylinder diesel engines are the key to their reliability and power.

#### **Quality in every detail**

Cooling and airflow system

Further evidence of Liebherr's well thought-out design principles: the radiator is located directly behind the cab, so that fresh air can be drawn in from a relatively clean zone. This improves cooling-system performance in very dusty conditions and greatly reduces the amount of maintenance work and cleaning needed.

**Diesel engine** 

The new water-cooled 4-cylinder diesels reach the same high standards of quality and reliability that are a feature of all Liebherr products, and drive the new Stereoloaders® safely and powerfully.

Strong linkage

Thick-walled bearing bushings are used to ensure

long, trouble-free operating life.

Hydraulic quickchange system

The quick-change system is compatible with most commercially available working attachments. All its parts are made from high-grade materials.

#### Technology you can trust

For every working task

The new Stereoloaders® will operate to the same excellent standards of reliability as the previous models.

Systematic development

Based on the well-proven "Stereo concept", the new generation of Stereo loaders now offers even higher performance and enhanced user benefit.

#### Robust operating linkage

• The new Z-pattern linkage is rated for fast, powerful work cycles and copes easily with the toughest conditions every likely to be encountered in day-to-day work



#### A well-proven basis for higher performance

• Unceasing development work has gone into the "Stereo concept" to ensure high quality and reliability in every detail





#### Above: **Speeder** and L 514 cab. Left: Standard display.

- The ergonomically correct layout of all the controls makes precision handling of the wheel loader easy
- Clear arranged control pannels with optical and accoustical warnings result in a comfortable and safe way of operation



#### Easy access

• Access to the cab is safe, convenient by way of broad steps, and absolutely safe for the driver even when the Stereo loader is in a fully articulated position



### **Comfort**

A new dimension in ride quality: combined Stereo steering and oscillating centre pivot reduce the sideways cab tilt angle by half when crossing rough surfaces and obstructions. Only the Liebherr wheel loader achieves such unrivalled standards of ride quality across such uneven surfaces. Noise in the cab, too, has been reduced to an impressively low level. And for routine maintenance, all the necessary points in the engine compartment are easily accessible.

#### Perfection in cab design

An outstanding view

The driver's cab has been totally redesigned. All the instruments and displays are correctly positioned for easy use. From his seat, the driver has an excellent view of the working and manoeuvring areas.

#### Freedom from fatigue

Effective noise reduction

Optimised cab design has also reduced the interior noise level compared with the previous models; it is now at the impressively low figure of 70 decibels.

Stable and safe performance

In the center pivot area, shock-absorbing elements minimize vibration from travel movement and help to prevent it from reaching the driver. They also make the Stereo loader smoother and more stable when cornering. The long wheelbase contributes to the loader's consistently good dynamic performance as well.

#### Precise, low-effort control

The Liebherr singlelever principle A single 'joystick' lever controls all the loader's working movements accurately and with the necessary sensitivity for exact, safe vehicle and load positioning. One hand can remain on the steering wheel at all times.



#### Unique oscillating system

- The combination of oscillating centre pivot and swing axles reduces the maximum cab tilt angle of 12° by half: for a unique driveability
- Initial position
- Lateral slope angle
- Stereoloader®
- Conventional systems



#### A practical option

 A large, lockable toolbox can be supplied as an optional extra for the access area. It is a convenient place to keep items that may be needed every day, such as tools, lashing tackle, a grease gun etc

## **Technical Data**

| 155554                 |            |                |                |        |                            |
|------------------------|------------|----------------|----------------|--------|----------------------------|
| Engine                 | L 506      | L 507          | L 508          | L 509  | L 510                      |
| Diesel engine          |            | D 2011<br>L4 W | D 2011<br>L4 W |        | TD 2011<br>L4 W            |
| Design                 | Water-cod  | oled Diesel    | suction        |        | rged water-<br>esel engine |
| Number of cylinders    | 4          | 4              | 4              | 4      | 4                          |
| Combustion process     | Direct fue | l injection    |                |        |                            |
|                        | Pump-line  | injector sy    | /stem (PLD     | )      |                            |
| Rated output according |            |                |                |        |                            |
| to ISO 9249            | _kW 46     | 48             | 48             | 60     | 60                         |
|                        | RPM 2,600  | 2,600          | 2,600          | 2,600  | 2,600                      |
| Max. torque            |            | 210            | 210            | 257    | 257                        |
|                        | RPM 1,700  | 1,700          | 1,700          | 1,600  | 1,600                      |
| Displacement li        | tres 3.62  | 3.62           | 3.62           | 3.62   | 3.62                       |
| Electrical system      |            |                |                |        |                            |
| Operating voltage      |            | 12             | 12             | 12     | 12                         |
| Capacity               | . Ah 100   | 100            | 100            | 100    | 100                        |
| Alternator             |            | 12/95          | 12/95          | 12/95  | 12/95                      |
| Starter motor V        | /kW 12/2.3 | 12/2.3         | 12/2.3         | 12/2.6 | 12/2.6                     |
|                        |            |                |                |        |                            |

The exhaust emissions are below the limits in stage IIIA/Tier 3.



| Iravei D                          | rive   |               |
|-----------------------------------|--|---------------|
| Stepless hydrostatic travel drive |  |               |
| Design                            | <ul> <li>Swash plate type variable flow pump a<br/>axial piston motor in a closed loop circle</li> </ul> |               |
| Filtering system                  | _ Suction return line filter for closed circu  | iit           |
| Control                           | Control of travel drive with travel and connecting pedal. The inching pedal permit                       |               |
|                                   | tinuously variable adjustment of crowdi  |               |
|                                   | tive force to match ground and operation   |               |
|                                   | The Liebherr joystick is used to control reverse travel  | forward and   |
| Travel speed range                | Speed range 1  |               |
| (forward and reverse)             | Speed range 2  | 0 – 20.0 km/h |
|                                   | <b>Speeder</b> (L 507 and L 509)   | 0 – 30.0 km/h |

The quoted speeds apply with the tyres that are standard equipment on the loader



#### **Axles**

| Design<br>Front axle<br>Differential | Four-wheel drive  Rigidly mounted planetary-hub axle  Automatic limited-slip differential with 45% locking action. Planetary final drive in the wheel hubs              |
|--------------------------------------|---|
| Rear axle                            | Centre-pivot rear axle with planetary hubs Automatic limited-slip differential with 45 % locking action. Planetary final drive in the wheel hubs. Double-pivot steering |
| Oscillation                          | 5° oscillating angle to each side   |
| Design <b>Speeder</b>                | Four-wheel drive<br>Rigidly mounted planetary-hub axle<br>100% differential lock, manually engaged planetary-<br>hub gears at both axles                                |
| Rear axle<br>Differential            | Centre-pivot rear axle with planetary hubs  Non-locking differential, planetary hubs, double-pivot steering   |
| Oscillation                          | 5° oscillating angle to each side   |



| Service brake               | Wear-free service brake due to hydrostatic travel drive, applied to all four wheels and addtional drum |
|-----------------------------|--|
|                             | brake system   |
| Parking brake               | Mechanically operated drum brake   |
| Brake system <b>Speeder</b> |  |
| Service brake               | Dual-circuit brake system, drum brake and wet multi-   |
|                             | disc brake on front axle   |
| Parking brake               | "Negative brake system" on front axle acting on the  |
| _                           | wet multi-disc brakes  |

The braking system meets the requirements of the EC guidelines 71/320.



| "Stereo" steering system, hydraulic servo power steering. Central oscilating frame articulation in combination with rear-axle pivot steering, and damper element |
|--|
|  |
| 30° to each side   |
| 5° to each side  |
| 100 1  |
| 180 bar  |
|  |



### **Attachment Hydraulics**

| Design Filtering Control Lift circuit | Suction<br>"Liebher | return line                 | essure cut-c<br>filter in the h<br>' with hydra<br>ering | nydraulic r |            |
|---------------------------------------|---------------------|-----------------------------|--|-------------|------------|
|                                       |                     |                             | controlled b   |             | r joystick |
| Tilt circuit                          |                     | ent; autom<br>., neutral, c | atic lifting-li:<br>lump                                 | nit circuit |            |
|                                       | addition            | al function:                | s are activat  | ed by an o  | optional   |
| Additional hydraulics                 |                     | ient contro                 |  | uinment     |            |
| / additional riyaradiloo              | L 506               | L 507                       | L 508  | L 509       | L 510      |
| Max. flow                             | I/min. 65           | 65                          | 93   | 93          | 93         |
| Max. pressure                         | bar 210             | 230                         | 190  | 190         | 210        |



#### **Attachment**

| Geometry | Powerful Z-pattern linkage with standard hydraulic  |
|----------|---|
| ,        | quick-release coupling                              |
| Bearings | lathe-turned thick-walled bushings with lubricating |
|          | grooves   |



| Design                      | The cab is resiliently mounted on the rear section, with built in ROPS/FOPS structure, tinted safety glass window, right-hand door with gap opener arrangement ROPS roll over protection per DIN/ISO 3471/ |
|-----------------------------|--|
|                             | SAE 1040C<br>FOPS falling objects protection per DIN/ISO 3449/<br>SAE J 231  |
|                             | Adjustable steering column available as optional extra   |
| Operator's seat             | 6 way adjustable seat with seat belt, adjustable for operator's weight   |
| Cab heating and ventilation | _ With defrosting, fresh-air filter, recirculation-air mode and hot-water heating  |



#### **Noise Emission**

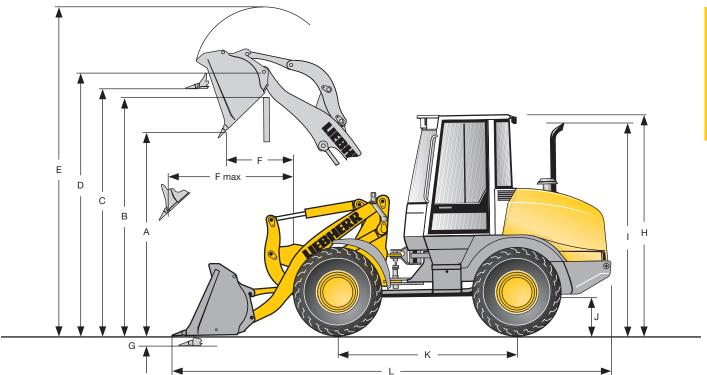
| ISO 6396   | L | (inside cab)     | = 70 dB(A) |
|------------|---|------------------|------------|
| 2000/14/EC |   | (curround noice) |            |



#### **Capacities**

|                           | L 506 | L 507 | L 508 | L 509 | L 510 |
|---------------------------|-------|-------|-------|-------|-------|
| Fuel tank                 | 180   | 80    | 80    | 80    | 80    |
| Engine oil                |       |       |       |       |       |
| (including filter change) | 17.0  | 7.0   | 7.0   | 10.5  | 10.5  |
| Coolant                   | I 15  | 15    | 15    | 13    | 13    |
| Front axle                | I 6.1 | 6.1   | 6.1   | 9.2   | 9.2   |
| Rear axle                 | 15.5  | 5.5   | 5.5   | 8.0   | 8.0   |
| Travel gear               | 10.6  | 0.6   | 0.6   | 0.8   | 0.8   |
| Hydraulic tank            | I 65  | 65    | 65    | 75    | 75    |
| Hydraulic system total    | I 90  | 90    | 90    | 100   | 100   |

## **Dimensions**



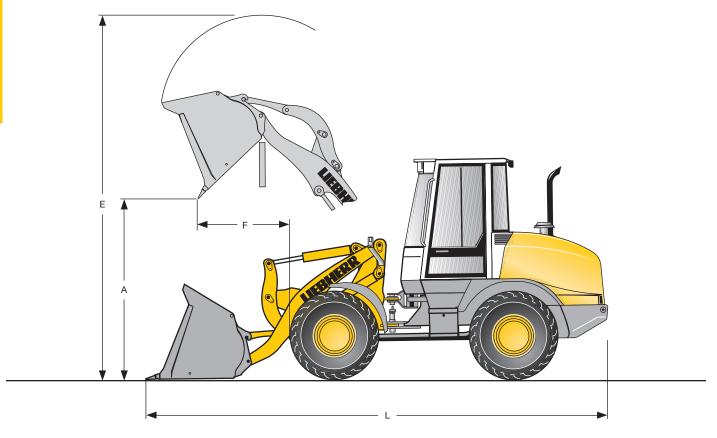
| Logi   | ding Bucket  |                | L 506        | L 507        | L 508        | L 509        | L 510        |
|--------|--|----------------|--------------|--------------|--------------|--------------|--------------|
|        |  |                |              |              |              |              |              |
|        | Bucket capacity according to ISO 7546**              | m <sup>3</sup> | 0.8          | 0.9          | 1.0          | 1.1          | 1.2          |
|        | Bucket width   | mm             | 1,900        | 2,050        | 2,100        | 2,200        | 2,330        |
|        | Specific material weight                             | t/m³           | 1.8          | 1.8          | 1.8          | 1.8          | 1.8          |
| Α      | Dumping height at max. lift height and 42° discharge | mm             | 2,550        | 2,550        | 2,555        | 2,641        | 2,676        |
| В      | Dump-over height                                     | mm             | 2,872        | 2,872        | 2,896        | 3,000        | 3,035        |
| С      | Max. height of bucket bottom                         | mm             | 3,011        | 3,011        | 3,035        | 3,139        | 3,174        |
| D      | Max. height of bucket pivot point                    | mm             | 3,211        | 3,211        | 3,235        | 3,339        | 3,374        |
| E      | Max. operating height                                | mm             | 4,040        | 4,040        | 4,115        | 4,235        | 4,270        |
| F      | Reach at max. lift height and 42° discharge          | mm             | 818          | 818          | 817          | 909          | 874          |
| F max. | Max. outreach at 42° discharge                       | mm             | 1,517        | 1,517        | 1,515        | 1,640        | 1,605        |
| G      | Digging depth  | mm             | 80           | 80           | 56           | 95           | 60           |
| Н      | Height above cab                                     | mm             | 2,748        | 2,748        | 2,780        | 2,780        | 2,805        |
| 1      | Height above exhaust                                 | mm             | 2,600        | 2,600        | 2,624        | 2,625        | 2,660        |
| J      | Ground clearance                                     | mm             | 295          | 295          | 319          | 335          | 370          |
| K      | Wheelbase  | mm             | 2,150        | 2,150        | 2,150        | 2,300        | 2,300        |
| L      | Overall length                                       | mm             | 5,295        | 5,295        | 5,371        | 5,760        | 5,760        |
|        | Turning circle radius over outside bucket edge       | mm             | 3,690        | 3,755        | 3,820        | 4,150        | 4,190        |
|        | Lifting force (SAE)                                  | kN             | 39           | 44           | 48           | 54           | 60           |
|        | Breakout force (SAE)                                 | kN             | 43           | 48           | 49           | 55           | 62           |
|        | Tipping load, straight*                              | kg             | 3,540        | 3,836        | 4,190        | 4,645        | 5,036        |
|        | Tipping load, articulated*                           | kg             | 3,231        | 3,501        | 3,824        | 4,225        | 4,581        |
|        | Operating weight*                                    | kg             | 5,120        | 5,240        | 5,480        | 6,080        | 6,250        |
|        | Tyre sizes   |                | 365/70R18 L2 | 365/70R18 L2 | 405/70R18 L2 | 405/70R18 L2 | 405/70R20 L2 |

<sup>\*</sup> The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

\*\* Actual bucket capacity may be approx. 10 % larger than the calculation according to ISO 7546 standard. The degree to which the bucket can

be filled depends on the material - see page 21.

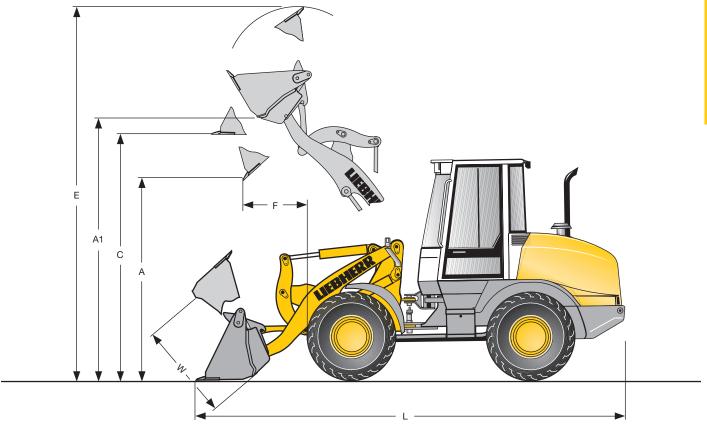
### **Light Material Bucket**



| Light Material Bucket                                   |                | L 5    | 06     | L 5    | 07     | L 5    | 08     | L 5    | 09     | L 5    | 10     |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Bucket capacity   | m <sup>3</sup> | 1.1    | 1.6    | 1.2    | 1.6    | 1.2    | 1.6    | 1.6    | 2.0    | 1.6    | 2.0    |
| Bucket width  | mm             | 2,200  | 2,400  | 2,330  | 2,400  | 2,330  | 2,400  | 2,400  | 2,400  | 2,400  | 2,400  |
| Specific material weight                                | t/m³           | 1.3    | 0.9    | 1.4    | 1.0    | 1.5    | 1.1    | 1.3    | 1.0    | 1.4    | 1.1    |
| A Dumping height at max. lift height and max. discharge | e mm           | 2,511  | 2,420  | 2,511  | 2,420  | 2,535  | 2,444  | 2,551  | 2,460  | 2,586  | 2,495  |
| E Max. operating height                                 | mm             | 4,123  | 4,196  | 4,123  | 4,196  | 4,147  | 4,220  | 4,325  | 4,474  | 4,360  | 4,511  |
| Reach at maximum lift height and max. discharge         | mm             | 866    | 890    | 866    | 890    | 842    | 866    | 937    | 1,048  | 902    | 1,013  |
| L Overall length  | mm             | 5,355  | 5,410  | 5,355  | 5,410  | 5,355  | 5,410  | 5,742  | 5,882  | 5,742  | 5,882  |
| Tipping load, straight*                                 | kg             | 3,437  | 3,329  | 3,818  | 3,702  | 4,145  | 4,026  | 4,532  | 4,470  | 4,911  | 4,846  |
| Tipping load, articulated*                              | kg             | 3,137  | 3,039  | 3,485  | 3,379  | 3,783  | 3,675  | 4,123  | 4,067  | 4,468  | 4,408  |
| Operating weight*                                       | kg             | 5,221  | 5,311  | 5,341  | 5,417  | 5,546  | 5,622  | 6,170  | 6,186  | 6,356  | 6,372  |
| Tyre sizes  |                | 365/70 | R18 L2 | 365/70 | R18 L2 | 405/70 | R18 L2 | 405/70 | R18 L2 | 405/70 | R20 L2 |

<sup>\*</sup> The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

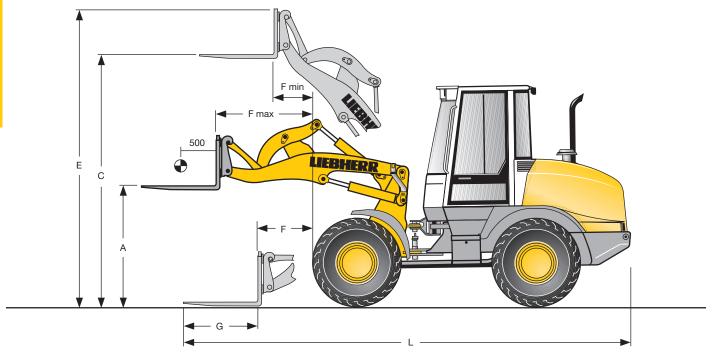
### 4 in 1 Bucket



| 4 in 1 Bucket                                  |            | L 506       | L 507          | L 508        | L 509          | L 510        |
|--|------------|-------------|----------------|--------------|----------------|--------------|
| Bucket capacity                                | m³         | 0.7         | 0.8            | 0.9          | 1.0            | 1.1          |
| Bucket width                                   | mm         | 2,100       | 2,100          | 2,100        | 2,330          | 2,330        |
| Specific material weight                       | t/m³       | 1.8         | 1.8            | 1.8          | 1.8            | 1.8          |
| A Dumping height at max. lift height and 42° d | scharge mm | 2,577       | 2,532          | 2,556        | 2,634          | 2,669        |
| A1 Max. dumping height with opened bucket      | mm         | 3,203       | 3,203          | 3,227        | 3,356          | 3,391        |
| C Max. height of bucket bottom                 | mm         | 2,946       | 2,946          | 2,970        | 3,074          | 3,109        |
| E Max. operating height                        | mm         | 4,215       | 4,714          | 4,738        | 4,895          | 4,930        |
| F Reach at max. lift height and 42° discharge  | mm         | 824         | 890            | 866          | 965            | 930          |
| L Overall length                               | mm         | 5,310       | 5,390          | 5,390        | 5,835          | 5,835        |
| W Max. bucket opening                          | mm         | 1,008       | 1,008          | 1,008        | 1,008          | 1,008        |
| Turning circle radius over outside bucket ed   | ge mm      | 3,870       | 3,907          | 3,907        | 4,280          | 4,280        |
| Tipping load, straight*                        | kg         | 3,145       | 3,427          | 3,735        | 4,227          | 4,593        |
| Tipping load, articulated*                     | kg         | 2,871       | 3,128          | 3,409        | 3,846          | 4,178        |
| Operating weight*                              | kg         | 5,373       | 5,499          | 5,705        | 6,307          | 6,493        |
| Tyre sizes                                     | _          | 365/70R18 L | 2 365/70R18 L2 | 405/70R18 L2 | 2 405/70R18 L2 | 405/70R20 L2 |

<sup>\*</sup> The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

### **Fork Carrier and Fork**



|        | II Fork Carrier and Fork Ruick Change Device  |    | L 506        | L 507          | L 508        | L 509        | L 510        |
|--------|---|----|--------------|----------------|--------------|--------------|--------------|
| Α      | Lifting height at max. reach                  | mm | 1,452        | 1,452          | 1,476        | 1,515        | 1,550        |
| С      | Max. lifting height                           | mm | 3,039        | 3,039          | 3,063        | 3,165        | 3,200        |
| Е      | Max. operating height                         | mm | 3,714        | 3,714          | 3,738        | 3,840        | 3,875        |
| F      | Reach at loading position                     | mm | 741          | 741            | 693          | 775          | 740          |
| F max. | Max. reach                                    | mm | 1,258        | 1,258          | 1,210        | 1,335        | 1,300        |
| F min. | Reach at max. lifting height                  | mm | 550          | 550            | 502          | 595          | 560          |
| G      | Fork length                                   | mm | 1,200        | 1,200          | 1,200        | 1,200        | 1,200        |
| L      | Length – basic machine                        | mm | 5,805        | 5,805          | 5,805        | 6,139        | 6,139        |
|        | Tipping load, straight*                       | kg | 2,629        | 2,905          | 3,145        | 3,573        | 3,858        |
|        | Tipping load, articulated*                    | kg | 2,400        | 2,652          | 2,870        | 3,250        | 3,509        |
|        | Recommended payload for uneven ground         |    |              |                |              |              |              |
|        | = 60 % of tipping load (full articulated) *** | kg | 1,440        | 1,591          | 1,722        | 1,950        | 2,106        |
|        | Recommended payload for smooth surfaces       |    |              |                |              |              |              |
|        | = 80 % of tipping load (full articulated)***  | kg | 1,920        | 2,121          | 2,296        | 2,500**      | 2,500**      |
|        | Operating weight*                             | kg | 5,074        | 5,170          | 5,375        | 5,923        | 6,109        |
|        | Tyre sizes                                    |    | 365/70R18 L2 | 2 365/70R18 L2 | 405/70R18 L2 | 405/70R18 L2 | 405/70R20 L2 |

The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

<sup>\*\*\*</sup> Load capacity for the fork carrier and forks is limited to 2,500 kg
\*\*\* According to EN 474-3 and ISO 14397

## **Technical Data**



| Diesel engine<br>Design   | <ul> <li>4045 HF 288</li> <li>4-cylinder, inline engine, water-cooled,<br/>charged, intercooled</li> </ul> | turbo                        |
|---|--|------------------------------|
| Power output according to ISO 9249 Max. torque Displacement Bore/Stroke Air cleaner |  | at 2,400 RPM<br>at 1,400 RPM |
| Electrical system Operating voltage Battery Alternator Starter motor                | 12 V<br>2 x 100 Ah/12 V<br>12 V/65 A<br>4.8 kW   |                              |

The exhaust emissions are below the limits in stage IIIA/Tier 3.



#### **Travel Gear**

| Stepless hydrostatic travel drive |   |
|-----------------------------------|---|
| Design                            | Swash plate type variable flow pump and a variable axial piston motor in a closed loop circuit  |
| Filtering system                  | Suction return line filter for closed circuit   |
| Control                           | Control of travel drive with travel and combined  |
|                                   | inching pedal. The inching pedal permits continuously variable adjustment of crowding and trac- |
|                                   | tive force to match ground and operating conditions.  |
|                                   | The Liebherr joystick is used to control forward and reverse travel                             |
| Travel speeds                     | Speed range 1 8.0 km/h  |
|                                   | Speed range 2 30.0 km/h   |
|                                   | Forward and reverse with tyre size 17.5R25  |



| Four-wheel drive  |  |
|-------------------|--|
| Front axle        | . Fixed  |
| Steered rear axle | Centre pivot, with 5° oscillating angle to each side   |
| Differentials     | Automatic limited-slip differentials with 45 % locking |
|                   | action in both axles                                   |
| Final drive       | Planetary final drive in the wheel hubs                |
| Track width       | 1 920 mm   |



#### **Brakes**

| Service brake _ | Dual-circuit brake system, drum brake and wet multi- |
|-----------------|--|
|                 | disc brake on front axle                             |
| Parking brake _ |  |
| _               | wet multi-disc brakes                                |

The braking system meets the requirements of the EC guidelines 71/320.



| Design  | "Stereo" steering system, hydraulic servo power<br>steering. Central oscilating frame articulation in com-<br>bination with rear-axle pivot steering, and damper<br>element |
|---|---|
| Angle of articulation<br>Angle of oscillation – | .30° to each side   |
| Centre-pivot steering                           | 5° to each side<br>180 bar  |
| wax. pressure                                   | 100 bai   |



### **Attachment Hydraulics**

| Design        | Gear pump  |
|---------------|--|
| Max. flow     | . 115 l/min.   |
| Max. pressure | . 230 bar  |
| Cooling       | Hydraulic oil cooling by thermostatically controlled fan and oil cooler                          |
| Filtering     | Return-line filter in the hydraulic reservoir  |
| Control       | "Liebherr-Joystick" with hydraulic servo control   |
| Lift circuit  | Lifting, neutral, lowering   |
|               | and float positions controlled by Liebherr joystick with detent; automatic lifting-limit circuit |
| Tilt circuit  | Tilt back, neutral, dump   |
|               | automatic bucket positioning   |



| Geometry can be chosen | Powerful Z-pattern linkage with one tilt cylinder, hydr. |
|------------------------|--|
| -                      | quick change coupler - optional equipment                |
|                        | Parallel linkage with two tilt cylinders, hydr. quick    |
|                        | change coupler - standard equipment                      |
| Bearings               | Sealed   |

The cab is resiliently mounted on the rear section,



#### **Operator's Cab**

|                             | with built in ROPS/FOPS structure, tinted safety glawindow, right-hand door with gap opener arrange-   |
|-----------------------------|--|
|                             | ment. Adjustable steering column available as optional extra   |
|                             | ROPS roll over protection per DIN/ISO 3471/  |
|                             | EN 474-3   |
|                             | FOPS falling objects protection per DIN/ISO 3449/<br>EN 474-1  |
| Operator's seat             | <ul> <li>6 way adjustable seat with seat belt, adjustable for<br/>operator's weight</li> </ul>   |
| Cab heating and ventilation | With defrosting, fresh-air filter, airrecirculated-air mode and heater supplied from engine's cooling system. Air conditioning is optional equipment |



#### **Noise Emission**

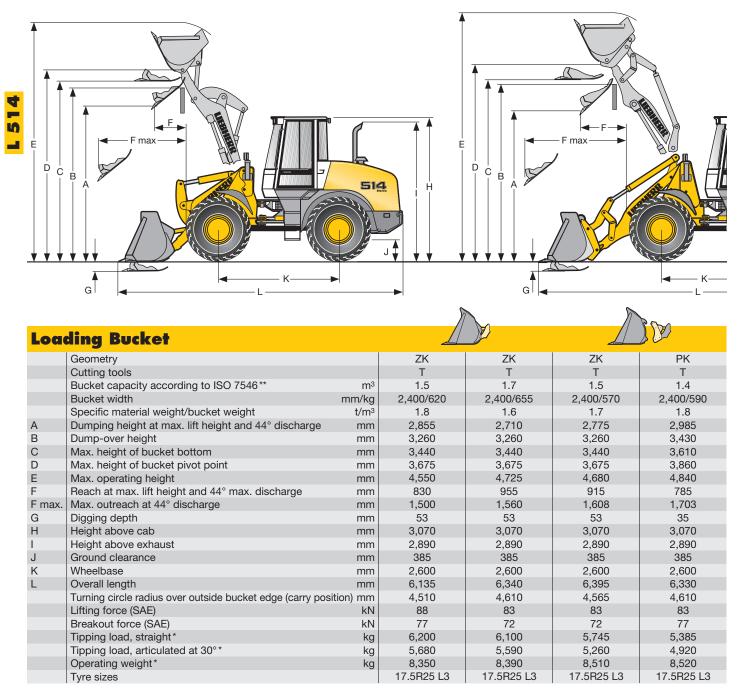
| ISO 6396   | L <sub>n4</sub> (inside cab)     | = 70 dB(A) |
|------------|----------------------------------|------------|
| 2000/14/EC | L <sub>WA</sub> (surround noise) |            |



#### **Capacities**

| Fuel tank                              | 160 I |
|--|-------|
| Engine oil (including filter change)   | 13 I  |
| Travel gear and rear axle differential | 9.9 I |
| Front axle/differential                | 8.9 I |
| Rear axle/differential                 | 8.7 I |
| Hydraulic tank                         | 85 I  |
| Hydraulic system total                 | 118 I |

### **Dimensions**

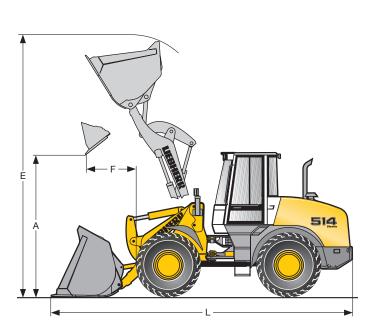


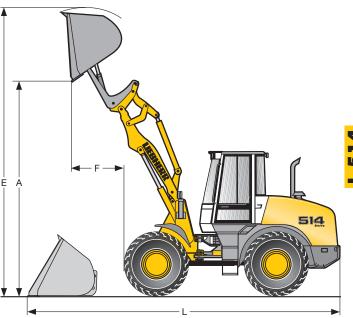
- \* The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.
- \*\* Actual bucket capacity may be approx. 10 % larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material see page 21.
  - ZK = Z-bar linkage
  - PK = Parallel linkage with quick coupler
  - T = Welded-on tooth holder with add-on teeth

Notice: Quick hitch compatibility between L 514Stereo up to L 524 - L 538.

### **Light Material Bucket**

### **High-Dump Bucket**





| Light Material Bucket with Bolt-On Cutting Edge |                |            | IA         |
|---|----------------|------------|------------|
| Geometry  |                | ZK         | PK         |
| Bucket capacity                                 | m <sup>3</sup> | 2.0        | 2.0        |
| Bucket width                                    | mm             | 2,500      | 2,500      |
| Specific material weight                        | t/m³           | 1.3        | 1.1        |
| A Dumping height at max. lift height            | mm             | 2,757      | 2,870      |
| E Max. operating height                         | mm             | 4,845      | 5,075      |
| F Reach at maximum lift height                  | mm             | 930        | 940        |
| L Overall length                                | mm             | 6,290      | 6,535      |
| Tipping load, straight*                         | kg             | 5,600      | 5,155      |
| Tipping load, articulated*                      | kg             | 5,450      | 4,720      |
| Operating weight*                               | kg             | 8,500      | 8,683      |
| Tyre sizes                                      |                | 17.5R25 L3 | 17.5R25 L3 |

| High-Dump Bu<br>with Bolt-On Cutting | i <b>cket</b><br>Edge |      | DA         |            |            |                   |
|--------------------------------------|-----------------------|------|------------|------------|------------|-------------------|
| Geometry                             |                       |      | ZK         | ZK         | PK         | PK                |
| Discharge angle                      |                       |      | 26° 1)     | 40° 2)     | 26° 1)     | 40° <sup>2)</sup> |
| Bucket capacity                      |                       | m³   | 2.5        | 2.5        | 2.5        | 2.5               |
| Bucket width                         |                       | mm   | 2,490      | 2,490      | 2,490      | 2,490             |
| Specific material weigh              |                       | t/m³ | 0.9        | 0.9        | 0.8        | 0.8               |
| A Dumping height at max              | . lift height         | mm   | 4,470      | 4,140      | 4,575      | 4,285             |
| E Max. operating height              |                       | mm   | 6,035      | 5,850      | 6,160      | 5,945             |
| F Reach at maximum lift              | neight                | mm   | 1,230      | 1,400      | 1,235      | 1,385             |
| L Overall length                     |                       | mm   | 6,685      | 6,685      | 6,840      | 6,840             |
| Tipping load, straight*              |                       | kg   | 4,790      | 4,790      | 4,250      | 4,250             |
| Tipping load, articulated            | * t                   | kg   | 4,380      | 4,380      | 3,890      | 3,890             |
| Operating weight*                    |                       | kg   | 9,490      | 9,490      | 9,490      | 9,490             |
| Tyre sizes                           |                       |      | 17.5R25 L3 | 17.5R25 L3 | 17.5R25 L3 | 17.5R25 L3        |

<sup>\*</sup> The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

Notice: Quick hitch compatibility between L 514Stereo up to L 524 - L 538.

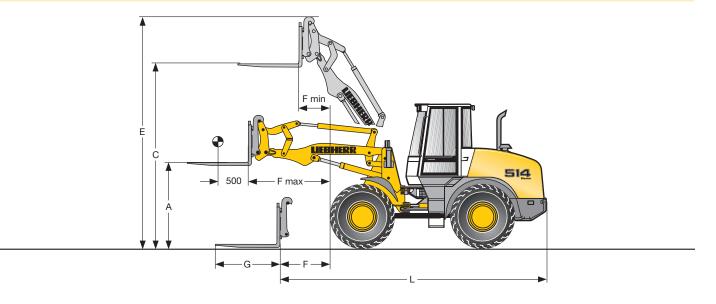
ZK = Z-bar linkage

PK = Parallel linkage with quick coupler

<sup>1)</sup> Actuation of the function: "Discharge high-tip bucket"

<sup>&</sup>lt;sup>2)</sup> Discharge by way of the function "High-tip bucket" and standard tipping function

#### **Fork Carrier and Fork**



|        | III Fork Carrier and Fork Duick Change Device |    |            |            |
|--------|---|----|------------|------------|
|        | Geometry                                      |    | ZK         | PK         |
| Α      | Lifting height at max. reach                  | mm | 1,715      | 1,700      |
| С      | Max. lifting height                           | mm | 3,497      | 3,655      |
| E      | Max. operating height                         | mm | 4,420      | 4,580      |
| F      | Reach at loading position                     | mm | 815        | 965        |
| F max. | Max. reach                                    | mm | 1,500      | 1,615      |
| F min. | Reach at max. lifting height                  | mm | 678        | 605        |
| G      | Fork length                                   | mm | 1,200      | 1,200      |
| L      | Length – basic machine                        | mm | 5,570      | 5,720      |
|        | Tipping load, straight*                       | kg | 4,400      | 4,230      |
|        | Tipping load, articulated*                    | kg | 4,030      | 3,870      |
|        | Recommended payload for uneven ground         |    |            |            |
|        | = 60 % of tipping load (full articulated) *** | kg | 2,410      | 2,320      |
|        | Recommended payload for smooth surfaces       |    |            |            |
|        | = 80 % of tipping load (full articulated) *** | kg | 2,840      | 3,095      |
|        | Operating weight*                             | kg | 8,370      | 8,365      |
|        | Tyre sizes                                    |    | 17.5R25 L3 | 17.5R25 L3 |

The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.

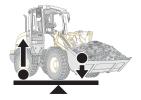
Notice: Quick hitch compatibility between L 514Stereo up to L 524 – L 538.

<sup>\*\*\*</sup> According to EN 474-3 and ISO 14397

ZK = Z-bar linkage with quick coupler

PK = Parallel linkage with quick coupler

## **Tipping Load**











#### What is tipping load?

Load at centre of gravity of working equipment, so that the wheel loader just begins to tip over the front axle.

This the most unfavourable static-load position for the wheel loader.

Lifting arms horizontal, wheel loader fully articulated at centre pivot.

#### Pay load.

The pay load must not exceed 50  $\!\%$  of the tipping load when articulated.

This is equivalent to a static stability-margin factor of 2.0.

#### **Bucket capacity.**

The bucket volume is determined from the pay load.

Pay load =

Tipping load, articulated 2

Pay load (t) Bucket capacity = Specific bulk weight of material (t/m³)

| <b>Bulk Mater</b> | rial Densi | ties | and B  | ucket I      | Filling | Fact | ors |                |      |     |
|-------------------|------------|------|--------|--------------|---------|------|-----|----------------|------|-----|
|                   | t/m³       | %    |        |              |         | t/m³ | %   |                | t/m³ | %   |
| Gravel, moist     | 1.9        | 105  | Clay,  | natural      |         | 1.6  | 110 | Granite        | 1.8  | 95  |
| dry               | 1.6        | 105  |        | dry          |         | 1.4  | 110 | Limestone,     |      |     |
| wet, 6 - 50 m     | nm 2.0     | 105  |        | wet          |         | 1.65 | 105 | hard           | 1.65 | 95  |
| dry, 6 – 50 m     | nm 1.7     | 105  | Clay a | nd gravel,   |         |      |     | soft           | 1.55 | 100 |
| crushed ston      | ne 1.5     | 100  |        | dry          |         | 1.4  | 110 | Sandstone      | 1.6  | 100 |
| Sand, dry         | 1.5        | 110  |        | wet          |         | 1.6  | 100 | Slate          | 1.75 | 100 |
| moist             | 1.8        | 115  | Earth, | dry          |         | 1.3  | 115 | Bauxite        | 1.4  | 100 |
| wet               | 1.9        | 110  |        | wet excavat  | ted     | 1.6  | 110 | Gypsum, broken | 1.8  | 100 |
| Gravel and sand,  |            |      | Topso  | il           |         | 1.1  | 110 | Coke           | 0.5  | 110 |
| dry               | 1.7        | 105  | Weath  | ered rock    |         |      |     | Slag, broken   | 1.8  | 100 |
| wet               | 2.0        | 100  | 50 % r | ock, 50 % ea | rth     | 1.7  | 100 | Coal           | 1.1  | 110 |
| Sand and clay     | 1.6        | 110  | Basalt |              |         | 1.95 | 100 |                |      |     |

### The Liebherr Wheel Loaders

|                   |       | /ITL        | 777         | /TTL        | /TIL        | /TL         | mu          |
|-------------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Stereoload</b> | er    |             |             |             |             |             |             |
|                   |       | L 506steree | L 507steree | L 508steree | L 509steree | L 510steree | L 514steree |
| Tipping load      | kg    | 3,231       | 3,501       | 3,824       | 4,225       | 4,581       | 5,680       |
| Bucket capacity   | m³    | 0.8         | 0.9         | 1.0         | 1.1         | 1.2         | 1.5         |
| Operating weight  | kg    | 5,120       | 5,240       | 5,480       | 6,080       | 6,250       | 8,350       |
| Engine output     | kW/HP | 46/63       | 48/65       | 48/65       | 60/82       | 60/82       | 72/98       |

| Wheel Loa        | der            | DO           |              |              |               |              |
|------------------|----------------|--------------|--------------|--------------|---------------|--------------|
|                  |                | L 524 2plus1 | L 528 2plus1 | L 538 2plus1 | L 542 2plus 1 | L 550 2plus2 |
| Tipping load     | kg             | 7,300        | 8,100        | 9,020        | 9,760         | 11,650       |
| Bucket capacity  | m <sup>3</sup> | 2.0          | 2.2          | 2.5          | 2.7           | 3.2          |
| Operating weight | kg             | 10,600       | 11,100       | 12,755       | 13,320        | 16,525       |
| Engine output    | kW/HP          | 86/117       | 86/117       | 105/143      | 105/143       | 129/175      |

|                   |                |              |              |              | Pos          |              |
|-------------------|----------------|--------------|--------------|--------------|--------------|--------------|
| <b>Wheel Load</b> | der            | DO DO        | DO DE        |              |              |              |
|                   |                | L 556 2plus2 | L 566 2plus2 | L 576 2plus2 | L 580 2plus2 | L 586 2plus2 |
| Tipping load      | kg             | 13,140       | 15,550       | 17,200       | 18,000       | 20,430       |
| Bucket capacity   | m <sup>3</sup> | 3.6          | 4.0          | 4.5          | 5.0          | 5.5          |
| Operating weight  | kg             | 17,270       | 22,500       | 24,260       | 24,580       | 31,380       |
| Engine output     | kW/HP          | 140/191      | 190/259      | 200/272      | 200/272      | 250/340      |

07.10

## **Tyres**

| 连            | Size and tread code    |          | Change of perating weight | Width over tyres | Change in vertical dimensions | Use                              |
|--------------|------------------------|----------|---------------------------|------------------|-------------------------------|----------------------------------|
|              | iread code             |          | kg                        | mm               | mm                            | 030                              |
| L 506steree  |                        |          | Ŭ                         |                  |                               |                                  |
| Bridgestone  | 365/80R20 VUT          | L2       | + 77                      | 1,850            | + 45                          | Gravel, Asphalt                  |
|              | 405/70R20 VUT          | L2       | + 125                     | 1,880            | + 47                          | Sand, Gravel, Asphalt            |
| Dunlop       | 365/70R18 SPT9         | L2       | 0                         | 1,850            | 0                             | Gravel, Asphalt                  |
|              | 405/70R18 SPT9         | L2       | + 43                      | 1,880            | + 23                          | Sand, Gravel, Asphalt            |
|              | 405/70R20 SPT9         | L2       | + 94                      | 1,880            | + 49                          | Sand, Gravel, Asphalt            |
|              | 405/70R20 PG75         | L5       | + 240                     | 1,880            | + 57                          | Industry                         |
| irestone     | 340/80R18 Duraforce UT | L3       | + 36                      | 1,840            | + 14                          | Gravel, Asphalt, Industry        |
|              | 405/70R18 Duraforce UT | L3       | + 104                     | 1,880            | + 22                          | Gravel, Asphalt, Industry        |
|              | 365/80R20 Duraforce UT | L3       | + 92                      | 1,850            | + 52                          | Gravel, Asphalt, Industry        |
|              | 400/70R20 Duraforce UT | L3       | + 128                     | 1,880            | + 42                          | Gravel, Asphalt, Industry        |
| Goodyear     | 400/70R18 IT 520       | L2       | + 59                      | 1,880            | + 15                          | Earthworks, Green area           |
| Michelin     | 375/75R20 XZSL         | L3       | + 115                     | 1,875            | + 43                          | Gravel, Asphalt, Industry        |
|              | 400/70R20 XMCL         | L2       | + 120                     | 1,890            | + 43                          | Earthworks, Green area           |
|              | 405/70R20 XZSL         | L3       | + 150                     | 1,880            | + 49                          | Gravel, Asphalt, Industry        |
| 507steree    | 005 (00D00 ) # IT      |          |                           | 4.050            |                               |                                  |
| Bridgestone  | 365/80R20 VUT          | L2       | + 77                      | 1,850            | + 45                          | Gravel, Asphalt                  |
|              | 405/70R20 VUT          | L2       | + 125                     | 1,880            | + 47                          | Sand, Gravel, Asphalt            |
| Dunlop       | 365/70R18 SPT9         | L2       | 0                         | 1,850            | 0                             | Gravel, Asphalt                  |
|              | 405/70R18 SPT9         | L2       | + 43                      | 1,880            | + 23                          | Sand, Gravel, Asphalt            |
|              | 405/70R20 SPT9         | L2       | + 94                      | 1,880            | + 49                          | Sand, Gravel, Asphalt            |
| irontona     | 405/70R20 PG75         | L5       | + 240                     | 1,880            | + 57                          | Industry Cravel Applied Industry |
| Firestone    | 340/80R18 Duraforce UT | L3       | + 36                      | 1,840            | + 14                          | Gravel, Asphalt, Industry        |
|              | 405/70R18 Duraforce UT | L3       | + 104                     | 1,880            | + 22                          | Gravel, Asphalt, Industry        |
|              | 365/80R20 Duraforce UT | L3       | + 92                      | 1,850            | + 52                          | Gravel, Asphalt, Industry        |
| ) l          | 400/70R20 Duraforce UT | L3       | + 128                     | 1,880            | + 42                          | Gravel, Asphalt, Industry        |
| Goodyear     | 400/70R18 IT 520       | L2       | + 59                      | 1,880            | + 15                          | Earthworks, Green area           |
| /lichelin    | 375/75R20 XZSL         | L3       | + 115                     | 1,875            | + 43                          | Gravel, Asphalt, Industry        |
|              | 400/70R20 XMCL         | L2       | + 120                     | 1,890            | + 43                          | Earthworks, Green area           |
|              | 405/70R20 XZSL         | L3       | + 150                     | 1,880            | + 49                          | Gravel, Asphalt, Industry        |
| . 508steree  | 405/70D00 \ // IT      | 1.0      | 00                        | 4 000            | 0.4                           | 0 10 14 1 11                     |
| Bridgestone  | 405/70R20 VUT          | L2       | + 83                      | 1,880            | + 24                          | Sand, Gravel, Asphalt            |
| Ounlop       | 405/70R18 SPT9         | L2       | 0                         | 1,880            | 0                             | Sand, Gravel, Asphalt            |
|              | 405/70R20 SPT9         | L2       | + 52                      | 1,880            | + 26                          | Sand, Gravel, Asphalt            |
| irestone     | 340/80R18 Duraforce UT | L3       | - 4                       | 1,840            | - 6                           | Gravel, Asphalt, Industry        |
|              | 405/70R18 Duraforce UT | L3       | + 52                      | 1,880            | 0                             | Gravel, Asphalt, Industry        |
|              | 365/80R20 Duraforce UT | L3       | + 40                      | 1,850            | + 29                          | Gravel, Asphalt, Industry        |
|              | 400/70R20 Duraforce UT | L3       | + 76                      | 1,880            | + 19                          | Gravel, Asphalt, Industry        |
| Goodyear     | 400/70R18 IT 520       | L2       | + 16                      | 1,880            | - 10                          | Earthworks, Green area           |
| Michelin     | 400/70R20 XMCL         | L2       | + 17                      | 1,890            | + 20                          | Earthworks, Green area           |
| . 509 Steree | 405/70R20 XZSL         | L3       | + 107                     | 1,880            | + 26                          | Gravel, Asphalt, Industry        |
|              | 405 /70D00 \ // IT     | 1.0      | . 00                      | 0.070            | . 04                          | OI OI AIII                       |
| Bridgestone  | 405/70R20 VUT          | L2       | + 83                      | 2,070            | + 24                          | Sand, Gravel, Asphalt            |
| Dunlop       | 405/70R18 SPT9         | L2       | 0                         | 2,080            | 0                             | Sand, Gravel, Asphalt            |
|              | 405/70R20 SPT9         | L2       | + 52                      | 2,080            | + 26                          | Sand, Gravel, Asphalt            |
|              | 455/70R20 SPT9         | L2       | + 126                     | 2,120            | + 55                          | Sand, Gravel, Asphalt            |
| ··· 4 - ·    | 405/70R20 PG75         | L5       | + 188                     | 2,080            | + 34                          | Industry                         |
| irestone     | 405/70R18 Duraforce UT | L3       | + 52                      | 2,070            | 0                             | Gravel, Asphalt, Industry        |
|              | 365/80R20 Duraforce UT | L3       | + 40                      | 2,030            | + 29                          | Gravel, Asphalt, Industry        |
| 2            | 400/70R20 Duraforce UT | L3       | + 76                      | 2,070            | + 19                          | Gravel, Asphalt, Industry        |
| Goodyear     | 400/70R18 IT 520       | L2       | + 16                      | 2,080            | - 10<br>- 20                  | Earthworks, Green area           |
| /lichelin    | 400/70R20 XMCL         | L2       | + 17                      | 2,070            | + 20                          | Earthworks, Green area           |
|              | 405/70R20 XZSL         | L3       | + 107                     | 2,070            | + 26                          | Gravel, Asphalt, Industry        |
| E10          | 425/75R20 XZSL         | L3       | + 119                     | 2,110            | + 61                          | Gravel, Asphalt, Industry        |
| . 510steree  | 405 /70D00 \ // :T     | 1.0      | 0.4                       | 0.070            |                               | 0 10 11 11                       |
| Bridgestone  | 405/70R20 VUT          | L2       | + 31                      | 2,070            | + 2                           | Sand, Gravel, Asphalt            |
| Dunlop       | 405/70R18 SPT9         | L2       | - 52                      | 2,080            | - 26                          | Sand, Gravel, Asphalt            |
|              | 405/70R20 SPT9         | L2       | 0                         | 2,080            | 0                             | Sand, Gravel, Asphalt            |
|              | 455/70R20 SPT9         | L2       | + 74                      | 2,120            | + 29                          | Sand, Gravel, Asphalt            |
|              | 405/70R20 PG75         | L5       | + 134                     | 2,080            | + 8                           | Industry                         |
| irestone     | 405/70R18 Duraforce UT | L3       | 0                         | 2,070            | - 27                          | Gravel, Asphalt, Industry        |
|              | 365/80R20 Duraforce UT | L3       | - 12                      | 2,030            | + 3                           | Gravel, Asphalt, Industry        |
|              | 400/70R20 Duraforce UT | L3       | + 24                      | 2,070            | - 7                           | Gravel, Asphalt, Industry        |
| Goodyear     | 400/70R18 IT 520       | L2       | - 36                      | 2,080            | - 35                          | Earthworks, Green area           |
| Michelin     | 400/70R20 XMCL         | L2       | + 4                       | 2,070            | + 6                           | Earthworks, Green area           |
|              | 405/70R20 XZSL         | L3       | + 56                      | 2,070            | 0                             | Gravel, Asphalt, Industry        |
|              | 425/75R20 XZSL         | L3       | + 67                      | 2,110            | + 35                          | Gravel, Asphalt, Industry        |
| . 514steree  |                        |          |                           |                  |                               |                                  |
| Bridgestone  | 17.5R25 VMT            | L3       | + 84                      | 2,370            | + 18                          | Gravel                           |
|              | 17.5R25 VJT            | L3       | + 88                      | 2,450            | + 21                          | Gravel                           |
|              | 17.5R25 VSDL           | L5       | + 576                     | 2,370            | + 57                          | Industry, Scrap                  |
| Goodyear     | 17.5R25 RT-3B          | L3       | + 168                     | 2,370            | + 21                          | Sand, Gravel                     |
|              | 17.5R25 RL-5K          | L5       | + 704                     | 2,370            | + 42                          | Industry, Scrap                  |
| Ai ala alia  | 17.5R25 XHA            | L3       | 0                         | 2,370            | 0                             | Gravel                           |
| Michelin     |                        |          | 050                       | 0.070            | + 37                          | Industry, Scrap                  |
| viicheiin    | 17.5R25 XLD D2A        | L5<br>L5 | + 352                     | 2,370            | + 31                          | illuusiry, ocrap                 |

22 L 506Stereo – L 514Stereo

## **Equipment**

| Basic Machine   | 506 | 507 | 508 | 509 | 510 | 514 |
|---|-----|-----|-----|-----|-----|-----|
| Automatic central lubrication system                  | +   | +   | +   | +   | +   | +   |
| Battery master switch                                 | •   | •   | •   | •   | •   | •   |
| Bio degredable hydraulic oil                          | -   | -   | -   | +   | +   | +   |
| Tool kit  | •   | •   | •   | •   | •   | •   |
| Fuel particle filter                                  | +   | +   | +   | +   | +   | +   |
| Electronical theft protection                         | +   | +   | +   | +   | +   | +   |
| Automatic travel mode                                 | •   | •   | •   | •   | •   | •   |
| Headlights  | •   | •   | •   | •   | •   | •   |
| Ride control  | +   | +   | +   | +   | +   | +   |
| Particle protection for radiator                      | +   | +   | +   | +   | +   | +   |
| Pre-heat system for cold starting                     | •   | •   | •   | •   | •   | •   |
| Combined inching-braking system                       | •   | •   | •   | •   | •   | •   |
| Multi-disc limited slip differentials in both axles   | •   | •   | •   | •   | •   | •   |
| LiDAT Standard (Liebherr Data Transfer System)        | +   | +   | +   | +   | +   | +   |
| Liebherr travel gear                                  | •   | •   | •   | •   | •   | •   |
| Liebherr shock absobing element                       | •   | •   | •   | •   | •   | •   |
| Air cleaner system with pre-filter                    | •   | •   | •   | •   | •   | •   |
| Emergency steering system                             | •   | •   | •   | •   | •   | •   |
| Warning device for travel in reverse                  | +   | +   | +   | +   | +   | +   |
| Amber beacon  | +   | +   | +   | +   | +   | +   |
| Protective ventilation system                         | +   | +   | +   | +   | +   | +   |
| 30 km/h Maximum speed – <b>Speeder</b> -version only  | -   | +   | -   | +   | _   | •   |
| Dust filter system                                    | +   | +   | +   | +   | +   | +   |
| Lockable doors, service flap an engine hood           | •   | •   | •   | •   | •   | •   |
| Towing hitch  | •   | •   | •   | •   | •   | •   |
| Additional toolbox in access step area                | +   | +   | +   | +   | +   | +   |
| Working area lights at rear                           | +   | +   | +   | +   | +   | +   |
| Working area lights at front                          | •   | •   | •   | •   | •   | •   |
| Tail lights   | •   | •   | •   | •   | •   | •   |
| 20 km/h speed limiting – <b>Speeder</b> -version only | -   | +   | -   | +   | -   | +   |

| Operator's Cab  | 506 | 507 | 508 | 509 | 510 | 514 |
|---|-----|-----|-----|-----|-----|-----|
| Storage compartment   | •   | •   | •   | •   | •   | •   |
| Storage box   | •   | •   | •   | •   | •   | •   |
| Ashtray   | •   | •   | •   | •   | •   | •   |
| Tool kit  | •   | •   | •   | •   | •   | •   |
| Operator's package  | •   | •   | •   | •   | •   | •   |
| Operator's seat – adjustable in 6 ways                      | •   | •   | •   | •   | •   | •   |
| Operator's seat – air sprung with seat belt                 | +   | +   | +   | +   | +   | +   |
| Operator's seat – air sprung with seat heating              | +   | +   | +   | +   | +   | +   |
| Bottle holder   | •   | •   | •   | •   | •   | •   |
| Horn  | •   | •   | •   | •   | •   | •   |
| Floor mat   | •   | •   | •   | •   | •   | •   |
| Folding outside mirrors                                     | •   | •   | •   | •   | •   | •   |
| Clothes hook  | •   | •   | •   | •   | •   | •   |
| Air conditioning system                                     | +   | +   | +   | +   | +   | +   |
| Emergency exit  | •   | •   | •   | •   | •   | •   |
| Radio set   | +   | +   | +   | +   | +   | +   |
| Provision for radio including loudspeaker                   | +   | +   | +   | +   | +   | +   |
| Interior rear-view mirror                                   | •   | •   | •   | •   | •   | •   |
| Soundproof ROPS/FOPS cab                                    | •   | •   | •   | •   | •   | •   |
| Wash/wipe system for windscreen and rear window             | •   | •   | •   | •   | •   | •   |
| Sliding window  | +   | +   | +   | +   | +   | +   |
| Sun visor   | •   | •   | •   | •   | •   | •   |
| Plug  | •   | •   | •   | •   | •   | •   |
| First aid kit   | +   | +   | +   | +   | +   | +   |
| Adjustable steering column                                  | +   | +   | +   | +   | +   | +   |
| Hot-water heater with defroster and recirculated-air system | •   | •   | •   | •   | •   | •   |

| Instruments for:                                      | 506 | 507 | 508 | 509 | 510 | 514 |
|---|-----|-----|-----|-----|-----|-----|
| Timer for hours of operation                          | •   | •   | •   | •   | •   | •   |
| Flashing turn indicators                              | •   | •   | •   | •   | •   | •   |
| Diagnosis system – <b>Speeder</b> -version only       | -   | •   | _   | •   | -   | •   |
| Rev. counter - <b>Speeder</b> -version only           | -   | •   | -   | •   | -   | •   |
| Travel speed ranges and gear selected                 | •   | •   | •   | •   | •   | •   |
| High-beam headlights                                  | •   | •   | •   | •   | •   | •   |
| Fuel reserve  | •   | •   | •   | •   | •   | •   |
| Engine oil temperature                                | -   | -   | -   | -   | -   | •   |
| Engine oil temperature - <b>Speeder</b> -version only | -   | •   | _   | •   | -   | •   |
| Reverse travel  | •   | •   | •   | •   | •   | •   |
| Speedometer - <b>Speeder</b> -version only            | _   | •   | _   | •   | -   | •   |
| Clock - <b>Speeder</b> -version only                  | -   | •   | -   | •   | -   | •   |
| Diesel engine pre-heat                                | •   | •   | •   | •   | •   | •   |
| Forward travel  | •   | •   | •   | •   | •   | •   |

| <b>Warning Lights for:</b>                  | 206 | 507 | 508 | 60 | 01  | 41  |
|---|-----|-----|-----|----|-----|-----|
| warming rights for:                         | IU  | ın  | IU  | Ŋ  | IU. | IU. |
| Battery charge                              | •   | •   | •   | •  | •   | •   |
| Parking brake                               | •   | •   | •   | •  | •   | •   |
| Hydraulic oil temperature                   | •   | •   | •   | •  | •   | •   |
| Air cleaner blockage                        | •   | •   | •   | •  | •   | •   |
| Engine oil pressure                         | •   | •   | •   | •  | •   | •   |
| Engine overheat                             | •   | •   | •   | •  | •   | •   |
| Air cleaner blockage<br>Engine oil pressure | •   | -   | -   | •  | •   | •   |

| -44                         |     |     |     |     |     |     |
|-----------------------------|-----|-----|-----|-----|-----|-----|
| Audible                     | 5   |     |     |     |     |     |
| Warnings for:               | 506 | 507 | 508 | 500 | 510 | 517 |
| Overheat of hydraulic fluid | •   | •   | •   | •   | •   | •   |
| Engine oil pressure         | •   | •   | •   | •   | •   | •   |
| Engine overheat             | •   | •   | •   | •   | •   | •   |
| Emergency steering system   | •   | •   | •   | •   | •   | •   |

| Function Keys for:                           | 506 | 507 | 508 | 509 | 510 | 514 |
|--|-----|-----|-----|-----|-----|-----|
| Working lights rear                          | +   | +   | +   | +   | +   | +   |
| Working lights front                         | •   | •   | •   | •   | •   | •   |
| Speed range selection                        | •   | •   | •   | •   | •   | •   |
| Headlights                                   | •   | •   | •   | •   | •   | •   |
| Ride control                                 | +   | +   | +   | +   | +   | •   |
| Parking brake – <b>Speeder</b> -version only | -   | •   | _   | •   | -   | •   |
| Air conditioning                             | +   | +   | +   | +   | +   | +   |
| Mode switch - <b>Speeder</b> -version only   | -   | •   | _   | •   | -   | •   |
| Amber beacon                                 | +   | +   | +   | +   | +   | +   |
| Automatic bucket positioner                  | +   | +   | +   | +   | +   | •   |
| Wash/wipe system for rear window             | •   | •   | •   | •   | •   | •   |
| Float position                               | •   | •   | •   | •   | •   | •   |
| Road travel                                  | •   | •   | •   | •   | •   | •   |
| Hazard warning flashers                      | •   | •   | •   | •   | •   | •   |

| Determ Switches form | 9  | 7   | 8   | 0  | 0  | 4 |
|----------------------|----|-----|-----|----|----|---|
| Rotary Switches for: | 50 | 507 | 508 | 50 | 12 | 5 |
| Blower               | •  | •   | •   | •  | •  | • |
| Heater               | •  | •   | •   | •  | •  | • |

|   |     |     | -   |     | 0   | 4   |
|---|-----|-----|-----|-----|-----|-----|
| Equipment   | 506 | 507 | 508 | 509 | 510 | 514 |
| Automatic hoist kick out – adjustable                           | +   | +   | +   | +   | +   | +   |
| Automatic bucket positioner – adjustable                        | +   | +   | +   | +   | +   | •   |
| Fork carrier and lift forks                                     | +   | +   | +   | +   | +   | +   |
| High-dump bucket  | +   | +   | +   | +   | +   | +   |
| Hydraulic quick-change device - Parallel linkage                | -   | -   | -   | -   | -   | •   |
| Hydraulic quick-change device - Z-bar linkage                   | •   | •   | •   | •   | •   | +   |
| Hydraulic servo control of working hydraulics                   | •   | •   | •   | •   | •   | •   |
| Comfort control   | +   | +   | +   | +   | +   | +   |
| Loading buckets with and without teeth, or bolt-on cutting edge | +   | +   | +   | +   | +   | +   |
| Country-specific versions                                       | +   | +   | +   | +   | +   | +   |
| Light material bucket   | +   | +   | +   | +   | +   | +   |
| Parallel linkage  | _   | -   | _   | -   | _   | •   |
| Float position  | •   | •   | •   | •   | •   | •   |
| Z-bar linkage   | •   | •   | •   | •   | •   | •   |
| 3rd hydraulic control circuit                                   | •   | •   | •   | •   | •   | +   |
| 3rd and 4th hydraulic control circuits                          | +   | +   | +   | +   | +   | +   |

#### • = Standard, + = Option, - = not available

All illustrations and data may differ from standard equipment. Subject to change without notice.

## 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, too. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

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