

# Technical data LR 636



## Diesel engine

|                                                     |                                                                                                                |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Liebherr Diesel engine</b>                       | D 934 EVO<br>Emission regulations according to 97/68/EC,<br>2016/1628/EU Stage V, EPA/CARB Tier 4f             |
| <b>Rated power (net)</b><br>ISO 9249<br>SAE J1349   | 135 kW / 184 HP<br>135 kW / 181 HP                                                                             |
| <b>Maximum power (net)</b><br>ISO 9249<br>SAE J1349 | 160 kW / 218 HP<br>160 kW / 215 HP                                                                             |
| <b>Rated speed</b>                                  | 1.800 <sup>1</sup> /min.                                                                                       |
| <b>Displacement</b>                                 | 7.01 / 427 in <sup>3</sup>                                                                                     |
| <b>Bore / stroke</b>                                | 122 mm (4.80 in) / 150 mm (5.91 in)                                                                            |
| <b>Design</b>                                       | 4 cylinder in-line engine, water-cooled, turbocharged,<br>air-to-air intercooler                               |
| <b>Injection system</b>                             | Direct fuel injection,<br>Common Rail, electronic control                                                      |
| <b>Lubrication</b>                                  | Pressurized lube system, engine lubrication guaranteed<br>for inclinations up to 45°, on all sides             |
| <b>Operating voltage</b>                            | 24 V                                                                                                           |
| <b>Alternator</b>                                   | 140 A                                                                                                          |
| <b>Starter</b>                                      | 7.8 kW / 11 HP                                                                                                 |
| <b>Batteries</b>                                    | 2x180 Ah / 12 V                                                                                                |
| <b>Air cleaner</b>                                  | Dry-type air cleaner with pre-cleaner and automatic dust<br>ejector, main and safety elements with radial seal |
| <b>Cooling system</b>                               | Combination cooler with single cooling units for water,<br>hydraulic oil and intake charge air                 |
| <b>Cooling fan</b>                                  | Hydrostatically driven, thermostatically controlled                                                            |



## Hydraulics

|                            |                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hydraulic system</b>    | Load-sensing demand control                                                                                                                                                                          |
| <b>Pump type</b>           | Variable displacement pump (swash-plate design)                                                                                                                                                      |
| <b>Pump flow max.</b>      | 234 l/min. / 61.8 gpm / 51.5 Imp.gpm                                                                                                                                                                 |
| <b>Pressure limitation</b> | 260 bar / 3,770 psi                                                                                                                                                                                  |
| <b>Filter system</b>       | Return filter with magnetic rod in hydraulic tank                                                                                                                                                    |
| <b>Control</b>             | Single joystick implement control for all bucket func-<br>tions, with magnetic detent functions for float position<br>as well as for automatic bucket positioner and for auto-<br>matic lift kickout |
| <b>Control block *</b>     | Additional hydraulic circuit front and rear for attach-<br>ments optionally available                                                                                                                |

\* Not available in combination with 4-in-1 bucket or rear ripper



## Travel drive, control

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transmission system</b>     | Closed-loop infinitely variable hydrostatic travel drive<br>powered by two axial piston variable displacement<br>pumps and two axial piston variable displacement<br>motors in swash-plate design, each track is driven<br>independently from each other                                                                                                                                                                                                                                                                                                 |
| <b>Travel speed*</b>           | SInfinitely variable electronic speed control, V-max via<br>step switch on the encoder adjustable (V1, V2, V3)<br>V1-max (default): 2.5– 6.0 km/h ( 4.0 km/h) / 1.5–3.7 mph (2.5 mph)<br>V1-max (default): 2.5– 6.0 km/h ( 4.5 km/h) / 1.5–3.7 mph (2.8 mph)<br>V2-max (default): 4.0– 8.0 km/h ( 6.0 km/h) / 2.5–5.0 mph (3.7 mph)<br>V2-max (default): 4.0– 8.0 km/h ( 8.0 km/h) / 2.5–5.0 mph (5.0 mph)<br>V3-max (default): 6.5–10.0 km/h (10.0 km/h) / 4.0–6.2 mph (6.2 mph)<br>V3-max (default): 6.5–10.0 km/h (10.0 km/h) / 4.0–6.2 mph (6.2 mph) |
| <b>Electronic control</b>      | The load limit control monitors electronically the speed<br>of the diesel engine and controls the Diesel engine<br>torque as a function of necessary driving force                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Steering</b>                | Hydrostatic, unlimited manoeuvrability for full power<br>turns and counterrotation                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Service brake</b>           | Hydrostatic, dynamic braking effect from travel drive<br>system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Parking/emergency brake</b> | Multi-disc brake, wear-free, automatically applied with<br>neutral joystick position                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Cooling system</b>          | Hydraulic oil cooler integrated into combination cooler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Filter system</b>           | Micro cartridge filters in replenishing circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Final drive</b>             | Combination spur gear with planetary gear, double<br>sealed (duo cone seals) with electronic seal-integrity<br>indicator                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Control</b>                 | Single joystick for all travel and steering functions,<br>as well as for counterrotation                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

\* Travel speed ranges can be set on the travel joystick



## Operator's cab

|                                     |                                                                                                                                                                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cab</b>                          | Resiliently mounted cab with positive pressure ven-<br>tilation, can be tilted with hand pump 40° to the rear.<br>With integrated ROPS Rollover Protective Structure<br>(EN ISO 3471) and FOPS Falling Objects Protective<br>Structure (EN ISO 3449).    |
| <b>Heating and air conditioning</b> | Air conditioning meets requirements according to<br>ISO 10263, air is distributed over 12 air vents and<br>10 blower levels, 6 air routing modes can be set on the<br>control panel                                                                      |
| <b>Operator's seat</b>              | Air-suspended comfort seat, fully adjustable                                                                                                                                                                                                             |
| <b>Glazing</b>                      | – Windscreen / Laminated Safety Glass<br>Optional: Polycarbonate<br>– Side window / Tempered Safety Glass<br>Optional: with sliding window<br>(individually selectable on each side)<br>– Rear Window / Tempered Safety Glass<br>Optional: Polycarbonate |
| <b>Monitoring</b>                   | Touch screen: display of current machine information,<br>automatic monitoring of operating conditions. Individual<br>setting of machine parameters                                                                                                       |
| <b>Work lights</b>                  | – LED-Standard (1200 lm each)<br>4 front side, 2 rear side<br>Optional: 4 front side, 4 rear side<br>– LED-HD (4200 lm each)<br>4 front side, 2 rear side<br>Optional: 4 front side, 4 rear side                                                         |
| <b>Vibration emission</b>           |                                                                                                                                                                                                                                                          |
| Hand / arm vibrations               | < 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001                                                                                                                                                                                                  |
| Whole-body vibrations               | 0.26–1.18 m/s <sup>2</sup> , complies with technical report<br>ISO/TR 25398:2006                                                                                                                                                                         |
| Measuring inaccuracy                | According with standard EN 12096:1997                                                                                                                                                                                                                    |

## Undercarriage

|                                     |                                                                                                                                                                                                                                |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting</b>                     | Pivot shafts and equalizer bar (cushion mounted)                                                                                                                                                                               |
| <b>Track chains</b>                 | Sealed and oil lubricated, chain tension through compression spring and grease clamping cylinder, optional oil-lubricated sleeve chain with FTB available                                                                      |
| <b>Links, each side</b>             | 38                                                                                                                                                                                                                             |
| <b>Sprocket segments, each side</b> | 5                                                                                                                                                                                                                              |
| <b>Track rollers, each side</b>     | 6                                                                                                                                                                                                                              |
| <b>Carrier rollers, each side</b>   | 1                                                                                                                                                                                                                              |
| <b>Track shoes, standard</b>        | 560 mm / 22", double grouser                                                                                                                                                                                                   |
| <b>Track shoes, optional</b>        | 508 mm / 20", double grouser, FTB<br>560 mm / 22", double grouser with trapezoidal hole or FTB<br>610 mm / 24", double grouser with trapezoidal hole<br>710 mm / 28", double grouser<br>Wider track shoes available on demand. |
| <b>Grouser height</b>               | 42.5 mm / 1.67"                                                                                                                                                                                                                |

## Sound levels

|                                           |           |
|-------------------------------------------|-----------|
| <b>Operator sound exposure ISO 6396</b>   |           |
| $L_{pA}$ (in the cab)                     | 78 dB(A)  |
| <b>Exterior sound pressure 2000/14/EC</b> |           |
| $L_{WA}$ (to the environment)             | 110 dB(A) |



## Refill capacities

|                                        |                                |
|----------------------------------------|--------------------------------|
| <b>Fuel tank</b>                       | 400 l / 105.7 gal / 88 Imp.gal |
| <b>Diesel Exhaust Fluid (DEF) tank</b> | 45 l / 11.9 gal / 9.9 Imp.gal  |
| <b>Cooling system</b>                  | 38 l / 10 gal / 8.4 Imp.gal    |
| <b>Engine oil, with filter</b>         | 29 l / 7.7 gal / 6.4 Imp.gal   |
| <b>Hydraulic tank</b>                  | 93 l / 24.6 gal / 20.5 Imp.gal |
| <b>Pivot shaft, each side</b>          | 4.5 l / 1.2 gal / 1 Imp.gal    |
| <b>Final drive, each side</b>          | 20 l / 5.3 gal / 4.4 Imp.gal   |
| <b>Duo cone seal, each side</b>        | 9.5 l / 2.5 gal / 2.1 Imp.gal  |



## Cycle times

|                                      |       |
|--------------------------------------|-------|
| <b>Lifting</b>                       | 5.4 s |
| <b>Dumping</b>                       | 2.2 s |
| <b>(maximum cylinder stroke)</b>     |       |
| <b>Dumping (at max. height)</b>      | 1.5 s |
| <b>Tilting back</b>                  | 2.9 s |
| <b>(maximum cylinder stroke)</b>     |       |
| <b>Tilting back (at max. height)</b> | 2.0 s |
| <b>Lowering<sup>1)</sup></b>         | 2.4 s |

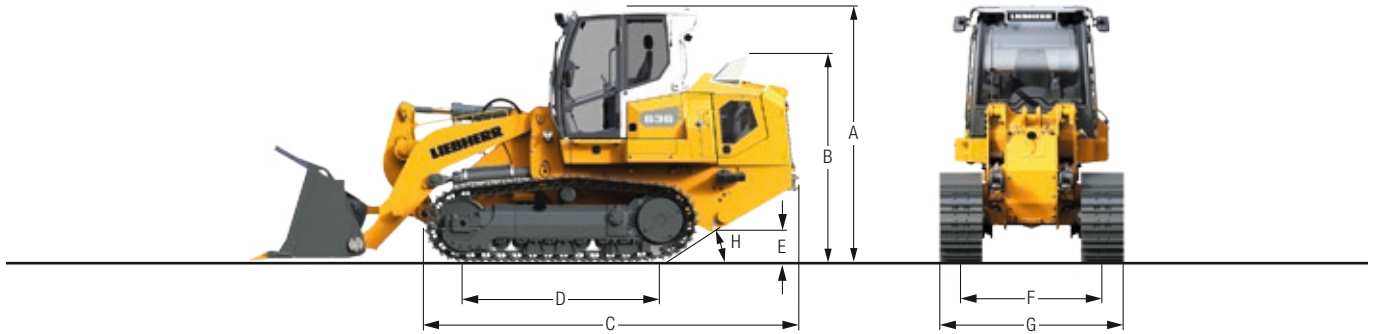
<sup>1)</sup> Float position and empty bucket



## Drawbar pull

|                    |        |
|--------------------|--------|
| <b>Max.</b>        | 280 kN |
| <b>at 1.5 km/h</b> | 277 kN |
| <b>at 3.0 km/h</b> | 138 kN |
| <b>at 6.0 km/h</b> | 69 kN  |
| <b>at 9.0 km/h</b> | 46 kN  |

# Dimensions LR 636



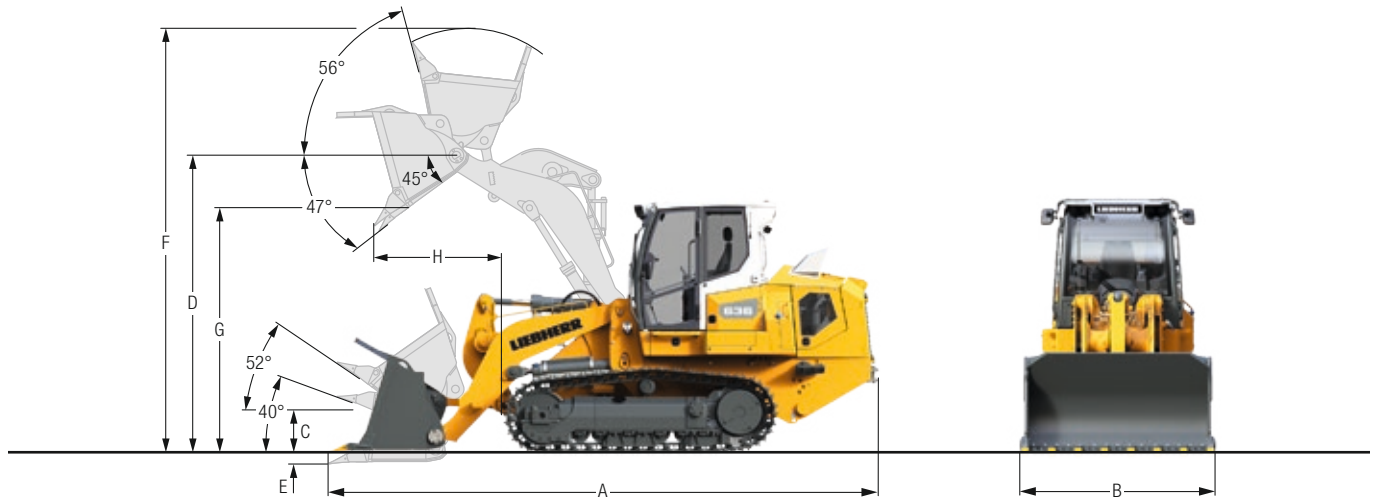
## Dimensions

|                                           |       |                     |
|-------------------------------------------|-------|---------------------|
| <b>A</b> Height over cab                  | mm    | 3,330               |
|                                           | ft in | 10'11"              |
| <b>B</b> Height over exhaust pipe         | mm    | 2,715               |
|                                           | ft in | 8'11"               |
| <b>C</b> Length to front of track         | mm    | 4,930               |
|                                           | ft in | 16'2"               |
| <b>D</b> Distance idler / sprocket center | mm    | 2,580               |
|                                           | ft in | 8'6"                |
| <b>E</b> Ground clearance                 | mm    | 483                 |
|                                           | ft in | 1'7"                |
| <b>F</b> Track gauge                      | mm    | 1,830 <sup>1)</sup> |
|                                           | ft in | 6'0"                |
| <b>G</b> Track shoes 508 mm / 20"         | mm    | 2,338 <sup>2)</sup> |
| Machine width                             | ft in | 7'8"                |
| <b>G</b> Track shoes 560 mm / 22"         | mm    | 2,390 <sup>2)</sup> |
| Machine width                             | ft in | 7'10"               |
| <b>G</b> Track shoes 610 mm / 24"         | mm    | 2,440 <sup>2)</sup> |
| Machine width                             | ft in | 8'0"                |
| <b>G</b> Track shoes 710 mm / 28"         | mm    | 2,680 <sup>2)</sup> |
| Machine width                             | ft in | 8'10"               |
| <b>H</b> Approach angle                   |       | 30°                 |

<sup>1)</sup> Track guard with 610 mm / 24" track shoes: 1,970 mm / 6'6"

<sup>2)</sup> Minimum bucket width 2,500 mm / 8'2" mm required

# Front attachments LR 636



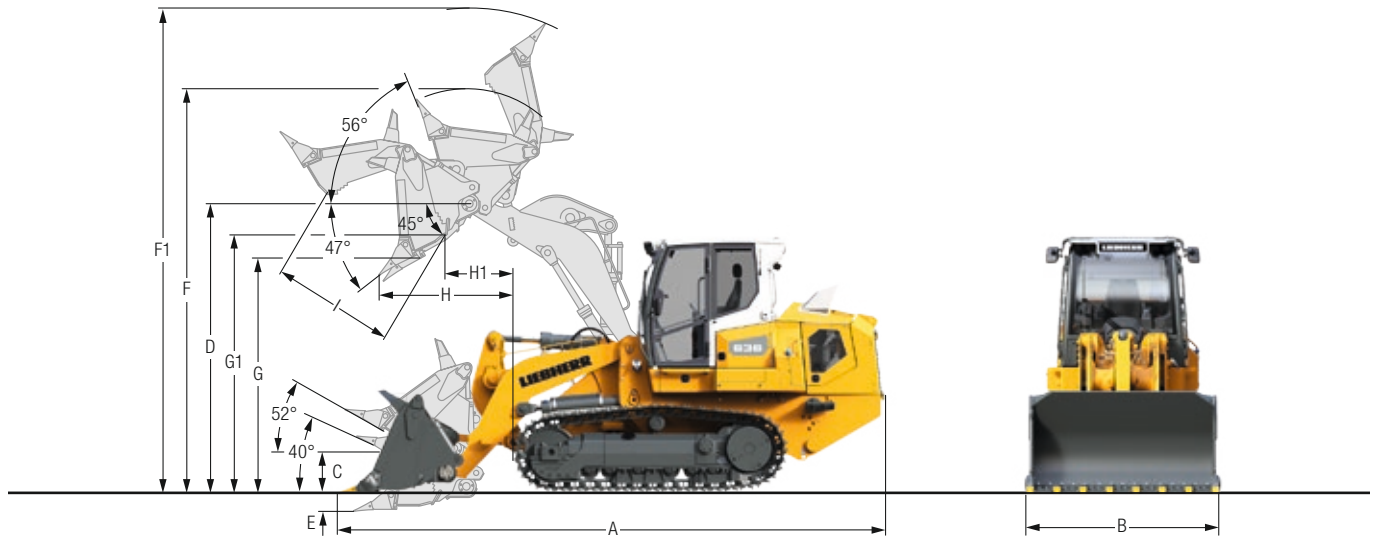
## Standard bucket

| Version with                                              |                    | Bolt-on adapters,<br>weld-on adapters and shanks | Flush mounted weld-on adapters<br>and shanks | Bolt-on cutting edge |
|-----------------------------------------------------------|--------------------|--------------------------------------------------|----------------------------------------------|----------------------|
| Nominal rated bucket capacity, ISO 7546                   | m <sup>3</sup>     | 2.4                                              | 2.3                                          | 2.4                  |
|                                                           | yd <sup>3</sup>    | 3.14                                             | 3.01                                         | 3.14                 |
| Nominal rated bucket capacity, SAE J742                   | m <sup>3</sup>     | 2.5                                              | 2.3                                          | 2.5                  |
|                                                           | yd <sup>3</sup>    | 3.27                                             | 3.01                                         | 3.27                 |
| Breakout force, ISO 14397                                 | kN                 | 164                                              | 180                                          | 164                  |
|                                                           | lb                 | 36,856                                           | 40,451                                       | 36,856               |
| Static tipping load, ISO 14397                            | kg                 | 14,950                                           | 15,130                                       | 15,080               |
|                                                           | lb                 | 32,959                                           | 33,356                                       | 33,246               |
| A Overall length bucket at ground with rear bumper        | mm                 | 7,130                                            | 7,170                                        | 6,960                |
|                                                           | ft in              | 23'5"                                            | 23'6"                                        | 22'10"               |
| B Bucket width, overall <sup>2)</sup>                     | mm                 | 2,571                                            | 2,500                                        | 2,500                |
|                                                           | ft in              | 8'5"                                             | 8'2"                                         | 8'2"                 |
| C Height of hinge pin, transport position                 | mm                 | 576                                              | 576                                          | 576                  |
|                                                           | ft in              | 1'11"                                            | 1'11"                                        | 1'11"                |
| D Height of hinge pin, max.                               | mm                 | 4,051                                            | 4,051                                        | 4,051                |
|                                                           | ft in              | 13'3"                                            | 13'3"                                        | 13'3"                |
| E Digging depth, max.                                     | mm                 | 151                                              | 121                                          | 151                  |
|                                                           | ft in              | 5.94"                                            | 4.76"                                        | 5.94"                |
| F Overall height with bucket at full lift                 | mm                 | 5,477                                            | 5,477                                        | 5,477                |
|                                                           | ft in              | 18'                                              | 18'                                          | 18'                  |
| G Dump clearance at full lift and 45° discharge, ISO 7131 | mm                 | 3,059                                            | 3,146                                        | 3,059                |
|                                                           | ft in              | 10'0"                                            | 10'4"                                        | 10'0"                |
| H Reach at full lift and 45° discharge, ISO 7131          | mm                 | 1,244                                            | 1,195                                        | 1,244                |
|                                                           | ft in              | 4'1"                                             | 3'11"                                        | 4'1"                 |
| Bucket weight                                             | kg                 | 1,720                                            | 1,539                                        | 1,589                |
|                                                           | lb                 | 3,792                                            | 3,393                                        | 3,503                |
| Operating weight <sup>1)</sup>                            | kg                 | 21,870                                           | 21,690                                       | 21,740               |
|                                                           | lb                 | 48,215                                           | 47,818                                       | 47,928               |
| Ground pressure <sup>1)</sup>                             | kg/cm <sup>2</sup> | 0.66                                             | 0.66                                         | 0.66                 |
|                                                           | psi                | 9.44                                             | 9.36                                         | 9.39                 |

<sup>1)</sup> Including coolant and lubricants, full fuel tank, ROPS / FOPS cab, operator, bucket, counterweight(s) and track shoes with 560 mm / 22".

<sup>2)</sup> Track shoes with 560 mm / 22". With other track shoes on demand at your dealer.

# Front attachments LR 636



## Multi-purpose bucket

| Version with                                                       |                                  | Bolt-on adapters,<br>weld-on adapters and shanks | Flush mounted weld-on<br>adapters and shanks | Bolt-on cutting edge |
|--------------------------------------------------------------------|----------------------------------|--------------------------------------------------|----------------------------------------------|----------------------|
| Nominal rated bucket capacity, ISO 7546                            | m <sup>3</sup> / yd <sup>3</sup> | 2.0 / 2.62                                       | 1.9 / 2.49                                   | 2.0 / 2.62           |
| Nominal rated bucket capacity, SAE J742                            | m <sup>3</sup> / yd <sup>3</sup> | 2.1 / 2.75                                       | 1.9 / 2.49                                   | 2.1 / 2.75           |
| Breakout force, ISO 14397                                          | kN / lb                          | 155 / 34,845                                     | 169 / 37,992                                 | 155 / 34,845         |
| Static tipping load, ISO 14397                                     | kg / lb                          | 13,025 / 28,715                                  | 13,775 / 30,369                              | 13,150 / 28,991      |
| A Overall length bucket at ground with rear bumper                 | mm<br>ft in                      | 7,094<br>23'3"                                   | 6,978<br>22'11"                              | 7,094<br>23'3"       |
| B Bucket width, overall <sup>[2]</sup>                             | mm<br>ft in                      | 2,529<br>8'4"                                    | 2,500<br>8'2"                                | 2,490<br>8'2"        |
| C Height of hinge pin, transport position                          | mm<br>ft in                      | 576<br>1'11"                                     | 576<br>1'11"                                 | 576<br>1'11"         |
| D Height of hinge pin, max.                                        | mm<br>ft in                      | 4,051<br>13'3"                                   | 4,051<br>13'3"                               | 4,051<br>13'3"       |
| E Digging depth, max.                                              | mm<br>ft in                      | 220<br>8.66"                                     | 190<br>7.48"                                 | 220<br>8.66"         |
| F Overall height with bucket at full lift (bucket closed)          | mm<br>ft in                      | 5,458<br>17'11"                                  | 5,458<br>17'11"                              | 5,458<br>17'11"      |
| F1 Overall height with bucket at full lift (bucket open)           | mm<br>ft in                      | 6,160<br>20'3"                                   | 6,070<br>19'11"                              | 6,160<br>20'3"       |
| G Dump clearance at full lift and 45° discharge (bucket), ISO 7131 | mm<br>ft in                      | 2,966<br>9'9"                                    | 3,053<br>10'0"                               | 2,966<br>9'9"        |
| G1 Dump clearance at full lift and 45° discharge (blade), ISO 7131 | mm<br>ft in                      | 3,576<br>12'9"                                   | 3,576<br>11'9"                               | 3,576<br>11'9"       |
| H Reach at full lift and 45° discharge (bucket), ISO 7131          | mm<br>ft in                      | 1,238<br>4'1"                                    | 1,189<br>3'11"                               | 1,238<br>4'1"        |
| H1 Reach at full lift and 45° discharge (blade), ISO 7131          | mm<br>ft in                      | 691<br>2'3"                                      | 691<br>2'3"                                  | 691<br>2'3"          |
| I Width of opening                                                 | mm / ft in                       | 1,290 / 4'3"                                     | 1,290 / 4'3"                                 | 1,290 / 4'3"         |
| Bucket weight                                                      | kg / lb                          | 2,281 / 5,029                                    | 2,115 / 4,663                                | 2,161 / 4,764        |
| Operating weight <sup>[1]</sup>                                    | kg / lb                          | 22,541 / 49,694                                  | 22,424 / 49,436                              | 22,410 / 49,406      |
| Ground pressure <sup>[1]</sup>                                     | kg/cm <sup>2</sup> / psi         | 0.69 / 9.84                                      | 0.69 / 9.80                                  | 0.68 / 9.79          |

<sup>[1]</sup> Including coolant and lubricants, full fuel tank, ROPS/FOPS cab, operator, bucket, counterweight and track shoes with 508 mm / 20".

<sup>[2]</sup> Track shoes with 508 mm / 20". With other track shoes on demand at your dealer.

# Rear attachments LR 636



## 3-Shank ripper radial

| In combination with                     |                    | Standard bucket<br>up to 3.01 yd <sup>3</sup> | Standard bucket<br>greater than 3.01 yd <sup>3</sup> | Multi-purpose bucket<br>(all sizes) |
|-----------------------------------------|--------------------|-----------------------------------------------|------------------------------------------------------|-------------------------------------|
| A Beam width                            | mm                 | 2,100                                         | 2,100                                                | 2,100                               |
|                                         | ft in              | 6'11"                                         | 6'11"                                                | 6'11"                               |
| B Ripping width                         | mm                 | 1,860                                         | 1,860                                                | 1,860                               |
|                                         | ft in              | 6'1"                                          | 6'1"                                                 | 6'1"                                |
| C Distance between shanks               | mm                 | 900                                           | 900                                                  | 900                                 |
|                                         | ft in              | 2'11"                                         | 2'11"                                                | 2'11"                               |
| D Penetration max.                      | mm                 | 365                                           | 365                                                  | 365                                 |
|                                         | ft in              | 1'2"                                          | 1'2"                                                 | 1'2"                                |
| E Ground clearance, max. below shanks   | mm                 | 883                                           | 883                                                  | 883                                 |
|                                         | ft in              | 2'11"                                         | 2'11"                                                | 2'11"                               |
| F Additional length, ripper raised      | mm                 | 604                                           | 604                                                  | 604                                 |
|                                         | ft in              | 2'                                            | 2'                                                   | 2'                                  |
| G Additional length, transport position | mm                 | 715                                           | 715                                                  | 715                                 |
|                                         | ft in              | 2'4"                                          | 2'4"                                                 | 2'4"                                |
| H Approach angle, ripper raised         |                    | 21°                                           | 21°                                                  | 21°                                 |
| Ripper weight <sup>1)</sup>             | kg                 | 1,106                                         | 1,106                                                | 1,106                               |
|                                         | lb                 | 2,438                                         | 2,438                                                | 2,438                               |
| Change in operating weight              | kg                 | 853                                           | 506                                                  | 506                                 |
|                                         | lb                 | 1,881                                         | 1,116                                                | 1,116                               |
| Change in ground pressure               | kg/cm <sup>2</sup> | 0.03                                          | 0.02                                                 | 0.02                                |
|                                         | psi                | 0.37                                          | 0.21                                                 | 0.21                                |
| Change in static tipping load           | kg                 | 1,897                                         | 1,285                                                | 1,762                               |
|                                         | lb                 | 4,182                                         | 2,833                                                | 3,885                               |

<sup>1)</sup> If the ripper is mounted, no counterweight will be fitted to the machine.