

# Technical data



## Diesel engine

|                          |                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------|
| <b>Rating</b>            |                                                                                       |
| per SAE J1349            | 188 HP (140 kW) at 1,700 rpm                                                          |
| per ISO 9249             | 190 HP (140 kW) at 1,700 rpm                                                          |
| <b>Model</b>             | Liebherr D934                                                                         |
| <b>Type</b>              | 4 cylinder in-line                                                                    |
| Bore / Stroke            | 4.8 / 5.9 in                                                                          |
| Displacement             | 427.1 in³                                                                             |
| <b>Engine operation</b>  | 4-stroke diesel<br>Common-Rail<br>Turbo-charged and after-cooled<br>Reduced emissions |
| <b>Air cleaner</b>       | Dry-type air cleaner with pre-cleaner, primary and safety elements                    |
| <b>Engine idling</b>     | Sensor controlled                                                                     |
| <b>Electrical system</b> |                                                                                       |
| Voltage                  | 24 V                                                                                  |
| Batteries                | 2 x 135 Ah / 12 V                                                                     |
| Alternator               | Three-phase current 28 V / 140 A                                                      |
| <b>Stage V</b>           |                                                                                       |
| Harmful emissions values | According to regulation (EU) 2016/1628                                                |
| Emission control         | Liebherr-SCRFilter technology                                                         |
| Fuel tank                | 87 gal                                                                                |
| Urea tank                | 12 gal                                                                                |
| <b>Tier 4 Final</b>      |                                                                                       |
| Harmful emissions values | In accordance with 40CFR1039 (EPA) / 13CCR (CARB)                                     |
| Emission control         | Liebherr-SCR technology                                                               |
| Fuel tank                | 87 gal                                                                                |
| Urea tank                | 12 gal                                                                                |



## Cooling system

|                      |                                                                                                                                                      |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Diesel engine</b> | Water-cooled<br>Compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermostatically controlled fan |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|



## Hydraulic controls

|                             |                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------|
| <b>Power distribution</b>   | Via control valves in single block with integrated safety valves                       |
| <b>Servo circuit</b>        |                                                                                        |
| Equipment and swing         | With hydraulic pilot control and proportional joystick levers                          |
| Chassis                     | Electro-proportional via foot pedal                                                    |
| <b>Additional functions</b> | Via switch or electro-proportional foot pedals                                         |
| <b>Proportional control</b> | Proportionally acting transmitters on the joysticks for additional hydraulic functions |



## Hydraulic system

|                                              |                                                                                                                                                                                                                           |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hydraulic pump</b>                        |                                                                                                                                                                                                                           |
| For equipment and travel drive               | 2 Liebherr axial piston variable displacement pumps (double construction)                                                                                                                                                 |
| Max. flow                                    | 2 x 61 gpm                                                                                                                                                                                                                |
| Max. pressure                                | 5,076 psi                                                                                                                                                                                                                 |
| For swing drive                              | Reversible axial piston variable displacement pump, closed-loop circuit                                                                                                                                                   |
| Max. flow                                    | 37 gpm                                                                                                                                                                                                                    |
| Max. pressure                                | 6,092 psi                                                                                                                                                                                                                 |
| <b>Hydraulic pump regulation and control</b> | Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque controlled swing drive priority                                                            |
| <b>Hydraulic tank</b>                        | 46 gal                                                                                                                                                                                                                    |
| <b>Hydraulic system</b>                      | max. 114 gal                                                                                                                                                                                                              |
| <b>Filtration</b>                            | 1 main return filter with integrated partial micro filtration (5 µm)                                                                                                                                                      |
| <b>MODE selection</b>                        | Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum digging performance and heavy-duty jobs |
| S (Sensitive)                                | Mode for precision work and lifting through very sensitive movements                                                                                                                                                      |
| E (Eco)                                      | Mode for especially economical and environmentally friendly operation                                                                                                                                                     |
| P (Power)                                    | Mode for high performance with low fuel consumption                                                                                                                                                                       |
| P+ (Power-Plus)                              | Mode for highest performance and for very heavy duty applications, suitable for continuous operation                                                                                                                      |
| <b>Engine speed and performance setting</b>  | Stepless alignment of engine output and hydraulic power via engine speed                                                                                                                                                  |
| Option                                       | Tool Control: 20 pre-adjustable pump flows and pressures for add-on attachments                                                                                                                                           |



## Swing drive

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| <b>Drive</b>         | Liebherr axial piston motor in a closed system, Liebherr planetary reduction gear |
| <b>Swing ring</b>    | Liebherr, sealed race ball bearing swing ring, internal teeth                     |
| <b>Swing speed</b>   | 0-10.0 rpm stepless                                                               |
| <b>Swing torque</b>  | 56,055 lbf ft                                                                     |
| <b>Holding brake</b> | Wet multi-disc (spring applied, pressure released)                                |
| <b>Option</b>        | Pedal controlled positioning swing brake<br>Slewing gear brake Comfort            |



## Cab

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cab</b>                              | ROPS safety cab structure (roll-over protection system) with individual windscreens or featuring a slide-in subpart under the ceiling, headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen |
| <b>Operator's seat Standard</b>         | Air cushioned operator's seat with 3D-adjustable arm-rests, headrest, lap belt, seat heater, manual weight adjustment, adjustable seat cushion inclination and length and mechanical lumbar vertebrae support                                                                                                                                                                                                                          |
| <b>Operator's seat Comfort (Option)</b> | In addition to operator's seat standard: lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal                                                                                                                                                                                                              |
| <b>Operator's seat Premium (Option)</b> | In addition to operator's seat comfort: active electronic weight adjustment (automatic readjustment), pneumatic low frequency suspension and active seat climatization with active coal and ventilator                                                                                                                                                                                                                                 |
| <b>Arm consoles</b>                     | Joysticks with control consoles and swivel seat, folding left control console                                                                                                                                                                                                                                                                                                                                                          |
| <b>Operation and displays</b>           | Large high-resolution operating unit, self-explanatory, color display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters                                                                                                                                                                                         |
| <b>Air-conditioning</b>                 | Automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; recirculated air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures                                                    |



## Undercarriage

|                                |                                                                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Drive</b>                   | Oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides                                                           |
| <b>Pulling force</b>           | 29,000 lbf                                                                                                                                                                                                  |
| <b>Travel speed</b>            | 0- 2.2 mph stepless (creeper speed off-road)<br>0- 4.3 mph stepless (off-road)<br>0- 8.1 mph stepless (creeper speed on-road)<br>0-12.4 mph stepless (road travel)<br>0-max. 15.5 mph Speeder (option)      |
| <b>Driving operation</b>       | Automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions, both off-road and on-road                                                             |
| <b>Axles</b>                   | Manual or automatic hydraulically controlled front axle oscillation lock                                                                                                                                    |
| <b>Service brake</b>           | Two circuit travel brake system with accumulator; wet and backlash-free disc brake                                                                                                                          |
| <b>Automatic digging brake</b> | Works automatically when driving off (accelerator pedal actuation) and when the machine is stationary (engagement); the digging brake engages automatically - can be coupled with automatic swing axle lock |
| <b>Holding brake</b>           | Wet multi-disc (spring applied, pressure released)                                                                                                                                                          |
| <b>Stabilization</b>           | Rear stabilizer blade (adjustable during travel for dozing)<br>Rear stabilizer blade + front outriggers<br>Rear outriggers + front stabilizer blade<br>Rear + front outriggers                              |
| <b>Option</b>                  | EW undercarriage 9'                                                                                                                                                                                         |



## Equipment

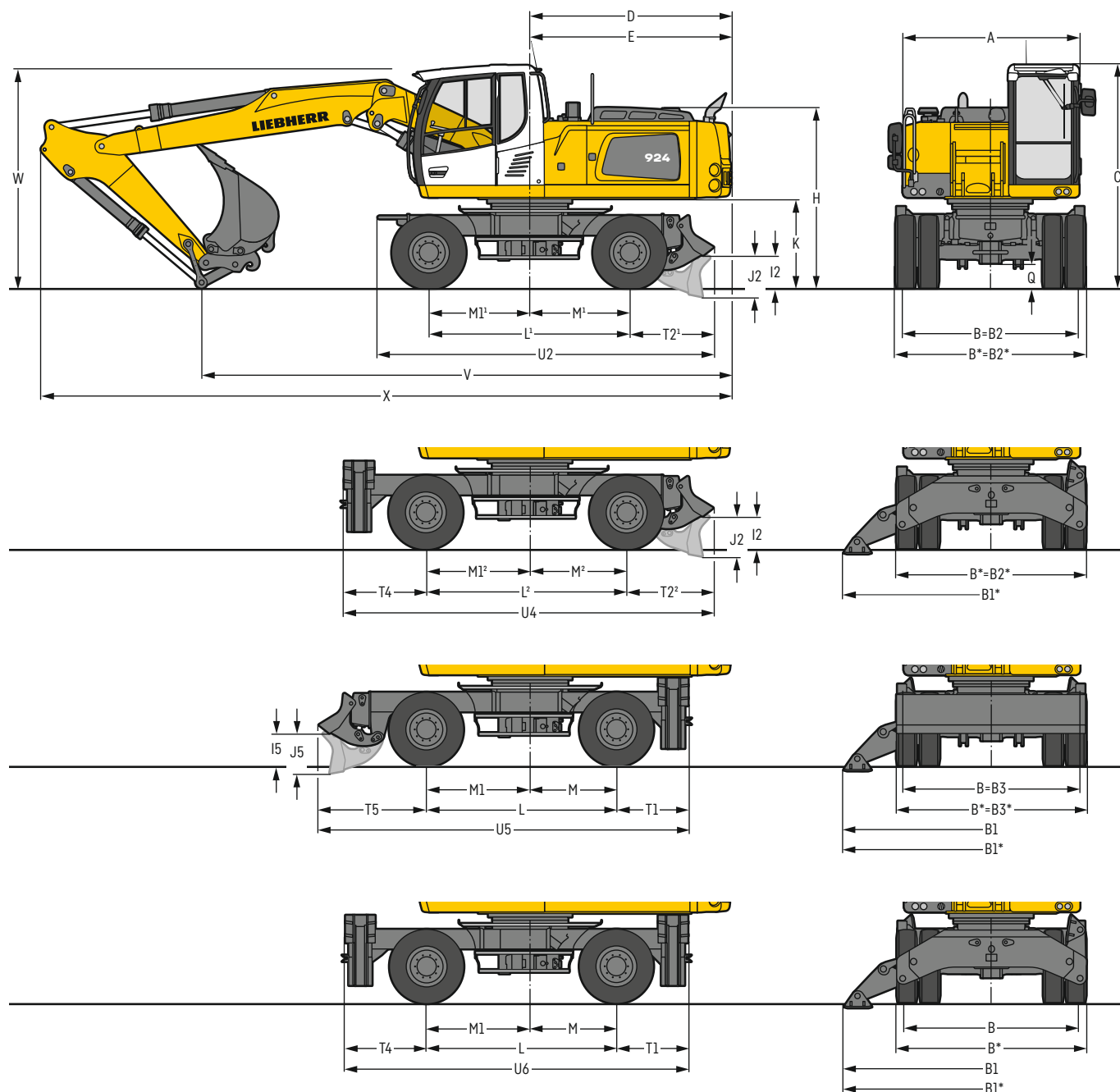
|                            |                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type</b>                | High-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders |
| <b>Hydraulic cylinders</b> | Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption                                  |
| <b>Bearings</b>            | Sealed, low maintenance                                                                                                                     |



## Complete machine

|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| <b>Lubrication</b>    | Liebherr central lubrication system for uppercarriage and equipment, automatically |
| <b>Noise emission</b> |                                                                                    |
| ISO 6396              | 72 dB(A) = L <sub>PA</sub> (inside cab)                                            |
| 2000/14/EC            | 103 dB(A) = L <sub>WA</sub> (surround noise)                                       |

# Dimensions



|                        | ft in  |
|------------------------|--------|
| <b>A</b>               | 8' 3"  |
| <b>B</b>               | 8' 4"  |
| <b>B*</b>              | 9'     |
| <b>B1</b>              | 13' 2" |
| <b>B1*</b>             | 14'    |
| <b>B2</b>              | 8' 4"  |
| <b>B2*</b>             | 9'     |
| <b>B3</b>              | 8' 4"  |
| <b>B3*</b>             | 9'     |
| <b>C</b>               | 10' 7" |
| <b>D</b>               | 9' 6"  |
| <b>E</b>               | 9' 6"  |
| <b>H</b>               | 8' 7"  |
| <b>I2</b>              | 1' 6"  |
| <b>I5</b>              | 1' 6"  |
| <b>J2</b>              | 1'11"  |
| <b>J5</b>              | 1'11"  |
| <b>K</b>               | 4' 2"  |
| <b>L</b>               | 9'     |
| <b>L<sup>1)</sup></b>  | 9' 6"  |
| <b>L<sup>2)</sup></b>  | 9' 6"  |
| <b>M</b>               | 4' 1"  |
| <b>M<sup>1)</sup></b>  | 4' 9"  |
| <b>M<sup>2)</sup></b>  | 4' 7"  |
| <b>M1</b>              | 4'11"  |
| <b>M1<sup>1)</sup></b> | 4' 9"  |
| <b>M1<sup>2)</sup></b> | 4'11"  |
| <b>Q</b>               | 1' 2"  |
| <b>T1</b>              | 3' 5"  |
| <b>T2<sup>1)</sup></b> | 4'     |
| <b>T2<sup>2)</sup></b> | 4' 2"  |
| <b>T4</b>              | 3'11"  |
| <b>T5</b>              | 5' 1"  |
| <b>U2</b>              | 15'11" |
| <b>U4</b>              | 17' 7" |
| <b>U5</b>              | 17' 7" |
| <b>U6</b>              | 16' 4" |

\* EW undercarriage / Tires 11.00-20

<sup>1)</sup> Undercarriage version stabilizer blade rear

<sup>2)</sup> Undercarriage version stabilizer blade rear + front outriggers

E = Tail radius

Tires 10.00-20

|          | Stick | Two-piece boom 19' |                               |                               |                         |
|----------|-------|--------------------|-------------------------------|-------------------------------|-------------------------|
|          |       | Rear blade         | Rear blade + front outriggers | Rear outriggers + front blade | Rear + front outriggers |
|          | ft in | ft in              | ft in                         | ft in                         | ft in                   |
| <b>V</b> | 7'5"  | 25'1"              | 25'1"                         | 25'1"                         | 25'1"                   |
|          | 8'    | 24'1"              | 24'1"                         | 24'1"                         | 24'1"                   |
|          | 8'8"  | 23'                | 23'                           | 23'                           | 23'                     |
|          | 10'   | 22'                | 22'                           | 22'                           | 22'                     |
| <b>W</b> | 7'5"  | 10'4"              | 10'4"                         | 10'4"                         | 10'4"                   |
|          | 8'    | 10'4"              | 10'4"                         | 10'4"                         | 10'4"                   |
|          | 8'8"  | 10'4"              | 10'4"                         | 10'4"                         | 10'4"                   |
|          | 10'   | 10'6"              | 10'6"                         | 10'6"                         | 10'6"                   |
| <b>X</b> | 7'5"  | 32'8"              | 32'8"                         | 32'8"                         | 32'8"                   |
|          | 8'    | 32'8"              | 32'8"                         | 32'8"                         | 32'8"                   |
|          | 8'8"  | 32'8"              | 32'8"                         | 32'8"                         | 32'8"                   |
|          | 10'   | 32'8"              | 32'8"                         | 32'8"                         | 32'8"                   |

|          | Stick | Mono boom 18'6" |                               |                               |                             |
|----------|-------|-----------------|-------------------------------|-------------------------------|-----------------------------|
|          |       | Rear blade      | Rear blade + front outriggers | Rear outriggers + front blade | Rear + front outriggers     |
|          | ft in | ft in           | ft in                         | ft in                         | ft in                       |
| <b>V</b> | 7'5"  | 21' 4"          | 21' 4"                        | 21' 4"                        | 21' 4"                      |
|          | 8'    | 20'10"          | 20'10"                        | 20'10"                        | 20'10"                      |
|          | 8'8"  | 20' 4"          | 20' 4""                       | 20'10""                       | 20' 4""                     |
|          | 10'   | 20' 8"          | 22' 4"" <sup>1) 2)</sup>      | 22'10"" <sup>** 1) 2)</sup>   | 22' 4"" <sup>** 1) 2)</sup> |
| <b>W</b> | 7'5"  | 10' 8"          | 10' 8"                        | 10' 8"                        | 10' 8"                      |
|          | 8'    | 10'10"          | 10'10"                        | 10'10"                        | 10'10"                      |
|          | 8'8"  | 10'10"          | 11'*                          | 11'*                          | 11'*                        |
|          | 10'   | 11' 2"          | 11' 2"" <sup>* 1)</sup>       | 11' 2"" <sup>* 1)</sup>       | 11' 2"                      |
| <b>X</b> | 7'5"  | 31' 6"          | 31' 6"                        | 31' 6"                        | 31' 6"                      |
|          | 8'    | 31' 6"          | 31' 6"                        | 31' 6"                        | 31' 6"                      |
|          | 8'8"  | 31' 8"          | 31' 8""                       | 32' 2""                       | 31' 8""                     |
|          | 10'   | 31' 8"          | 31' 8"" <sup>* 1)</sup>       | 32' 2"" <sup>* 1)</sup>       | 31' 8"" <sup>* 1)</sup>     |

Dimensions are with equipment over steering axle

\* Equipment over digging axle for shorter transport dimensions

<sup>1)</sup> without quick coupler

<sup>2)</sup> tipping cylinder retracted

W = Max. ground clearance including approx. 6" piping