

Technical data



Diesel engine

Rating	
per SAE J1349	141 HP (105 kW) at 1.800 rpm
per ISO 9249	143 HP (105 kW) at 1.800 rpm
Model	D924 - FPT motor designed for Liebherr
Type	4 cylinder in-line
Bore / Stroke	4.1 / 5.2 in
Displacement	274.6 in³
Engine operation	4-stroke diesel Common-Rail Turbo-charged and after-cooled Reduced emissions
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Engine idling	Sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah / 12 V
Alternator	Three-phase current 28 V / 140 A
Stage V	
Harmful emissions values	According to regulation (EU) 2016/1628
Emission control	Liebherr-SCRT technology
Fuel tank	66 gal
Urea tank	12 gal
Tier 4 Final	
Harmful emissions values	In accordance with 40CFR1039 (EPA) / 13CCR (CARB)
Emission control	Liebherr-SCR technology
Fuel tank	66 gal
Urea tank	12 gal



Cooling system

Diesel engine	Water-cooled Compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermostatically controlled fan, fans for radiator cleaning can be completely folded away
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Hydraulic controls

Power distribution	Via control valves with integrated safety valves, simultaneous and independent actuation of chassis, swing drive and equipment
Servo circuit	
Equipment and swing	With hydraulic pilot control and proportional joystick levers
Chassis	Electro-proportional via foot pedal
Additional functions	Via switch or electro-proportional foot pedals
Proportional control	Proportionally acting transmitters on the joysticks for additional hydraulic functions



Hydraulic system

Hydraulic pump	Liebherr axial piston variable displacement pump
For equipment and travel drive	
Max. flow	66 gpm
Max. pressure	5,076 psi
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque controlled swing drive priority
Hydraulic tank	34.5 gal
Hydraulic system	max. 79.5 gal
Filtration	1 main return filter with integrated partial micro filtration (5 µm)
MODE selection	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
Engine speed and performance setting	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

Drive	Liebherr axial piston motor with integrated brake valve and torque control, Liebherr planetary reduction gear
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0-10.0 rpm stepless
Swing torque	39,828 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)
Option	Pedal controlled positioning swing brake Slewing gear brake Comfort



Cab

Cab	ROPS safety cab structure (roll-over protection system) with individual windscreens or featuring a slide-in sub-part under the ceiling, work 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
Operator's seat Standard	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
Operator's seat Comfort (Option)	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
Operator's seat Premium (Option)	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
Arm consoles	Joysticks with control consoles and swivel seat, folding left control console
Operation and displays	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
Air-conditioning	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 (country-dependent)



Undercarriage

Drive	Oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Pulling force	21,357 lbf
Travel speed	0- 2.2 mph stepless (creeper speed off-road) 0- 4.3 mph stepless (off-road) 0- 8.1 mph stepless (creeper speed on-road) 0-12.4 mph stepless (road travel) 0-max. 18.6 or 23.0 mph Speeder (option)
Driving operation	Automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions, both off-road and on-road
Axles	Manual or automatic hydraulically controlled front axle oscillation lock
Service brake	Two circuit travel brake system with accumulator; wet and backlash-free disc brake
Automatic digging brake	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
Holding brake	Wet multi-disc (spring applied, pressure released)
Stabilization	Rear stabilizer blade (adjustable during travel for dozing) Rear + front stabilizer blade Rear outriggers + front stabilizer blade
Option	EW undercarriage 9'



Equipment

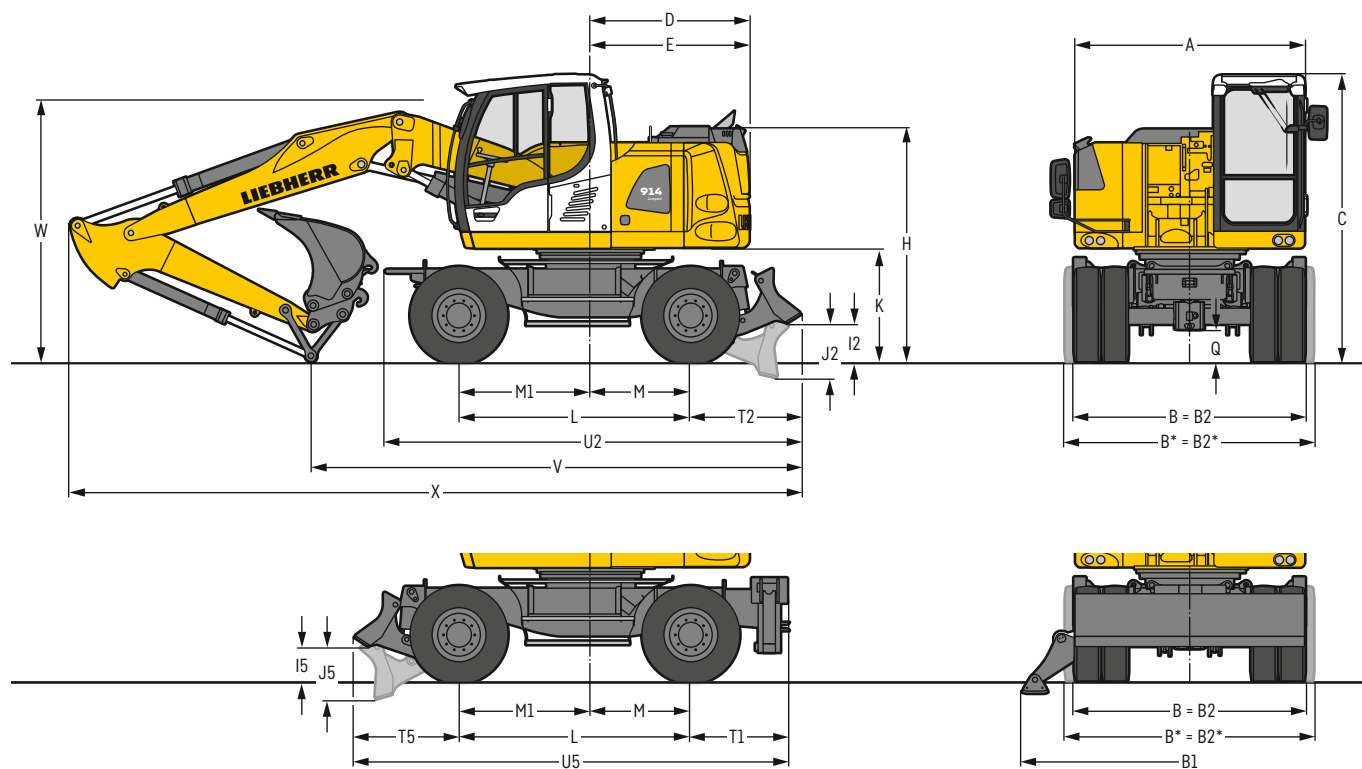
Type	High-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption
Bearings	Sealed, low maintenance



Complete machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Noise emission	
ISO 6396	71 dB(A) = L _{PA} (inside cab)
2000/14/EC	100 dB(A) = L _{WA} (surround noise)

Dimensions



	ft in
A	8' 3"
B	8' 4"
B*	9'
B1	12' 1"
B2	8' 4"
B2*	9'
C	10' 5"
D	5' 9"
E	5' 9"
H	8' 6"
I2	1' 5"
I5	1' 3"
J2	2'
J5	1'11"
K	4'
L	8' 4"
M	3' 7"
M1	4' 9"
Q	1' 2"
T1	3' 5"
T2	4'
T5	3' 9"
U2	15'
U5	15' 7"

* EW undercarriage
E = Tail radius
Tires 10.00-20

	Stick	Two-piece boom 15'11"		Mono boom 15'1"	
		Rear blade	Rear outriggers + front blade	Rear blade	Rear outriggers + front blade
	ft in	ft in	ft in	ft in	ft in
V	6'9"	18'10"	18' 4"	17' 3"	18' 3"
	7'5"	18' 1"	17' 7"	15'11"	17' 1"
	8'	16' 7"	17' 5"	17' 3"	18' 4"
W	6'9"	9' 8"	9' 8"	9'10"	9'10"
	7'5"	9' 8"	9' 8"	9' 6"	9' 6"
	8'	9' 2"	9' 2"	10' 8"	10' 8"
X	6'9"	26' 7"	25'11"	25' 7"	26' 5"
	7'5"	26' 5"	25'11"	25' 3"	26' 5"
	8'	26' 5"	27' 5"	25' 5"	26' 7"

	Stick	Offset two-piece boom 16'1"		Offset mono boom 14'1"	
		Rear blade	Rear outriggers + front blade	Rear blade	Rear outriggers + front blade
	ft in	ft in	ft in	ft in	ft in
V	6'9"	20' 6"	20'	18' 6"	19' 4"
	7'5"	18'10"	18' 4"	17' 5"	18' 6"
	8'	17' 9"	18'8"	18' 4" ^{1) 2)}	19' 2" ^{1) 2)}
W	6'9"	10' 6"	10'6"	10'10"	10'10"
	7'5"	10' 4"	10'4"	10'10"	10'10"
	8'	10' 2"	10'2"	10' 4" ¹⁾	10' 4" ¹⁾
X	6'9"	26' 7"	26'1"	24' 9"	25' 7"
	7'5"	26' 7"	26'1"	24' 3"	25' 5"
	8'	26' 9"	27'7"	24' 9" ¹⁾	25' 9" ¹⁾

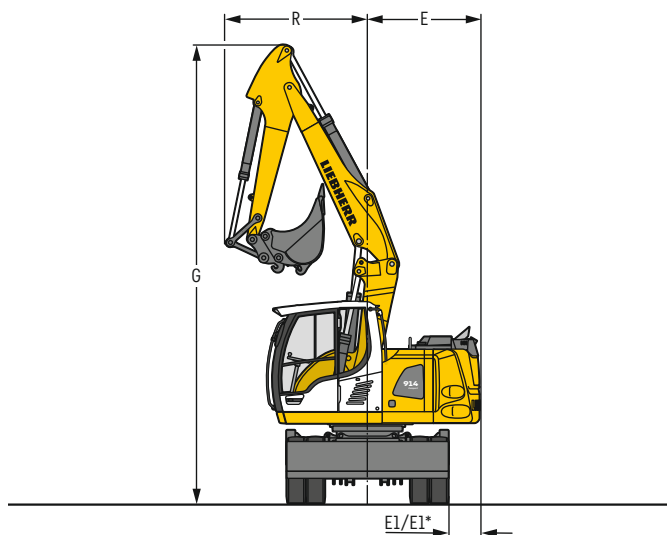
Dimensions are with equipment over steering axle

* Equipment over digging axle for shorter transport dimensions

¹⁾ without backhoe bucket

²⁾ tipping cylinder retracted

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



Boom	Stick ft in	G ft in	R ft in	E ft in	E1 ft in
Two-piece boom	6'9"	23'7"	6'11"	5'9"	1'7" / 1'4"
Two-piece boom	7'5"	23'7"	7' 1"	5'9"	1'7" / 1'4"
Two-piece boom	8'	23'7"	7' 3"	5'9"	1'7" / 1'4"

* EW undercarriage