

Technical Data



Engine

Rating	
per SAE J1349	335 HP (250 kW) at 1,800 rpm
per ISO 9249	340 HP (250 kW) at 1,800 rpm
Torque	2,280 Nm at 1,000 rpm / 1,682 lbf ft at 1,000 rpm
Model	Liebherr D936 A7
Type	6 cylinder in-line
Bore	130 mm / 5.1 in
Stroke	150 mm / 5.9 in
Displacement	10.5 l / 641 in³
Engine operation	4-stroke diesel Common-Rail, monoturbo
Exhaust gas treatment	Tier 4 Final SCR Filter Passive regeneration by thermo management
Cooling system	Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	734 l / 194 gal
Urea tank	90 l / 24 gal
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah/ 12 V
Starter	24 V/7.8 kW
Alternator	Three-phase current 28 V/ 140 A
Engine idling	Sensor controlled
Motor management	Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



Hydraulic Controls

The controlling is conducted via the integrated excavator system technology, input and output modules, communicated via the CAN-BUS with the electronic central unit	
Power distribution	Via control valves in single block with integrated safety valves
Flow summation	To boom and stick
Closed-loop circuit	For uppercarriage swing drive
Servo circuit	
Equipment and swing	Proportional via joystick levers
Travel	– Proportional control via foot pedals or removable levers – Speed pre-selection
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic System

Hydraulic pumps	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 380 l/min. / 2 x 100 gpm
Max. pressure	350 bar / 5,076 psi
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	201 l/min. / 53 gpm
Max. pressure	375 bar / 5,439 psi
Pump regulation	Electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation
Hydraulic tank	380 l / 100 gal
Hydraulic system	743 l / 196 gal
Hydraulic oil filter	2 full flow filters in return line with integrated fine filter area (5 µm / 2,500 mesh)
Cooling system	Compact cooler for water cooler, after-cooler, fuel cooler and transmission pump oil, sandwiched with cooler for oil and condenser of air-conditioning with hydrostatically controlled fan drives
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
RPM adjustment	Stepless adjustment of engine output via RPM at each selected mode
Tool Control	20 pre-adjustable pump flows and pressures for add-on attachments



Swing Drive

Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 5.8 rpm stepless
Swing torque	160 kNm / 118,010 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)



Operator's Cab

Cab	LED work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, cigarette lighter and 12 V plug, storage bins, lunchbox, cup holder
Operator's seat	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination (adjustable in width, height and inclination), seat heating as standard
Arm consoles	Oscillating consoles with seat, tiltable console left
Operation and displays	Large high-resolution operating unit, intuitive, 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
Noise emission	
ISO 6396	L_{pA} (inside cab) = 72 dB(A)
2000/14/EC	L_{WA} (surround noise) = 106 dB(A)



Undercarriage

Versions	
LC-V	Gauge 2,890 mm / 9'6"
HD	Gauge 2,900 mm / 9'6"
Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	Low range 2.6 km/h / 1.6 mph High range 3.7 km/h / 2.3 mph
Drawbar pull on crawler	446 kN / 100,265 lbf
Track components	D8L, maintenance-free
Track rollers/Carrier rollers	LC-V: 10/3 HD: 9/2
Tracks	Sealed and greased
Track pads	Triple grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Integrated into travel motor
Lashing eyes	Integrated



Equipment

Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system



WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65warnings.ca.gov.



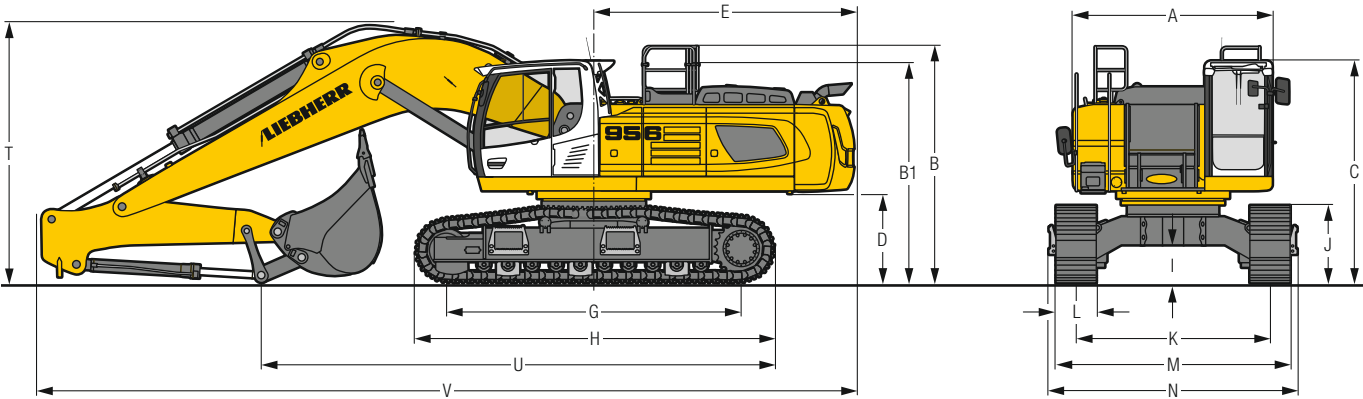
WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- ▶ Always start and operate the engine in a well-ventilated area.
- ▶ If in an enclosed area, vent the exhaust to the outside.
- ▶ Do not modify or tamper with exhaust system.
- ▶ Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

Dimensions



	HD	mm/ft in			LC-V	mm/ft in		
A* Uppercarriage width		2,970/ 9' 9"				2,970/ 9' 9"		
B Uppercarriage height		3,555/ 11' 8"				3,660/ 12'		
B1 Uppercarriage height (handrails folded)		3,305/ 10'10"				3,410/ 11' 2"		
C Cab height		3,335/3,530***/ 10'11"/11' 7"***				3,440/3,635***/ 11'3"/11'11"***		
D Counterweight ground clearance		1,355/ 4' 5"				1,460/ 4' 9"		
E Rear-end length		3,900/ 12'10"				3,900/ 12'10"		
G Wheelbase		4,500/ 14' 9"				4,500/ 14' 9"		
H Undercarriage length		5,550/ 18' 3"				5,550/ 18' 3"		
I Undercarriage ground clearance		575/ 1'11"				800/ 2' 7"		
J Track height		1,225/ 4'				1,210/ 4'		
K Track gauge		2,900/ 9' 6"				2,390/2,890**/ 7'10"/ 9' 6"***		
L Track pad width		500/ 20"	600/ 24"	750/ 30"		500 / 20"	600 / 24"	750 / 30"
M Width over tracks		3,465/ 11' 4"	3,500/ 11' 6"	3,650/ 12'		2,970/3,470**/ 9'9"/11' 5"***	2,990/3,490**/ 9'10"/11' 5"***	3,140/3,640**/ 10' 4"/11'11"***
N Width over steps		3,715/ 12' 2"	3,715/ 12' 2"	3,715/ 12' 2"		3,225/3,725**/ 10'7"/12' 3"***	3,225/3,725**/ 10' 7"/12' 3"***	3,225/3,725**/ 10' 7"/12' 3"***

* without door stop device and spacer

** work position

*** with FOPS top guard

		Stick length m/ft in	Mono boom 6.70 m/22' direct mounting mm/ft in		Mono boom 7.60 m/24'11" direct mounting mm/ft in		Mono boom straight 8.00 m/26'3" direct mounting mm/ft in		Mono boom 9.20 m/30'2" direct mounting mm/ft in	
			HD	LC-V	HD	LC-V	HD		HD	LC-V
T	Boom height	2.35/ 7'9"	3,900 /12'10"	4,000 /13'1"	3,900/12'10"	4,000/13'1"	3,600/11'10"	—	—	—
		2.90/ 9'6"	3,950 /13'	4,050 /13'3"	3,950/13'	4,050/13'3"	3,700/12' 2"	4,250/13'11"	—	—
		3.35/11'	3,850*/12' 8"*	3,950*/13'*	3,950/13'	4,050/13'3"	—	—	—	—
		3.80/12'6"	3,900*/12'10"*	4,000*/13'1"*	4,000/13' 1"	4,100/13'5"	3,850/12' 8"	4,350/14' 3"	—	—
		5.00/16'5"	—	—	—	—	—	4,450/14' 7"	—	—
U	Length on ground	2.35/ 7'9"	7,750 /25' 5"		7,700/25' 3"		8,350/27' 5"		—	
		2.90/ 9'6"	7,200 /23' 7"		8,300/37' 3"		7,900/25'11"		8,900/29' 2"	
		3.35/11'	9,800*/32' 2"*		7,900/25'11"		—		—	
		3.80/12'6"	9,400*/30'10"*		7,400/24' 3"		8,250/27' 1"		9,150/30'	
		5.00/16'5"	—		—		—		7,900/25'11"	
V	Overall length	2.35/ 7'9"	12,200 /40'		13,250/43' 6"		13,800/45' 3"		14,850/48' 9"	
		2.90/ 9'6"	12,250 /40' 2"		13,250/43' 6"		13,700/44'11"		14,850/48' 9"	
		3.35/11'	12,200*/40'*		13,250/43' 6"		—		—	
		3.80/12'6"	12,200*/40'*		13,250/43' 6"		13,700/44'11"		14,850/48' 9"	
		5.00/16'5"	—		—		—		—	
	Bucket		2.70 m³/3.53 yd³		2.00 m³/2.62 yd³		2.00 m³/2.62 yd³		1.65 m³/2.16 yd³	

* without bucket

Transport Dimensions

removable elements disassembled

	Undercarriage/ Stick m/ft in	Mono boom 6.70 m/22'			Mono boom 7.60 m/24'11"			Mono boom straight 8.00 m/26'3"			Mono boom 9.20 m/30'2"		
		mm/ft in			mm/ft in			mm/ft in			mm/ft in		
Pad width		500/ 20"	600/ 24"	750/ 30"	500/ 20"	600/ 24"	750/ 30"	500/ 20"	600/ 24"	750/ 30"	500/ 20"	600/ 24"	750/ 30"
Transport width	HD	3,465/11' 4"	3,500/11' 6"	3,650/12'	3,465/11' 4"	3,500/11' 6"	3,650/12'	3,465/11' 4"	3,500/11' 6"	3,650/12'	—		
	LC-V	2,970/ 9' 9"	2,990/ 9'10"	3,140/10' 4"	2,970/ 9' 9"	2,990/ 9'10"	3,140/10' 4"	—			2,970/ 9' 9"	2,990/ 9'10"	3,140/10' 4"
		HD	LC-V		HD	LC-V		HD			LC-V		
Transport length	2.35/ 7'9"	12,200 /40'			13,250/43'6"			13,800/45' 3"			—		
	2.90/ 9'6"	12,250 /40'2"			13,250/43'6"			13,700/44'11"			14,850/48'9"		
	3.35/11'	12,200*/40'*			13,250/43'6"			—			—		
	3.80/12'6"	12,200*/40'*			13,250/43'6"			13,700/44'11"			14,850/48'9"		
	5.00/16'5"	—			—			—			14,850/48'9"		
Transport height	2.35/ 7'9"	3,900/12'10"	4,000/13'1"		3,900/12'10"	4,000/13'1"		3,600/11'10"			—		
	2.90/ 9'6"	3,950/13'	4,050/13'3"		3,950/13'	4,050/13'3"		3,700/12' 2"			4,250/13'11"		
	3.35/11'	3,850/12' 8"	3,950/13'		3,950/13'	4,050/13'3"		—			—		
	3.80/12'6"	3,900/12'10"	4,000/13'1"		4,000/13' 1"	4,100/13'5"		3,850/12' 8"			4,350/14' 3"		
	5.00/16'5"	—			—			—			4,450/14' 7"		
Bucket		2.70 m³/3.53 yd³			2.00 m³/2.62 yd³			2.00 m³/2.62 yd³			1.65 m³/2.16 yd³		

* without bucket