VOLVO WHEEL LOADER

L70E



VOLVO

L70E – LOAD IT, LIFT IT, MOVE IT. DONE.

When you need to get it done, the L70E loads it, lifts it and moves it with precision and quickness. Providing all the power you need to meet the demands of tough conditions found in pipeline construction and earth moving, combined with the ability to maneuver in the tight work areas often found in residential construction, the L70E is the producer that delivers for a wide range of industries.

Volvo has developed and manufactured wheel loaders for over 50 years. The latest experiences and leading technology have been used in designing the L70E. It is the true all-round machine, giving you countless possibilities to expand your application range. With the Volvo engine and Automatic Power Shift (APS) gearshifting system, you get optimal performance and low fuel consumption in all types of applications. The Torque Parallel Linkage, hydraulic attachment bracket and wide range of Volvo genuine attachments further increase the machine's versatility.

Gets more done

You'll find the L70E a pleasure to operate. In this respect, competing loaders simply can't compete. It's powerful, agile and easy to maneuver. Sitting comfortably in an ergonomically designed seat, you have total control over the machine. Engine and hydraulics respond immediately to your commands. Visibility is panoramic and the air in the cab is always fresh. Both operator and machine get more done with a lot less haste.

A great deal for your investment

Proven reliability, excellent financing, extremely low fuel consumption and a high trade-in value provide the cornerstones of a safe investment. Add to that outstanding handling and productivity, a market-leading operator environment to protect the person in the machine, quick and simple daily maintenance and modest service requirements.

And what do you get? The most cost-efficient loader in its class, delivering unparalleled profitability — both now and in years to come.

With the L70E, everybody is a winner. Quite simply, a great deal for your money.



Specifications L70E

Engine: Volvo D6D LB E2
Max power at
28,3 r/s **(1,700 rpm)**
SAE J1995 gross
113 kW **(154 hp)**
ISO 9249, SAE J1349 net
112 kW **(152 hp)**
Breakout force:
101,1 kN* **(22,730 lbf)**
Static tipping load at full turn:
8 000 kg* **(17,640 lb)**
Buckets:
2,0 – 6,4 m^3 **(2.6–8.4 yd^3)**
Log grapple:
0,9 – 1,5 m^2 **(9.7–16.1 ft^2)**
Operating weight:
12,7 – 14,0 t **(28,000–30,860 lb)**
Tires:
20.5 R25, 600/65 R25

* Bucket: 2,2 m^3 **(2.9 yd^3)** straight edge with bolt-on edges.
Tires: 20.5 R25 L2. Standard boom.






VOLVO
L70E
VOLV
SOU 856

POWER UP YOUR PRODUCTIVITY

Load more tons per hour with the Volvo L70E. Its powerful engine and the Automatic Power Shift (APS) gear shifting system provide immediate response even in the toughest conditions. And Volvo axles are designed to ensure that the rimpull is there when needed. Torque Parallel Linkage (TP Linkage), load-sensing hydraulics, smooth steering and stable operation help make the L70E a precision performer.

Volvo engine delivers rapid response for faster work cycles
L70E is equipped with Volvo's 6-liter engine, correctly matched to the Volvo transmission, axles and hydraulic system for unbeatable productivity and economy. The electronically-controlled engine transmits high torque at low engine speeds for faster work cycles and fuel efficient operation.

Responds to your commands
The Volvo automatic countershaft transmission provides smooth and effective gear shifting. All the operator has to do is select forward, reverse or kickdown and APS automatically selects the right gear according to both engine rpm and ground speed. Volvo's in-house engineered axles and drivetrain are well matched and designed for top dependability. And Volvo's oil circulation-cooled wet disc brakes provide smooth, effective braking — and, of course, a long service life.

Torque Parallel Linkage — a breakthrough in the industry
The reliable TP Linkage, Volvo's patented lift-arm system, delivers high and even breakout torque throughout the entire lifting range. The system is exceedingly user-friendly. The operator can easily handle heavy materials and maintain full control in all positions. In addition, TP Linkage provides excellent parallel movement, making it possible for the L70E to perform well in applications where other manufacturers need two different machine types.

Hydraulics that make sense
The Volvo L70E features an intelligent load-sensing system for both the main and steering hydraulics. One variable piston pump provides the exact flow and pressure required at any given moment, distributing power when and where it's needed. In addition to rapid response, this system facilitates smoother operation, lower fuel consumption and precise control, even at low rpm.

Engine
- Volvo D6D, a turbocharged, air-to-air intercooled low-emission engine with electronically-controlled fuel injection delivers high torque even at low rpm.
- The electronically-controlled hydrostatic fan is only activated when necessary, thus saving fuel.

Transmission
- Volvo's well proven countershaft transmission provides optimal performance in all applications.
- With Volvo's 3rd generation of APS, the operator can select between four different operating modes, including the new AUTO function, which adaptively chooses the most convenient shifting program for the job at hand, equally weighing the operator's driving habits together with the operating cycle.

Axles/Brakes
- The Volvo axles are fully integrated with the drivetrain, delivering superior rimpull.
- Oil circulation-cooled wet disc brakes ensure effective braking and a long service life.
- An electronic brake test in Contronic gives you instant access to the status of the brakes.
- A brake wear indicator on each wheel allows you to easily check the brake pad wear.

Steering
- Load-sensing steering only uses power when it's needed, thereby saving fuel.
- E-series loaders feature an accumulator system, providing stable, smooth steering and greater safety.

Frame
- Rugged frame design for secure mounting of components increases the service life of the machine.
- Volvo's frame joint bearing design is a well-proven concept that's easy to maintain and renowned for its long service life.







TP Linkage

- Unique patented lift-arm system, which provides two solutions in one: excellent breakout torque and parallel action throughout the entire lifting range.

Load-sensing hydraulics

- The load-sensing hydraulic system ensures that hydraulic oil is pumped around the system only when and where it's needed. This means greater efficiency and lower fuel consumption.
- Pilot-operated hydraulics allow precise control of the attachments, making life easier, and safer, for the operator.

AN ALERT OPERATOR IS A PRODUCTIVE OPERATOR

Volvo Care Cab with the Contronic monitoring system reinforces Volvo's reputation as a leader in operator environments and cab comfort. We never forget the operator inside the machine. A comfortable, operator-friendly and safe environment makes the workday easier and more productive.



A clean and comfortable workplace
The right cab climate does wonders for efficiency, keeping operators sharp during long shifts. In fact, all incoming air is filtered in two stages, making this one of the cleanest cabs on the market. Even the recirculated air is filtered. Furthermore, Volvo's state-of-the-art air-conditioning* provides a pleasant temperature year-round, regardless of outdoor conditions. So even after a long work shift, the air in the cab is still fresh and the operator's mind is still clear.

Comfort and productivity go hand-in-hand
There is a range of comfortable seats, all of them with multiple adjustment functions for optimal individual comfort. All instruments are visible at a glance, and all important information is right in front of the operator. The forward, reverse and kick-down functions are situated both on the lever on the left-hand side of the steering wheel and on the hydraulic console to the right. And thanks to Comfort Drive Control (CDC)*, you can steer, change directions and kickdown to first gear with easy-to-use controls integrated into the left-hand armrest — an excellent way to combat fatigue and static muscle strain. Furthermore, to avoid monotonous arm movements, you can shift at any time from lever steering to using the steering wheel.

Contronic keeps an eye on everything
Contronic, the highly reliable control and monitoring system from Volvo, continuously monitors the machine's operation and performance. The system is an electronic network made up of three computers. Operating at three levels, the system keeps an eye on the machine's various functions in real-time. If a potential problem should occur, the system generates an immediate warning, making the operator aware of the condition. All operating data is saved and can be used to analyze how the machine performs and also to trace its history since the latest service. The machine's functions can be updated for optimal adaptation to new and changing operating conditions via the Contronic service display tool. With VCADS Pro, it's also possible to check and adjust the machine's functions and performance characteristics.

Low noise levels
Thanks to its ingenious rubber mounting system and heavy-duty insulation, the Care Cab is one of quietest cabs on the market. By reducing tiresome earfuls and annoying vibrations, the operator will stay sharp throughout the shift. In short, it's a great place to work.

Care Cab
- Unrivalled operator environment with one of the market's best cab filtration systems.
- Pleasant interior with superior finish makes it easy to maintain and keep clean.
- Adjustable seat, armrest, hydraulic lever console and steering wheel for optimal operator comfort and high production.
- Contronic, a superior control and monitoring system, designed to increase safety and productivity.
- All service platforms and entry ladders boast improved anti-slip surfaces. Sloped entry ladder for easy cab access.
- Large windshields, narrow pillars and a sloped engine hood ensure good panoramic visibility, thus further increasing safety.
- Powerful halogen lighting to the front and rear provides good visibility over the entire work area.

* Optional equipment






TURBO
30 s
60 s
VOLVO







VOLVO'S COMMITMENT TO NATURE AND MANKIND

Quality, safety and care for the environment are Volvo's core values. Indeed, we see our commitment as an integral part of our operation. Few machines have to work in tougher conditions. The ultimate goal is maximized productivity and efficiency for the lowest cost per hour, with minimized environmental impact. For instance, plants and manufacturing processes are certified in accordance with ISO 14001. This is but one example of our tangible commitments and high quality standards. And that's why Volvo customers get one of the most environmentally considerate and dependable wheel loaders on the market.

A winner for years to come
Your Volvo L70E has to be a winner — both in day-to-day and long-term operations, always operating economically with maximum consideration of the environment. The machinery has to be trusted in all aspects. It must deliver the anticipations of productivity and economy. High-quality and easy maintenance are imperative for keeping up the work process. The high-performance, low-emission engine is both good for your business and for the environment.

Comfortable and quiet operator's environment
The operator inside deserves a comfortable, reliable and safe machine to work with. A good environment helps to spare operator, equipment and nature for years to come. The Volvo L70E is a super competitive wheel loader that puts the operator right in the middle, literally speaking. Tedious vibrations and noise have been heavily reduced. If the operator feels comfortable and secure, it's easier to stay attentive.

More than 95% recyclable
The L70E is almost completely recyclable. We see it as a natural step in our commitment. Components such as the engine, transmission and hydraulics are re-engineered and re-used in our Parts Exchange program. The equipment has to be as trustworthy, service-friendly, productive and as cost-effective as possible. Choose this wheel loader for maximum productivity and minimal impact on operator, machinery and environment. Feel free to feel secure in a Volvo L70E.

Quality
- The air is vented from all major components with easy-to-replace breather filters, used to prevent dirty air from entering the transmission, axles, fuel tank and hydraulic tank.
- All electrical wires are routed through sturdy conduits, protected from water, dust and abrasion with rubberized connectors and terminal caps.
- The L70E is designed from the beginning for easy service and maintenance. Easy-access to all components lays the foundation for shorter service and maintenance time and longer life.

Safety
- A dual-circuit service brake system that fulfills all requirements according to ISO 3450, electronic brake test in Contronic and easy-to-check brake wear indicators are all ways to ensure safe and effective braking.
- Volvo Care Cab is tested and approved according to ROPS ISO 3471 and FOPS ISO 3449 standards.
- Optimized panoramic visibility gives effective control over the entire work area.
- The L70E has steps and platforms that are equipped with anti-slip surfaces and well positioned hand rails.

Environment
- The low rpm, high-performance D6D engine meets all current emission requirements according to stage 2 legislation in Europe and the US.
- The L70E is manufactured in environmentally certified factories according to ISO 14001.
- The L70E is more than 95% recyclable according to material weight.
- Low external and internal sound levels.


Install date


WARNING






VOLVO
VOLVO
L70E

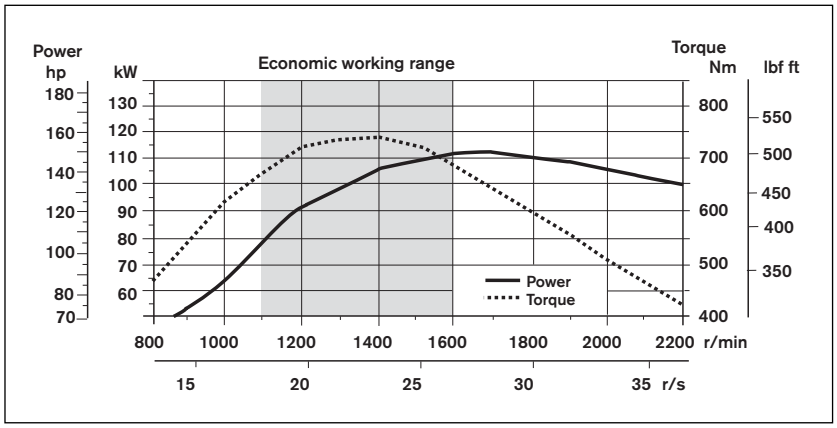
VOLVO L70E IN DETAIL

Engine
6 liter, 6-cylinder straight turbocharged diesel engine with electronically-controlled unit pumps and conventional injectors. The engine has dry replaceable cylinder liners and replaceable valve guides and valve seats. The throttle application is transmitted electrically from the throttle pedal or the optional hand throttle. Air cleaning: three-stage. Cooling system: Air-to-air intercooler and hydrostatic, electronically-controlled fan.

Engine	Volvo D6D LB E2
Max power at	28,3 r/s **(1,700 rpm)**
SAE J1995 gross	113 kW **(154 hp)**
SAE J1349 net	112 kW **(152 hp)**
Max torque at	23,3 r/s **(1,400 rpm)**
SAE J1995 gross	739 Nm **(545 lbf ft)**
SAE J1349 net	732 Nm **(540 lbf ft)**
Economic working range	1100–1600 rpm
Displacement	5,7 l **(348 in³)**

Electrical system
Central warning system: Central warning light for the following functions (buzzer with gear engaged): Engine oil pressure, charge-air temperature, fuel temperature, transmission oil pressure, brake pressure, parking brake applied, hydraulic oil level, steering pressure, low coolant level, coolant temperature, transmission oil temperature, hydraulic oil temperature, overspeeding in engaged gear, brake charging.

Voltage	24 V
Batteries	2x12 V
Battery capacity	2x110 Ah
Cold cranking capacity, approx	690 A
Reserve capacity, approx	206 min
Alternator rating	1920 W/80 A
Starter motor output	5,4 kW **(7.3 hp)**



Drivetrain
Torque converter: single-stage. Transmission: Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears between forward and reverse. Gearshifting system: Volvo Automatic Power Shift (APS) with mode selector and four different gearshifting programs, including AUTO. Axles: Volvo fully floating axle shafts with planetary hub reductions and cast steel axle housings. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle.

Transmission	Volvo HT 95
Torque multiplication	2,66:1
Maximum speed, forward/reverse	
1	7,4 km/h **(4.6 mph)**
2	14,3 km/h **(8.9 mph)**
3	26,5 km/h **(16.5 mph)**
4	44,0 km/h* **(27.3 mph)***
Measured with tires	20.5 R25 L2
Front axle/rear axle	Volvo/AWB 25/20
Rear axle oscillation	±13°
Ground clearance at 13° osc. 470 mm **(18.5 in)**	

* local restrictions may apply

Brake system
Service brake: Volvo dual-circuit system with nitrogen charged accumulators. Outboard-mounted hydraulically-operated, fully sealed oil circulation-cooled wet disc brakes. The operator can select automatic disengagement of the transmission when braking using Contronic. Parking brake: Dry disc brake mounted on the transmission output shaft. Applied by spring force and released by oil pressure with a switch on the instrument panel. Secondary brake: Dual brake circuits with rechargeable accumulators. Either one circuit or the parking brake fulfills all safety requirements. Standard: The brake system complies with the requirements of ISO 3450.

Number of brake discs per wheel front/rear	1/1
Accumulators	2x0,5 l **(2x0.13 US gal),** 1x1,0 l **(1x0.26 US gal)**

Steering system

Steering system: Load-sensing hydrostatic articulated steering. System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement. Steering cylinders: Two double-acting cylinders.

Steering cylinders	2
Cylinder bore	70 mm **(2.75 in)**
Piston rod diameter	45 mm **(1.77 in)**
Stroke	386 mm **(15.2 in)**
Relief pressure	21 MPa **(3,046 psi)**
Maximum flow	155 l/min **(40.9 US gpm)**
Maximum articulation	±40°

Cab

Instrumentation: All important information is centrally located in the operator's field of view on the Contronic monitoring system's display unit. Heater and defroster: Heater coil with filtered fresh air and fan with four speeds. Defroster vents for all window areas. Operator seat: Ergonomic seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket, which is mounted on the rear cab wall. The forces from the retractable seatbelt are absorbed by the seat rail. Standard: The cab structure is tested and approved according to ROPS (ISO 3471) and FOPS (ISO 3449). The cab meets all requirements according to ISO 6055 (Operator Overhead Protection - Industrial Trucks) and SAE J386 (Operator Restraint System).

Emergency exits	1
Sound level in cab according to ISO 6396	LpA 70 dB (A)
External sound level according to ISO 6395 (Directive 2000/14/EC)	LwA 105 dB (A)
Ventilation	9 m^3/min **(318 ft^3/min)**
Heating capacity	11 kW **(37,500 Btu/h)**
Air conditioning (optional)	8 kW **(27,300 Btu/h)**

Hydraulic system

System supply: One load-sensing axial piston pump with variable displacement. The steering system always has priority. Valves: Double-acting 2-spool valve. The main valve is controlled by a 2-spool pilot valve. Lift function: The valve has four positions including lift, hold, lower and float. Inductive/magnetic automatic boom kick-out can be switched on and off and is adjustable to any position between maximum reach and full lifting height. Tilt function: The valve has three functions including rollback, hold and dump. Inductive/magnetic automatic tilt can be adjusted to the desired bucket angle. Cylinders: Double-acting cylinders for all functions. Filter: Full flow filtration through 20 micron (absolute) filter cartridge.

Relief pressure maximum 26,0 MPa **(3,771 psi)**	
Flow	155 l/min **(40.9 US gpm)**
at	10 MPa **(1,450 psi)**
and engine speed	32 r/s **(1,900 rpm)**
Pilot system Relief pressure	3,5 MPa **(508 psi)**
Cycle times	
Raise*	5,3 s
Tilt*	1,3 s
Lower, empty	2,7 s
Total cycle time	9,3 s

* with load as per ISO 14397 and SAE J818

Lift arm system

Torque Parallel Linkage (TP Linkage) with high breakout torque and parallel action throughout the entire lifting range.

Lift cylinders	2
Cylinder bore	100 mm **(3.9 in)**
Piston rod diameter	70 mm **(2.75 in)**
Stroke	756 mm **(29.8 in)**
Tilt cylinder	1
Cylinder bore	160 mm **(6.3 in)**
Piston rod diameter	90 mm **(3.5 in)**
Stroke	432 mm **(17.0 in)**

Service

Service accessibility: Large, easy-to-open service doors with gas struts. Swing-out radiator grill and cooling fan. Possibility to log and analyze data to facilitate troubleshooting.

Refill capacities	
Fuel tank	197 l **(52 US gal)**
Engine coolant	30 l **(7.9 US gal)**
Hydraulic oil tank	105 l **(27.7 US gal)**
Transmission oil	18 l **(4.8 US gal)**
Engine oil	20 l **(5.3 US gal)**
Axles front/rear	30/25 l **(7.9/6.6 US gal)**

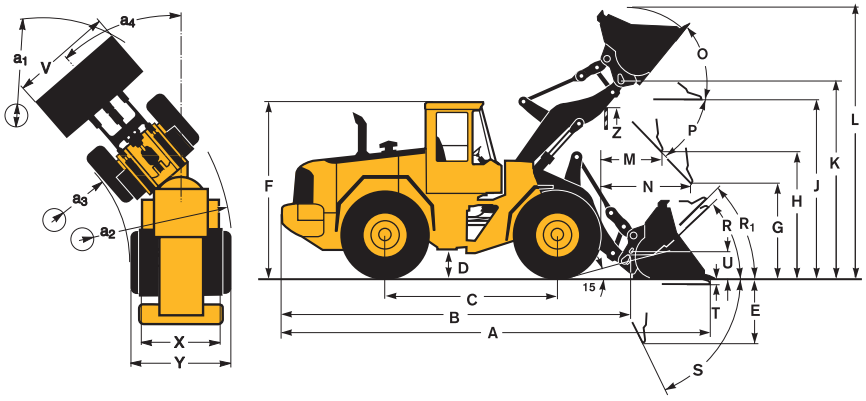
SPECIFICATIONS

Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.

Tires: 20.5 R25 L2

Standard boom		Long boom	
B	5980 mm **19'7"**	6460 mm	**21'2"**
C	3000 mm **9'10"**	——	
D	450 mm **1'6"**	——	
F	3260 mm **10'8"**	——	
G	2130 mm **7'0"**	——	
J	3580 mm **11'9"**	4060 mm	**13'4"**
K	3870 mm **12'8"**	4340 mm	**14'3"**
O	56 °	52 °	
P_{max}	46 °	45 °	
R	42 °	44 °	
R_1*	46 °	49 °	
S	69 °	73 °	
T	102 mm **0'4"**	109 mm	**0'4.3"**
U	390 mm **1'3"**	500 mm	**1'8"**
X	1930 mm **6'4"**	——	
Y	2470 mm **8'1"**	——	
Z	3200 mm **10'6"**	3490 mm	**11'5"**
a_2	5350 mm **17'7"**	——	
a_3	2890 mm **9'6"**	——	
a_4	±40 °	——	

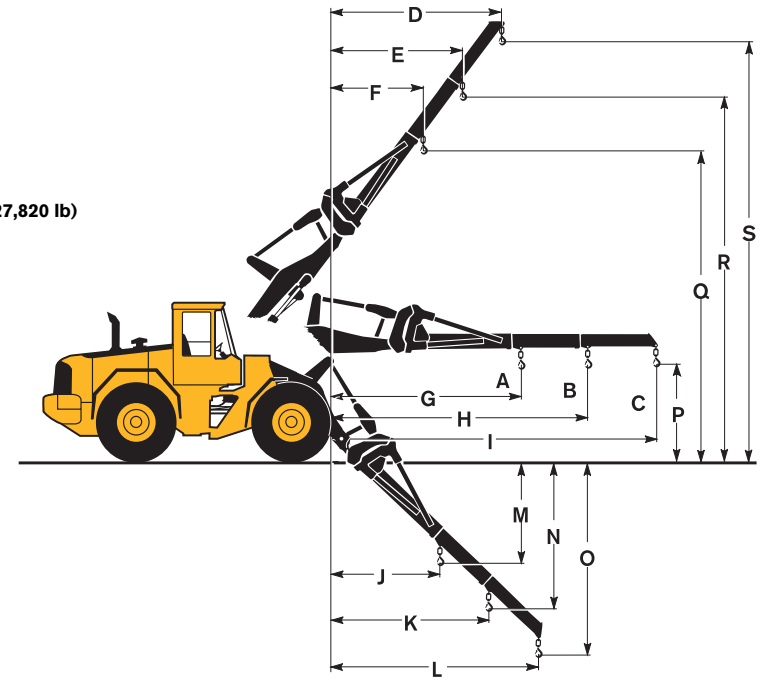
* Carry position SAE



Tires: 20.5 R25 L2

A*	2150 kg	**4,740 lb**
B*	1710 kg	**3,770 lb**
C*	1400 kg	**3,090 lb**
D	2710 mm	**8'11"**
E	2100 mm	**6'11"**
F	1540 mm	**5'1"**
G	3310 mm	**10'10"**
H	4350 mm	**14'3"**
I	5480 mm	**18'0"**
J	1260 mm	**4'2"**
K	1740 mm	**5'9"**
L	2260 mm	**7'5"**
M	2170 mm	**7'1"**
N	3090 mm	**10'2"**
O	4100 mm	**13'5"**
P	1520 mm	**5'0"**
Q	5290 mm	**17'4"**
R	6160 mm	**20'3"**
S	7120 mm	**23'4"**

Order No: 92007
Operating weight: 12 620 kg **(27,820 lb)**



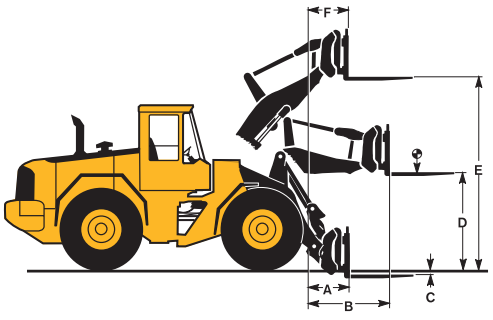
Tires: 20.5 R25 L2

A	830 mm	**2'9"**
B	1600 mm	**5'3"**
C	46 mm	**0'1.8"**
D	1850 mm	**6'1"**
E	3730 mm	**12'3"**
F	760 mm	**2'0"**

Fork tine order No (R/L): 93525/93526

Length:	1200 mm	**3'11"**
Fork frame order No:	80041	
Width:	1500 mm	**4'11"**
Rated operating load*:	4740 kg	**10,450 lb**
at load rated distance:	600 mm	**2'0"**
Operating weight:	12 680 kg	**27,950 lb**

* acc. std EN 474-3, firm and level ground



Tires 20.5 R25 L2		GENERAL PURPOSE						FLAT FLOOR	LIGHT MATERIAL		LONG BOOM
		Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges	
Volume, heaped ISO/SAE	m^3	2,3	2,3	2,2	2,2	2,0	2,0	2,3	6,4	3,4	——
	yd^3	**3.0**	**3.0**	**2.9**	**2.9**	**2.6**	**2.6**	**3.0**	**8.4**	**4.4**	
Volume at 110% fill factor	**m^3**	2,5	2,5	2,4	2,4	2,2	2,2	2,4	7,0	3,7	——
	yd^3	**3.3**	**3.3**	**3.1**	**3.1**	**2.9**	**2.9**	**3.1**	**9.2**	**4.9**	
Static tipping load, straight	kg	8690	9180	8740	9270	8800	9310	8610	7870	8230	−1680
	lb	**19,160**	**20,240**	**19,270**	**20,430**	**19,400**	**20,530**	**18,980**	**17,350**	**18,140**	**−3,700**
at 35° turn	kg	7750	8210	7800	8290	7860	8350	7670	6930	7320	−1540
	lb	**17,090**	**18,100**	**17,200**	**18,270**	**17,330**	**18,410**	**16,900**	**15,280**	**16,140**	**−3,400**
at full turn	kg	7480	7930	7530	8000	7590	8060	7390	6650	7050	−1500
	lb	**16,490**	**17,480**	**16,600**	**17,640**	**16,730**	**17,770**	**16,290**	**14,660**	**15,540**	**−3,300**
Operating load*)	kg	3690	3910	3710	3940	3740	3970	3640	3280	3480	−740
	lb	**8,130**	**8,620**	**8,180**	**8,700**	**8,250**	**8,760**	**8,030**	**7,230**	**7,660**	**−1,630**
Breakout force	kN	90,5	99,0	92,3	101,1	96,6	106,5	92,7	54,3	72,4	−2,0
	lbf	**20,350**	**22,260**	**20,750**	**22,730**	**21,720**	**23,940**	**20,840**	**12,210**	**16,280**	**−450**
A	mm	7380	7280	7350	7250	7290	7190	7340	8220	7670	+470
	ft in	**24'2"**	**23'11"**	**24'1"**	**23'9"**	**23'11"**	**23'7"**	**24'1"**	**27'0"**	**25'2"**	**+1'7"**
E	mm	1180	1090	1160	1060	1110	1010	1150	1960	1470	+30
	ft in	**3'11"**	**3'7"**	**3'10"**	**3'6"**	**3'8"**	**3'4"**	**3'9"**	**6'5"**	**4'9"**	**+1.5"**
H**)	mm	2750	2820	2770	2840	2810	2880	2770	2150	2530	+490
	ft in	**9'0"**	**9'3"**	**9'1"**	**9'4"**	**9'3"**	**9'5"**	**9'1"**	**7'1"**	**8'4"**	**+1'7"**
L	mm	5300	5250	5270	5220	5210	5150	5250	5770	5440	+470
	ft in	**17'5"**	**17'3"**	**17'3"**	**17'2"**	**17'1"**	**16'11"**	**17'3"**	**18'11"**	**17'10"**	**+1'7"**
M**)	mm	1140	1060	1120	1040	1080	1000	1110	1720	1340	−20
	ft in	**3'9"**	**3'6"**	**3'8"**	**3'5"**	**3'6"**	**3'3"**	**3'8"**	**5'8"**	**4'5"**	**−0.8"**
N**)	mm	1650	1610	1640	1600	1620	1580	1510	1720	1680	+400
	ft in	**5'5"**	**5'3"**	**5'5"**	**5'3"**	**5'4"**	**5'2"**	**5'0"**	**5'8"**	**5'6"**	**+1'4"**
V	mm	2550	2550	2550	2550	2550	2550	2550	2750	2650	——
	in	**100"**	**100"**	**100"**	**100"**	**100"**	**100"**	**100"**	**108"**	**104"**	
a_1 clearance circle	mm	11 690	11 640	11 680	11 630	11 650	11 600	11 660	12 400	11 980	——
	ft in	**38'4"**	**38'2"**	**38'4"**	**38'2"**	**38'2"**	**38'1"**	**38'3"**	**40'8"**	**39'3"**	
Operating weight	kg	13 180	12 980	13 140	12 940	13 100	12 890	13 270	13 850	13 380	+250
	lb	**29,060**	**28,620**	**28,970**	**28,520**	**28,880**	**28,420**	**29,260**	**30,530**	**29,500**	**+542**

*) Rated at Volvo's recommended maximum utilization for L70E.

Note: This only applies to genuine Volvo attachments.

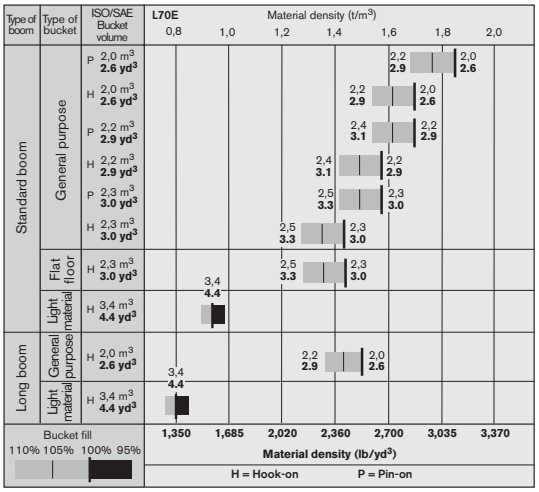
**) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge. Measured at 45° dump angle.

Bucket Selection Chart

The chosen bucket is determined by the density of the material and the expected bucket fill factor. The actual bucket volume is often larger than the rated capacity, due to the features of the TP Linkage, including an open bucket design, good rollback angles in all positions and good bucket filling performance. The example represents a standard boom configuration.
Example: Sand and gravel. Fill factor ~ 105%. Density 2,865 lb/yd^3. Result: The 2.6 yd^3 bucket carries 2.7 yd^3. For optimal stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density, t/m^3	Material density, lb/yd^3	ISO/SAE bucket volume, m^3	ISO/SAE bucket volume, yd^3	Actual volume, m^3	Actual volume, yd^3
Earth/Clay	~ 110	~ 1,65	**~ 2,780**	2,0	**2.6**	~ 2,2	**~ 2.9**
		~ 1,55	**~ 2,610**	2,2	**2.9**	~ 2,4	**~ 3.1**
		~ 1,40	**~ 2,360**	2,3	**3.0**	~ 2,5	**~ 3.3**
Sand/Gravel	~ 105	~ 1,70	**~ 2,865**	2,0	**2.6**	~ 2,1	**~ 2.7**
		~ 1,60	**~ 2,700**	2,2	**2.9**	~ 2,3	**~ 3.0**
		~ 1,45	**~ 2,444**	2,3	**3.0**	~ 2,4	**~ 3.1**
Aggregate	~ 100	~ 1,80	**~ 3,035**	2,0	**2.6**	~ 2,0	**~ 2.6**
		~ 1,70	**~ 2,865**	2,2	**2.9**	~ 2,2	**~ 2.9**
		~ 1,55	**~ 2,613**	2,3	**3.0**	~ 2,3	**~ 3.0**
Rock	≤100	~ 1,70	**~ 2,865**	1,8	**2.3**	~ 1,8	**~ 2.3**

The size of rock buckets is optimized for optimal penetration and filling capability rather than the density of the material.



Supplemental Operating Data

Tires 20.5 R25 L2			Standard boom 600/65 R25		Long boom 600/65 R25	
Width over tires	mm	**in**	+60	**+2.36**	+60	**+2.36**
Ground clearance	mm	**in**	−30	**−1.18**	−20	**−0.08**
Tipping load, full turn	kg	**lb**	+40	**+88**	+130	**+286**
Operating weight	kg	**lb**	+30	**+66**	+240	**+529**

STANDARD EQUIPMENT

Engine
Three-stage air cleaner with ejector and inner filters
Indicator glass for coolant level
Preheating of induction air
Muffler, spark arresting
Fuel fill strainer
Coolant filter
Fuel filter extra large with water trap
Oil trap

Electrical system
24 V, pre-wired for optional accessories
Alternator, 24 V/80 A
Exchange battery
Battery disconnect switch
Battery boxes, steel
Fuel gauge
Temperature gauge, transmission oil
Temperature gauge, engine coolant
Hour meter
Electric horn
Reverse alarm, self-adjusting
Instrument panel with symbols
Lighting:
• Twin halogen front headlights with high and low beams
• Parking lights
• Double brake and tail lights
• Turn signals with flashing hazard light function
• Halogen work lights (2 front and 2 rear)
• Instrument lighting

Contronic monitoring system
ECU with log and analysis system
Contronic display
Fuel consumption
Ambient temperature
Engine 'Shutdown to idle' in case of malfunction indication:
• High engine coolant temperature
• Low engine oil pressure
• High transmission oil temperature
Start interlock when gear is engaged
Brake test
Test function for warning and indicator lights
Warning and indicator lights:
• Charging
• Oil pressure engine
• Oil pressure, transmission
• Brake pressure
• Parking brake
• Hydraulic oil level
• Primary steering
• Secondary steering (if equipped)
• High beams
• Turn signals
• Work lights
• Rotating beacon (if equipped)
• Preheating coil (if equipped)
• Differential lock
• Coolant temperature
• Transmission oil temperature
• Low fuel level
• Brake system pressure
Level warnings:
• Coolant level
• Hydraulic oil level
• Washer fluid level

Drivetrain
Automatic Power Shift with operator-controlled disengagement function for transmission cut-out when braking and mode selector with AUTO function
Transmission modulated with single lever control
Forward and reverse switch by lever console
Differentials: front: 100% hydraulic diff lock, rear: conventional

Tires
20.5 R25

Brake system
Wet oil circulation-cooled disc brakes on all four wheels
Dual brake circuits
Dual service brake pedals
Secondary brake system
Parking brake, el-hydraulic
Brake wear indicator

Cab
ROPS (ISO 3471), FOPS (ISO 3449)
Lock kit, one combination
Acoustic inner lining
Ashtray
Cigarette lighter
Lockable door
Cab heating with filter, fresh air inlet and defroster
Floor mat
Interior light
Two interior rearview mirrors
Two exterior rearview mirrors
Openable window right side
Sliding window, right
Sliding window, door
Tinted safety glass
Hip retractable seatbelt (SAE J386)
Adjustable hydraulic lever console
Adjustable steering wheel
Operator's seat with high backrest and electrical heating
Storage compartment
Sun visor
Beverage holder
Windshield washers front and rear
Windshield wipers front and rear
Interval function for front and rear windshield wipers
Service platforms with anti-slip surfaces on rear fenders
Speedometer
Foot step, right side (toolbox lockable included)

Hydraulic system
Main valve, 2-spool
Pilot valve, 2-spool
Variable displacement axial piston pumps (2) for:
• steering system, pilot hydraulics, working hydraulics and brakes
• fan motor
Boom lowering system
Boom kick-out, automatic, adjustable
Bucket positioner, automatic with position indicator, adjustable
Hydraulic oil cooler
Attachment bracket, cast, visibility-optimized
Separate attachment locking, standard boom

External equipment
Noise and vibration dampening suspension of cab, engine and transmission
Lifting eyes
Tie-down eyes
Easy-to-open side panels
Frame steering, joint lock
Vandalism lock prepared for batteries and engine compartment
Tow hitch
Basic fenders with wideners for 20.5 R25 tires

Protective equipment
Cover plates, rear frame

Other equipment
Decals, USA

OPTIONAL EQUIPMENT

Service and maintenance
Toolbox, lockable
Tool kit
Wheel nut wrench kit
Automatic lubrication system
Automatic lubrication system, stainless steel
Automatic lubrication system incl. long boom
Automatic lubrication system for attachment bracket, cast
Automatic lubrication system, stainless steel, for attachment bracket, cast
Refill pump for automatic lubrication system
Grease nipple guards
Oil sampling valve

Engine equipment
Engine block heater, 120 V
Engine auto shutdown
Air pre-cleaner, oil-bath type
Air pre-cleaner, turbo type, one stage
Air pre-cleaner, Sy-Klone type, one stage
Fuel filter with water trap and heating
Exhaust heat insulation
Hand throttle control
Radiator, hydraulic oil cooler and fuel cooler, corrosion-protected
Fan air intake protection, extra close-meshed
Reversible cooling fan

Electrical system
Alternator, 80 A, including air filter
Work light, attachments
Work lights front, extra
Work lights rear, extra
Work lights front, on cab, dual
Work lights front, high intensity
License plate holder, lighting
Reverse lights, automatic
Warning beacon, rotating, collapsible
Warning beacon, flashing strobe light
Battery disconnect switch, additional in cab

Cab
Installation kit for radio, 11 A, 12 V, left and right in cab
Installation kit for radio, 20 A, 12 V
Radio with cassette player
Radio with CD-player
Sun blinds, front and rear windows
Sun blinds, side windows
Windshield wiper, right side
Retractable lap-type belt, longer and wider than standard
Air-conditioning
Air-conditioning with corrosion-protected condenser
Air-conditioning with ATC (Automatic Temperature Control)
Air-conditioning with ATC and corrosion-protected condenser
Fan for AC condenser
Ventilation air filter for work in asbestos environment
Cab air pre-cleaner, Sy-Klone type
Operator's seat with low backrest
Operator's seat with low backrest and electrical heating
Operator's seat, air suspended with electrical heating
Operator's seat air-suspended with high backrest and electrical heating
Operator's seat air-suspended, heavy-duty (up to 350 lbs)
Armrest (left) for operator seat
Steering wheel knob
Noise reduction kit
Rearview camera incl. monitor
Rearview camera, color, LCD monitor
Rearview mirrors, electrically heated
Foot steps, front frame
Cab ladder, rubber suspended

Drivetrain
Limited slip rear
Speed limiter 20 km/h (12.5 mph)
Speed limiter 30 km/h (18.6 mph)

Brake system
Parking brake alarm, audible

Hydraulic system
Single lever control
Single lever control for 3rd hydraulic function
3rd hydraulic function
3rd hydraulic function for long boom
3rd-4th hydraulic function
3rd-4th hydraulic function for long boom
Adjustable flow for 3rd hydraulic function
Detent for 3rd hydraulic function
Boom Suspension System (BSS)
Single acting lifting function
Biodegradable hydraulic fluid
Attachment bracket, side-tilting
Attachment bracket, side-tilting adapter
Mounting kit for side-tilting adapter
Separate attachment locking, long boom
Arctic kit, attachment locking hoses
Arctic kit, pilot hoses and brake accum. incl. hydraulic oil
Hydraulic fluid for hot climate

External equipment
Long boom
Front and rear fenders with wideners for 600/65 R25 tires
Full fenders for 20.5 R25 tires
Full fenders for 600/65 R25 tires
Mudflaps for full fenders
Delete front fenders and rear fender wideners
Logging counterweight (with approval)

Protective equipment
Guards for front headlights
Guards for tail lights
Guards for tail lights, heavy-duty
Guards for side and rear windows
Guard for radiator grill
Guards for grease nipple
Guard for center hinge and rear frame
Guards for boom cylinder hose and tube
Guards for wheel/axle seals
Guard for front windshield
Cover plate, front frame, heavy-duty
Cover plate under cab
Belly guard, front
Belly guard, rear
Battery boxes, steel
Corrosion-protection, painting of machine
Corrosion-protection, painting of attachment bracket
Bucket teeth protection
Fire suppression system
Anti-theft device

Other equipment
Comfort Drive Control (CDC)
Secondary steering
Sign, slow moving vehicle
Decals English/Spanish

Tires
600/65 R25

Attachments
Buckets:
• Straight with teeth or bolt-on edges
• Spade nose
• High tipping
• Light materials
• Grading
Bolt-on or weld-on bucket teeth
Cutting edge in three sections, bolt-on, reversible
Fork equipment
Material handling arm
Log grapples
Snow blade
Broom
Sand spreading bucket
Bale clamp
Drum rotator

Boom Suspension System (BSS)*
BSS utilizes gas/oil accumulators connected to the lift cylinders to absorb shocks and smooth out rough roads for faster cycle times, less spillage and increased operator comfort.





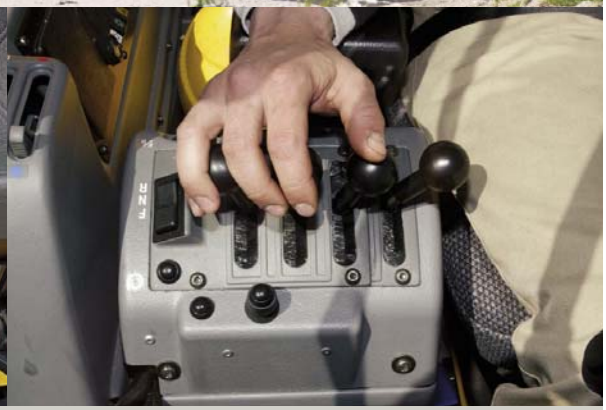
Automatic Lubrication System*

Our factory fitted Automatic Lubrication System takes care of greasing while the machine is in operation. This means less downtime for scheduled maintenance and more time for productive work.



Comfort Drive Control (CDC)*

CDC significantly reduces repetitive and tiring steering wheel movements. The operator can shift and steer easily with the aid of controls integrated in the left armrest.



3rd and 4th hydraulic functions*

Volvo wheel loaders can be equipped with third and fourth hydraulic functions, which are operated with additional control levers. These functions are necessary when there's a need to operate a third and fourth hydraulic function at the same time, such as when using a sweeper attachment or a timber grapple with hydraulic heel kick-out.

* Optional equipment

Genuine Volvo attachments
Genuine Volvo attachments and wear parts, including the new Volvo Tooth System, are designed as an integral part of the loader, making the L70E a swift and versatile machine in a wide range of applications.

Long boom*
A long boom gives the extra dump height and reach necessary for loading high trucks or feeders.













Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from our 170-year engineering heritage. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**

All products are not available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Construction Equipment

Volvo Construction Equipment North America, Inc.
One Volvo Drive, Asheville, NC 28803-3447
www.volvoce.com

Ref. No. 22 B 100 1561 English
Printed in USA 03/06 – 5,0 USA
Volvo, Asheville