

**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<sup>3</sup> **(2.6–8.4 yd<sup>3</sup>)**  
Log grapple:  
0,9 – 1,5 m<sup>2</sup> **(9.7–16.1 ft<sup>2</sup>)**  
Operating weight:  
12,7 – 14,0 t **(28,000–30,860 lb)**  
Tires:  
20.5 R25, 600/65 R25

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



# 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.

\* Optional equipment

## **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 the 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 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.



# 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.



# VOLVO L70E IN DETAIL

## Engine

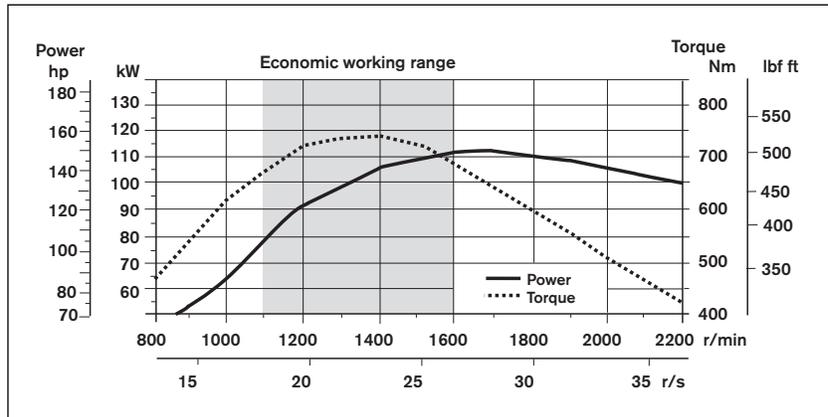
6 liter, 6-cylinder straight turbocharged diesel engine with electronically-controlled unit pumps and conventional injectors. The engine has dry replaceable cylinder liners and replaceable valve guides and valve seats. The throttle application is transmitted electrically from the throttle pedal or the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

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

## 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.

<b>Voltage</b>	24 V
<b>Batteries</b>	2x12 V
<b>Battery capacity</b>	2x110 Ah
<b>Cold cranking capacity, approx</b>	690 A
<b>Reserve capacity, approx</b>	206 min
<b>Alternator rating</b>	1920 W/80 A
<b>Starter motor output</b>	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.

<b>Transmission</b>	Volvo HT 95
<b>Torque multiplication</b>	2,66:1
<b>Maximum speed, forward/reverse</b>	
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)*
<b>Measured with tires</b>	20.5 R25 L2
<b>Front axle/rear axle</b>	Volvo/AWB 25/20
<b>Rear axle oscillation</b>	±13°
<b>Ground clearance at 13° osc.</b>	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.

<b>Number of brake discs per wheel front/rear</b>	1/1
<b>Accumulators</b>	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.

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

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

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

<b>Lift cylinders</b>	2
<b>Cylinder bore</b>	100 mm (3.9 in)
<b>Piston rod diameter</b>	70 mm (2.75 in)
<b>Stroke</b>	756 mm (29.8 in)
<b>Tilt cylinder</b>	1
<b>Cylinder bore</b>	160 mm (6.3 in)
<b>Piston rod diameter</b>	90 mm (3.5 in)
<b>Stroke</b>	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.

<b>Refill capacities</b>	
<b>Fuel tank</b>	197 l (52 US gal)
<b>Engine coolant</b>	30 l (7.9 US gal)
<b>Hydraulic oil tank</b>	105 l (27.7 US gal)
<b>Transmission oil</b>	18 l (4.8 US gal)
<b>Engine oil</b>	20 l (5.3 US gal)
<b>Axles front/rear</b>	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 <sub>max</sub>	46 °	45 °	
R	42 °	44 °	
R <sub>1</sub> *	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 <sub>2</sub>	5350 mm 17'7"	—	
a <sub>3</sub>	2890 mm 9'6"	—	
a <sub>4</sub>	±40 °	—	

\* Carry position SAE

## Tires: 20.5 R25 L2

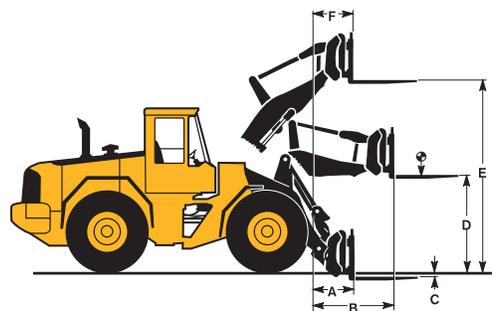
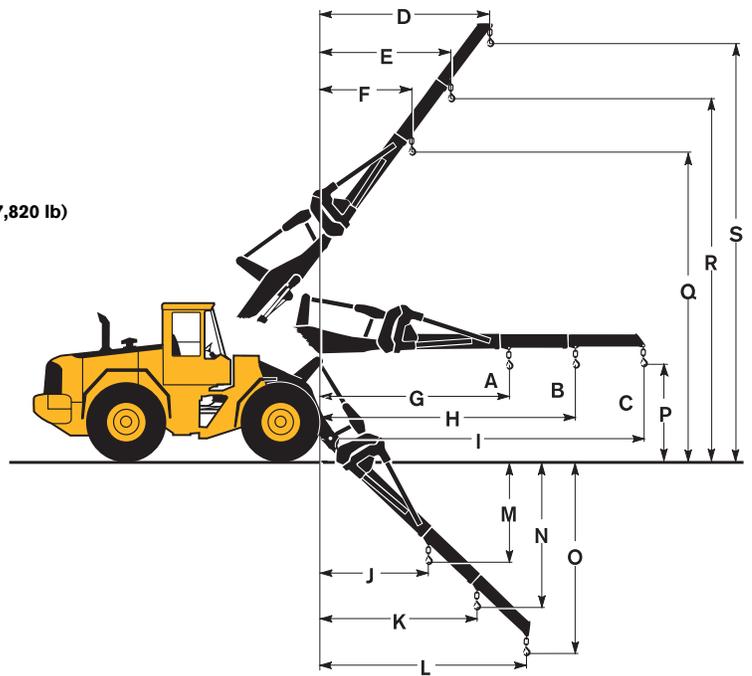
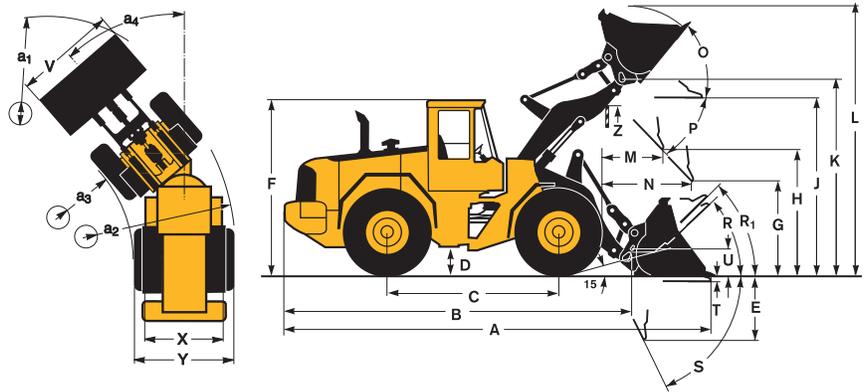
A*	2150 kg 4,740 lb
B*	1710 kg 3,770 lb
C*	1400 kg 3,090 lb
D	2710 mm 8'11"
E	2100 mm 6'11"
F	1540 mm 5'1"
G	3310 mm 10'10"
H	4350 mm 14'3"
I	5480 mm 18'0"
J	1260 mm 4'2"
K	1740 mm 5'9"
L	2260 mm 7'5"
M	2170 mm 7'1"
N	3090 mm 10'2"
O	4100 mm 13'5"
P	1520 mm 5'0"
Q	5290 mm 17'4"
R	6160 mm 20'3"
S	7120 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	
											
Volume, heaped ISO/SAE	m <sup>3</sup> yd <sup>3</sup>	2,3 3.0	2,3 3.0	2,2 2.9	2,2 2.9	2,0 2.6	2,0 2.6	2,3 3.0	6,4 8.4	3,4 4.4	—
Volume at 110% fill factor	m <sup>3</sup> yd <sup>3</sup>	2,5 3.3	2,5 3.3	2,4 3.1	2,4 3.1	2,2 2.9	2,2 2.9	2,4 3.1	7,0 9.2	3,7 4.9	—
Static tipping load, straight	kg lb	8690 19,160	9180 20,240	8740 19,270	9270 20,430	8800 19,400	9310 20,530	8610 18,980	7870 17,350	8230 18,140	-1680 -3,700
at 35° turn	kg lb	7750 17,090	8210 18,100	7800 17,200	8290 18,270	7860 17,330	8350 18,410	7670 16,900	6930 15,280	7320 16,140	-1540 -3,400
at full turn	kg lb	7480 16,490	7930 17,480	7530 16,600	8000 17,640	7590 16,730	8060 17,770	7390 16,290	6650 14,660	7050 15,540	-1500 -3,300
Operating load*)	kg lb	3690 8,130	3910 8,620	3710 8,180	3940 8,700	3740 8,250	3970 8,760	3640 8,030	3280 7,230	3480 7,660	-740 -1,630
Breakout force	kN lbf	90,5 20,350	99,0 22,260	92,3 20,750	101,1 22,730	96,6 21,720	106,5 23,940	92,7 20,840	54,3 12,210	72,4 16,280	-2,0 -450
A	mm ft in	7380 24'2"	7280 23'11"	7450 24'1"	7250 23'9"	7290 23'11"	7190 23'7"	7340 24'1"	8220 27'0"	7670 25'2"	+470 +1'7"
E	mm ft in	1180 3'11"	1090 3'7"	1160 3'10"	1060 3'6"	1110 3'8"	1010 3'4"	1150 3'9"	1960 6'5"	1470 4'9"	+30 +1.5"
H**)	mm ft in	2750 9'0"	2820 9'3"	2770 9'1"	2840 9'4"	2810 9'3"	2880 9'5"	2770 9'1"	2150 7'1"	2530 8'4"	+490 +1'7"
L	mm ft in	5300 17'5"	5250 17'3"	5270 17'3"	5220 17'2"	5210 17'1"	5150 16'11"	5250 17'3"	5770 18'11"	5440 17'10"	+470 +1'7"
M**)	mm ft in	1140 3'9"	1060 3'6"	1120 3'8"	1040 3'5"	1080 3'6"	1000 3'3"	1110 3'8"	1720 5'8"	1340 4'5"	-20 -0.8"
N**)	mm ft in	1650 5'5"	1610 5'3"	1640 5'5"	1600 5'3"	1620 5'4"	1580 5'2"	1510 5'0"	1720 5'8"	1680 5'6"	+400 +1'4"
V	mm in	2550 100"	2550 100"	2550 100"	2550 100"	2550 100"	2550 100"	2550 100"	2750 108"	2650 104"	—
a <sub>1</sub> clearance circle	mm ft in	11 690 38'4"	11 640 38'2"	11 680 38'4"	11 630 38'2"	11 650 38'2"	11 600 38'1"	11 660 38'3"	12 400 40'8"	11 980 39'3"	—
Operating weight	kg lb	13 180 29,060	12 980 28,620	13 140 28,970	12 940 28,520	13 100 28,880	12 890 28,420	13 270 29,260	13 850 30,530	13 380 29,500	+250 +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.

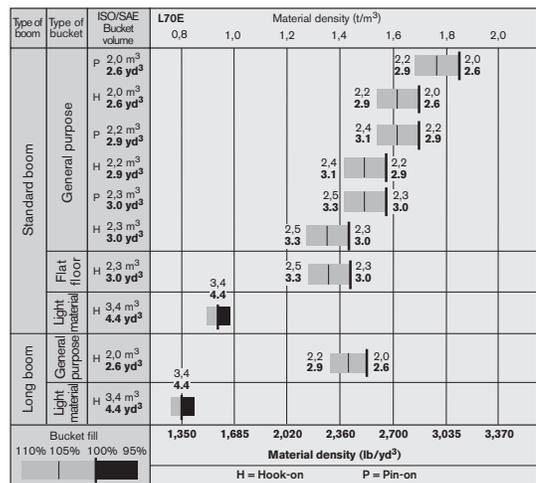
### Bucket Selection Chart

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<sup>3</sup>. Result: The 2.6 yd<sup>3</sup> bucket carries 2.7 yd<sup>3</sup>. For optimal stability always consult the bucket selection chart.

Material	Bucket fill, %		Material density, t/m <sup>3</sup> / lb/yd <sup>3</sup>		ISO/SAE bucket volume, m <sup>3</sup> / yd <sup>3</sup>		Actual volume, m <sup>3</sup> / yd <sup>3</sup>	
			t/m <sup>3</sup>	lb/yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>
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		Long boom	
		600/65 R25		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

### Conronic monitoring system

ECU with log and analysis system  
Conronic 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**

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