VOLVO BACKHOE LOADER

BL71, BL71 PLUS

- **Gross Power:**
  SAE :
  BL71 : 70 kW / 94 HP
  BL71 Plus : 74.5 kW / 100 HP
- **Net Power:**
  EEC 80/1269:
  BL71 : 68 kW / 90 HP
  BL71 Plus : 72 kW / 97 HP
- **Operating Weight:**
  8594 kg
- **Bucket Capacities:**
  Loader : 1000 l
  Backhoe: 190 l
- **SAE Max Digging depth:**
  4280 - 5343 mm

- **VOLVO exclusive "Self-Leveling" linkage,** single cylinder offers an impressive digging force and excellent visibility.
- Loader is controlled by a **hydraulic joystick** for smooth loading.
- **Backhoe boom is of a curved design** for easy loading.
- **Backhoe cylinders are cushioned** to eliminate jolting.
- Rigid hydraulic lines are cleanly routed inside the boom.

- **Hydraulic circuit is closed center, load sensing,** for optimum power using.
- **Control valve is "Flow Sharing"** for simultaneously performing functions.
- **Excellent serviceability at the ground level** via a fully rear-tilting bonnet.
- **Service points are grouped together** and easily accessible.

MORE CARE. BUILT IN.

SPECIFICATIONS

Engine

Low emission engine, with reduced fuel consumption.

Model	Volvo D4D
Type	Parent bore
N° of cylinder	4
Displacement	4038 cm^3
Aspiration	Turbo
Compression ratio	19:1
Power (Gross SAE)	BL71: 70kW / 94 hp BL71Plus: 74.5kW / 100 hp
Rated speed	2200 rpm
Max torque	390 Nm @ 1,500 rpm

Electrical system

Rated volt age	12 V
Battery capacity	110 Ah
Alternator rating	95 Amps

Hydraulic system

Flow sharing system: when the control valve is performing two or more functions simultaneously, flow sharing automatically maintains the pressure and flow for each function.

System	Close center
Type	Load Sensing
Pumps type	Variable flow
Distributor	"Flow Sharing"
Max flow	160 l/min
Working pressure	250 bar
System capacity	130 l

Double regulating piston pump.

Steering

Orbitrol type steering valve given priority in hydraulic system.

Type	Load sensing hydrostatic
Turns lock to lock	4

Turning radius:

Between walls	5.3 m

Turning radius:

Curb-curb	4 m

Weight

(Standard machine with 4 in 1 loader bucket, 600 mm backhoe bucket, counterweight, operator and full fuel tank, extendible dipper)

Operating weight	8594 kg

Brakes

Multi-plate, oil immersed, power assisted, self-adjusting disc brakes with four wheel braking automatically engaged in third and fourth gear.

Total integral braking on the 4 wheels, when 4WD engaged

Type	Oil immersed disc brakes
Number of dics	2 for each wheel
Parking and safety brake	Dedicated disc on axle input shaft

Drivetrain

Final drive type	External planetaries
Total oscillation angle	16°
Differential locking	1

Front axle

Load rating, Static	24218 kg
Load rating, Dynamic	9687 kg

Rear axle

Load rating, Static	19120 kg
Load rating, Dynamic	7648 kg

Transmission

Powershuttle gear box with four forward and four reverse fully synchronized gears. Electro-hydraulic forward/reverse switch on the steering column and on the loader joystick.

Travel speed

Maximum speed, forward/reverse

1	5.8 km/h (3.6 mph)
2	9.3 km/h (5.8 mph)
3	18.8 km/h (11.7 mph)
4	37.6 km/h (23.4 mph)

Optional Powershift transmission with four forward and reverse speeds and a standard kick down shift control for immediate shifting from second to first gear. Automatic mode is activated when fourth gear is engaged.

Travel speed

Maximum speed, forward/reverse

1	5.9 km/h (3.6 mph)
2	9.7 km/h (6 mph)
3	19.5 km/h (12.1 mph)
4	36.9 km/h (22.9 mph)

Service fill capacities

Cooling system	19 l
Fuel tank	120 l
Engine oil (w/filter)	14 l

Rear axle

Differential oil capacity	14.5 l

Front axle (4WD)

Differential oil capacity	6.5 l
Hydraulic reservoir	41 l
Hydraulic system	130 l

Backhoe performance

The boom is of a curved design for easier truck loading.

Standard dipper

Bucket width	610 mm
Bucket capacity	0.20 m^3
Bucket digging force	59.1 kN
Dipper digging force	39.6 kN

Extendible Backhoe: performance

Bucket capacity	0.20 m^3
Bucket digging force	59.1 kN

Dipper digging force

Ret -	39.6 kN
Ext -	28.9 kN

Bucket rotation	194°
Swing torque	26 kNm

Loader performance

Standard loader is a self-leveling, single cylinder loader type.

Volvo patented system.

Bucket width	2350 mm
Bucket capacity	1.0 m^3
Lifting capacity at full height	3154 kg
Bucket Breakout force	55.4 kN

Features:

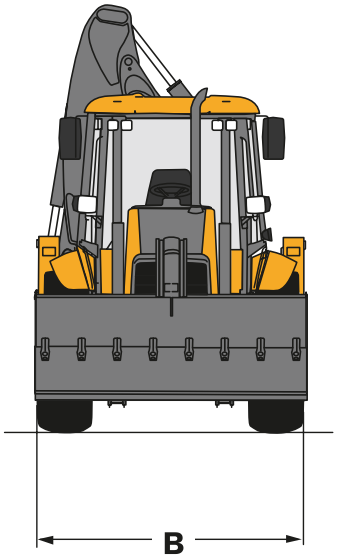
Return-to-dig	Standard
Lube interval (hrs)	> 50
Number of bucket cylinders	1
Boom Suspension System	Optional

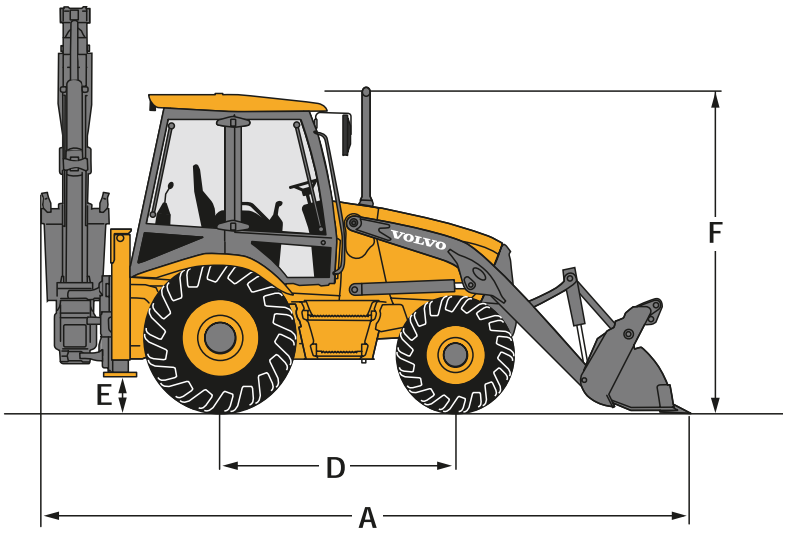
Tyres

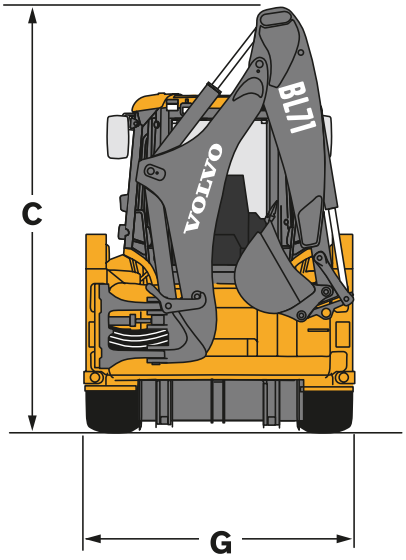
Large front tyres give great loading performansce.

Rear: 18,4 x 26

Front: 16/70 x 20





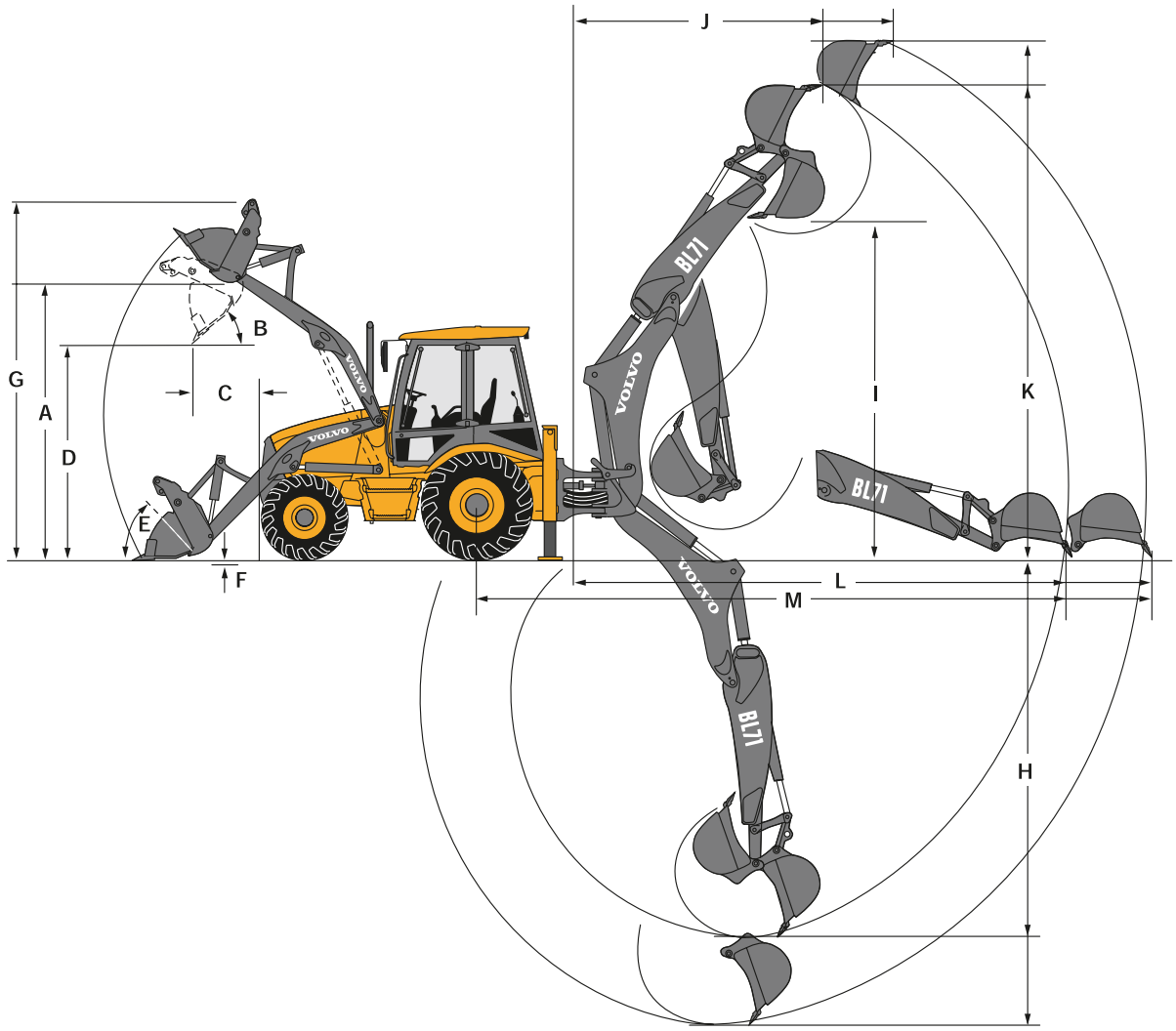


Dimensions - Transport Position

A - Ovesrall length	5825 mm
B - Overall width	2477 mm
C - Overall height	3706 mm
D - Wheelbase 4wd	2148 mm
E - Stabiliser clearance	370 mm
F - Height to top of ROPS (cab)	2936 mm
G - Stabiliser Width	2300 mm

Backhoe buckets	Width	Weight	Capacity	Teeth nbr.
Standard bucket	2350 mm	450 kg	1000 l	8
4 in 1 bucket	2350 mm	784 kg	1000 l	8

Backhoe buckets	Width	Weight	Capacity	Teeth nbr.
Standard bucket	300 mm	90 kg	74 l	3
	400 mm	101 kg	110 l	3
	450 mm	109 kg	128 l	4
	610 mm	126 kg	190 l	4
	910 mm	164 kg	309 l	6
Grading bucket	1215 mm	135 kg	160 l	0
	1515 mm	158 kg	210 l	0



Loader dimensions

A - Height to hinge pin	3459 mm
B - Dump angle	49°
C - Dump reach @ 45°	836 mm
D - Dump height @ 45°	2716 mm
E - Rollback at ground	44 °
F - Dig depth below grade	156 mm
G - Overall operating height	4468 mm
Max grading angle	117°

Backhoe dimensions

Standard dipper

H - SAE max digging depth	4280 mm
I - Loading clearance	3899 mm
J - Reach at max height	2886 mm
K - Max operating height	5545 mm
L - Reach from swing post	5806 mm
Sideshift offset from centreline	574 mm

Extendible dipper dimensions

H - SAE max digging depth		
	Ret - 4280 mm	Ext - 5343 mm
I - Loading clearance		
	Ret - 3899 mm	Ext - 4509 mm
J - Reach at max height		
	Ret - 2886 mm	Ext - 3764 mm
K - Max operating height		
	Ret - 5545 mm	Ext - 6155 mm
L - Reach from swing post		
	Ret - 5806 mm	Ext - 6782 mm

STANDARD EQUIPMENT

Engine
BL71: Volvo D4D turbocharged diesel engine (70 kW).
BL71 Plus: Volvo D4D turbocharged diesel engine (74,5 kW).
Engine fan guard.
Ground line fuel fill with 120 liter capacity.
Front grill.
Tilting cooler.

Electrical System
Battery, 690 CCA.
Alternator 95 Amp.

Service and Maintenance
Tool box - external.
50-hour greasing intervals.

Hydraulic System
Hydraulic oil cooler.
Load sensing, variable flow system with axial piston pump.
"Flow Sharing" System.

Lighting
Hazard flasher/direction indicators.
Light, working (2 front, 2 rear).
Front headlights.

Instrumentation & controls
Gauges:
- Coolant temperature
- Fuel level
- Hour recorder
- Headliner
- Radio ready

Warning and control lamps:
- Preheating element engine
- High coolant temperature engine
- Low oil pressure engine,
- Air filter engine,
- High oil temperature transmission,
- Service indicator
- Battery charging
- Hydraulic oil filter
- High hydraulic oil temperature
- Low hydraulic oil temperature
- Warning and control lamps.

Power socket (2).
Horn.
Warning buzzer.
Reversing alarm.
Throttles, hand and foot.

Driveline
Four wheel drive.
Oil immersed disc brakes.
Differential lock.
Fast reversing shuttle, all gears.
Torque convertor.
Four-speed syncromesh transmission.
Neutral transmission button on loader joystick.
Transmission de-clutch on loader joystick.
Tyres.

Cab, Exterior
Left/right side doors with locks.
4 side opening windows with partial & full hold open.
One-piece opening rear window.
Front windscreen - laminated.
Mirrors external (2).
All tinted glass.

Cab, Interior
Interior light.
Drink holder.
Ignition switch.
Front and rear windscreen wipers.
Front and rear windscreen washer.
Floor mat.
Seat with fabric or vinyl seat cover with or without arm rests.
Defroster.
Seat belt, retractable.
Tilt steering wheel.
Power steering.
Hydrostatic heater.

Working Equipment
Backhoe, side-shift, excavator - two lever control.
Hydraulic boom transport lock.
Sideshift, locking.
Lifting eye backhoe.
Swing transport lock.
Loader, self-levelling with return-to-dig and transmission disconnect switch on loader joystick.

OPTIONAL EQUIPMENT

Cab
Air Conditioning.
Air suspension and heated seat + arm rests.
Radio.
Speedometer.
Sun visor.
Wide seat belt.

Driveline
Powershift transmission.
Front fenders.

Working Equipment
Excavator Pilot Controls.
Boom suspension system.
Extendible dipper.
Stabiliser street pads.

Hydraulics
Hammer hydraulic circuit.
Hammer rigid line.
Hand held hydraulic.
Bi-Directional Auxiliary hydraulic circuit.

Lighting
Additional working lights (2 front, 2 rear).

Electrical System
Battery, additional.
Engine pre-heater.

Safety
Hydraulic oil tank lockable cap.
Rotating beacon.
Boom and dipper safety valves.
Loader safety valve.
Vandal guard.
Anti-theft key board.
Back up alarm.

Special colours.

ATTACHMENTS

Loader
Loader Attachement Bracket (TPV)
General Purpose bucket.
Multi-Purpose bucket.
Forks kit for Loader Attachement Bracket.
Flip-over forks for GP and MP buckets.

Excavator
Standard and Heavy Duty buckets.
Mechanical attachment bracket.
Hydraulic attachment bracket.

Volvo breaker HB 440.

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