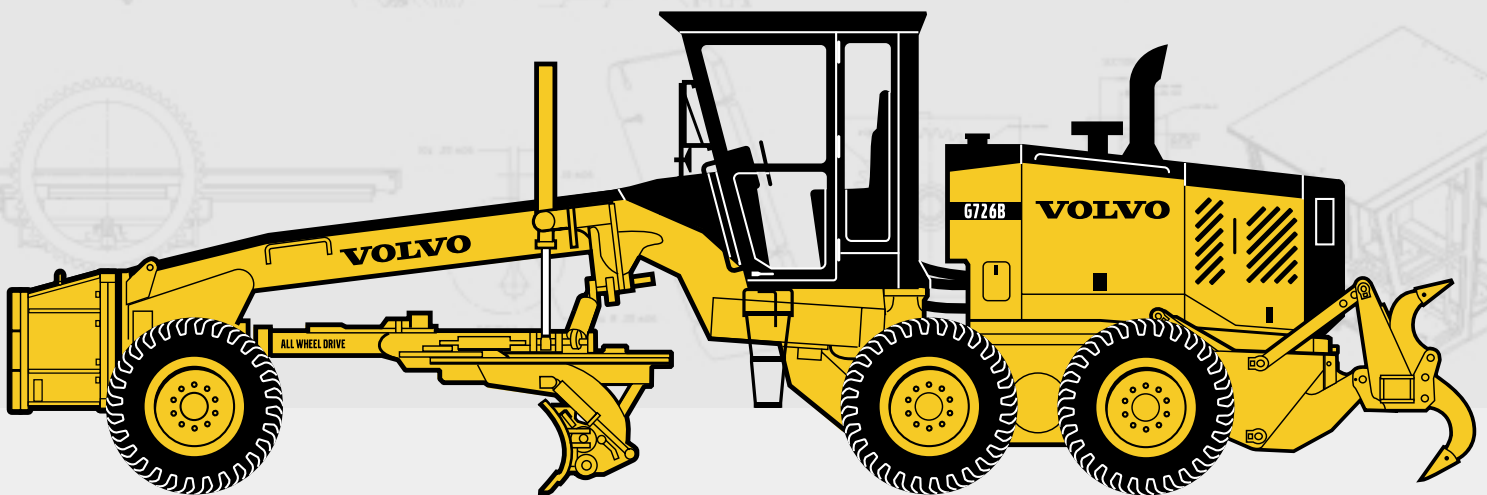


VOLVO MOTOR GRADER

G726B

AUSTRALIAN VERSION

ALL WHEEL DRIVE



- **Configuration:** Articulated frame
- **Engine model:** Volvo D7DGDE2
- **Maximum net engine output @2200 RPM (per SAE J1349):** 148 - 175 kW (198 - 235 hp)
- **Base weight:** 18 770 kg (41,380 lb)
- **Blade down force:** 9 890 kg (21,800 lb)
- **Blade pull:**
All Wheel Drive – 15 631 kg (34,460 lb)
Tandem – 11 776 kg (25,962 lb)
- Single lever "Smart Shifter" transmission control with gear memory feature
- Separate hydraulic pump & speed sensor for each front wheel
- Variable aggression for job matching
- Maintains aggression at both front wheels through turns
- Creep feature allows hydrostatic drive at front wheels from 0-3,2 km/h (0-2.0 mph) for optimum fine grading
- Wheel motor efficiencies maintained in both forward and reverse
- AWD available at speeds up to 32,4 km/h (20.2 mph)
- Engine cooling module with efficient, variable speed, hydraulically driven cooling fan
- 8400 fully sequential direct drive powershift transmission
- Fully enclosed, low profile ROPS cab with FOPS protection
- Moveable Blade Control System
- Load sensing, Closed Centre Hydraulic System
- Fully adjustable control pedestal with low effort hydraulic controls
- Full front and rear frame sections designed for attachment mounting
- Rear mounted ripper/scarifier and front push block standard equipment
- Equipped with the fuel efficient, long life Volvo engine that complies to the EPA Tier II, EU Stage II emission standards

VOLVO



Base operating weight (Australian standard)

Weights shown include low profile cab with ROPS/FOPS, all operating fluids and operator.

G726B

Total 18 770 kg (41,380 lb)
On front wheels 5 686 kg (12,535 lb)
On rear wheels 13 084 kg (28,845 lb)

Australian equipped operating weight:

includes 17.5 x 25, 12 PR, TL tyres on 356 mm (14") 3 piece rims, 4 267 x 737 x 25 mm (14' x 29" x 1") moldboard, push block and rear ripper/scarifier.

Maximum weight capacity . . . 21 546 kg (47,500 lb)
Maximum weight - front 7 575 kg (16,700 lb)
Maximum weight - rear 14 243 kg (31,400 lb)

Weight adjustments for various options are listed at rear of brochure.



Productivity (Standard equipment)

Blade pull at base operating weight (no wheel slip, 0.9 traction co-efficient) AWD . . . 15 631 kg (34,460 lb)
Blade down force

• cutting capability (ISO 7134) 9 890 kg (21,800 lb)

Blade down force is the maximum downward force which may be applied at the cutting edge.



Engine data

Make/Model Volvo D7DGDE2
Type 4 Cycle, Turbocharged, Aftercooled
No. of cylinders In Line 6
Bore & stroke 108 x 130 mm (4.25" x 5.11")
Displacement 7,1 l (436 cu in)
Maximum net engine output @ 2200 RPM (per SAE J1349) 148-175 kW (198-235 hp)
Rated gross brake horsepower @ 2200 RPM

• Gears forward 1, 2 and
Reverse 1 153 kW (205 hp)
Rated gross brake horsepower @ 2200 RPM

• Gears forward 3-8 and
Reverse 2-4 180 kW (241 hp)
Rated net brake horsepower @ 2200 RPM

• Gears forward 1, 2 and
Reverse 1 148 kW (198 hp)
Torque @1100 RPM 900 N.m (664 lb.ft)
Torque rise 35%

Rated net brake horsepower @ 2200 RPM
• Gears forward 3-8 and
Reverse 2-4 175 kW (235 hp)
Torque @1400 RPM 1 050 N.m (774 lb.ft)
Torque rise 34%

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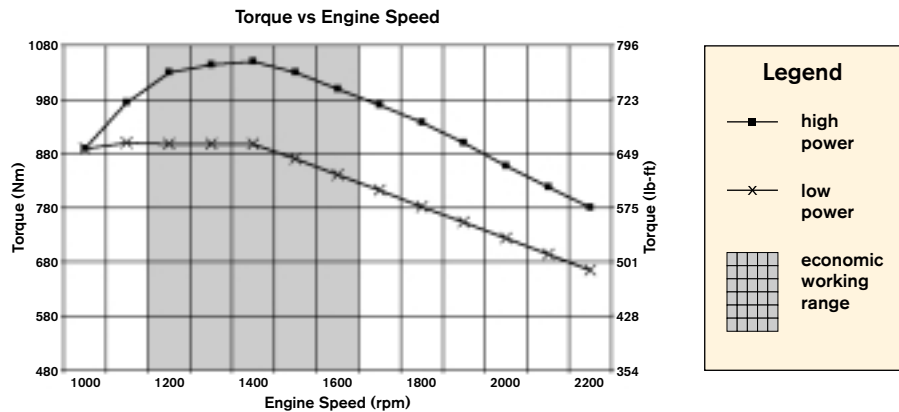
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Reverse 2-4 175 kW (235 hp)
Torque @1400 RPM 1 050 N.m (774 lb.ft)
Torque rise 34%

Performance: Rated net brake horsepower SAE standard J1349/ISO 3046-2 conditions with water pump, fuel system, air cleaner, muffler, alternator, cooling fan and lubricating oil pump.

Engine complies to EPA Tier II, EU Stage II exhaust emission standard.

Engine performance curve



Engine data (continued)

Engine cooling system designed with singular cooler installations, and utilizes a highly efficient, variable speed, hydraulically driven cooling fan.

Engine equipped with a two stage, dual element, dry type air cleaner with exhaust aspirator and service indicator. 24 volt starting and electrical system with 80 amp (1920 watt) brushless alternator with internal voltage regulator. Two heavy duty 12 volt maintenance free batteries with 950 cold cranking amps (CCA) and 195 minutes reserve capacity per battery. 1300 CCA batteries available optionally. System includes battery disconnect.



Transmission

Make/Model Volvo 8400

Fully sequential, direct drive, powershift transmission. Engine cannot be started if transmission is in gear. Single lever "Smart Shifter" electronic transmission controller provides self-diagnostics. The flywheel mounted, multi-disc master clutch is oil cooled and lubricated for long life.

Ground speeds at 2200 RPM with standard tyres (17.5 x 25, 12 PR - TL):

Forward		Reverse	
Gears	km/h	Gears	km/h
1	4,4	1	4,4
2	6,1	2	8,5
3	8,5	3	16,7
4	11,9	4	32,4
5	16,7		
6	23,4		
7	32,4		
8	45,3		

Transmission guard is standard equipment and is hinged for easy access.

Perma Lube U joints on the input/output drive shafts.



Differential / Final drive

Make/Model Volvo SR30

Single reduction final drive with an operator controlled lock/unlock differential. Rear axles are induction hardened, supported on double row spherical roller bearings.



Tandems

Robotically welded, tandem case has internal gusseting for maximum torsional strength. Field-proven split ring/flanged sleeve tandem mounting and 25 mm (1") thick inner wall resists flexing from side loading during severe applications.

Depth 622 mm (24.50")
Width 210 mm (8.25")
Thickness • inner wall 25 mm (1.00")
• outer wall 19 mm (0.75")
Centre distance 1 562 mm (61.50")
Drive chain pitch 51 mm (2.00")
Oscillation ±15°



Brakes

Service Brakes: Foot operated

Fade resistant, hydraulically actuated, wet multiple disc service brakes located at the 4 tandem drive wheels are self-adjusting, fully sealed and maintenance free. System features crossover dual braking circuits for uniform braking on both sides of the grader. Includes reserve power assist and operator warning system (visual and audible).

Parking Brake

Spring applied hydraulic release independent, disc type parking brake on transmission output shaft and effective on all 4 tandem drive wheels. Includes visual and audible operator warning system for parking brake on, transmission in gear condition. Transmission will not engage with park brake on.

Braking systems to SAE Recommended Practice J1473 OCT. 90, and J1152 APR. 80; ISO 3450-1993-01-28. Volvo uses asbestos free brake components.



**Wheels & tyres
(Standard equipment)**

Tyre size 17.5 x 25, TL
 Ply rating (PR) 12
 Rim size 3 piece with rim locks. . . 356 mm (14.0")
 Bolt-on rims are not interchangeable between the front wheels and the tandem wheels.

Front axle

Type: Robotically welded steel truss, gusseted for torsional strength, oscillates on a single 80 mm (3.15") diameter centre pivot pin.
 Wheel lean 15° R & L
 Oscillation 16° up and down
 Ground clearance at centre line . . . 584 mm (23.0")
 Two 76 mm (3") diameter wheel lean cylinders and lock valve are standard equipment.

All Wheel Drive

The Volvo high torque All Wheel Drive System incorporates two variable displacement, closed loop piston pumps. The Volvo AWD design automatically adjusts hydraulic flow and pressure to the drive system to match tandem wheel speeds in all tractive conditions. Each front wheel is independently powered by a 2 speed motor. Each motor is controlled by its own speed sensor and pump. The All Wheel Drive system is controlled by the operator through a positive On/Off switch as well as a

**All Wheel Drive
(continued)**

16 position variable aggression dial. The front wheel speed sensors will always match front wheel speed to tandem wheels speed relative to the level of aggression selected by the operator. This provides optimum job matching in all tractive conditions. When AWD is selected, the engine will deliver maximum VHP horsepower regardless of the working gear being used.

Typical operating pressure. . . . 206 Bar (3,000 psi)
 Maximum operating pressure. . . 344 Bar (5,000 psi)
 Minimum operating pressure. . . . 34 Bar (500 psi)
 Top speed 32.4 km/h (20.2 mph)
 Creep Mode speed 0-3.2 km/h (0-2 mph)
 Maximum rim pull 3 855 kg (8,500 lb)

The Volvo high torque All Wheel Drive System operates in forward gears 1-7 and reverse gears 1-4. The operator may shift from 7th AWD into 8th and back to 7th AWD at any time for maximum high speed performance.

In addition, the Volvo system provides the operator with the ability to fine grade in Creep Mode using only hydrostatic front wheel drive.

The Volvo high torque All Wheel Drive System offers infinite speed control below 3,2 km/h (2 mph) for fine grading as well as a top speed of 32,4 km/h (20.2 mph) for snow plowing.

The AWD controller is integral with the electronic 8400 transmission controller, thereby supplying the same diagnostic features found in the Volvo 8400 transmission.

**All Wheel Drive
(continued)**

Volvo AWD motors maintain maximum efficiency in both forward and reverse.

Operating modes

All Wheel Drive or Tandem Drive

- On-Off Selection
- Creep Mode - Hydrostatic front wheel drive only for optimum control and manoeuvrability while fine grading.
- Manual Mode - Allows the operator to match front wheel aggression setting to specific applications.

AWD features

- Maximum startup torque
- Power maintained in either direction
- Smooth operation in low speeds
- Maintains front wheel aggression in turns
- One speed sensor at each front wheel
- Hydrostatic Creep Mode feature



Steering

Hydrostatic power front wheel steering incorporating two steering cylinders. Meets SAE J1511 OCT. 90. Secondary steering assist is standard.

Minimum turning radius using front axle steering, articulation, wheel lean and unlocked differential 7 772 mm **(25'6")**

Steering arc 72°

Frame articulation angle 22°

Articulation lock standard.



Frame

Full front and rear frame sections.

Front: Robotically welded box section. Dual sloped front frame provides excellent forward visibility.

Minimum dimensions of

box section 267 x 356 mm **(10.5" x 14.0")**

Plate thickness 19 mm **(0.75")**

Vertical section modulus

at arch 1 950 cm³ **(119 cu in)**

minimum 1 663 cm³ **(101.5 cu in)**

maximum 3 474 cm³ **(212 cu in)**

Linear weight - minimum-maximum 159.4 - 346.0 kg/m **(107.1 - 232.5 lb/ft)**

Rear: Full perimeter rear frame permits modular powertrain mounting for ease of service and is ideal for attachment mounting.

Minimum dimensions of

rear frame 102 x 254 mm **(4.0" x 10.0")**

Plate thickness 13 mm **(0.5")**



Articulation

Twin 114 mm **(4.5")** hydraulic cylinders articulate frame 22° right and left. Anti-drift lock valve ensures stable operation.



Circle

Hardened teeth, cut on the outside of the circle for maximum leverage and minimum wear.

The circle is supported at six points by three adjustable clamp plates and three adjustable guide shoes, providing optimum circle support and load distribution. DURAMIDE™ faced clamp and guide shoes prevent metal-to-metal contact and provide maximum service life.

DURAMIDE™ is a synthetic bearing material that maximizes service life and reduces circle system maintenance requirements.

Diameter 1 683 mm **(66.25")**

Thickness 32 mm **(1.25")**

Adjustable guide shoes 3

Adjustable clamp plates 3



Circle drive

The Volvo dual cylinder Circle Drive System uses direct acting hydraulic power for exceptional turning and holding capability under full load. Circle Drive System uses hardened drive pinions and is protected against impact damage by an overload relief valve as standard equipment.

Hydraulic drive cylinders 2

Points of leverage 2

Rotation 360°



Drawbar

Robotically welded box section. Narrow "T" design permits optimum visibility to the work area. Drawbar ball stud provides an adjustment to compensate for different tyre sizes. Blade lift cylinder anchors are straddle mounted on drawbar to provide maximum strength and support.

Dimensions of

box section 165 x 165 mm **(6.5" x 6.5")**

Plate thickness 25 & 19 mm **(1.0" & 0.75")**



Moldboard

Standard moldboard with

replaceable end bits 4 267 x 737 x 25 mm **(14' x 29" x 1")**

Blade material SAE 1050 high carbon steel

Edge: through hardened. . . 152 x 16 mm boron steel **(6" x 5/8")**

Bolt spacing 152 mm **(6")**

• bolt size 16 mm **(5/8")**

Slide rails supported by DURAMIDE™ bearings.



Blade range: Moveable Blade Control System

(Dimensions shown with standard moldboard)

LEFT

RIGHT

Reach outside tyres - articulated

frame 3 277 mm **(129.0")** 3 264 mm **(128.5")**

Reach outside tyres - straight

frame 2 248 mm **(88.5")** 2 235 mm **(88.0")**

Blade slide 673 mm **(26.5")** 673 mm **(26.5")**

Circle side

shift 775 mm **(30.5")** 749 mm **(29.5")**

Maximum bank

sloping angle 90° 90°

Blade ground clearance 432 mm **(17.0")**

Blade cutting depth 813 mm **(32.0")**

Blade tilt range 44° forward 6.5° back

Superior blade mobility permits steep ditch cutting angles and back sloping without putting the front tyre on the slope.



Cab & controls



Fully enclosed low profile ROPS/FOPS cabin is standard. All the controls are located in a 90° arc forward and to the right of the operator. Forward of the operator are the engine oil pressure, coolant temperature and fuel level gauges, transmission gear indicator and a multi-function Contronic monitoring display. Located in the fully adjustable steering pedestal are the following switches: differential lock/unlock, hazard lights, combination turn signal, horn and high beam headlight. Heater and wiper/washer controls, lighting and accessory switches are grouped in the operator's right hand console. This console also contains the ignition key and access to the circuit breaker and fuse panel. Located to the right of the operator, above the console, are the AWD On/Off switch, a 16 position variable aggression dial and the hydrostatic Creep On/Off switch. An accelerator/decelerator foot pedal and slider type hand throttle are standard equipment. Outside mounted rear view mirrors (L&R) on breakaway brackets and a convex interior mirror are standard. Interior operator noise level does not exceed 76db(A) enclosed cab, when tested using AS 2012.2-1990/(ISO-6394) standards.

Cab standard equipment

- High capacity heater/air conditioner c/w adjustable vents, temperature control and variable speed fan
- Fully adjustable, suspension seat
- Rear windshield wipers and washers
- Lower front window wipers and washers
- Modular, 12 volt radio and cassette player
- Operator Convenience Package (lunch box, steel vacuum bottle, cup holder and ashtray)
- 25 AMP 24 volt to 12 volt convertor for electrical accessories or two way radio installations
- Bubble type slope meter
- Transmission and Hydraulic Filter restriction warning
- Low hydraulic oil level and temperature indicator
- Speedo/Odometer

Low profile cab with ROPS and FOPS

Inside dimensions

Height 1 575 mm **(62.0")**

Width @ controls 1 422 mm **(56.0")**

Depth @ controls 1 410 mm **(55.5")**

An optional full height cab is available with an inside height of 1 880 mm **(74")**. All Volvo Grader cabs and canopies are designed to meet or exceed SAE J1040 APR. 88, ISO 3471/1-1986(E), and 86/295/EEC ROPS requirements. The seatbelt is 76 mm **(3")** wide and meets SAE J386 JUNE 93; ISO 6683-1981(E).



Load sensing hydraulics

Closed Centre Hydraulic System senses load requirements and maintains system pressure 24 Bar (**350 psi**) above the load pressure.

System features industry standard control arrangement complete with low effort, feathering type, short throw levers located on a fully adjustable control pedestal.

System incorporates lock valves to prevent cylinder drift under load in the following circuits: blade lift, moldboard tilt, circle shift, wheel lean and articulation.

Hydraulic system features include axial piston pump, pressure and flow compensated, variable displacement with high output for smooth multi-functioning.

The pump drive shaft is equipped with Perma Lube U joints.

Maximum pressure 186 Bar (**2,700 psi**)
Output 2200 RPM 0-284 lpm (**0-75 U.S. gpm**)
Filtration 10 micron spin-on type



Capacities

	Litres	U.S.Gal.
Fuel tank.....	378.5	100.0
Transmission.....	38.0	10.0
Final drive.....	23.0	6.0
Tandems (each).....	100.0	26.4
Hydraulic oil tank.....	134.0	35.4
Coolant antifreeze protection to		
-58° F (-50° C) approx.....	28.0	7.4
Engine oil.....	32.0	8.45



Attachments

(Optional unless otherwise stated as standard equipment)

"A" Frame 318 kg (**700 lb**)

Snow

Hydraulic Wing

• high-bench 2 177 kg (**4,800 lb**)

• low bench 1 814 kg (**4,000 lb**)

One Way Plow 1 067 kg (**2,350 lb**)

"V" Snow Plow

• 2 743 mm (**9'**) 1 134 kg (**2,500 lb**)

• 3 042 mm (**10'**) 1 202 kg (**2,650 lb**)

Earth

Dozer Blade

• 2 438 mm (**8'**) 1 188 kg (**2,620 lb**)

• 2 743 mm (**9'**) 1 302 kg (**2,870 lb**)

• 3 048 mm (**10'**) 1 415 kg (**3,120 lb**)

Front Mounted Scarifier 807 kg (**1,780 lb**)

Mid-mount Scarifier 782 kg (**1,725 lb**)

Push Block 476 kg (**1,050 lb**) - Standard equipment

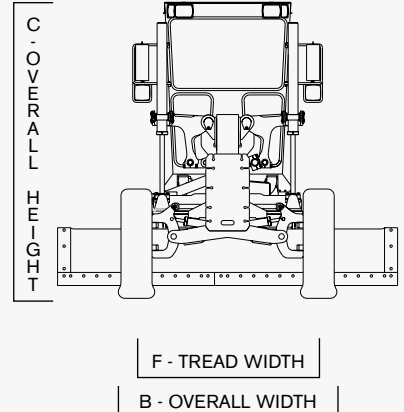
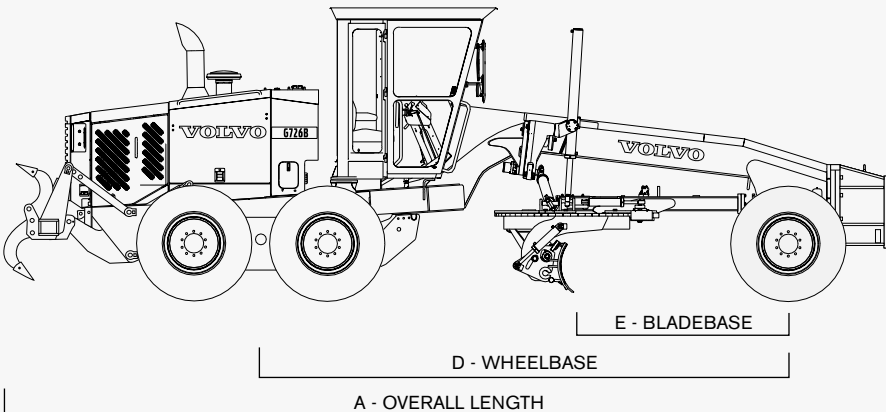
Ripper/Scarifier, rear 1 306 kg (**2,880 lb**) - Standard equipment

Windrow Eliminator 590 kg (**1,300 lb**)

Dimensions

- A Overall length 10 428 mm (**34'3"**)
- D Wheelbase 6 096 mm (**20'0"**)
- E Bladebase
- ISO 7134 2 591 mm (**8'6"**)

- B Overall width 2 690 mm (**8'10"**)
- C Overall cab height 3 404 mm (**11'2"**)
- with Low Profile Cab 3 099 mm (**10'2"**)
- F Tread width 2 235 mm (**7'4"**)



AUSTRALIAN STANDARD FEATURES

Volvo "High Torque" All Wheel Drive with hydrostatic Creep feature

Operator controlled, lock/unlock differential final drive

4 wheel, crossover, dual braking system with reserve power assist

Park brake with operator warning alarm and indicator

Fully sequential, direct drive, powershift 8400 transmission, with transmission guard

343 mm (13.5") diameter, 5 plate, full oil master clutch

Moveable Blade Control System for optimum blade mobility

Full front and rear frame sections designed to withstand shock loading of attachments

Circle drive relief valve protects circle drive against impact damage

Hardened circle teeth cut on outside of circle for maximum leverage and minimum wear

Hardened circle drive pinions for maximum wear resistance

Isolation mounted cab, transmission and engine for reduced noise and vibration

Adjustable steering control pedestal with tilt head for maximum operator comfort

Gauges include: coolant temperature, engine oil pressure, fuel, hourmeter, air cleaner service indicator, articulation angle indicator, multi-function Contronic Monitoring System with visual and audible warnings

Load sensing, Closed Centre Hydraulic System with short throw, low effort control levers. Hydraulically operated blade lift, circle turn, moldboard slide and tilt, circle shift, articulation, rear ripper/scarifier and wheel lean functions

Feathering type controls for precise blade adjustments

Deluxe, cloth covered, fully adjustable suspension seat

378.5 l (100 U.S. gallon) fuel tank capacity

Dual leaning wheel cylinders

DURAMIDE™ wear strips on circle clamp plates and guide shoes prevent metal-to-metal contact for maximum service life

Hinged cooling module door for easy trash clean out

Backup lights

Backup alarm with automatic volume levels

Painted high gloss Volvo yellow and grey

Lockable tool box with storage space for scarifier shanks

Engine side panels complete with locks

Left and right outside rear view mirrors with breakaway brackets

Interior rear view mirror

Exhaust aspirated air cleaner

Front cab wiper and washer

Air conditioner - 35,000 BTU

- HFC-134a (non-CFC refrigerant)

Low profile cab with ROPS and FOPS protection

Cab heater - 50,000 BTU

- with cab pressurizer and replaceable filter

Float control on Blade lift cylinders

- right and left detent style independent, electric

Hydraulic manifold cover

24 volt radio/cassette player

Lights

- Beacon
- Clearance lights front & rear

- Front mounted plow lights - 2
- Headlights with dimmer switch
- Moldboard lights - 2

Moldboards

- 4 267 x 635 x 22 mm (14' x 25" x 7/8")

Reflectors - side

Secondary steering (power assisted)

Tyres

- 17.5 x 25, 12 PR, TL on 3 piece 356 mm (14") rims

Tool kit

Window - opening sliders - left/right

Wiper and washer - rear

Wiper and washer - lower front

Bubble type slope meter

Engine coolant filter

Pre-Cleaner - Turbo II Centrifugal type

Operator convenience package

- lunch box, steel vacuum bottle, cup holder and ashtray

Remote lube manifold (rear articulation cylinders pivots and tandem pivots)

Wheel Rim locks

Lockable fluid fill points

Front pusher block

Rear ripper/scarifier

1x Spare main hydraulic spool function

OPTIONAL EQUIPMENT

	kg	lb
Accumulators - blade lift (2)	55	122
Brush guards	18	40
Cab		
• canopy shell with ROPS - deduct . . . (284)	(625)	
Defroster fans		
• Left front	1	3
• Right front	1	3
Engine block heater	1	3
Lights		
• Front mounted plow lights - 2		
• high mount	54	120
• Snow wing lights - 2	1	2

	kg	lb
Fenders		
• Front	36	80
• Rear	182	400
Moldboards		
• 3 658 x 737 x 25 mm		
(12' x 29" x 1")	(118)	(260)
• 3 962 x 737 x 25 mm		
(13' x 29" x 1")	(58)	(127)
Moldboard extensions		
R or L - 610 mm (2')	86	190
Moldboard edges - carbide 19 x 127 mm		
(3/4" x 5")	-	-
100 amp alternator	0	0
Paint - custom colors	-	-

	kg	lb
Low ambient fluids	0	0
Remote valve for attachments		
• 3 or 5 bank - remote mount	39	85
Sideshift accumulator	23	50
Tie down brackets	45	100
Tyres		
• 14.00 x 24, 12 PR, G2 on 3 piece		
254 mm (10") rims	(177)	(390)
Transmission sump heater	-	-
Vandalism protection	4	8
Wheel weights for rear		
wheels only - each	113	250
Window - opening - lower front	-	-

Your safety and the safety of those around you depends on using care and judgement when operating and servicing your grader. Do not operate the grader until you read and understand the warnings and instructions in the operator's manual. Volvo Motor Graders Limited is an ISO 9001 and 14001 registered company. www.volvo.com

Under our policy of continuous product development and 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.

Consult your Volvo dealer for recommended option and attachment selection.

VOLVO

Construction Equipment

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