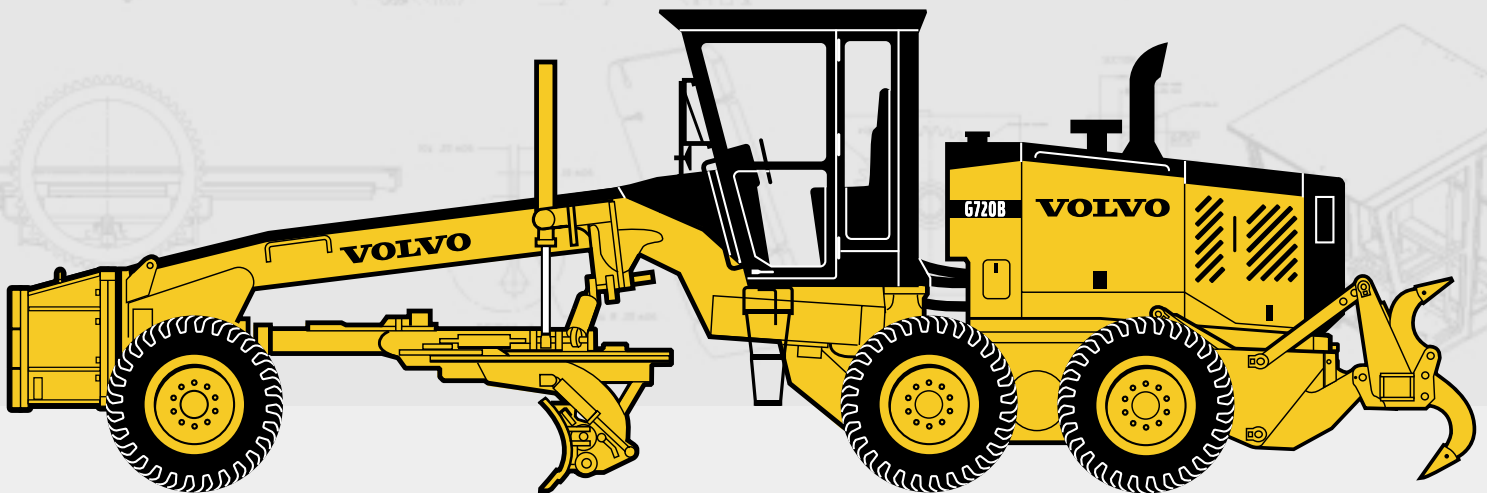


VOLVO MOTOR GRADER

G720B

AUSTRALIAN VERSION

TANDEM DRIVE



- **Configuration:** Articulated frame
- **Engine model:** Volvo D7DGBE2
- **Maximum net engine output @1900 RPM (per SAE J1349):** 126 - 157 kW (169 - 210 hp)
- **Base weight:** 18 070 kg (39,837 lb)
- **Blade down force:** 9 145 kg (20,160 lb)
- **Blade pull:** 11 530 kg (25,419 lb)
- 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
- Engine cooling module with efficient, variable speed, hydraulically driven cooling fan
- Single lever "Smart Shifter" transmission control with gear memory feature
- Hydraulically Boosted Dual Crossover Braking System with reserve power assist
- Heavy duty lock/unlock differential
- Contronic Monitoring System for all machine functions
- Full range of front and rear mounted attachments available
- 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.

G720B

- Total 18 070 kg (**39,837 lb**)
- On front wheels 5 258 kg (**11,592 lb**)
- On rear wheels 12 812 kg (**28,245 lb**)
- Australian equipped operating weight:
includes 17.5 x 25, 12 PR, TL tyres on 356 mm (14")
3 piece rims, 4 267 x 635 x 22 mm (14" x 25" x 7/8")
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) 11 530 kg (**25,419 lb**)
- Blade down force
 - cutting capability
(ISO 7134) 9 145 kg (**20,160 lb**)
- Blade down force is the maximum downward force which may be applied at the cutting edge.



Engine data

G720B

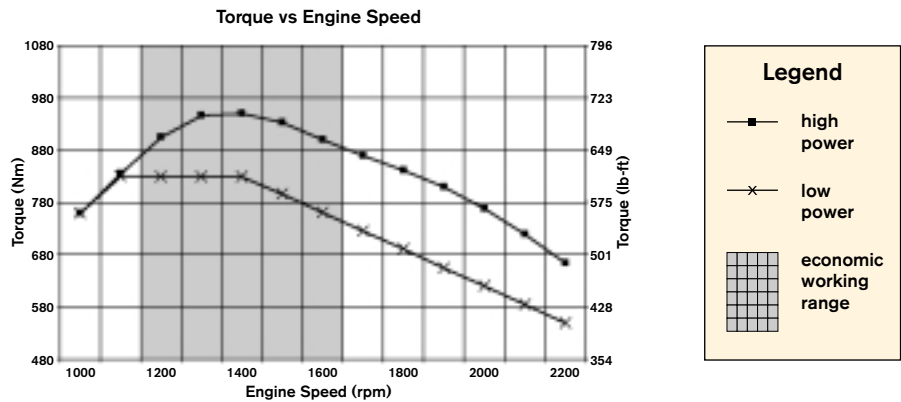
- Make/Model Volvo D7DGBE2
- Type 4 Cycle, Turbocharged/Aftercooled
- No. of cylinders In Line 6
- Bore & stroke 108 x 130 mm (**4.25" x 5.11"**)
- Displacement 7,1 l (**436 cu in**)
- Maximum net engine output @ 1900 RPM
(per SAE J1349) 126-157 kW (**169-210 hp**)
- Rated gross brake horsepower @ 2200 RPM
 - Gears forward 1, 2 and
Reverse 1 127 kW (**170 hp**)
 - Gears forward 3-8 and
Reverse 2-4 153 kW (**205 hp**)
- Rated net brake horsepower @ 2200 RPM
 - Gears forward 1, 2 and
Reverse 1 122 kW (**164 hp**)
 - Gears forward 3-8 and
Reverse 2-4 148 kW (**198 hp**)
- Torque @ 1100 RPM 831 N.m (**613 lb.ft**)
- Torque rise 51%
- Gears forward 3-8 and
Reverse 2-4 148 kW (**198 hp**)
- Torque @ 1400 RPM 950 N.m (**701 lb.ft**)
- Torque rise 43%

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

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

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

Engine performance curve



Engine data (continued)

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 660 cold cranking amps (CCA) and 160 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, L-2):

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, 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 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 18° R & L
 Oscillation 16° up and down
 Ground clearance at centre line ... 584 mm **(23.0")**
 Two 3" **(76 mm)** diameter wheel lean cylinders and lock valve are standard equipment.

 **Steering**

Hydrostatic power front wheel steering incorporating two steering cylinders. Meets SAE J1511 OCT. 90. Secondary steering assist is standard.
 Minimum turning radius using articulation, front axle steering, wheel lean and unlocked differential 7 772 mm **(25'6")**
 Steering arc 72°
 Frame articulation angle 22°
 Articulation lock standard.



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 steering pedestal.

System incorporates lock valves to prevent cylinder drift under load in the following circuits: blade lift, moldboard tilt, circle shift, wheel lean, circle turn 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 Snow Plow..... 1 065 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..... 510 kg (**1,125 lb**) - Standard equipment

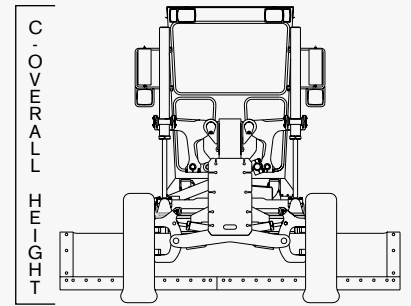
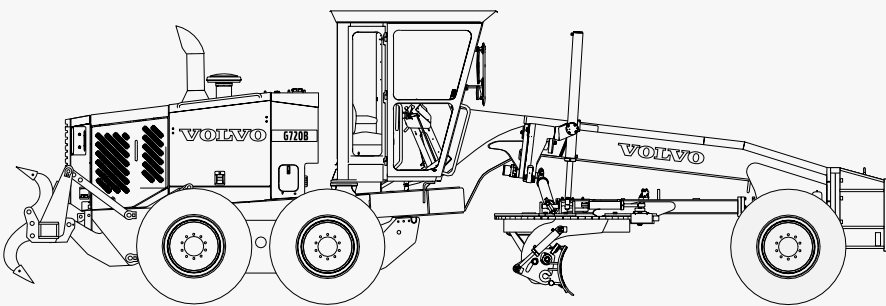
Ripper/Scarifier, rear..... 1 306 kg (**2,880 lb**) - Standard equipment

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..... 2 210 mm (**7'3"**)



A - OVERALL LENGTH

D - WHEELBASE

E - BLADEBASE

C - OVERALL HEIGHT

F - TREAD WIDTH

B - OVERALL WIDTH

AUSTRALIAN STANDARD FEATURES

Operator controlled, lock/unlock differential final drive	Feathering type controls for precise blade adjustments	• Front mounted plow lights - 2
4 wheel, crossover, dual braking system with reserve power assist	Deluxe, cloth covered, fully adjustable suspension seat	• Headlights with dimmer switch
Park brake with operator warning alarm and indicator	378.5 l (100 U.S. gallon) fuel tank capacity	• Moldboard lights - 2
Fully sequential, direct drive, powershift 8400 transmission, with transmission guard	Dual leaning wheel cylinders	Moldboards
343 mm (13.5") diameter, 4 plate, full oil master clutch	DURAMIDE™ wear strips on circle clamp plates and guide shoes prevent metal-to-metal contact for maximum service life	• 4 267 x 635 x 22 mm (14' x 25" x 7/8")
Moveable Blade Control System for optimum blade mobility	Hinged cooling module door for easy trash clean out	Reflectors - side
Full front and rear frame sections designed to withstand shock loading of attachments	Backup lights	Secondary steering (power assisted)
Circle drive relief valve protects circle drive against impact damage	Backup alarm with automatic volume levels	Tyres
Hardened circle teeth cut on outside of circle for maximum leverage and minimum wear	Painted high gloss Volvo yellow and grey	• 17.5 x 25, 12 PR, TL on 3 piece 356 mm (14") rims
Hardened circle drive pinions for maximum wear resistance	Lockable tool box with storage space for scarifier shanks	Tool kit
Isolation mounted cab, transmission and engine for reduced noise and vibration	Engine side panels complete with locks	Window - opening sliders - left/right
Adjustable steering control pedestal with tilt head for maximum operator comfort	Left and right outside rear view mirrors with breakaway brackets	Wiper and washer - rear
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	Interior rear view mirror	Wiper and washer - lower front
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	Exhaust aspirated air cleaner	Bubble type slope meter
	Front cab wiper and washer	Engine coolant filter
	Air conditioner - 35,000 BTU	Pre-Cleaner - Turbo II Centrifugal type
	• HFC-134a (non-CFC refrigerant)	Operator convenience package
	Low profile cab with ROPS and FOPS protection	• lunch box, steel vacuum bottle, cup holder and ashtray
	Cab heater - 50,000 BTU	Remote lube manifold (rear articulation cylinders pivots and tandem pivots)
	• with cab pressurizer and replaceable filter	Wheel Rim locks
	Float control on Blade lift cylinders	Lockable fluid fill points
	• right and left detent style independent, electric	Front pusher block
	Hydraulic manifold cover	Rear ripper/scarifier
	24 volt radio/cassette player	1x Spare main hydraulic spool function
	Lights	
	• Beacon	
	• Clearance lights front & rear	

OPTIONAL EQUIPMENT

	kg	lb		kg	lb		kg	lb
Accumulators - blade lift (2)	55	122	Fenders			Remote valve for attachments		
Brush guards	18	40	• Front	36	80	• 3 or 5 bank - remote mount	39	85
Cab			• Rear	182	400	Sideshift accumulator	23	50
• canopy shell with ROPS - deduct . . . (284) (625)			Moldboards			Tie down brackets	45	100
Defroster fans			• 3 658 x 635 x 22 mm			Tyres		
• Left front	1	3	(12' x 25" x 7/8")	(109)	(240)	• 14.00 x 24, 12 PR, G2 on 3 piece		
• Right front	1	3	Moldboard extensions			254 mm (10") rims	(177)	(390)
Engine block heater	1	3	R or L - 610 mm (2')	86	190	Transmission sump heater	-	-
Lights			Moldboard edges - carbide 19 x 127 mm			Vandalism protection	4	8
• Front mounted plow lights - 2			(3/4" x 5")	-	-	Wheel weights for front or rear		
• high mount	54	120	100 amp alternator	0	0	- each	113	250
• Snow wing lights - 2	1	2	Paint - custom colors	-	-	Window - opening - lower front	-	-
			Low ambient fluids	0	0			

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

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Consult your Volvo dealer for recommended option and attachment selection.

VOLVO

Construction Equipment

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