

# BM-VOLVO

## ROAD GRADER VHK 312

A stronger, heavier road grader for tough new constructions and maintenance — with a new powerful engine, higher service weight and greater tractive power



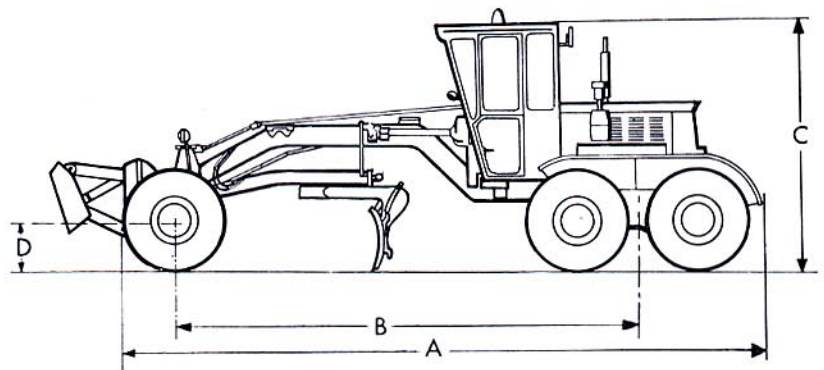
The BM-VOLVO VHK 312 — a further development of the well-tried VHK 310. More rugged design and a new powerful engine give the VHK 312 a higher service weight and larger capacity for harder and more efficient work. Hydraulic transmission, differential and a short wheel-base make the grader nimble and easy to operate. Accurate hydromechanical adjustment of grader blade settings. Rubber-mounted cab ensures a low noise level. New spring-

cushioned seat increases driver comfort and efficiency. High general cab comfort with conveniently located controls and excellent visibility, heating and ventilation. Hydraulic adjustment of the grader blade attack angle (optional extra). The comprehensive range of attachments includes front blade, gravel windrow eliminator, head and one-way ploughs for snow clearance, etc., and now also a "ripper" of rugged construction for tough jobs.



### Dimensions

A	..... in (mm)	315 (8 000)
B	..... in (mm)	224 (5 700)
C	..... in (mm)	118 (3 000)
D	..... in (mm)	24 ( 600)
Width	..... in (mm)	91 (2 300)



## BM-VOLVO VHK 312

### TECHNICAL DATA

#### Weights

Service weight without scarifier or dozer blade	lb (kg)	28 880 (13 100)
Rear wheels	lb (kg)	20 280 ( 9 200)
Front wheels	lb (kg)	8 600 ( 3 900)
Service weight with "ripper" and front blade	lb (kg)	33 070 (15 000)
Rear wheels	lb (kg)	23 150 (10 500)
Front wheels	lb (kg)	9 920 ( 4 500)

#### Engine

Volvo direct-injection diesel engine	Type D 70 B
Rating at 2 400 rev/min, SMMT, SAE, DIN, hp	145, 160, 142

#### Gearbox

Planetary type, with "Power-Shift" hydraulically operated multi-plate clutches, make Allison

#### Transmission

Torque converter, make	Allison
Conversion factor	2.5:1

#### Speeds (at full power)

Gear	Forward		Reverse	
	miles/h	km/h	miles/h	km/h
1	0.3—2.6	0.5—4.2	0.3—26.7	0.5—4.3
2	1.2—7.2	2—11.6	1.2—7.5	2—12
3	4.3—18.6	7—30	4.4—18.6	7—30

Speed range (idling to max. rev/min) forward/reverse .. miles/h (km/h)  
 0—18.0 (0—29)  
 0—18.6 (0—30)

#### Steering

Mechanical, with independent hydraulic servo  
 Turning circle ..... ft (m) 59.1 (18)

#### Tyres

Dimensions, front and rear wheels	1400×24
Standard	1400×24
Optional	1300×24

#### Brakes

Foot-operated: Hydraulic with Hydrovac vacuum servo acting on 17×4 in brake drums on the

leading pair of rear wheels.  
 Handbrake: Mechanical

#### Frame

Type: Welded box section with internal reinforcements.  
 Clearance from ground to frame underside ..... in (mm) 61 (1 540)

#### Circle

Diameter ..... in (mm) 58.5 (1 486)  
 Mechanical rotation ..... 360°  
 Teeth: Case-hardened steel

#### Grader blade

Blade length ..... in (mm) 144 (3 650)  
 Blade height with cutting edge, chordal dim. .... in (mm) 60 (625)  
 Blade thickness ..... in (mm) 0.71 (18)  
 Cutting edge ..... in (mm) 7.9×3.9×144 (200×10×3 650)

The blade is reinforced by a welded box section with guides along rear side.  
 Optional equipment: Blade to International standards, 560×18×3 650 mm (22×0.71×144 in), with two dished cutting edges, 6×<sup>3</sup>/<sub>8</sub>×72 in, giving a lift above ground of 21.6 in (55 mm) at 38° attack angle.

The range of attack-angle settings is 47°—103°

#### Grader blade settings

Lift above ground with standard tyres ..... in (mm) 21 (535)  
 Lateral shift of circle .... in (mm) 39 (1 000)  
 Lateral shift of blade, hydraulic ..... in (mm) 52 (1 320)  
 Max. reach outside wheels in (mm) 95 (2 425)  
 Attack-angle setting range 33°—100°  
 Max. slope angle ..... 90°

#### Driver's cab

Flat floor area ..... in (mm) 52×27 (1 320×680)  
 Height of floor above ground ..... in (mm) 44 (1 120)  
 Inside height, floor to roof in (mm) 75 (1 900)

#### Liquid capacities

Fuel tank	Imp. gal (l)	48.4 (220)
Cooling system	Imp. gal (l)	7.7 (30)
Crankcase	Pt (l)	22 (12.5)
Gearbox	Pt (l)	109 (62)

Tandem transmissions, each	Pt (l)	44 (25)
Hydraulic system	Pt (l)	75 (45)

#### Electric system

Voltage	24 V
Alternator rating	800 W

#### Windscreen wipers

Electrically powered  
 Number ..... 3

#### OPTIONAL EQUIPMENT

##### Scarifier

Weight	lb (kg)	1 320 (600)
Shape	Vee	
Effective width	in (mm)	49 (1 235)
Number of teeth	11	
Tooth dimensions	in (mm)	3×1 (75×25)
Tooth pitch	in (mm)	4.7 (120)
Distance from scarifier to front axle	in (mm)	29 (735)
Max. cutting depth	in (mm)	8.5 (215)
Max. scarifier pressure	lb (kg)	8 820 (4 000)

##### Dozer blade

(hydraulic control)

Weight	lb (kg)	1 980 (900)
Width	in (mm)	96 (2 440)
Height	in (mm)	32 (810)
Thickness	in (mm)	0.47 (12)
Max. lift above ground	in (mm)	18.5 (470)
Max. cutting depth	in (mm)	7.5 (190)

##### Gravel windrow eliminator

Weight	lb (kg)	1 145 (520)
Effective width, max.	in (mm)	104 (2 654)
Distance from outermost tyre to outer edge of wing	in (mm)	22—25 (560—630)

Roading width: Eliminator blade retractable within overall width of grader ....  
 Lift height ..... in (mm) 18—19 (450—485)

Draught below ground level in (mm) 6.5—7.9 (165—200)

Attack angle of cutting edge 90°—110°  
 Angular setting of cutting edge relative to grader .... 25°—30°

Specifications are subject to change without prior notice.



**BOLINDER-MUNKTELL**

— a member of the Volvo Corporation  
 Eskilstuna, Sweden

Nr 2198 E

5. 10. 71 KURIRTYCK, ESKILSTUNA