

VOLVO BM

BACKHOE – LOADER 616

**New way
to dig...**



Backhoe with pivoting bucket arm...

VOLVO BM 616

This is an entirely new, sophisticated backhoe-loader, designed for particularly efficient, economic digging. A wide range of buckets for different types of application is available, and a snap-on bracket ensures speedy bucket replacement.

A special feature of the VOLVO BM 616 is the pivoted bucket arm. This can be angled laterally by means of a simple hydraulic foot valve, and the hydraulic system, which is designed for precise inching, ensures extremely accurate positioning.

The front loader is fitted with the well-known VOLVO BM attachment bracket, enabling the extensive range of Allrounder attachments to be fitted.

Power steering, excellent all-round visibility and a powerful engine contribute to efficient performance. Good traction and excellent balance ensure outstanding hill-climbing capacity.



The bucket arm on the VOLVO BM 616 is continuously adjustable on the boom. An infinitely adjustable pedal control enables the arm to be angled laterally at any time during the work cycle.

Advantages:

- Easy to dig flush alongside walls, in line with the wheels.
- Easy to dig offset ditches.
- Lateral angling of the bucket arm makes it easy to "Sneak" past obstructions.
- Cleaner ditch and trench digging reduces manual clean-out work.



Hydraulic transmission with torque converter and Power Shift

The VOLVO BM 616 is fitted with a torque converter and hydromechanical Power Shift gearbox. There are two working and two transport gears in both forward and reverse. The engine, transmission and axles are all identical with those used in the VOLVO BM 621 loader.

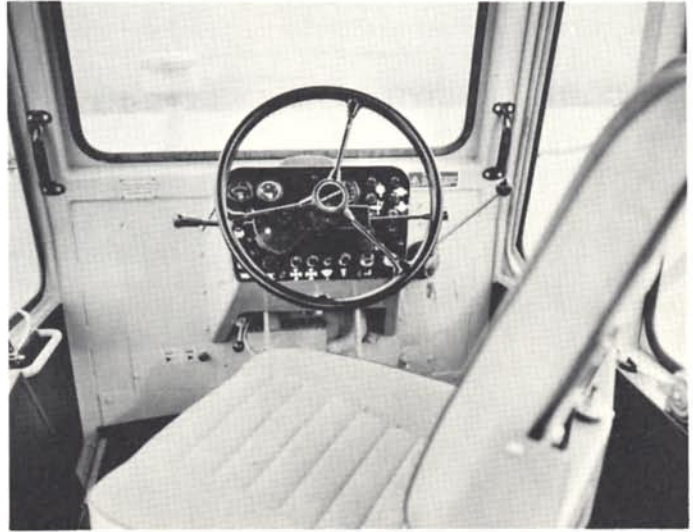
Outstanding driver comfort and safety.

The impact tested safety cab has an internal noise level below 85 dB(A). The extremely comfortable seat is adjustable in every direction, and there is ample room in the cab to swing around from driving to digging position. There is a powerful heater/demister and the control levers and instruments are comfortably positioned. The backhoe unit is controlled by twin levers, with a single lever for the front loader.

VOLVO BM 616

Efficient, easy operation, thanks to:

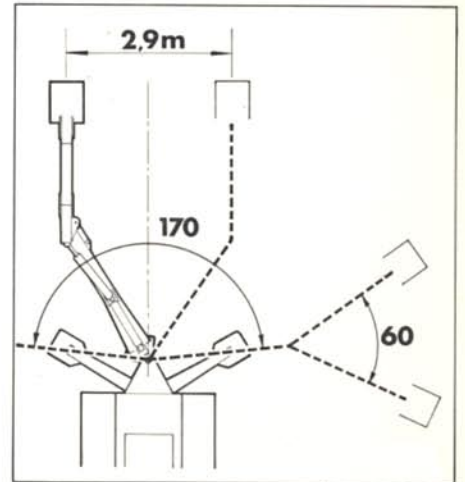
- Powerful 80 hp SAE VOLVO BM engine.
- Torque converter and hydromechanical Power Shift gearbox.
- Two-lever control of backhoe unit.
- Single-lever control of front loader.
- Snap-on bracket.



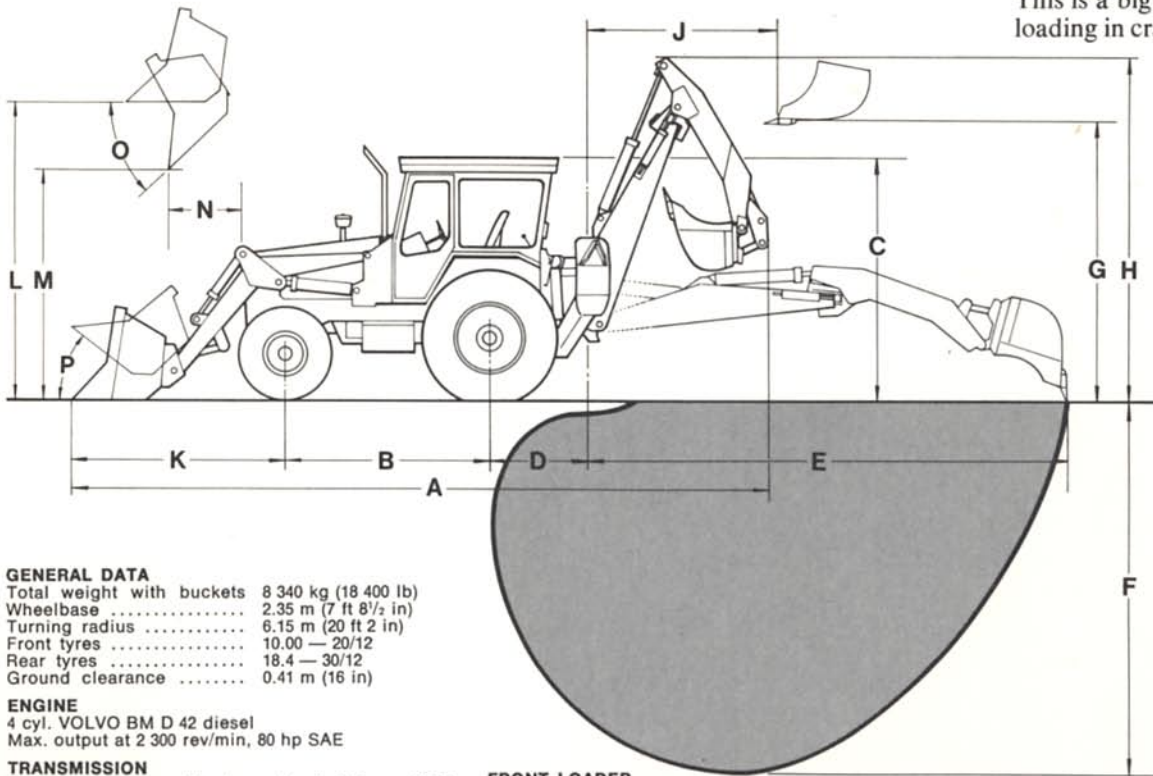
The hydraulically rotatable bucket arm on the VOLVO BM 616 gives the backhoe unit the unique capability of digging and twisting simultaneously. This extra versatility gives greatly improved working efficiency. The VOLVO BM 616 illustrated is digging around an obstruction.

Robust loader with snap-on bucket.

The VOLVO BM 616 is a particularly compact machine. The short wheelbase is indispensable for manoeuvrability, and allows the driver an excellent view of the front loader. All liftarm and bucket functions are controlled with a single lever. Most of the buckets and attachments designed for VOLVO BM Allrounders can be utilized with the 616 front loader.



The lateral angling capability of the bucket-arm provides greater flexibility and a wider working range than is available on conventional backhoe-loaders. This is a big advantage when digging or loading in cramped conditions.



- A .. 813 cm (26.9 ft)
- B .. 235 cm (7.7 ft)
- C .. 278 cm (9.1 ft)
- D .. 109 cm (3.5 ft)
- E .. 533 cm (17.4 ft)
- F .. 420 cm (13.7 ft)
- G .. 313 cm (10.2 ft)
- H .. 410 cm (13.4 ft)
- J .. 240 cm (7.8 ft)
- K .. 235 cm (7.7 ft)
- L .. 344 cm (11.2 ft)
- M .. 292 cm (9.5 ft)
- N .. 69 cm (2.2 ft)
- O .. 35°
- P .. 38°

GENERAL DATA

Total weight with buckets	8 340 kg (18 400 lb)
Wheelbase	2.35 m (7 ft 8 1/2 in)
Turning radius	6.15 m (20 ft 2 in)
Front tyres	10.00 — 20/12
Rear tyres	18.4 — 30/12
Ground clearance	0.41 m (16 in)

ENGINE

4 cyl. VOLVO BM D 42 diesel
Max. output at 2 300 rev/min, 80 hp SAE

TRANSMISSION

Torque converter and hydromechanical Power Shift gearbox. Two speed ranges with four forward and four reverse speeds. Speed ranges from 0 to 29.7 km/h (0 to 18.4 mile/h)

BACKHOE UNIT

Excavation depth	420 cm (13 ft 9 in)
Outreach	533 cm (17 ft 6 in)
Lift	315 cm (10 ft 4 in)
Breakout force at bucket lip	4 100 kgf (9040 lbf)
Bucket capacity, standard	280 l (9.9 ft³)
Slew with laterally-angled bucket arm	170° + 2×30°

FRONT LOADER

Lifting force to top position at attachment bracket	2 300 kgf (5070 lbf)
Breakout force at bucket lip	3 900 kgf (8600 lbf)
Max. height of lift to bottom of level bucket	344 cm (11 ft 3 in)
Max. clearance beneath tipped bucket	292 cm (9 ft 7 in)
Min. distance between tipped bucket at top position and front of loader ..	69 cm 2 ft 3 in)
Angle of tip	38°
Tipping angle at 2.7 m	45°
tipping height	45°

Specifications and design are subject to change without notice.

VOLVO BM
VOLVO BM ESKILSTUNA SWEDEN

No 2299 AE