

BM-VOLVO

LM 845

articulated all-round loader
worth its price on every count



The BM-Volvo LM 845 — an articulated, 4-wheel drive all-round loader. It combines the traditional features of BM-Volvo loaders — high capacity, versatility, manoeuvrability and reliability — with the advantages of articulated steering.

The LM 845 is a loader in the 9-ton class, carefully designed for operations under the most arduous conditions. It has a spacious safety cab offering superior driver comfort. Powerful engine, large wheels and rugged dimensions for tough jobs.



BM-VOLVO **LM 845**

The LM 845 is nimble and efficient on difficult ground. Its large wheels and carefully balanced weight distribution ensure excellent tractive power and "flotation" even under the most difficult off-road conditions.



1

“Go anywhere” mobility!

Large wheels

The BM-Volvo LM 845 has large wheels for maximum off-road performance. The machine has especially large front wheels to ensure good flotation power with heavy loads in the bucket. The large wheels provide effective utilization of the engine's lugging power by offering both low rolling resistance and improved traction.

Articulated steering — tight turning radius

The LM 845 features articulated steering and its wheels always track. The articulated steering makes the machine manoeuvrable and easy to operate where space is cramped. Its turning radius is a mere 16 ft 1 in (4.9 metres) and is combined with a long wheelbase. This provides for short and rapid work cycles and stability for reliable loading.

At rest, the machine can swing sideways enabling the load to be placed with precision — a great advantage when using attachments such as pallet fork and crane jib.

The front axle incorporates a differential lock which automatically transfers the power to the wheel with traction.

On extremely difficult ground, the articulated steering can be used to keep the loader on the move by means of “jack-knifing.”

Generous ground clearance

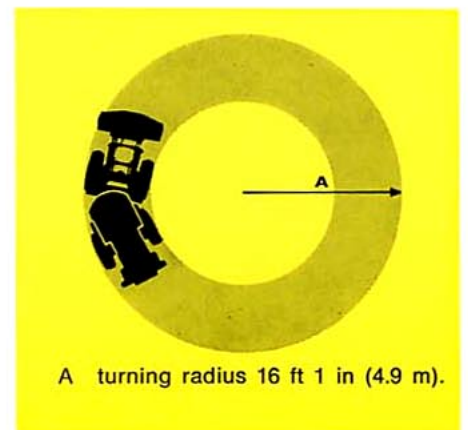
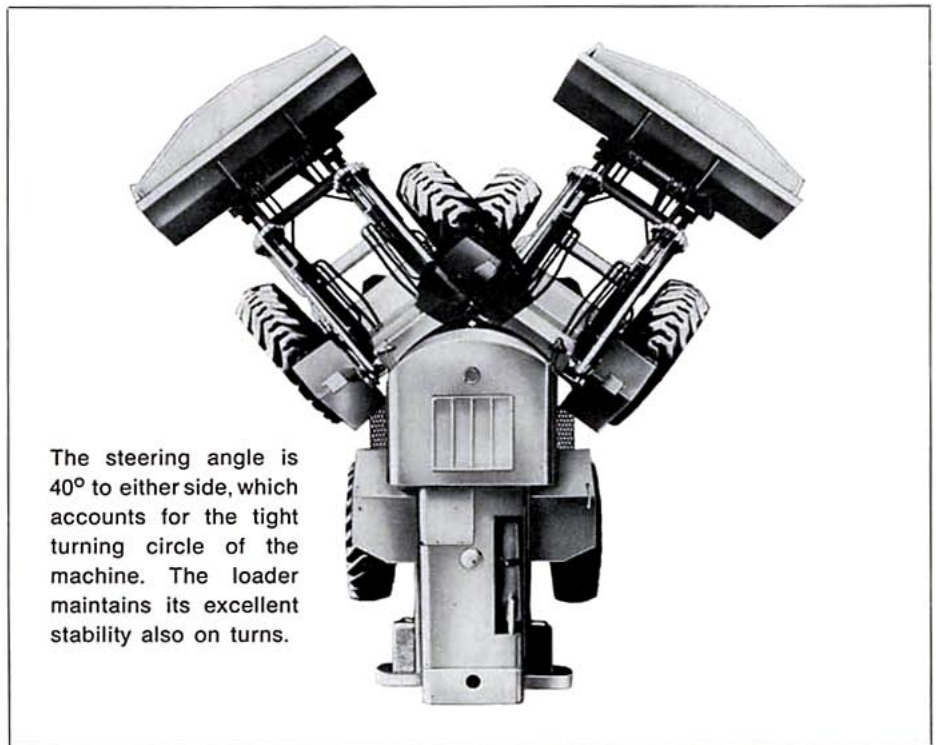
Due to the large wheels, the ground clearance of the machine is all of 20 in (0.5 m), the lowest point being below the pivot point. This makes it easy for the machine to keep on the move over difficult and broken ground. All wheels have secure traction owing to the wide arc of rear axle oscillation which permits a difference in wheel level of 20 in (0.5 m).

Effective transmission

The LM 845 has four-wheel drive, torque

converter and Power-Shift gearbox. The gearbox has one high and one low range, for travelling and working, respectively.

Both the four-wheel and the two-wheel drive may be utilized in travelling. The final gears are of the planetary type and are located in the wheel hubs. The power transmission of the LM 845 provides for fast and easy gear shifts, automatic increase in tractive force as the resistance rises and thereby easy and effective operation.



2

An all-round loader —

owing to the comprehensive range of attachments and snap-on coupling

The LM 845 can be supplied with a fixed attachment, such as a bucket for continuous loading, or with an attachment bracket incorporating a snap-on coupling. Locking the attachment in position is by either hydraulic or mechanical means and this bracket enables attachments to be changed in minutes for rapid adaptation to different jobs. Numerous attachments of new design are available for the LM 845 and by means of an adapt-

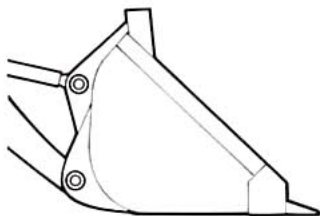
er, the loader can also carry the other LM attachments, thereby guaranteeing maximum economic utilization of the loader for the most varying applications. All attachments have been carefully tested to ensure perfect performance. Attachments are available for different methods of loading and unloading of goods, crane work, bucket loading of light and heavy materials, timber handling, service operations on construction sites, excavation

and haulage of different types of materials.

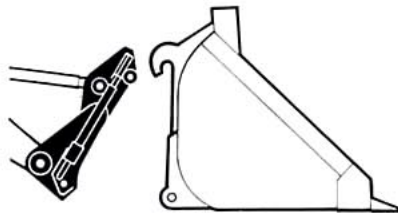
Owing to its manoeuvrability and handy loader unit with snap-on coupling, the BM-VOLVO LM 845 is an out-and-out all-round loader. The articulated steering makes it easy to deposit the load in difficult positions, both high and low. And its off-road performance makes the loader effective on difficult work sites.



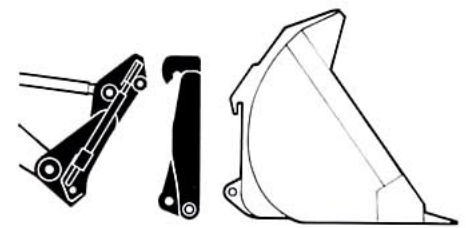
Alternative attachment brackets



Fixed attachment for continuous bucket loading.



Bracket with snap-on coupling for hydraulic or mechanical locking of attachment.



Bracket for other BM-Volvo standard attachments.

3

Long outreach – high lift!

The LM 845 has a rugged and carefully designed loader unit which combines long outreach with high break-out force. The linkage system ensures parallel side-arm action, good bucket angles with a minimum of bearing points. The open design provides excellent visibility and perfect control of the attachment in all positions. The under side of the side-arm is "clean", thereby reducing the risk of damage to haulage vehicles.

High lift

Max. side-arm lift under attachment pivot is 12 ft 7 in (3.83 m) and under tipped bucket (45°) 9 ft 8 in (2.95 m) — excellent values which enable the LM 845 to load into high sided vehicles rapidly and easily and to reach high up in service work on building sites.

Long outreach

Its long outreach enables the LM 845 to

fill its bucket easily, without the front tyres having to run into the material being loaded. This eliminates unnecessary wheel-spin and resultant tyre wear.

The driver can concentrate fully on the positioning of the load, since the outreach will generally eliminate the risk of running into the vehicle being loaded. The long outreach also makes it possible to load into wide lorries from **one** side only, thereby reducing the haulage distances.



4

Outstanding driver comfort!

The LM 845 has a well-appointed driver's cab satisfying the most exacting demands as regards comfort.

Low noise level

Great care has been devoted to making the cab as silent as possible. The noise level is well below the international N85 curve. The rubber suspension dampens noise and vibrations transmitted from the frame and the insulation is ample throughout to ensure a low noise level.

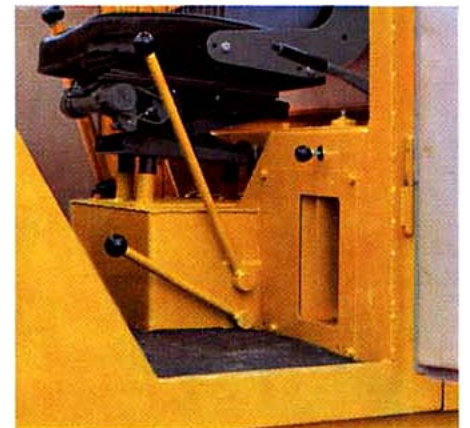
Effective ventilation

Twin, robust ventilation installations have two-speed operation and the system as a whole offers excellent opportunities for regulating the flow of hot/fresh air according to the outside temperature. On test, the system has proved adequate for a temperature difference (inside — outside) of approx. 50°C.

Comfortable seat

The seat is covered with nylon pile which breathes, and it can be adjusted vertically and for leg-room. The firmness of its suspension and the back-rest rake are also adjustable to provide the best individual seating position.

The careful internal arrangement, along with generous space and a number of comfort features, make the cab of the LM 845 a convenient and efficient work place.



Excellent visibility

The wide wrap-around windscreen and generously proportioned rear and side windows offer the driver an outstandingly good view of the loader and its surroundings. He can therefore operate his machine with speed, reliability and precision. Wide wipers both front and rear guarantee good visibility in rough weather.



Wide boarding steps and two doors provide easy access to the spacious cab.

5

Safe in every respect!

The cab has been impact-tested. Apart from the two doors, exit is possible through a large roof hatch and the rear window. The road-holding of the loader is reliable and stable. Hydrostatic steering ensures easy manoeuvring even at low engine speeds, and the loader can be steered even if the engine has stopped. The LM 845 is equipped with hydro-pneumatic brakes on all four wheels in two separate circuits, providing reliable and effective braking. A starter safety lock prevents the engine from being started unless the gearbox is in neutral.



SPECIFICATION BM-VOLVO LM 845

Engine

Volvo 6-cylinder, 4-stroke, direct injection diesel, type	D 50 B
Max. rating at 2 400 rev/min	112 hp SAE (35.5 kgf m)
Max. torque at 1 700 rev/min	256.8 lbf ft (35.13 kgf m)
Displacement	313 in ³ (5.13 litres)
Bore	3.75 in (95.25 mm)
Stroke	4.72 in (120 mm)
Compression ratio	17:1
Air cleaner	Centrifugal separator with dry filter element, pressure drop indicator

Electrics

Voltage	24 V
Alternator	700 W
Starter	4 hp
Transistorized charging relay	
Safety start device	

Torque converter

Single stage, single phase with 3.3:1 stall ratio

Transmission

Full power-shift in two ranges with four forward and four reverse speeds

Speeds

Forward and reverse in miles/h (km/h)

I	0—4.8 (0—7.7)
II	0—7.5 (0—12.0)
III	0—12.7 (0—20.4)
IV	0—18.6 (0—30.0)

Self locking differential, Lok-o-Matic type
Fully floating axles with planetary gears on all wheels

Tyres

Standard: front	18.4—34/14
rear	16.9—30/14

Steering

Hydrostatic system	
Angular deflection to both sides	40°
Turning radius	16 ft 1 in (4.90 m)

Brakes

Hydro-pneumatic, 2-circuit safety system with drum brakes on all wheels
Parking brake

Hydraulics

Hydraulic pump, type	Hamworthy
Capacity	48 Imp.gal/min (220 l/min)

Working pressure (low pressure system)	1 700 lbf/in ² (120 kgf/cm ²)
Oil capacity	28.5 Imp.gal (130 litres)
Lifting cylinders, bore×stroke	5×37 1/2 in (130×950 mm)
Tipping cylinders, bore×stroke	4 1/4×19 1/4 in (110×490 mm)

General data

Total weight with bucket	20 600 lb (9 350 kg)
Total weight with attachment bracket and bucket	21 350 lb (9 550 kg)
Wheel base	8 ft 10 in (2.70 m)
Track front and rear	5 ft 7 in (1.90 m)
Ground clearance	1 ft 8 in (0.50 m)
Fuel tank capacity	43 Imp.gal (195 litres)

Operating data*

Max. lifting height under tipped bucket	9 ft 8 in (2.95 m)
Max. outreach at a height of 6 1/2 ft (2 metres)	5 ft 6 in (1.67 m)
Tipping load, SAE, straight/angled machine at an outreach of 6 1/2 ft (2 metres) from front wheel centre	13 000/11 250 lb (5 900/5 100 kg)

Carrying capacity, angled machine	10 580 lb (4 800 kg)
Bucket capacities	2 1/4 yd ³ —6 1/2 yd ³ (1.7 m ³ —5.0 m ³)

* The capacity figures are based on rear tyres without calcium chloride solution.

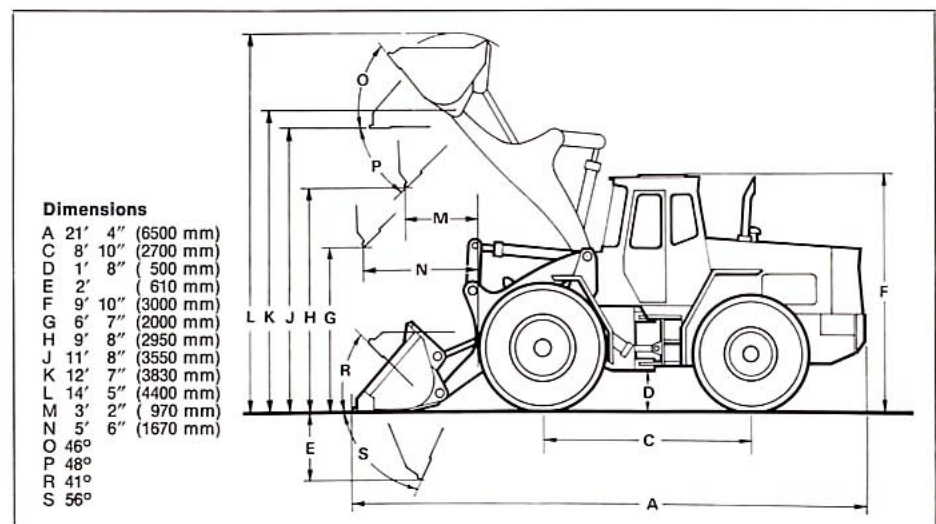
Standard equipment

Safety cab, spring-cushioned seat, heater with fresh air intake, defroster, windscreen wipers front and rear, external rearview mirrors, twin headlights front and twin working lights rear, parking lights, front working light, tail and brake lights, direction indicators, flashing warning lamps, horn, sun visor, engine hour recorder, fuel gauge, electric cigarette lighter, ashtray, storage tray, socket for inspection lamp, socket for trailer, alternator, warning lamp for parking brake, automatic differential lock, compressor e.g. for tyre pumping, dry air filter with indicator, bucket indicator, safety start device.

Optionals

Snap-on attachment bracket with mechanical or hydraulic locking, adapter for complete range of attachments, tubing for 3rd hydraulic function, tubing and change-over valve for 4th hydraulic function, rotating flashing beacon, industrial towing hook, electric engine heater, outlet for trailer brake, tyre pumping unit, safety belt, grill guard for headlights, heavy duty tyres, wrap-around windscreen with tinted glass.

Specifications and design are subject to alteration without prior notice.



BM-VOLVO LM 845

— WORTH ITS PRICE ON EVERY COUNT

1

"Go anywhere" mobility

Large wheels which always track
Four-wheel drive
Articulated steering
Differential lock on front axle
Powerful Volvo D 50 B engine, 112 hp SAE
Rear axle oscillation 20 in (0.5 m)
Ground clearance 20 in (0.5 m)
Tight turning radius 16 ft 1 in (4.9 m)
Long wheel base ensures high travelling speed

2

An all-round loader — owing to a comprehensive range of attachments

A comprehensive range of attachments — some 30 new units
Attachment bracket of new design for rapid changes between attachments
Hydraulic or mechanical locking of attachment
Manoeuvrability owing to articulated steering

3

Long outreach — high lift

Rugged loader unit with parallel linkage and allowing good visibility
Long outreach
High lift
Good bucket angles, max. tipping angle 70°
Few bearing points
"Clean" under side on side arms

4

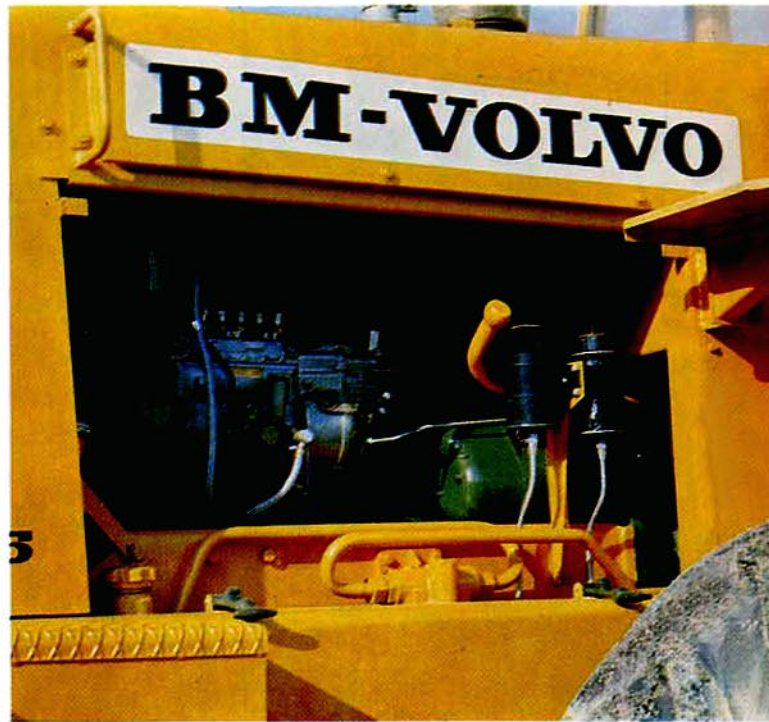
Outstanding driver comfort

Rubber-mounted cab
Thorough insulation
Low noise level, below the international N85 curve
Generous space for the driver
Effective heating and ventilation
Excellent visibility through wrap-around windscreen
Wipers front and rear
Fast, convenient gear shifts

5

Safe in every respect

Impact-tested cab
Dual-circuit, four-wheel brakes
Hydrostatic steering
Starting only in neutral
Flashing warning signals
Rear-view mirrors, sun visor
Excellent road-holding owing to long wheel base
High-efficiency defroster



BM-Volvo LM 845 — a versatile loader with great manoeuvrability and high capacity. The LM 845 is designed for tough jobs and all vital components are of ample dimensions. Its generous standard equipment comprises many items which are generally considered as optional extras.

The LM 845 is powered by a Volvo D 50 B direct-injection diesel engine rated at 112 hp. Low fuel consumption ensures very good operating economy. An electrically controlled cold starter is standard equipment. A 24-volt electric system and 700-watt alternator guarantee an ample supply of power and reliable starting in extremely cold weather.



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