



**VOLVO BM  
846**





## VOLVO BM 846 – a big output 10-tonner

Once on the job, the VOLVO BM 846 quickly displays its extraordinary ability to handle tough jobs. The tough 125 hp engine, the balanced-design transmission, the big wheels and the extra-long wheel base make this machine the productivity leader in its class. The driver operates the machine in safety and comfort from a cab that is in a class on its own. Special features include articulated manoeuvrability and the stable design and construction of the loader unit. The VOLVO BM 846 fulfils the most stringent requirements imposed on a loader intended for virtually every type of job in a wide range of applications.

The productivity of a loader depends largely upon the driver's efficiency. That's why VOLVO BM has provided the 846 with a top-class cab where the driver enjoys an efficient, comfortable working environment.

### Spacious – quiet

The spacious cab has a flat floor, big windows and an efficient heating/ventilating system. Carefully designed insulation and cab suspension keep the noise level low – well beneath the international N85 curve.

### Comfortable seat

The comfortable seat features fore-and-aft adjustability. The backrest rake is also adjustable. The firmness of the seat suspension can be easily altered, and an indicator shows when it is set correctly.

### Easy to operate

All controls and pedals are carefully positioned and designed so that the driver can control his machine quickly and conveniently in every situation. Power steering and power brakes are standard.

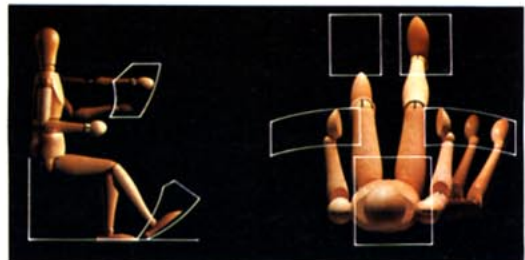






In his comfortable, fully-welded cab the driver enjoys excellent all-round visibility.

The spacious, comfortable cab with ergonomically designed pedals, levers and other controls contributes immensely to the driver's sense of well being and thus his on-the-job performance.











*Even in situations where haulage distances are long the 846 boasts impressive capacity. The long wheel base ensures smooth operation with minimal bucket spillage – when hauling rock to screening plants or crushers for example. Load-to-dump cycling proceeds quickly thanks to the swift acceleration and high average speeds.*

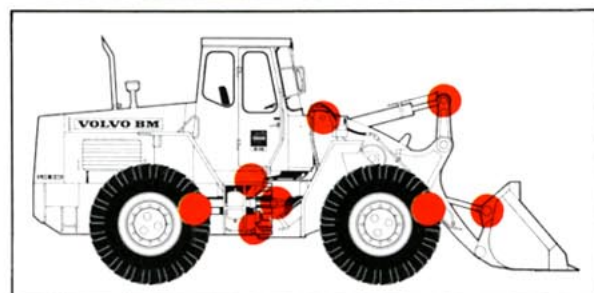


# Dynamically balanced design ensures

The 846 is an integrally designed machine. The VOLVO diesel engine, the balanced-design transmission, the big wheels and the load-unit hydraulic system are ideally suited to each other. Together, they provide impressive penetration and break-out power. The wide range of attachments available for the 846 permits you to select the right bucket for the job at hand, thus obtaining maximum capacity, whatever the material being handled.



The sturdy, well-designed load unit on the 846 combines long outreach, high lifting height and high break-out force. Loading high vehicles and wide vehicles is easy. Result: fast cycle times.



The load unit is easy to operate and maintain. Large bearing surfaces are one outstanding feature. Bearing points exposed to particularly rough duty (see drawing) are provided with spherical plain bearings having outstanding wear-resistance.



# continuously high production rates



Maximum utilization of the available hydraulic power is ensured by a valve which automatically disengages the engine from the transmission when the driver uses the brake pedal. As a result, all hydraulic power is transmitted to the load unit. This feature provides faster bucket fill/empty cycles. Disengagement can also be accomplished by means of a control located in the cab.

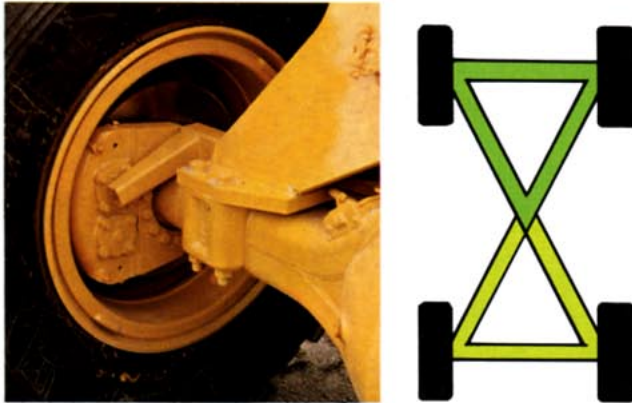
The big wheels provide the 846 with a firm foothold, even on rough ground. Together with the power-shift gearbox and powerful engine, this feature ensures more-than-ample penetration power. The 846 can be equipped with different types of tyres for different working conditions, thus improving capacity while cutting operating costs.



# Rugged powerful



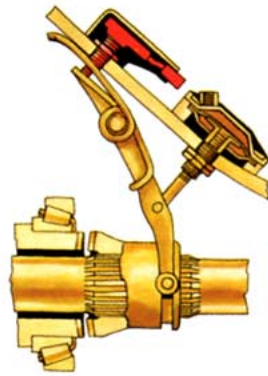
Big rear axle oscillation – a total of 30°.



Twin brake circuits provide maximum safety. Well-protected disc-brakes with large friction surfaces on all wheels.



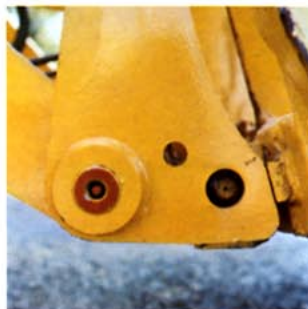
Big wheels provide stable operation, excellent negotiability and ample flotation in poor ground conditions.



In very slippery conditions, the differential lock is an essential. Operated electrically-pneumatically, it provides 100 % locking.



The rugged loader unit is made from materials of top quality. The sidearms have a broad attachment base on the anti-torsion frame.

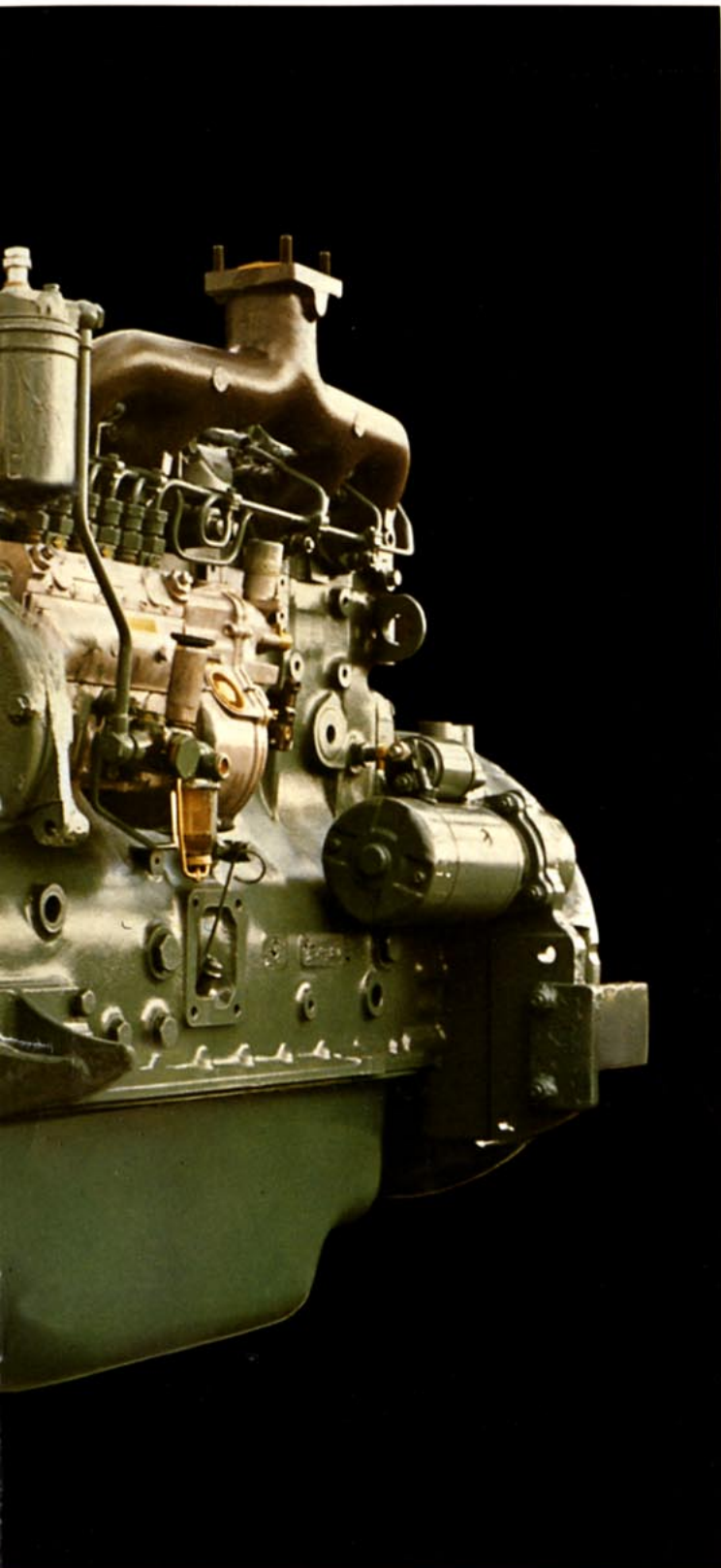


Bucket pivot pins are more-than-amply dimensioned to handle the roughest duty.

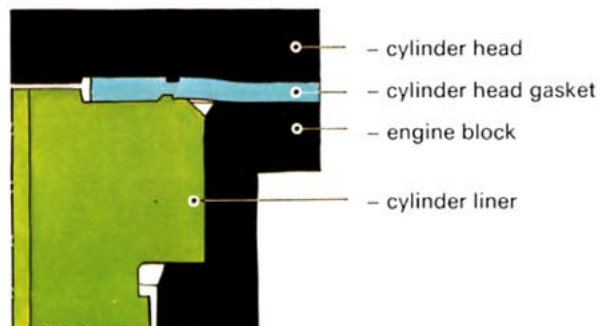




# VOLVO engine

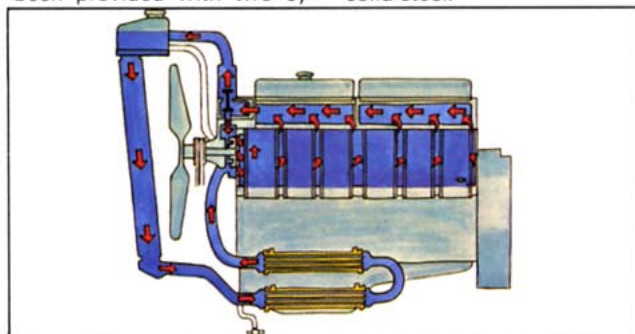


Inspection and check points are easily accessible.



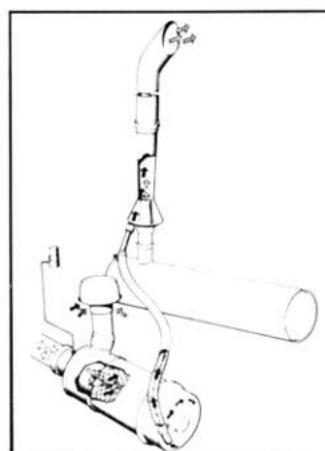
A tight seal requires an undeformable cylinder-head/engine-block. The 846 has thus been provided with two cy-

linder heads made of a special alloy having high heat resistance. The gaskets are made of solid steel.



Uniform working temperature prolongs engine service life. The cooling system has been provided with high distribution ducts that effectively cool the

cylinder head. The transmission and the engine each have an amply-dimensioned oil cooler.

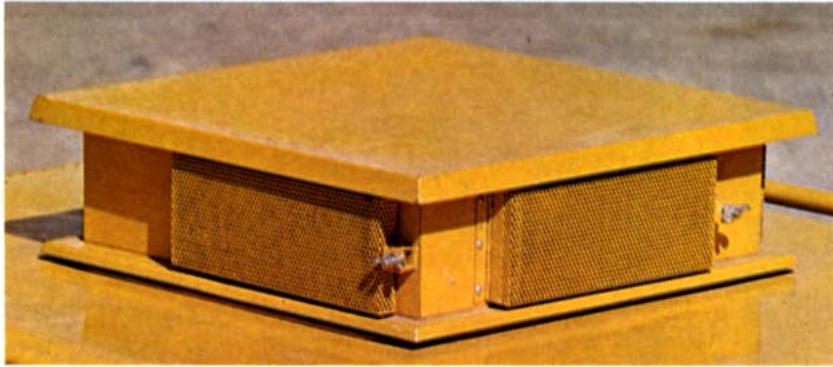


The engine air cleaner has a removal rating of approximately 99.8%. Cleaning takes place in two stages: one in a pre-cleaner of the cyclone type that empties automatically through an ejector on the exhaust pipe, and the other in a large replaceable filter element. The system also includes a safety filter.

The 846 is powered by a rugged, reliable VOLVO D60A engine that minimizes downtime.

It has 6 cylinders and a displacement of 5.48 litres. It develops 92 kW SAE at 40 r/s (125 hp at 2400 r/m). This direct injection engine has replaceable, wet-type cylinder liners and light metal pistons. The crankshaft has 7 bearings all of which have been case-hardened to ensure long service life. The air intake system has been especially tuned to ensure maximum air supply to each cylinder, thus ensuring as full combustion as possible. This improves engine efficiency, output and torque without any sacrifice in fuel consumption.





## All-weather cab

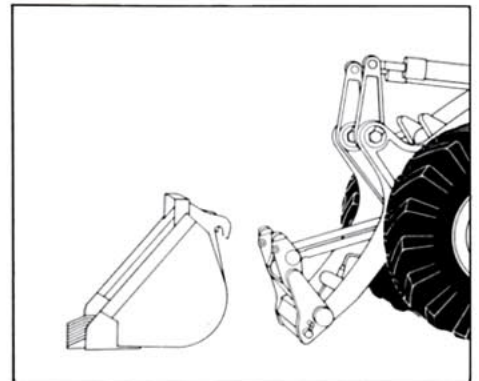
The amply dimensioned heating and ventilating system operates entirely with fresh air. There are two fans which can be set at different speeds to provide the desired cab climate. Ventilating air is distributed uniformly, and there are defrosters on the side windows as well as the windscreen. On hot days air flow can be augmented by a roof-mounted cab ventilator or air conditioner (optional equipment).



*The snap-on attachment bracket enables the driver to change attachments in less than a minute. No changeover downtime.*

## VOLVO BM 846 - for full-time versatility

The VOLVO BM 846 can be delivered with an attachment bracket that permits a wide range of attachments to be snapped on in a jiffy. This facility is ideal at jobsites where loaders must handle a number of different tasks. An extensive line of buckets, log grapples, crane jibs and special attachments is available for the 846.







Continuous research, exacting tests and long-term trials precede the introduction of each new VOLVO BM product, enabling VOLVO BM to build safety, quality and economy into each machine – systematically.



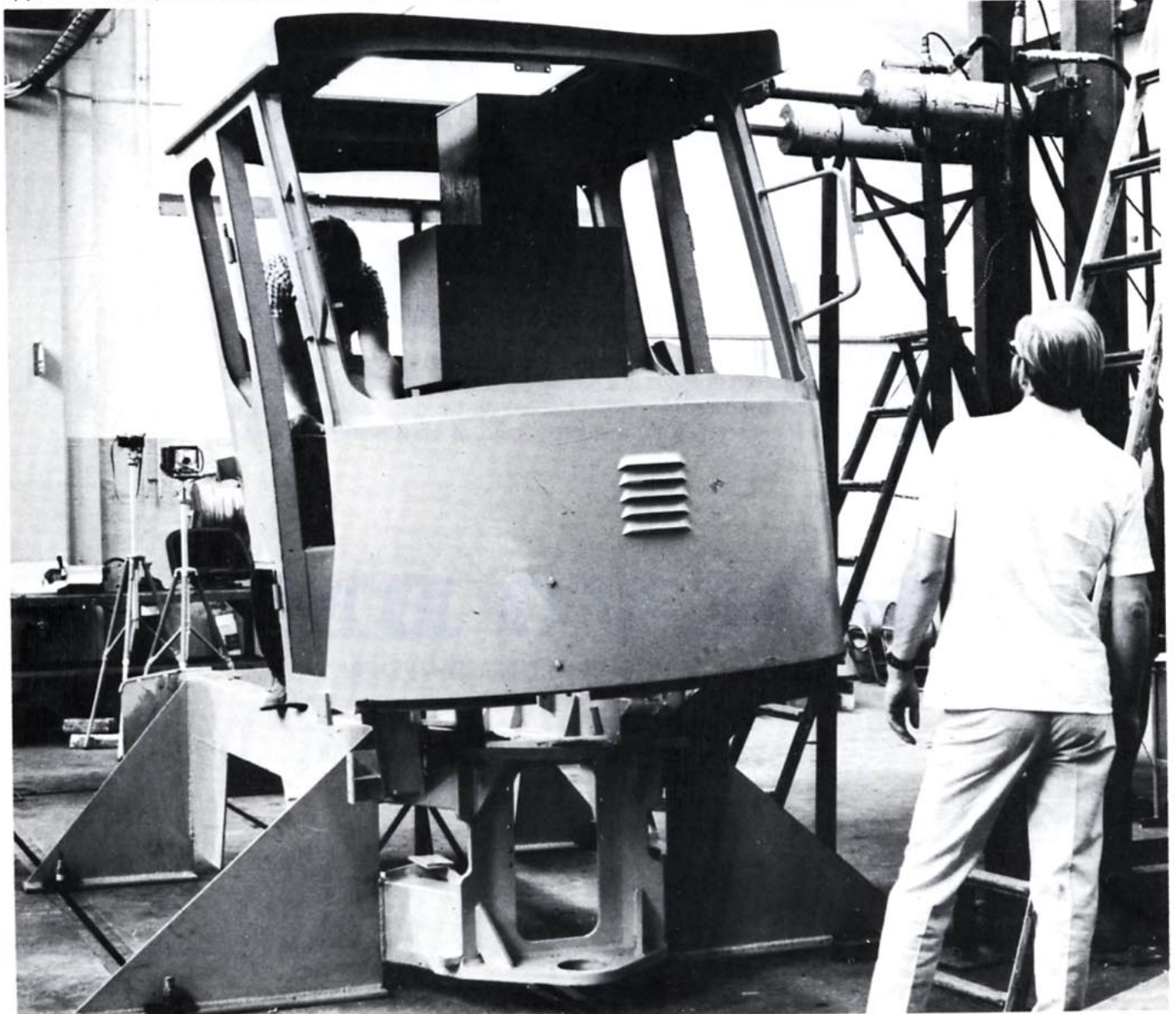
## Designed for simple servicing

One VOLVO BM tradition is that service engineers and designers continually collaborate on all development and design work. As a result, each individual part and component is suited to the final product in such a way that high engineering standards are combined with outstanding technical performance.

## Extensive testing assures maximum safety

The VOLVO BM 846 safety cab has undergone tests conducted in accordance with the American ROPS method (SAE J 394A). The frame including cab was firmly secured, then exposed to powerful vertical and horizontal forces related to the machine weight (picture below).

The 846 has also undergone impact testing conducted in accordance with the National Swedish Board of Industrial Safety standards. These tests involve impacts from all sides as well as vertical pressure applied at three points on the cab roof (Picture right).







The VOLVO BM 846 is included in the VOLVO BM range of heavy loaders – the best-selling loaders in Europe. The popularity of VOLVO BM loaders can be attributed to built-in Swedish quality backed up by long-term engineering experience in the development and production of construction machines.

# **VOLVO BM**

**VOLVO BM ESKILSTUNA SWEDEN**

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**ENGELSKA**

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