

VOLVO BM 861





OFF-ROAD CAPACITY

The Volvo BM 861 Dumptruck is built with a capacity for high production on difficult terrain and under varying weather conditions. Six large wheels and axles with individual freedom of movement provide extraordinary bearing capacity. In addition, the 861 has 4-wheel drive, articulated steering and bogie construction

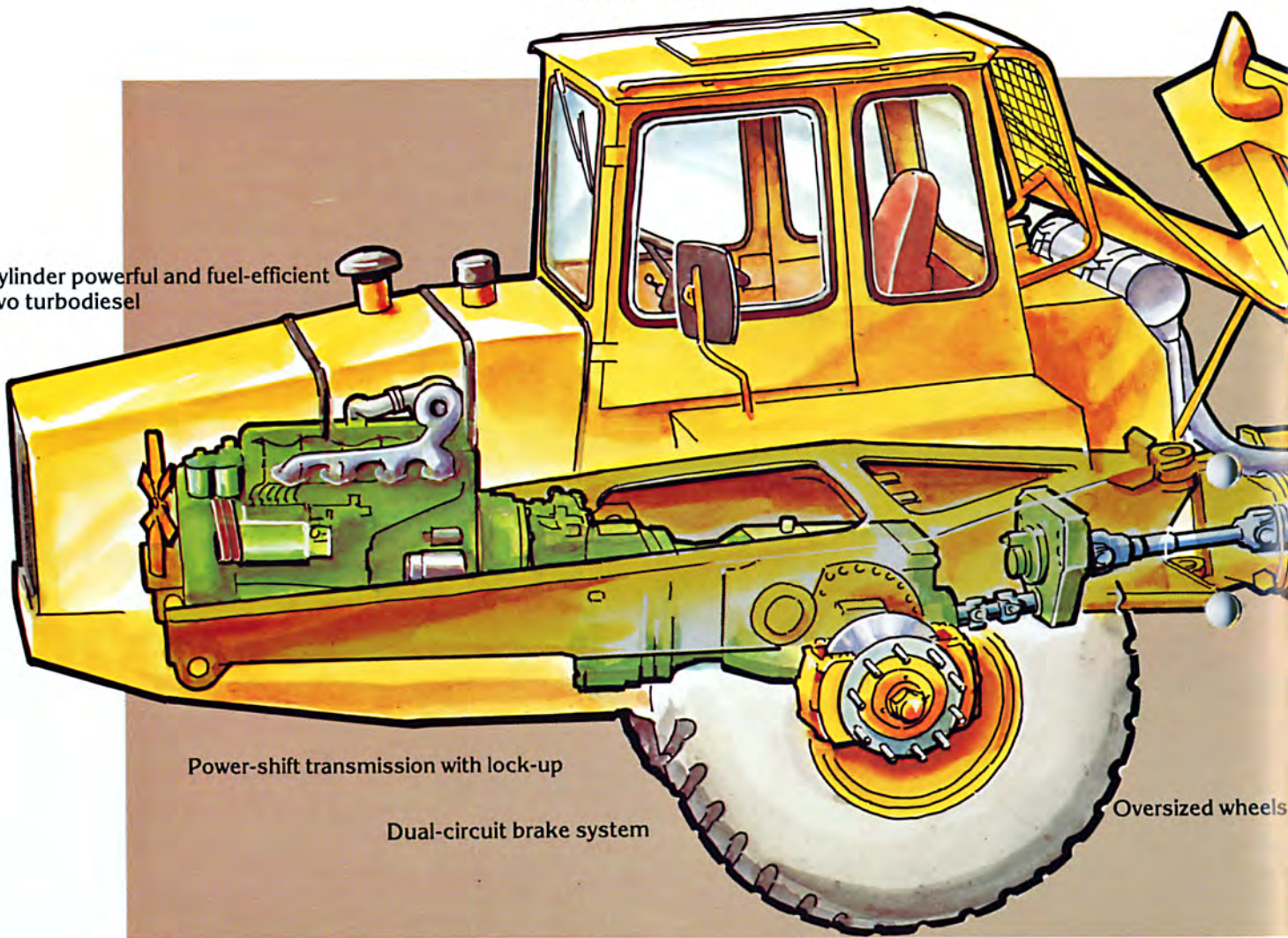
exclusive to Volvo BM. The Volvo BM 861 is therefore the most efficient and economical solution for either off-road or combined on-off-road haulage.

Moreover, the Volvo BM Dumptruck is the world's best-selling articulated dumptruck, which is the real proof of its excellence.



Safe, comfortable cab

6-cylinder powerful and fuel-efficient
Volvo turbodiesel



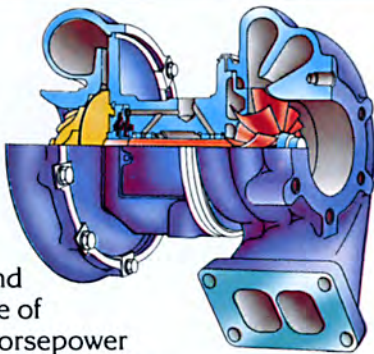
Power-shift transmission with lock-up

Dual-circuit brake system

Oversized wheels

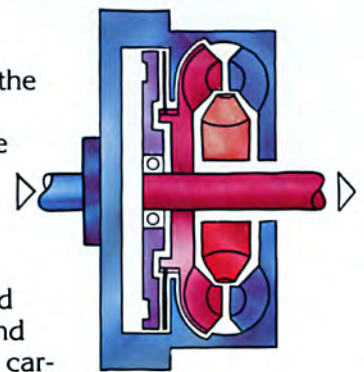
ENGINE

The 861 is equipped with an in-line (170 hp (125 kW)) direct-injected 6-cylinder engine — the most reliable and fuelefficient type of engine in this horsepower class. The TD 60 engine has proven its reliability — it has been manufactured in thousands for construction machines, trucks and industrial applications. Turbocharging produces more efficient utilization of the fuels energy potential. The turbocharged engine therefore supplies more power at lower specific fuel consumption. Another advantage is that the turbocharged engine does not lose power at high altitudes. And it has good emission values too.



TRANSMISSION

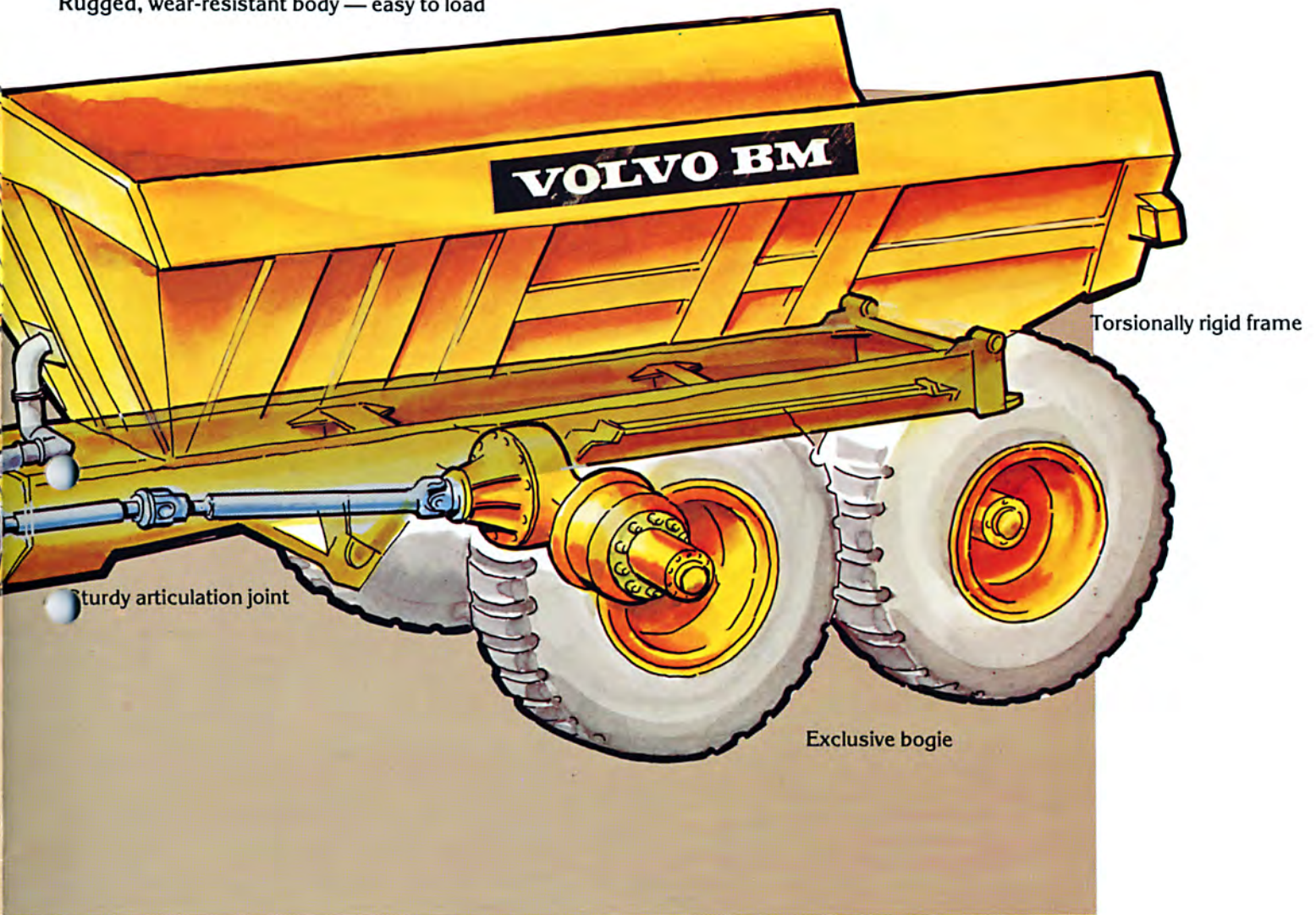
The power-shift gearbox enables the operator to shift easily through the entire speed range. The high-low gear range and 4-wheel drive are operated pneumatically, and gear-changing is carried out with short, easy movements — all operations on the same lever. The torque converter continuously supplies the optimum torque despite the varying resistance of the terrain.



Direct drive with lock-up clutch

In order to reduce fuel consumption, fully utilise available engine power and boost acceleration, the torque converter has a lock-up clutch that provides direct drive from the engine to the gearbox. The lock-up function can be easily engaged and disengaged by means of a switch.

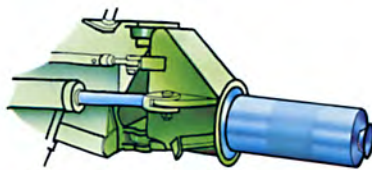
Rugged, wear-resistant body — easy to load



FRAME

Volvo BM has long experience of articulated vehicles, which is the best type of construction to withstand severe stresses and tough off-road duty.

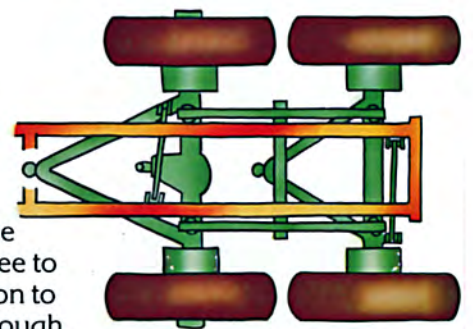
The 861 has two main chassis that are designed and manufactured with the most advanced technology. The result is high strength combined with low height. It has been possible to give the frame sections high torsional rigidity, reducing stresses at all assembly joints. Articulated steering renders the 861 highly manoeuvrable. The steering forces are high, making it easy to break the machine out of deep ruts and providing good traction and off-road mobility.



BOGIE

The bogie and the mid-joint are fundamental design features of the 861. The frame sections are free to rotate in relation to each other through

a heavy-duty towing cylinder that permits infinite oscillation. This makes the drive axles independent of each other, so that the large wheels follow the contours and irregularities in the terrain while retaining full ground contact. The Volvo BM terrain bogie features suspension of the axles in triangular ties, giving each pair of wheels great individual freedom of movement. The robust bogie gives the 861 a smooth, fluid ride even on very rough terrain.

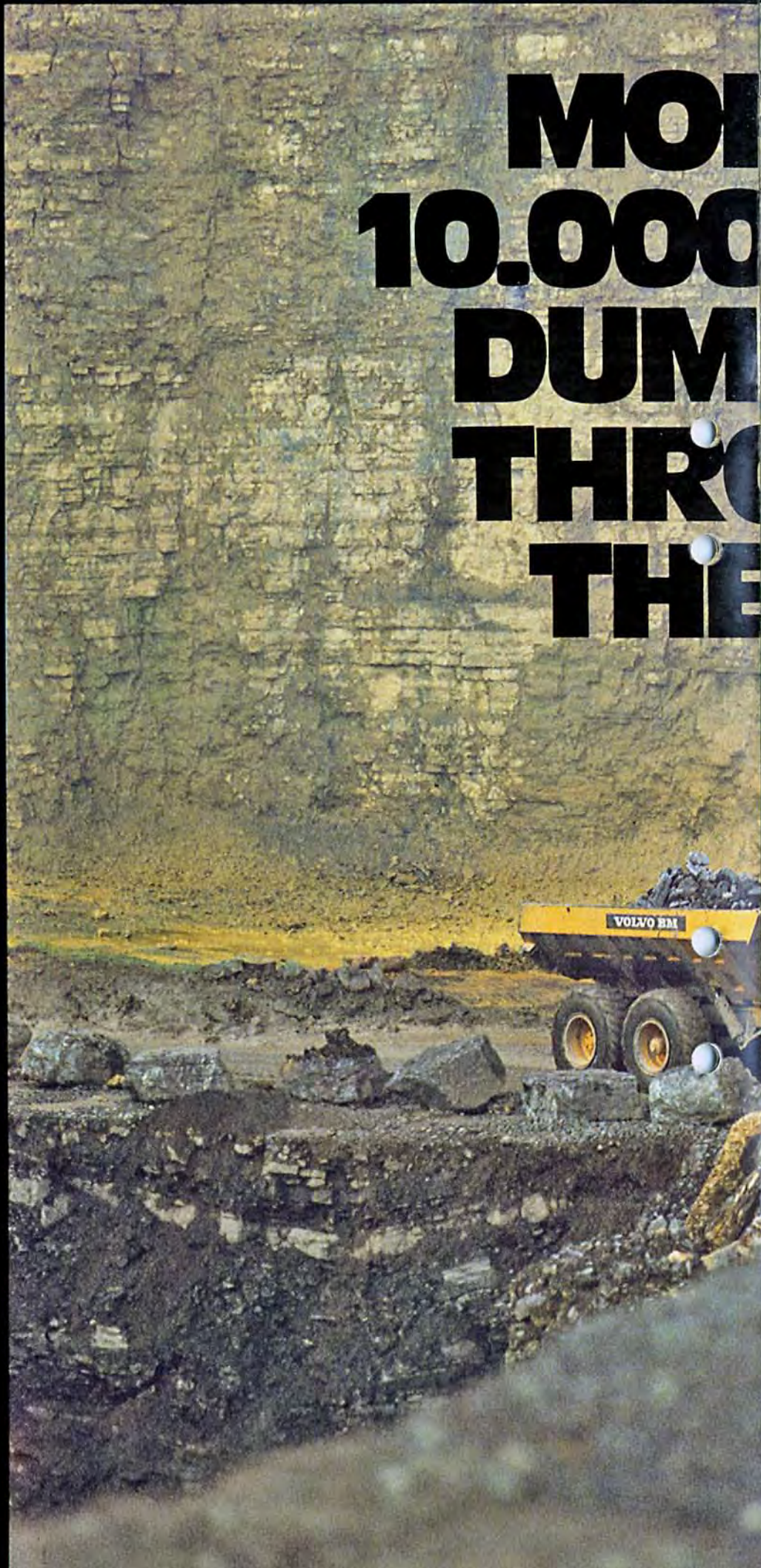


FIRST AND BIGGEST

Volvo BM started making articulated dumptrucks back in 1966, when there was a great need by contractors for reliable machines able to transport bulk material over difficult terrain without roads.

The design of the Volvo BM dumptruck with articulated steering and a superb bogie enabled the machine to "snake" its way over very uneven terrain. Volvo BM's new design principles set the standard and made off-road haulage more profitable. More than 10000 Volvo BM dumptrucks have been manufactured up to 1981.

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ENGLAND



NIGERIA



GERMANY



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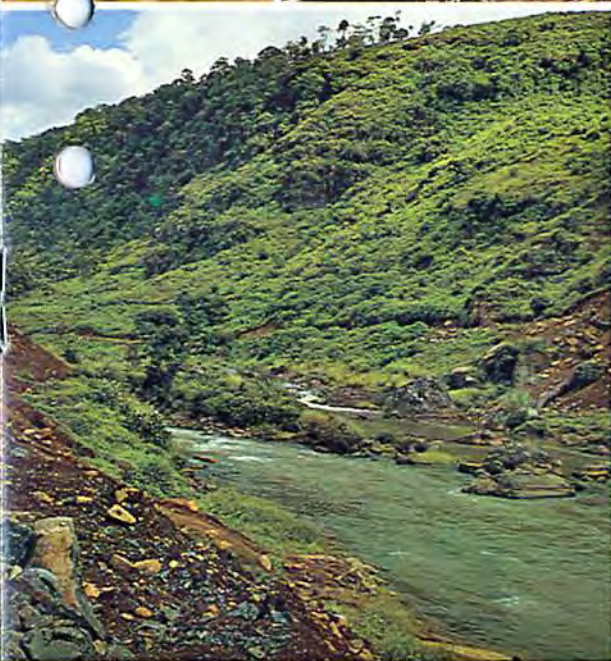
HOLLAND



SPAIN



AUSTRALIA



PARAGUAY

THE RIGHT EQUIPMENT FOR EVERY JOB

A BODY SYSTEM FOR DIFFERENT MATERIALS

Body of heavy-duty construction. Tough, wear-resistant, hardened and tempered steel plate of very high strength, symmetrical body shape of ideal length and loading height for efficient loading.

Extended body — 500 mm extension facilitates tipping in confined spaces, e.g. in mines.

Elevated body — 275 mm higher than the standard body. Suitable for light materials. Should be combined with over- and under hung tailboard. The body elevation also serves as a spill guard.

Extended and elevated body — suitable for light materials, e.g. crushed material of low density.

Prepared for exhaust gas heating

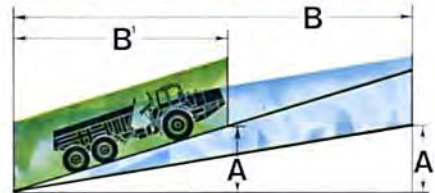
As standard, the body has ducts for exhaust gas heating. Connection equipment is extra.

As extra equipment, the 861 can be equipped with tailboards. The underhung tailboard opens automatically during tipping. An upper tailboard is available when it is necessary to close the entire rear opening. The tailboards cannot be combined with body extension.



LOW-EMISSION VERSION FOR UNDERGROUND WORK

The Volvo BM 861 is also available in an underground and high-altitude version. The most recent development of Volvo's low-emission engine is turbocharging in combination with charge air cooling. This gives the 861 very good emission values while improving the engine's oxygen supply, even at high altitudes.



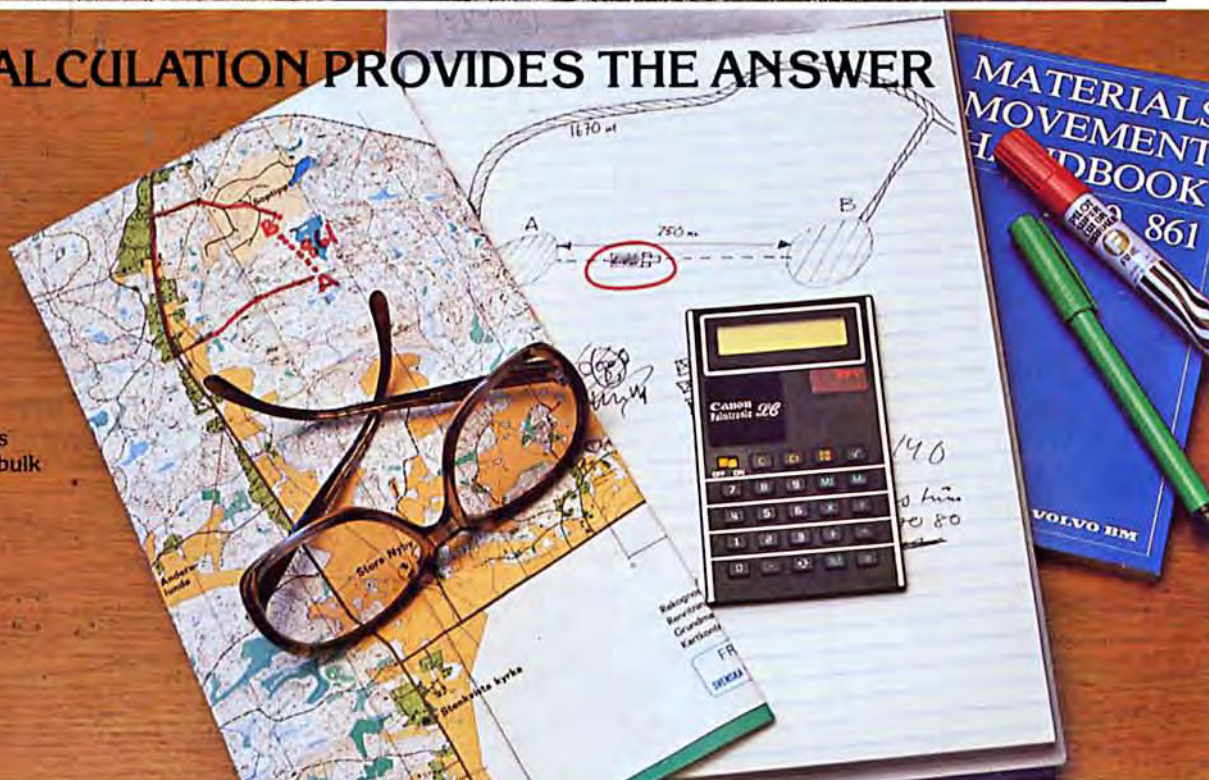
The 861 has very good hill-climbing capabilities — permitting a shorter route between different levels.



HAULAGE CALCULATION PROVIDES THE ANSWER

- Shorter haul distances
- No cost for building access roads
- Reliability and economy
- Flexibility: good gradeability, manoeuvrable in confined spaces, able to negotiate difficult ground conditions.

With the Volvo BM 861, you can often reduce haulage costs considerably. See Volvo BM's bulk haulage handbook.





SAFETY AND COMFORT



Easy gear-changing

All transmission functions, forward/reverse and 4-wheel drive, are operated from a single lever — easy, with a distinct position for each function. Differential locks on both drive axles.

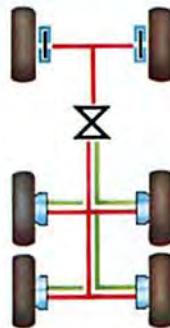


Manoeuvrable

Hydraulic articulated steering provides a small turning radius — only 7.5 m. The 861 is therefore very manoeuvrable. The high steering forces enable the machine to easily break out of deep ruts. This ensures good traction and forward mobility.

Dual-circuit brake system

The 861 has a high-efficiency dual-circuit brake system. One circuit includes the front axle and the other the bogie axles. The brake pedal acts on all wheel brakes. The parking brake acts on all bogie wheels. For extra safety, the parking brake is set when the gear lever is moved to the neutral position.



Large wheels

The 861 has large wheels all around. This provides large load-bearing surfaces with low ground penetration and a smooth ride. The even weight distribution also improves forward mobility.



You are in full command of the machine and your own environment in this superbly comfortable and efficient cab. You'll find low noise levels due to good insulation and vibration-damping rubber mounts, plus an efficient heating and ventilation system. The seat has all the adjustments necessary for you to find the most comfortable working position.



SERVICE



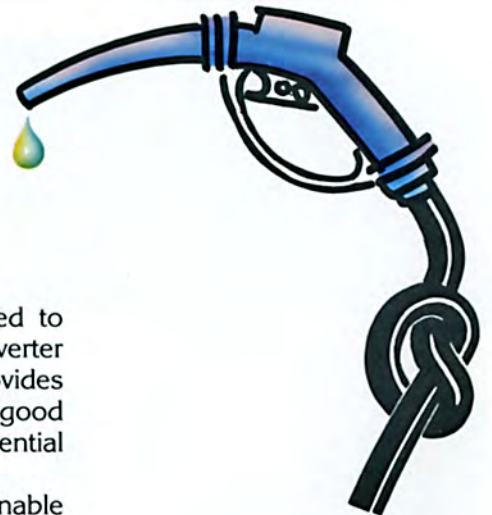
The Volvo BM 861 is designed throughout for convenience of service. Easy service means more productive hours for your machine. This in turn means better economy and higher job satisfaction.

- Service points conveniently accessible from ground level
- Easy filling and checking of oil
- Well protected batteries, easy to inspect
- Conveniently located filters
- Fold-up engine bonnet renders the engine compartment easily accessible.

Fuel economy

Your Volvo BM dumptruck is designed from the start for optimum fuel economy. Our engineers have worked tirelessly minimizing power losses and maximizing engine power utilization within the machine's normal working range. Turbocharging supplies the engine with large volumes of air. This results in more efficient combustion and thereby efficient fuel utilization.

The transmission is well-matched to the engine and the torque converter has a lock-up clutch that provides direct drive for travelling over good surfaces. 4-wheel drive and differential locks can be engaged as needed. The Volvo BM 861 is built to enable you to make optimum use of its full capacity with good economy.



PRODUCTIVITY

- Reliable, easy to service — less down time
- Off-road capability — no access roads, shorter distances
- Easy to manoeuvre on loading and dumping sites — saves time
- High average speed — good gradeability
- Low fuel consumption in relation to work done
- Comfortable — operator can work long hours more efficiently
- Documented low cost per unit volume hauled





The Volvo 861 — appreciated the world over for its high capacity and reliability in off-road haulage. The result of high standards of quality and long experience in the development and production of construction machines.

VOLVO BM

VOLVO BM AB ESKILSTUNA, SWEDEN

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

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ENGELSKA

Production Group basic printed matter Volvo BM
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