

VOLVO BM

5350



The Volvo BM 5350 – on and off the road – for rapid transports of large volumes

The 5350 dumptruck is designed to operate at high average speeds, and is a fast and very agile machine on load and dump cycle applications. This enables large volumes of material to be moved in a short space of time. Designed and developed from the ground up for profitable bulk haulage under widely varying conditions, the 5350's excellence stems from a combination of characteristics, developed and refined through Volvo BM's many year's experience with on-road and off-road vehicles.



Off-Highway Mobility

Six large wheels. Constant 4-wheel drive. Transverse and longitudinal differentials with locks. ("Cross-Country Drive"). Volvo BM's terrain bogie. Gearbox with manual preselection of 2 automatic ranges.

Fast

Powerful engine with good acceleration. Unique suspension system permits high average speeds. Top speed 46 km/h (28.5 mph).

Agile

Hydromechanical articulated steering and small turning radius.

Economical

Hydraulic functions take power only when necessary – giving efficient utilization of engine output. The Volvo turboengine with efficient combustion and low fuel consumption, is also easy to service.

Flexible

System body for various materials and jobs. Always a full load, even with lighter materials.

Working environment

Very roomy cab with low noise level. Pleasant, functional interior. Comfortable driving position and good heating and ventilation.

Study the 5350 more closely. It has an array of interesting and important design features that add up to a highly efficient machine for offhighway haulage.





The right characteristics in every situation give high total capacity

High average speeds can be maintained even where there are difficult surface conditions on sections of the haul. The 5350 gets you into the loading position quickly, without needing a lot of room, regardless of the angle and condition of the ground. Articulated steering and 4-wheel drive provide the necessary manoeuvrability.



The unique suspension system enables speeds of up to 46 km/h (28.5 mph) to be achieved on the good sections and also permits good traction and stability on the bad sections. The automatic gearbox ensures optimum utilization of engine power, whilst the constant 4-wheel drive through its unique differential system ("Cross-Country Drive") maintains maximum traction when conditions are poor. Because the 5350 has constant 4-wheel drive, there is no loss of time and forward motion due to manual selection.

Tipping time is 12 seconds and since the 5350 is so easy to manoeuvre, it is easy to dump the load on the right spot. You can also back right out onto the tip edge for a clean dump.



Different Body Options

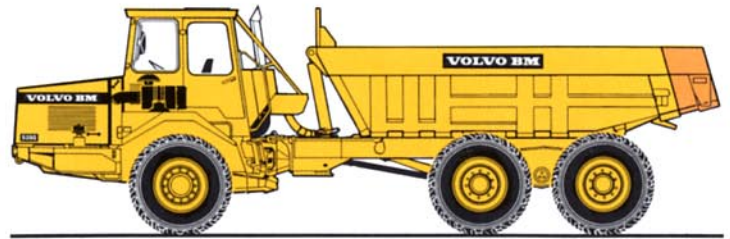
Volvo BM have, through their many years experience, become masters at building strong, functional, low weight dumptruck bodies. The 5350 also has low, symmetrical body sides, which makes it easy to load. And you can choose from a range of different design alternatives to meet your particular requirements.



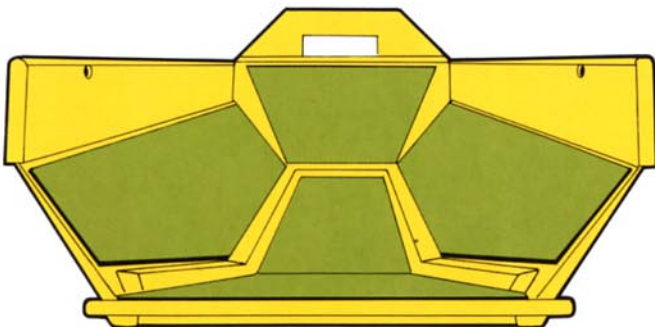
Basic body of heavy-duty construction, fabricated from high strength, abrasion resistant, quenched-and-tempered steel. The length and height of the body are designed for efficient loading.



Basic body with wear plates for forced loading of rubble or similar material. This body is prepared with ducts for exhaust gas heating.



Extended basic body with wear plates facilitates tipping into shafts and pockets. This variant is also prepared with ducts for exhaust gas heating.



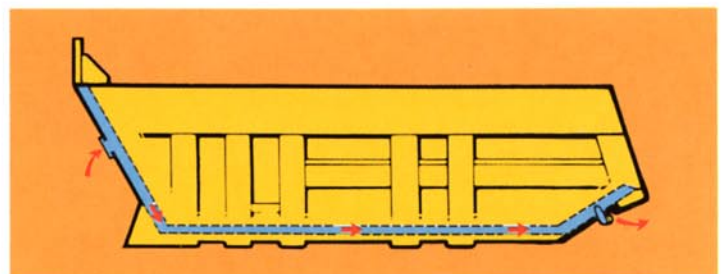
Prepared for Exhaust Gas Heating

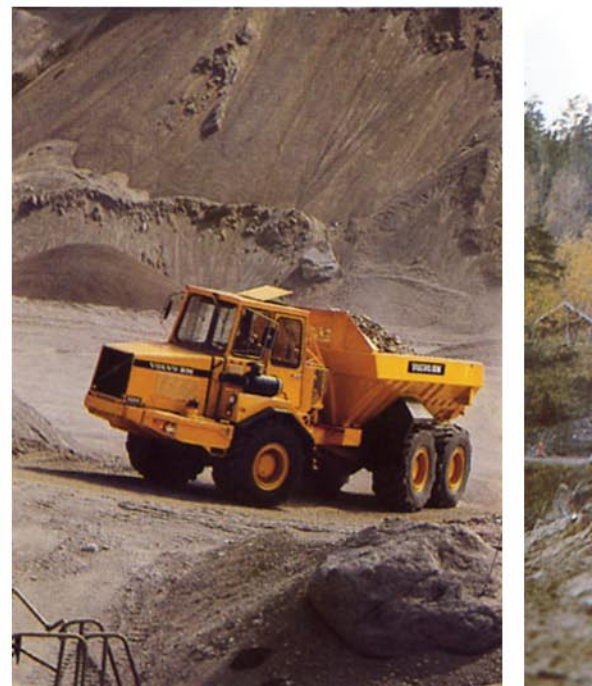
Bodies equipped with wear plates are also ducted for exhaust gas heating. Connection equipment is extra.



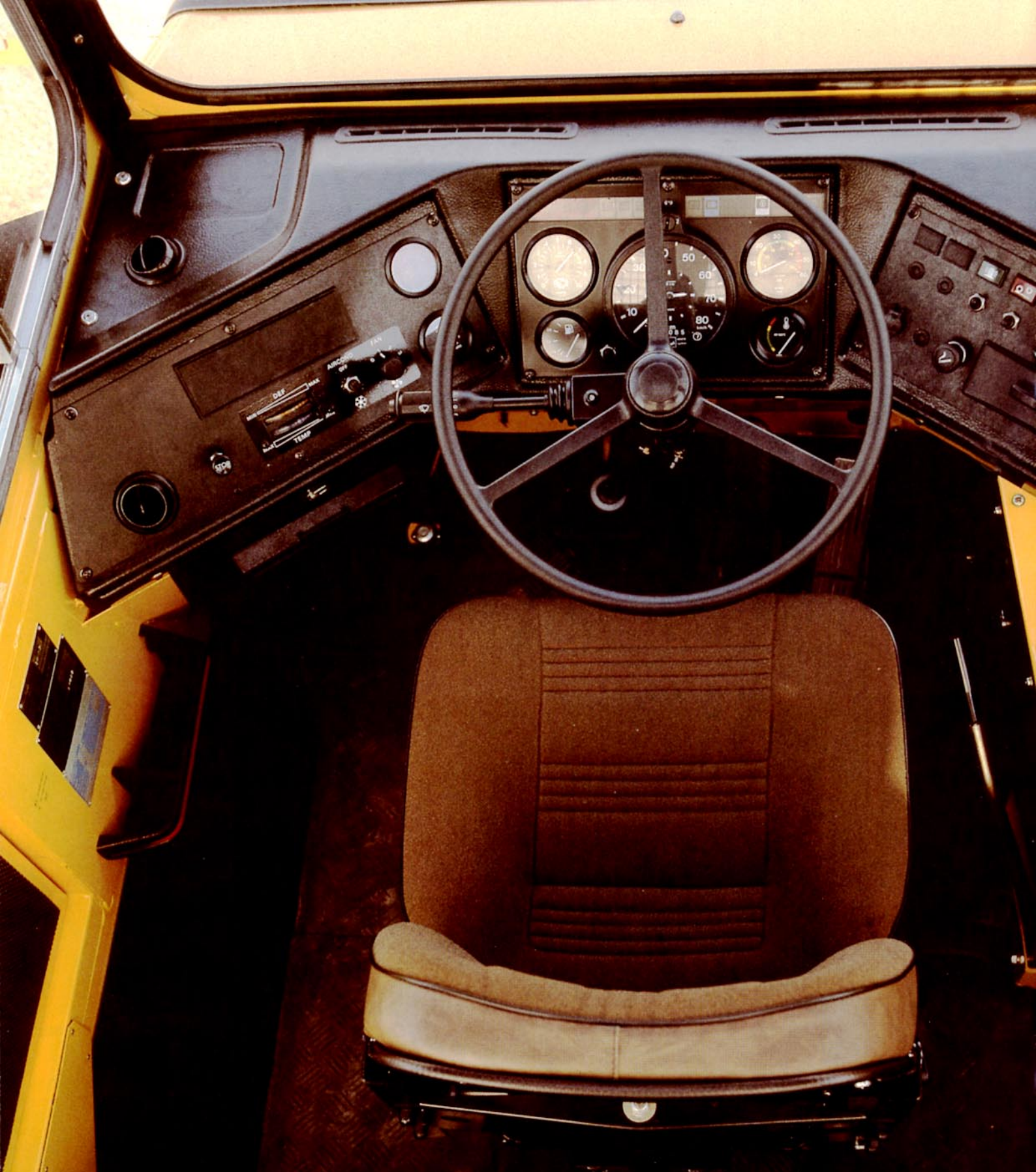
Tailboards

The 5350 can be equipped with tailboards as optional equipment. The underhung tailboard opens automatically when the body is tipped. When the entire opening on the load body has to be closed, an overhung tailboard is used. Underhung and overhung tailboard cannot be combined with body extension.





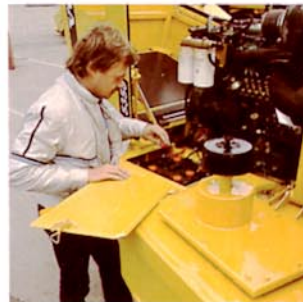




Comfortable, safe, working environment

Because the 5350 has been designed for high speeds, particular attention is paid to driver comfort, especially on fast operations over rough ground conditions. The cab is large and spacious with good sound insulation. All controls and instruments are arranged for safe, effortless driving.

- ① Interacting elements for springing and damping are: tyres, rubber springs, shock absorbers, cab suspension and the springing/damping action of the seat.
- ② The climate control system with high-pressure capacity has air intakes with large paper filters to provide dust free air.
- ③ The cab is very spacious, with good visibility through the tinted windows, and there is room for extra seats for passengers.
- ④ The 5350 has a gearbox with low and high speed ranges. Once you have preselected the desired speed range, the gearbox then operates automatically.
- ⑤ Stable, non-slip boarding steps. The lower part is automatically retracted during travel. (*Extra equipment.*)
- ⑥ Large doors and handles facilitate safe cab entry and exit.



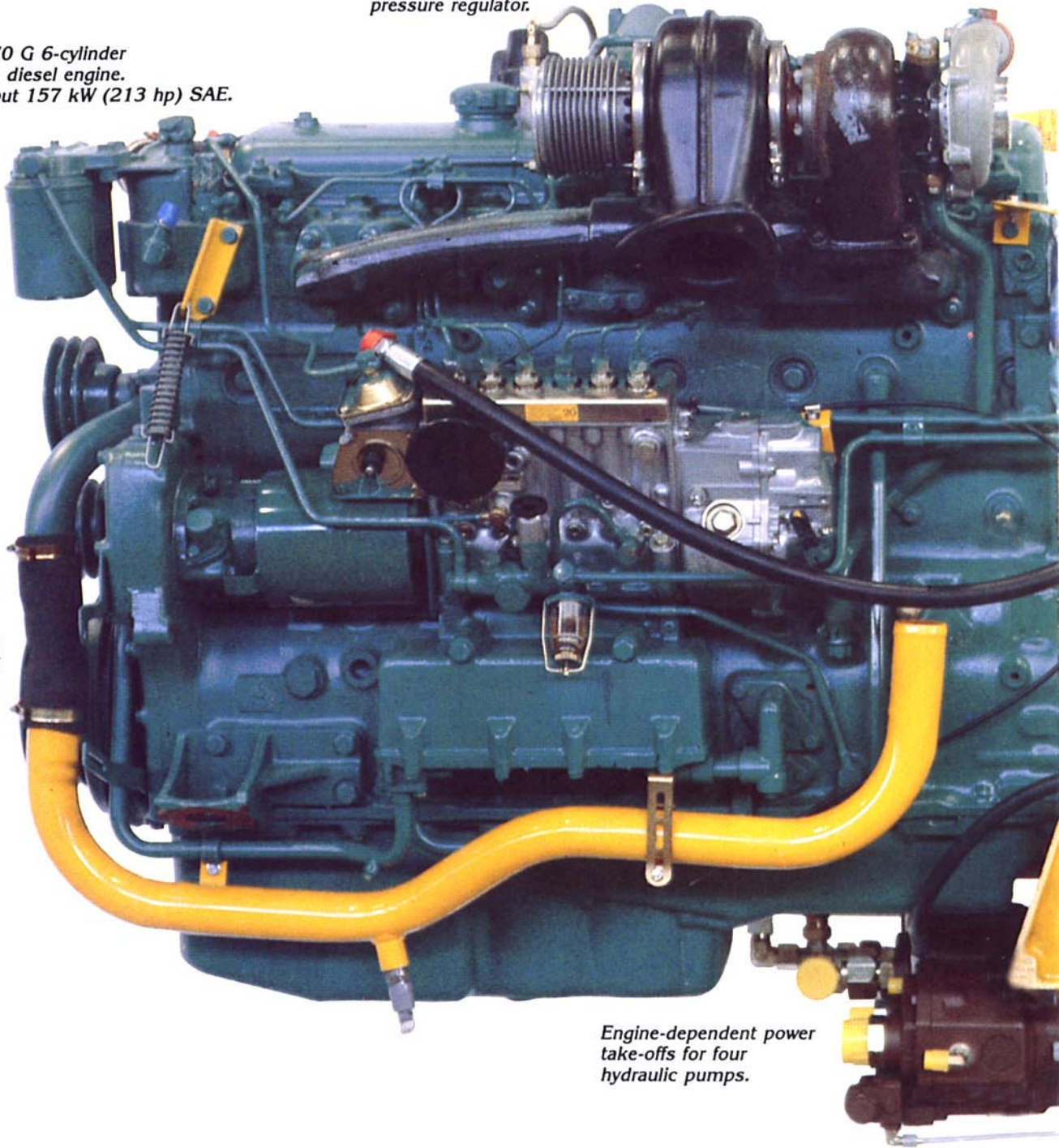
Simple service

Like other Volvo BM products, the 5350 is designed for simple and easy daily, weekly and periodic servicing. Daily lubrication is effected through only eight easily accessible lube points. The engine bonnet and the underbody plate can be opened, leaving the engine space easily accessible. Simplicity of servicing ensures a longer life for the machine. It all adds up to greater overall economy and a happier, more productive machine operator.



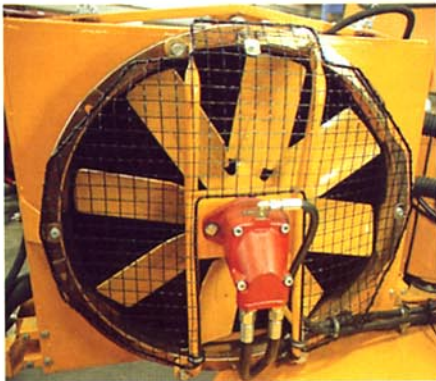
*Turbocharger
with exhaust gas
pressure regulator.*

*TD 70 G 6-cylinder
Volvo diesel engine.
Output 157 kW (213 hp) SAE.*

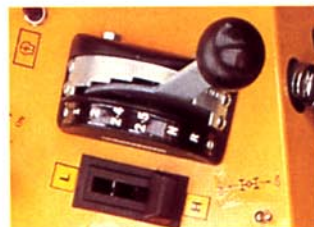
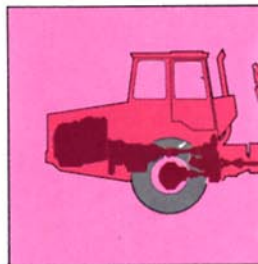


*Direct-driven
water-cooled
compressor.*

*Engine-dependent power
take-offs for four
hydraulic pumps.*



The fan is driven by a thermostatically controlled hydraulic motor. This continuously regulates the fan speed, drawing power only when needed.



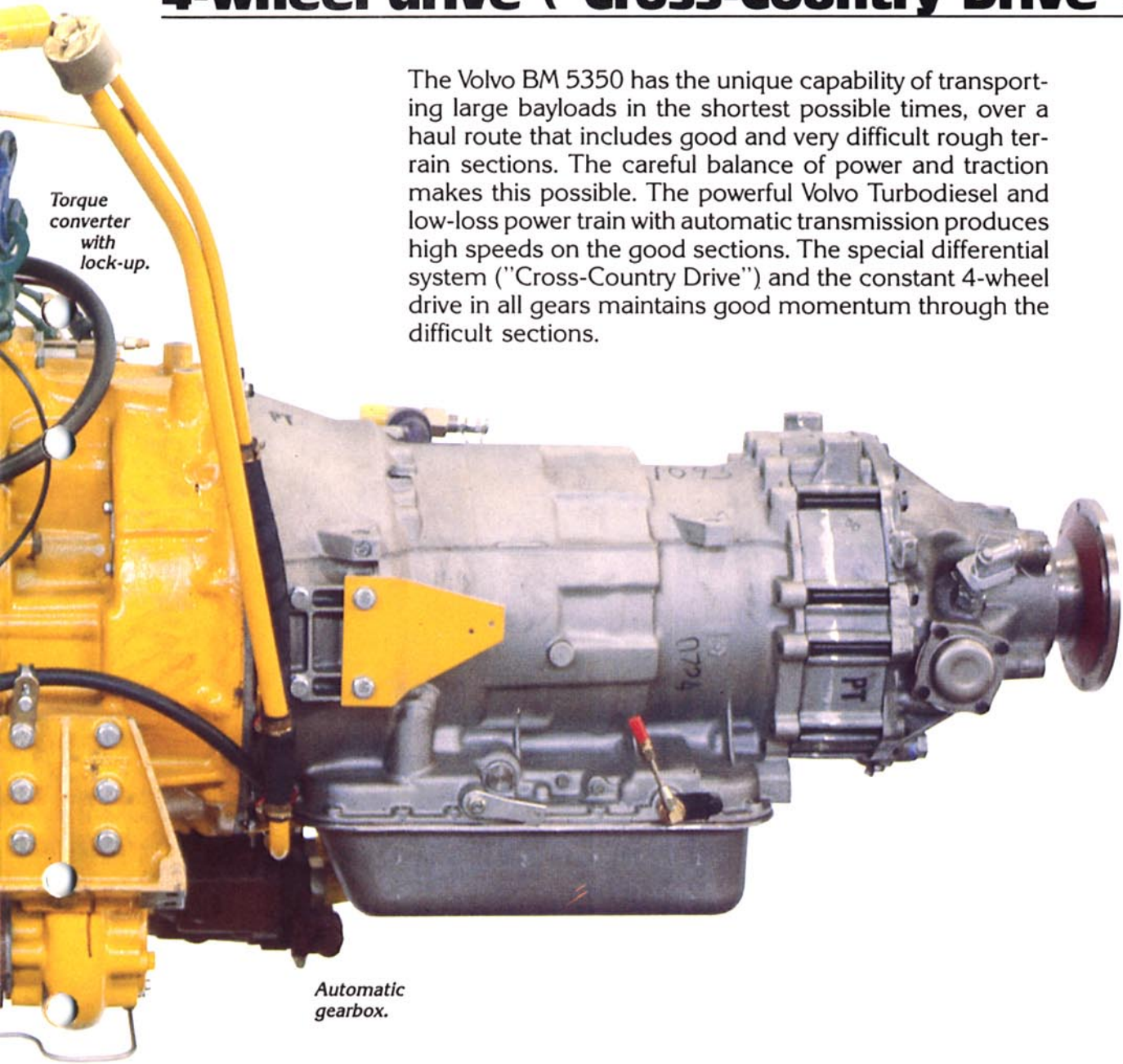
The automatic gearbox makes the 5350 both quick to operate and easy to drive. You preselect the speed range according to prevailing conditions – the gearbox does the rest.

"Cross-Country Drive"

There is constant 4-wheel drive throughout the speed range. The longitudinal and transverse differential system allows the drive axles and the individual wheels to turn at varying speeds. This eliminates snatching and reduces wear and tear on tyres and on the road. All differentials can be locked.

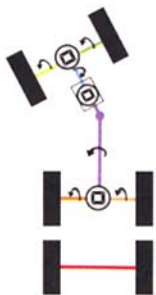
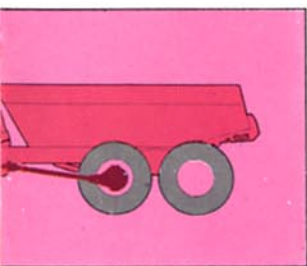
Powerful economical turbo engine. **Automatic shift. Constant** **4-wheel drive ("Cross-Country Drive").**

The Volvo BM 5350 has the unique capability of transporting large bayloads in the shortest possible times, over a haul route that includes good and very difficult rough terrain sections. The careful balance of power and traction makes this possible. The powerful Volvo Turbodiesel and low-loss power train with automatic transmission produces high speeds on the good sections. The special differential system ("Cross-Country Drive") and the constant 4-wheel drive in all gears maintains good momentum through the difficult sections.

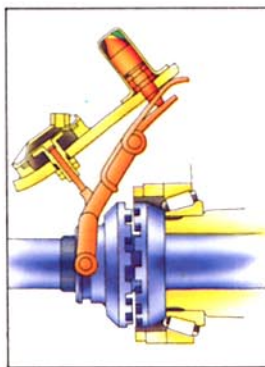


Torque converter with lock-up.

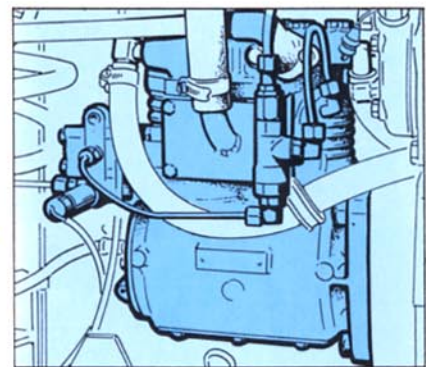
Automatic gearbox.



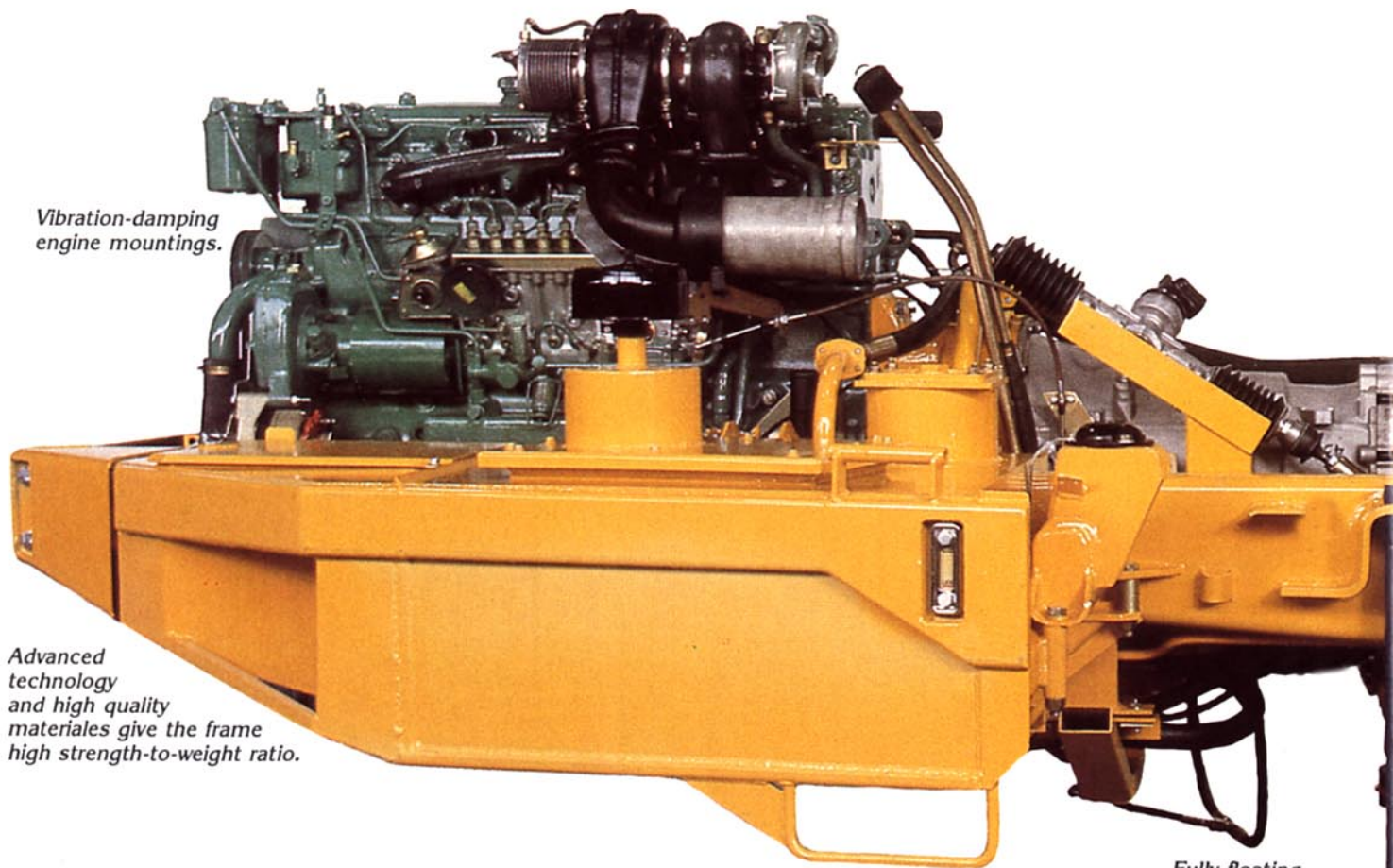
The drop-box has a built-in differential with a lock-up function. Power take-off from the drop-box also drives the safety steering pump. This guarantees full steering capacity as soon as the machine is rolling.



Both drive axles have pneumatically operated differential locks with 100 % lock-up.



The compressor is water-cooled and is reliably driven from a power take-off at the front of the engine. The pneumatic system is divided into four circuits through a safety valve so that braking is guaranteed even if one or more of the circuits should develop a fault or fail.



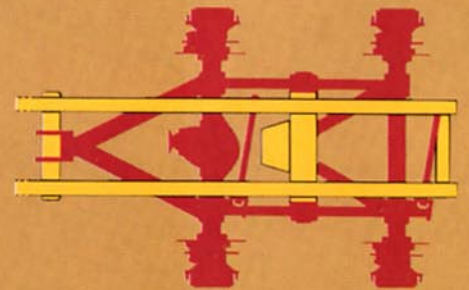
Vibration-damping engine mountings.

Advanced technology and high quality materials give the frame high strength-to-weight ratio.

Fully floating axles with very robust casings and hub reduction.

Strong frame construction

The 5350 incorporates two main chassis frames which have been designed and manufactured using the latest most advanced engineering technology. All parts are welded with extreme precision to produce frames combining great strength with low weight. Because the tractor and body frames are joined by a cylindrical bearing allowing free rotation of the two halves, torsional stresses are reduced to a minimum. This allows both frames to be made extremely rigid, reducing stresses on all welds. Cross members, brackets, etc. have soft sections at their welded joints to reduce the possibility of fracture should flexing occur. This method of manufacture adds extra strength to the chassis fabrication.



Exclusive Dumptruck Bogie

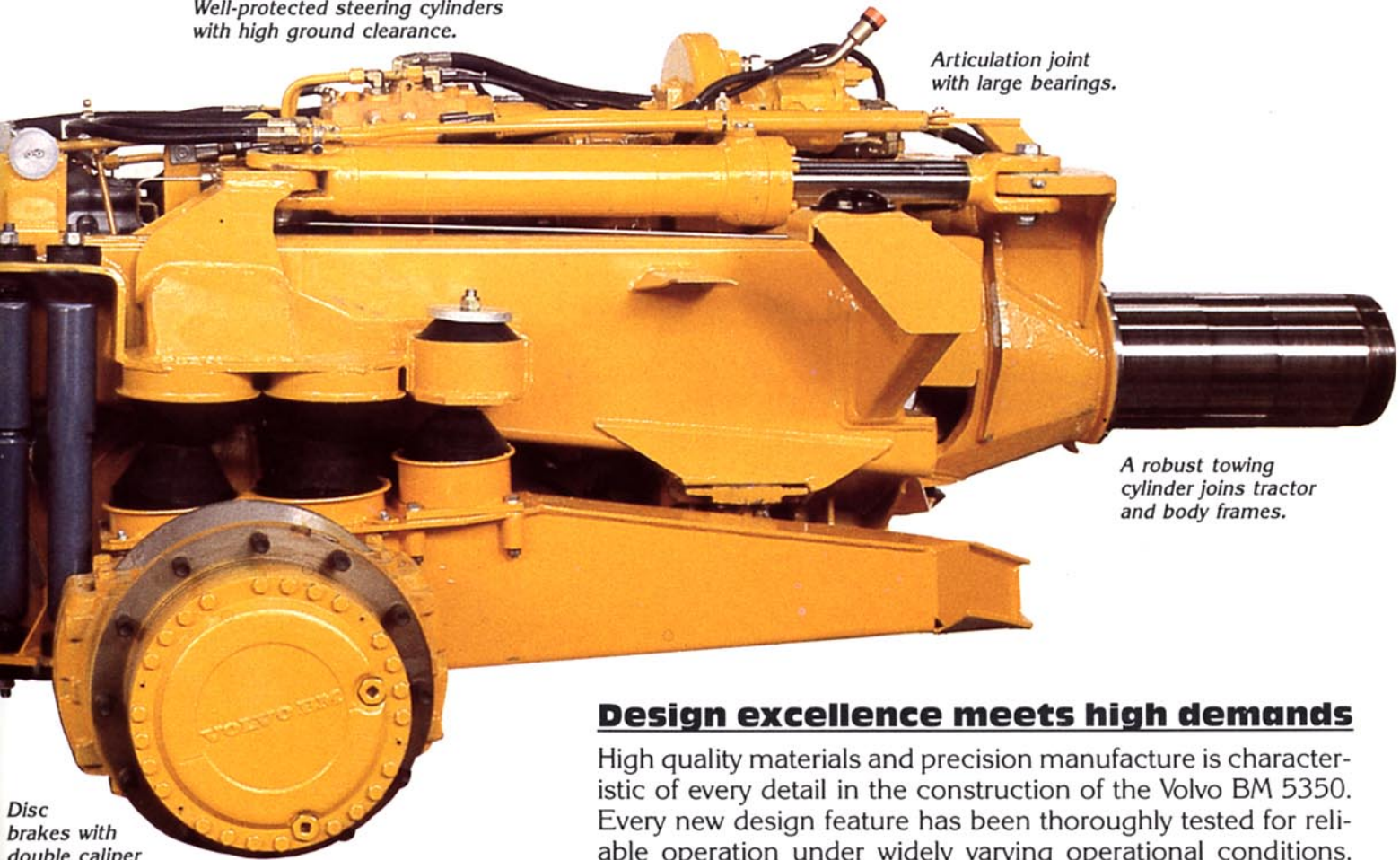
Volvo BM's terrain bogie has independent axle suspension. Each pair of wheels therefore has great individual freedom of movement maintaining good ground contact. This ensures a smooth, "floating" ride over uneven terrain.

Frame and axles designed for heavy loads. Unique suspension system.

Well-protected steering cylinders with high ground clearance.

Articulation joint with large bearings.

A robust towing cylinder joins tractor and body frames.

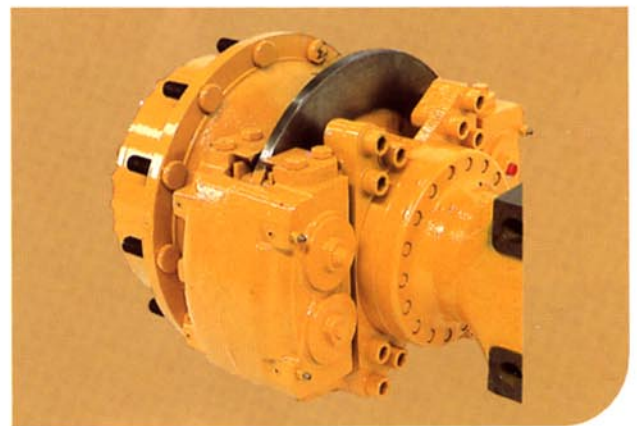


Disc brakes with double caliper assemblies.

Advanced suspension with shock absorption.

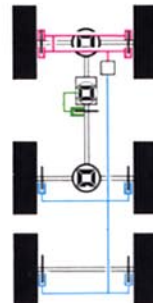
Design excellence meets high demands

High quality materials and precision manufacture is characteristic of every detail in the construction of the Volvo BM 5350. Every new design feature has been thoroughly tested for reliable operation under widely varying operational conditions. These combined features offer you the benefits of high capacity, safety and economy.



Well-balanced suspension

The Volvo BM 5350 has an advanced offroad suspension system. With the use of springs and shock absorbers, high speeds on relatively rough surfaces can be attained in complete safety.



Brakes for Heavy Loads and High Speeds

"The braking system on the 5350 is designed to provide highly effective stopping power with good safety margins throughout all ranges of speed and gross laden weights." It is split into 2 circuits for maximum safety. All 6 wheels have disc brakes. The parking brake locks the driving axles. The brake system meets existing requirements for trucks.



- ① Easy, positive steering.
- ② The engine's power take-offs drive three hydraulic pumps. There is also a take-off for a fourth pump.
- ③ The fan motor is thermostatically-controlled and is driven by a pump that draws power only when needed.
- ④ Small turning radius – easy to manoeuvre.



Tipping time 12 s



Unique hydraulic system – only draws power when needed

The hydraulic system is one of the main reasons for the good operating economy of the 5350. It is load-sensing. Pressure and flow are automatically regulated to meet demands instantaneously. This means that the hydraulic system uses the minimum of power resulting in lower fuel consumption and more power for fast hauling.

Power take-offs for direct drive

The 5350 has four axial piston pumps. Three are mounted on the engine's power take-off unit. The fourth, for safety steering, is mounted on the drop-box.

Pump I always supplies the tipping function. When necessary, it also assists with steering.

Pump II is primarily responsible for supplying steering. The remaining flow goes to tipping.

Pump III drives the fan motor.

Pump IV is a safety pump that only works when the wheels are rotating. It guarantees steering capacity as soon as the machine is in motion.





The Volvo BM 5350 is a very fast articulated dumptruck for high-capacity bulk haulage both on and off the road.

VOLVO BM
VOLVO BM AB ESKILSTUNA SWEDEN

The manufactures reserve the right to change specification or design without prior notice. Illustrations do not necessarily show the machine in its standard version.

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Production Group for basic printed matter Volvo BM