VOLVO BM Allrounder loaders – rugged efficiency on virtually any job

Wherever there are stringent demands for economy and reliability, the VOLVO BM 621 and 641 Allrounders are the right choice. They are built to provide maximum output throughout each hour of operation with a minimum of service and low fuel consumption. And most important: The agility of the VOLVO BM Allrounders, coupled with their unique line of attachments, enables them to handle virtually any job.

Sturdy basic construction
The 621 and 641 loaders are sturdy, stable machines equipped as standard with 1 m³ (35 ft³) buckets. They are built up of tried-and-tested components, designed to take plenty of punishment. Large, heavy-duty wheels provide ample tractive force and carrying capacity.

High lift and long outreach
The Allrounder loaders are easy to manoeuvre and operate with precision. The loader unit lifts high – 3.6 m (12 ft) under level bucket and, when equipped with high-lift attachments, up to 7 m (23 ft). The long outreach in front of the tyres permits wide trucks to be loaded and unloaded completely from one side.

Change of attachments in less than a minute
The snap-on coupling used to mount attachments makes it possible to change attachments and jobs in less than a minute. An extensive line of attachments – about 70 different units – enables VOLVO BM Allrounder loaders to handle many more jobs than other loaders in their class. A single Allrounder can replace a number of special machines for various types of materials handling. Result: the job can be done by a single driver.

Power-shift gearbox and torque converter
The VOLVO BM 621 and 641 have a well-balanced transmission that ensures maximum efficiency and performance. Automatically increased torque augments the machine’s tractive and penetration power. Together with the Power-shift gearbox, which permits up/down and forward/reverse shifting without using the clutch and without losing engine speed, the torque converter provides short work cycles and smooth operation.

Two alternatives
The VOLVO BM 621 2-wheel drive loader has a turning radius of 5.1 m (16 ft 4 in). The VOLVO BM 641 has 4-wheel drive and a turning radius of 5.6 m (18 ft 5 in), a larger tipping load and greater tractive power. Otherwise, most technical details of the two machines are the same.
Tough, durable
VOLVO BM engine

VOLVO BM D 42 diesel engine.

Low fuel consumption. Long service life. Top economy.
Power is provided by the tough, reliable VOLVO BM D 42
diesel engine, renowned for heavy-duty durability and
minimal downtime. It has four cylinders, a displacement
of 4.2 litres and develops 59 kW SAE at 38.4 rev/sec.
(80 hp SAE at 2300 rev/min). The direct-injection engine
has wet replaceable cylinder liners. The pistons are made
of light alloy and the crankshaft is journalled in five bearings
which have been surface-hardened for long life. The air
cleaner has a dry air filter and cyclone cleaner, while the
oil cooler is water-cooled. The well-tuned injection system
ensures low fuel consumption and long engine life.

Balancing unit provides vibrationless operation
The VOLVO BM D 42 is equipped with a special balancing
unit consisting of two weights that counter-rotate at twice
the speed of the engine. Result: a four-cylinder engine
that is extraordinarily vibration-free.
Snap-on coupling
Unique line of attachments

VOLVO BM Allrounder loaders are a safe investment. Well-suited for nearly all jobs, they can be easily adapted to tomorrow's requirements, thanks to the extensive line of attachments.

You can choose from among some 70 attachments to find those which are best suited to your needs. The snap-on coupling enables the driver to change attachments in less than a minute. No unnecessary special machines. No delays. This means better economy, day-to-day and in the long run. You get one machine which can work continuously at the most diverse tasks.

The 621 and 641 have long outreach beyond the tyres, high lift, convenient bucket angles and complete parallel side-arm linkage, thanks to the well-designed loader unit. The parallel linkage is especially advantageous for handling palletized goods and packets of timber. The cab has been carefully designed and affords excellent visibility.

In a moment...
It takes the driver less than a minute to disconnect the combi fork and connect the bucket. The simple, ingenious attachment bracket (fourth picture) is also available with hydraulic lock (optional). This feature enables the driver to change attachments without leaving the cab.
The 841 features excellent off-road negotiability and tractive power, even in difficult terrain and poor ground conditions, thanks to its large wheels, differential lock and 4-wheel drive.
A machine for all seasons and innumerable jobs – the best way to solve materials handling problems.
Maximum utilization
– each Allrounder loader comprises a complete system

A substantial portion of today’s total production costs are swallowed up by materials handling. Different materials require different kinds of handling – but not necessarily different machines. VOLVO BM Allrounder loaders used in systems that incorporate properly selected attachments and accessories provide the rational solution that you are seeking.
Well-designed and practical in every detail

Long years of experience in various countries and under the most diverse working conditions have gradually led to the many improvements embodied in the present-day versions of the 621 and 641 All-rounders. Practical and functional improvements which augmented both the machine efficiency and driver comfort.

1. Easy-to-read instruments and check-lamps
2. Good close-up visibility – no bulky components to obstruct visibility
3. Well-placed boarding steps ensure easy cab entry
4. Sturdy protective grille enhances cab safety
5. Easy, precise gear shifting with short movements between positions. Safety starter – engine can only be started in neutral.
6. Eyecatching flashers – flexible rubber mounting
7. Heavy-duty towing hitch (optional)
8. Recessed, well-protected working and driving lights
9. Cab ventilator to improve air exchange rate on hot days (optional)
10. Black-enamelled silencer with ejector exhaust device from air cleaner
11. Lowerable rotating flashing beacon (optional)
12. Heavy-duty handles and boarding steps make it easy to climb on to the machine for inspection

Effective air cleaning provides optimal engine care

The VOLVO BM 621 and 641 are equipped with a high-capacity air cleaning system to keep the engine in tip-top shape. The intake air is first cleaned in double cyclone cleaners where heavier particles are separated and then removed through an ejector unit to be expelled with the engine exhaust gases. The air is then fine-filtered by a large, replaceable paper filter and a smaller safety filter. An indicator in the cab shows red when the filter should be cleaned or changed.

The ejector unit prevents coarse dirt particles from getting into the air cleaner.
Manoeuvrability in confined spaces
The 621 and 641 have wide lock-to-lock front-wheel turning angles and large steering brakes. They are therefore easy to manoeuvre and ideal for use on building sites. Because of their versatility, they are often able to replace less manoeuvrable machines and can be used by several different contractors for ground work, foundation work, prefabricated wall units, roof trusses, laying roofs etc. – from ground breaking to finished building.

Turning radius for the 621: 5.2 m (17 ft); with steering brake, about 3.3 m (10 ft 10 in).
Turning radius for the 641: 5.6 m (18 ft 5 in); with steering brake, about 3.3 m (10 ft 10 in).
Excellent visibility and driver comfort
The entire cab is designed to make the driver's work easier, safer and more efficient. The driver sits far forward between the side-arms and has an excellent view of his work through the spacious wrap-around window. He can work safely and accurately, since he can always see what the machine and attachment are doing. The new, wider, well-appointed cab is arranged to give great freedom of movement and outstanding comfort.

The rubber-mounted cab is warm, snug and weatherproof and provided with excellent sound insulation. Standard equipment includes a two-speed heating fan located under the seat to ensure even heating throughout the cab. The cab can also be equipped with a ventilator for more rapid air exchange when the weather is uncomfortably hot.

The seat, which is upholstered in nylon pile, can be adjusted up and down and laterally. Spring resiliency and the angle of the backrest are also adjustable for maximum individual comfort.

Driver safety
Many details have been specially designed with the driver's safety in mind. Safety grilles around the windows protect against external knocks and blows. The cab is impact-tested and approved. Fitted with wide, non-skid boarding steps. Safety belts are available as optional equipment. Well-placed handles and boarding steps on the outside facilitate daily service routines. A pneumatic plunger holds the door in position.
Tested for maximum safety

Every VOLVO BM model undergoes exhaustive safety testing. Nothing is left to chance. Swedish law standardized safety cabs as long ago as 1959. Since that time, VOLVO BM has continued to develop and improve its machines and the Company has assumed a position of international leadership in the fields of safety and comfort.

The VOLVO BM 621 and 641 have undergone impact tests that comply with the standards of the Swedish Board of Industrial Safety. These standards state that the cab must withstand impact testing from all sides with a swinging two-ton weight. The test also includes the application of a vertical pressure at two points on the roof of the cab, the amount of pressure being proportional to the weight of the machine.

The 621/641 cab has also been tested by using the American ROPS method (SAE J 394 A). This involves securing the frame and cab and then subjecting them to vertical and horizontal pressures calculated relative to the weight of the machine. The picture shows a cab subjected to the maximum test pressure.

Easy to service – simple to inspect

Change of air filter – no problem and plenty of space.

Inspection of transmission oil level. The dipstick is easily accessible through a special opening in the frame.

The battery can be withdrawn for inspection and topping-up by a single easy manipulation. The hydraulic reservoir is equipped with a level tube which provides instant, accurate information on the quantity of hydraulic oil.

The filler points for coolant, diesel oil and hydraulic oil are assembled under one cover. An enclosed magnetic filter is also fitted in the cap on the hydraulic reservoir.
The VOLVO BM 621 and 641 ALLROUNDERS, Europe's best-selling loaders, are part of the extensive VOLVO BM line of loaders. Appreciated throughout the world for reliability and comfort on virtually any job.

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