

BM·VOLVO

LOADER

LM 218



BM·VOLVO LM 218

The LM 218 is a truly versatile loader and capable of making an important contribution towards simplification and cost reduction in materials handling. Low first cost, demonstrably low running and maintenance costs, and large capacity enable the LM 218 to successfully compete in an increasing number of cases with larger and more expensive machines. The implement range for the LM 218 includes more than 50 units, covering a wide range of applications.

One of the leading advantages of the LM 218 is its superb manoeuvrability. Reverse-reduction transmission, power assisted steering, correct weight distribution and tight turning circle (only 5 m. (16 ft.) radius) are among the reasons for its high work rate and handiness in confined places. An experienced driver can load more than 600 cu.m. (800 cu.yd.) of gravel in an 8-hour shift.

The big driving wheels give a sure grip, even on difficult surfaces. High ground clearance, same track front and rear, pivoted steering axle suspension and differential lock are other features for improved performance on troublesome ground.

The BM · Volvo LM 218 is built by Bolinder-Munktell, a member of the Volvo Group, world-famed for quality.



Whatever the job ...

Sand, gravel, shingle and other free-flowing materials are loaded quickly by the LM 218. A 3-ton truck is ready to drive away in less than 2 minutes.



A special fork with a hydraulic gripping arm — taking up to 2.7 cu.m. (95 cu.ft.) of 3-metre logs — is available for pulpwood handling. The great lifting height offered by the LM 218 permits full utilisation of vehicle capacity.

Clearing blasting rubble and quarry mucking are really tough jobs; but an LM 218 fitted with special buckets gives high output rates.



The snow scoop holds approx. 2 cu.m. (2.5 cu.yd.) and the LM 218 is capable of keeping several haul-age trucks on the move. Long reach is a useful feature for tipping snow well in on the truck platform.

Timber stockyard operators appreciate the long outreach and generous lifting height of the LM 218. The driver keeps a good view of the load right to the top position.



Equipped with an excavator boom, the LM 218 makes a handy trench hoe for moderate-size service conduits. The LM 218 loader/hoe combination is also a highly useful machine for services repair work.

BM·VOLVO LM 218

unique versatility



For scrap handling the LM 218 can be employed as a combined loader and tractor. Using special containers and trailers, it handles all operations from collection point to railhead, without costly loading and unloading of trucks.



The hydraulically operated clamp fits the LM 218 for handling pulp and other baled goods. Clamps up to 2 m. (6 ft. 6 in.) width are available.



There are many jobs for the LM 218 on construction sites. Fitted with a jib, it makes a highly mobile crane with generous lifting height and radius. With a concrete bucket, it receives and distributes concrete. As a tractor, it can move many other types of materials on site.

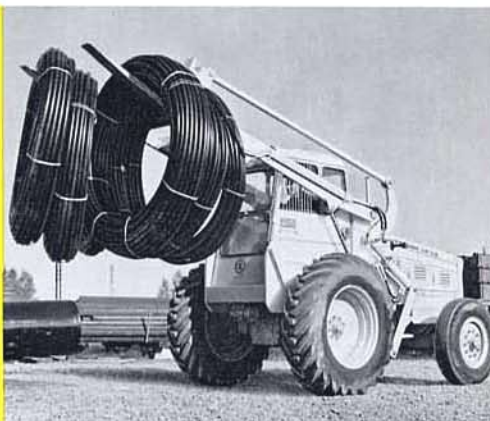


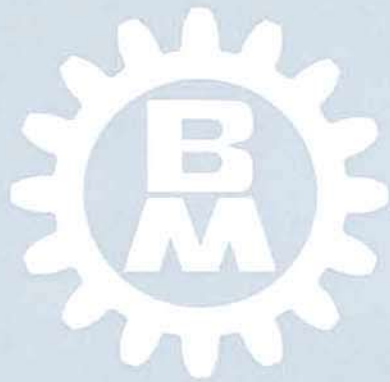
Because of its small turning circle the LM 218 requires the minimum of space for loading and hauling. Big wheels and good weight distribution enable it to get along fine on temporary, lowcost roadways.

Excellent reach and superb manoeuvrability make the LM 218 a particularly useful machine for handling palletized goods.

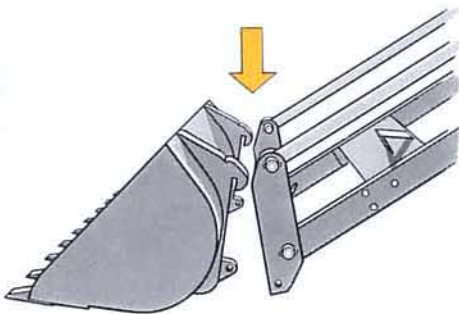
The angle-tine fork is a widely usable tool for loading, unloading and haulage of — for example — bundled hose, steel wire and cables.

Special adjustable forks are used for drum handling — both large, heavy drums and barrels and regular drums, such as oil drums.

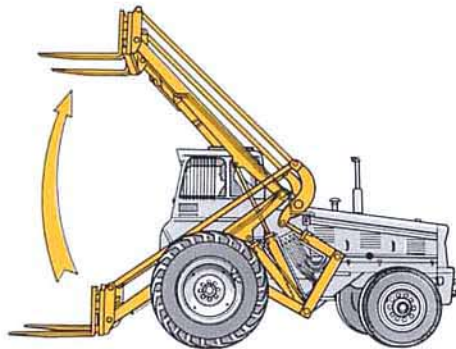




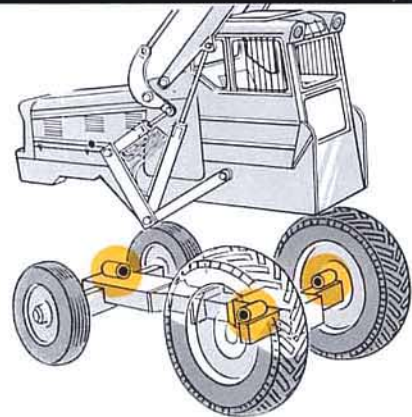
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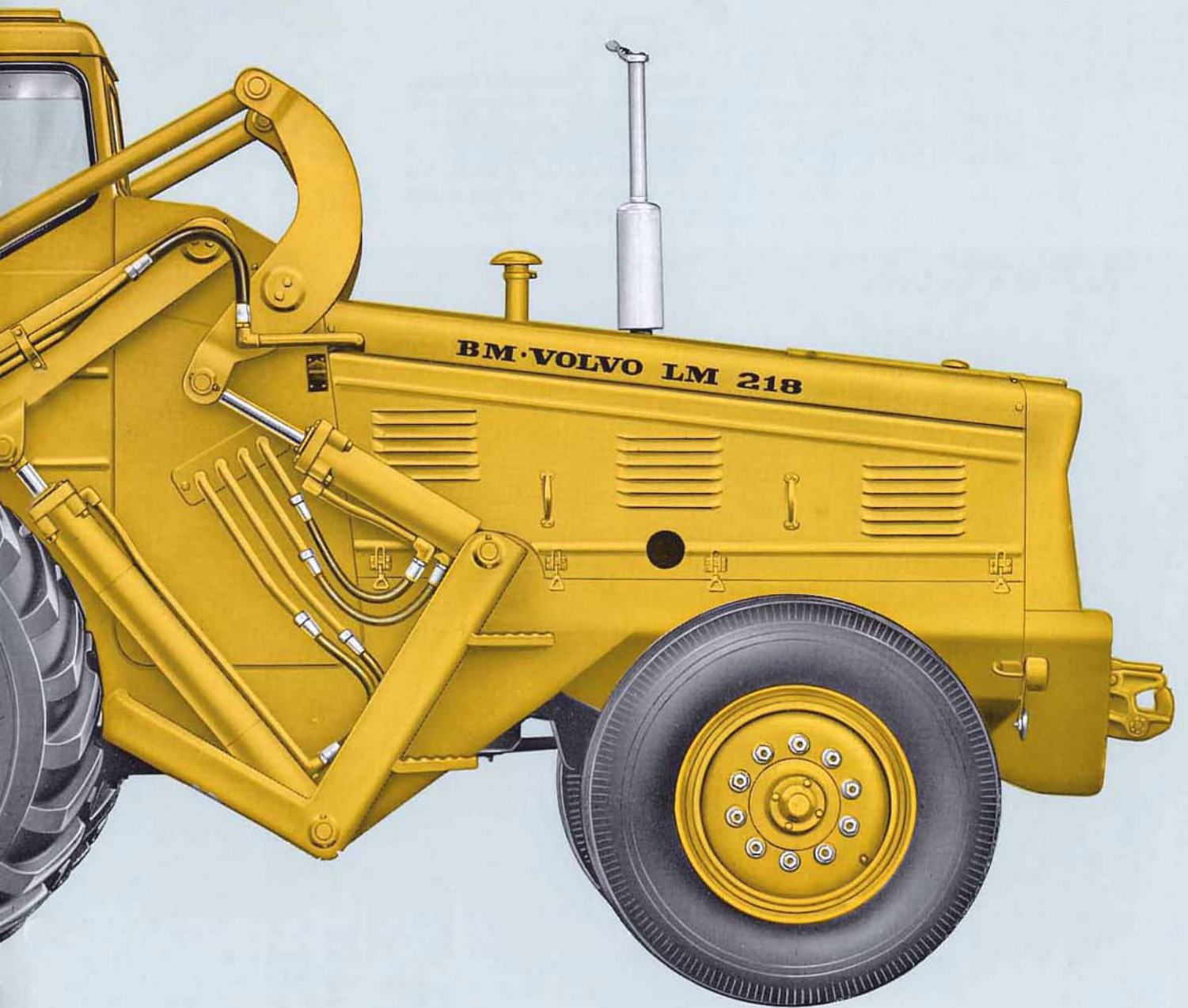
● **Timesaving speed coupling** on implement attachment permits switching in minutes.



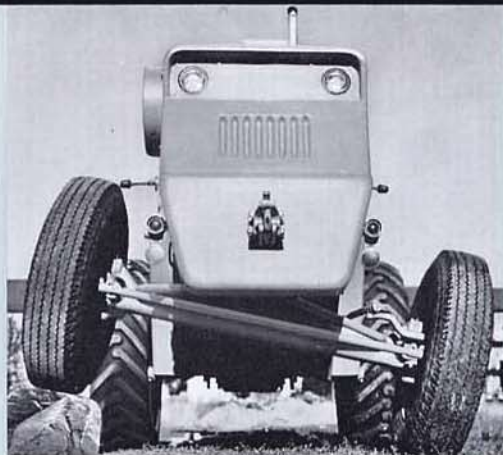
● **Parallel side arm linkage** automatically keeps implements in the correct alignment throughout lifting movement.



● **3-point loader attachment** eliminates transmission of dangerous stresses to the chassis.



● Turning circle radius is only 5 metres (16 ft.), and can be even further reduced by using steering brakes.



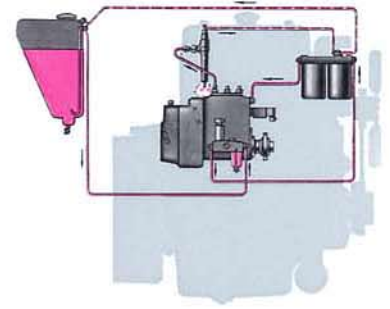
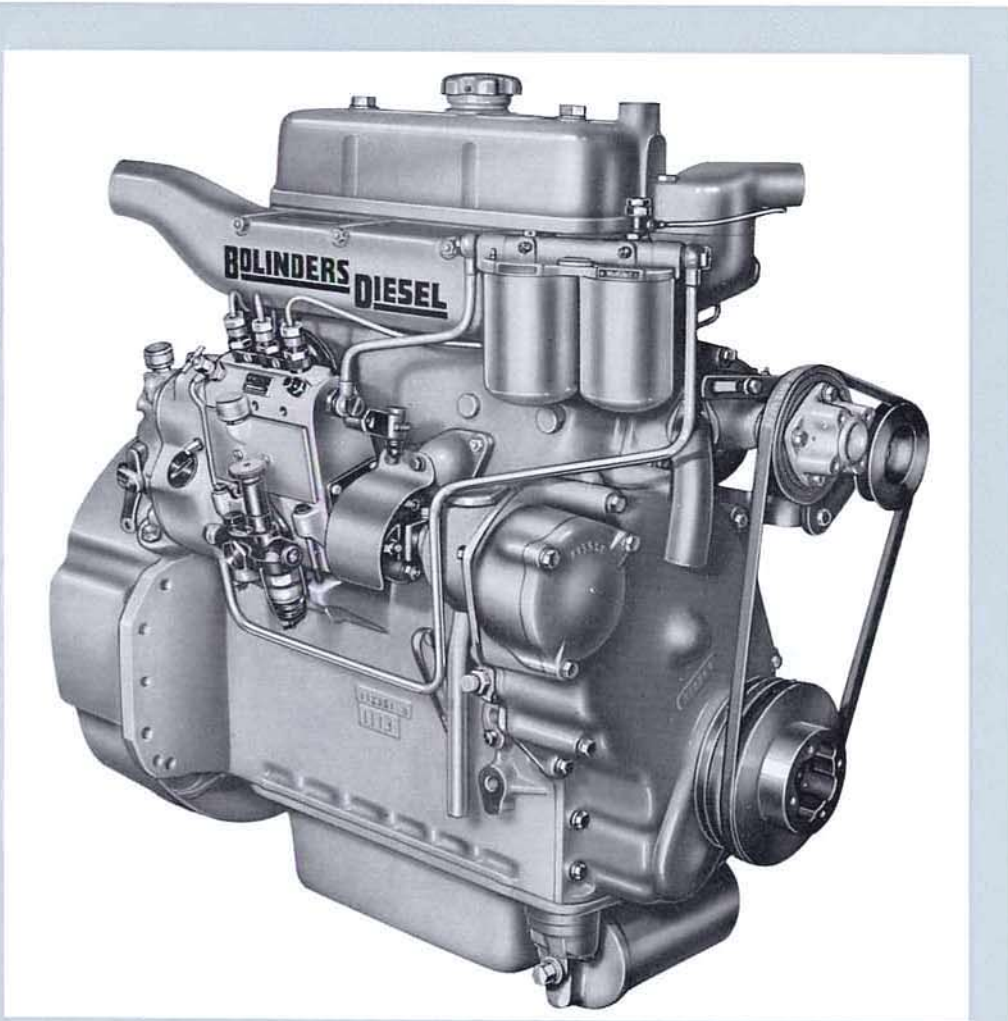
● Steering axle, of heavy-duty design, is of pivoting type and permits a difference in height between wheels of close to a half-metre (20 in.).



● Track width is identical for steering and driving wheels, improving performance on loose surfaces.

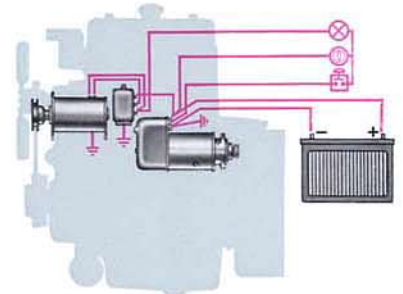
Powerful, economical engine

The LM 218 is powered by a fuel-saving 3-cylinder, direct-injection Bolinder diesel which delivers 60 h.p. SAE at 1,800 r.p.m. The engine is equipped with a centrifugal governor that rapidly responds to each change in loading. Should engine revs be reduced despite the governor, the excellent lugging power of this engine will still reduce the frequency of gear changes.



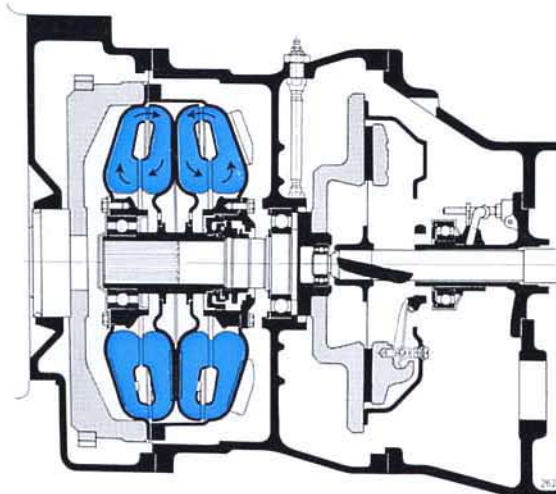
The fuel system

is designed throughout for maximum reliability. Direct injection gives best possible combustion and thus reduces fuel consumption.



The electrical system

is designed to heavy-duty specifications and ensures prompt starting, even at very low temperatures. The extra-powerful generator is rated at 360 watts.

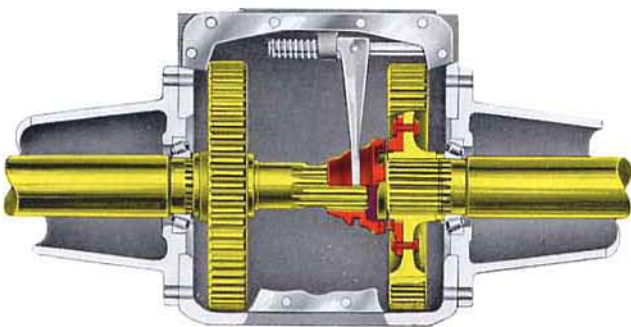


Hydraulic transmission

The LM 218 can be supplied with a heavy-duty 13" dry-plate clutch only, or with a Twin-Disc hydraulic transmission combined with a dry-plate clutch (see picture). The latter version is designated LM 218 TD. The hydraulic unit, fitted directly to the engine flywheel, prevents the propagation of shock loads when starting from stationary or working with heavy materials. The recognized good lugging power of the engine is fully utilised by this transmission, at the same time as machine life is extended and driving comfort improved.

5 gears forward reverse

1
2
3
4
5



Differential lock

Differential lock, lever-controlled from the driver's position, is standard equipment on the LM 218. When engaged, both rear axle halves are united and differential action is thus eliminated.

The differential lock greatly improves the efficiency of the loader when working on slippery surfaces. Wheel slip — and thereby tire wear and fuel consumption — is considerably reduced.

Fine hydraulics



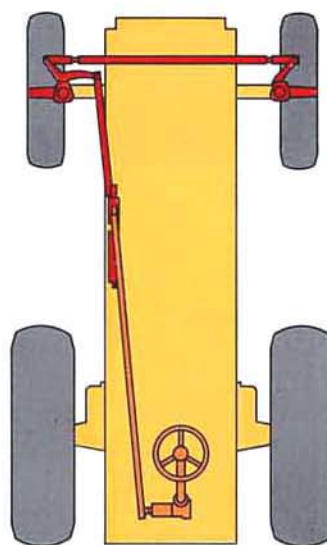
The LM 218 boasts an effective hydraulic system, working at low pressure (only 75 kg/sq.cm. (1,065 psi)). The oil pump is direct engine-driven and delivers 130 litres a minute (28½ Imp.gpm) at 1,800 r.p.m. A magnetic filter is fitted in the oil return line.

The side arms are moved by two fast-acting hydraulic rams which by a simple cock adjustment can be switched from single to double-acting. Implements are tilted by two double-acting rams. Control is by two levers actuating two valves. Standard equipment includes a third control valve for optional extension of the system to accommodate hydraulically operated implements or tipping trailers.

The heavy-duty hydraulic system is based on a small number of easily replaceable standard components, which greatly reduces the cost of parts stocking.



Full-flow magnetic filter in hydraulic return line.



Power-assisted steering

The hydraulic power-assisted steering works independently of the loader hydraulics. Oil is supplied by an independent camshaft driven pump. Power assistance is a distinct driver amenity and reduces fatigue.

Good driver comfort

The strong steel cab is fully crash-safe and provides comfort and security for the driver. The armchair-type driver's seat is adjustable. Good visibility in all directions — including upwards. All pedals, levers and other controls in convenient reach. A roof hatch above the driver's seat and an opening rear window ensure that the driver can escape under all circumstances. Opening of the cab door automatically locks loader controls.



Specification

Engine

3-cyl., 4-stroke direct-injection diesel.	
Capacity litres(cu.in.)	3.78 (230.7)
Compression ratio	16.5:1
Engine rating at 1,800 r.p.m.	
SAE h.p.	60
Engine rating at 1,800 r.p.m.	
DIN h.p.	56
Maximum torque, at 1,100 r.p.m. DIN	kg.m.(ft.lb.) 24.5 (177)
Electrical system	
Make	Bosch
Voltage	12
Battery capacity	Amp-hr. 152
Generator rating	W. 360
Starter rating	h.p. 4

Hydraulic system

Pump: Plessey gear pump. Capacity at pressure of 75 kg/cm² (1,066 lb./sq.in.) and speeds of 1,200 and 1,800 r.p.m.

General particulars

		LM 218	LM 218 TD
Max. lifting power at implement attachment, at top position	kg.(lb.)	3,200 (7,000)	3,500 (7,660)
Break-out force at scoop front edge, at bottom position	kg.(lb.)	2,600 (5,730)	2,600 (5,730)
Lift capacity with gravel scoop, to top position	kg.(lb.)	1,800 (3,970)	2,000 (4,400)
Lift time to top position	sec.	6	6
Turning circle, radius	m.(ft.in.)	5.0 (16')	5.25 (16'10")
Track, driving wheels	mm.(in.)	1,740 (5'9")	1,740 (5'9")
Track, steering wheels	mm.(in.)	1,700 (5'7")	1,700 (5'7")
Max. width	mm.(in.)	2,110 (6'11")	2,110 (6'11")
Weight, excl. implement	kg.(lb.)	5,400 (11,900)	5,550 (12,200)

approx. l/min.(g.p.m.) 85/130 19/28

Relief valve opening pressure kg/cm²(lb./in²) 75 (1,066)

Capacity of hydr. oil tank litres(gall.) 90 (20)

Clutch

LM 218: Single dry-plate clutch, self-adjusting, 13" outer diam.

LM 218 TD: Hydraulic clutch + single dry-plate clutch as above.

Transmission

5-speed reverse-reduction gearbox. Manually operated differential lock.

Brakes

Steering brakes, foot operated driving brake, parking brake.

Tires

Steering wheels 9.00—20/10

Driving wheels 16.9/14—30/10

Standard equipment

Cab, direction indicators, electric windscreen wiper, electric horn, rubber mat, twin headlights at front and rear, parking lights, hydraulic power steering and valve chest with 3 control valves.

Extra equipment

Implements, industrial towing hook, anti-skid device, half-tracks, oil line assembly for connection to third valve, fourth valve and oil line assy., fresh-air heater and engine preheater.

Specifications subject to change without notice.

BM·VOLVO LM 218

— the loader for downright hard work

Equipped with half-tracks and protective plates for forest driving, the LM 218 is a fine off-the-road worker in wood and over soft ground.



BOLINDER-MUNKTELL

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