



## BOLINDER-MUNKTELL

## LOADER Type LM 218

The Type LM 218 Loader is a development of the H-10 model, of which more than 3,000 are performing widely varying tasks throughout Europe. Typical jobs include loading, unloading, snow clearance, street cleaning, light excavation, goods transport, and so forth. The new LM 218 has a big capacity — with the largest scoop it handles 500–600 cubic metres (650–780 cu.yds.) of gravel in an 8-hour day.

### Robust — well-balanced

The LM 218 Loader incorporates a stable loading mechanism with a generously dimensioned frame, mounted on a robust vehicle frame. The suspension of the loading frame is designed to relieve the vehicle frame of abnormal stresses. The hydraulic system is composed of a few simply-replaced, standard components, which reduces greatly the cost of parts stocking. Fitted with differential lock and large steering and driving wheels, the LM 218 rarely gets stuck even on loose surfaces. The steering axle suspension is of extra-heavy-duty design and safely withstands hard treatment.

The weight distribution on the LM 218 is highly favourable. With a scoop load of 1,800 kg. (3,970 lb.) at the roading position, the driving wheels carry 89 % of the total weight and the steering wheels 11 %. The driving wheels have excellent traction, yet the steering wheels are still sufficiently loaded for safe control.

### Speedy — easy to drive

The LM 218 Loader is speedy, tough and built to last. The standard model is fitted with a transmission giving **5 speeds in either direction**, operated by two levers: one for gear selection, one for direction of travel.

The LM 218 is easy to drive. In the comfortable cab, the driver has all controls within convenient reach, enjoys excellent visibility and — thanks to the servo steering — finds the loader no harder to drive than a car, an impression strengthened by the provision of a foot throttle pedal and the small space required to manoeuvre the machine — **the turning-circle radius is a mere 5 metres (16.4 feet)**, to the outside steering wheel. There is generous room for cab access.

The LM 218 Loader is also available with Twin-Disc hydraulic transmission, under designation LM 218 TD — see special leaflet No. 2006 E.

- Max. lifting power at implement attachment, to top elevation — 3,200 kp. (7,000 lb.)
- Lift capacity with gravel scoop to top elevation — 1,800 kg. (3,970 lb.)
- Lift height — 3½ m. (11½ feet)
- 5 speeds in either direction
- Max. engine rating — 60 h.p. SAE
- Big hydraulic pump, direct-driven from crankshaft
- Hydraulic cylinders can be easily changed from single to double acting, or floating.
- Implement attachments parallel-linked and fitted with simple speed couplings.



**VOLVO**

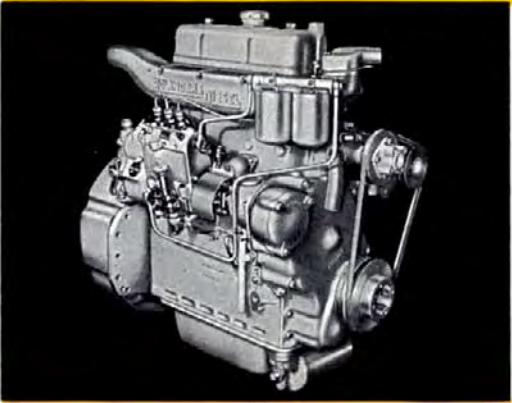
**BOLINDER-MUNKTELL  
ESKILSTUNA · SWEDEN**



## **Driver comfort and easy control**

The strong steel cab provides excellent comfort and safety for the driver, who is afforded good visibility in all directions — even upwards, special roof windows making it possible to watch the scoop to the top of its travel. The roof windows are designed as removable exit and the rear window can be opened. This provides additional safety for the driver in case of accidents.

The loading mechanism is fully hydraulically manoeuvred by two levers. The engine revolutions are controlled by either foot accelerator or hand throttle. A car type wheel actuates the hydraulic servo-steering; if necessary, in combination with the steering brakes. These latter are operated by two adjacent pedals placed for the right foot, and the pedals can be coupled for use during normal driving. A handbrake is also fitted. All the various pedals, levers and other control devices are placed where most accessible for the driver.



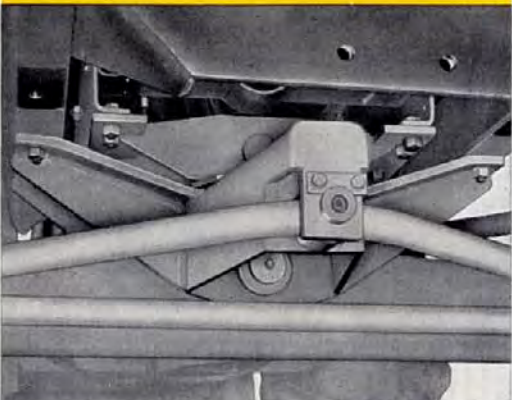
## **A reliable and economical engine**

The LM 218 is powered by a 3-cylinder, direct injection Bolinder diesel, a unit which gives 60 h.p. SAE at 1,800 r.p.m. on a very low fuel consumption. The filter systems for air, oil and fuel are designed to ensure the greatest possible freedom from trouble. A centrifugal governor is fitted, which instantly responds to every variation in load. But the stalwart lugging power of this engine means that gear changing is reduced to a minimum even when the engine speed drops due to heavy loading. A powerful starter removes starting worries, even in extreme cold.



## **Differential lock**

Four-square ruggedness is the outstanding quality of the LM 218 Loader, which is built to take hard punishment. The differential lock is a standard fitting. This device greatly increases the efficiency of the machine over slippery or loose surfaces. Wheelspin — and thereby tire wear and fuel consumption — is appreciably reduced. Low running costs, resistance to wear, versatility and Bolinders' well-known service make the LM 218 a sound investment.



## **Heavy-duty steering axle suspension**

The steering-axle bracket on the LM 218 is bolted directly to the loader's main frame, while the chassis is movably suspended in a bearing located above the steering-axle bracket (see fig. at left). The bearing incorporates a rubber cushion that absorbs relative movement of chassis and main frame.

This design, in conjunction with the generous dimensions of the steering axle (which can move to accommodate a level difference between wheels of up to nearly 20 inches), eliminates any risk of failure when working on rough ground.

## Typical jobs for the LM 218



Mucking natural and blast quarry rubble, with sheet or open mucking scoop.



Handling baled goods with the hydraulically operated clamp.



Narrow trenching for pipes or power cables, using a hydraulic excavator boom with 180° swing arc.

Unique versatility — in-a-minute implement switching thanks to speed-coupling attachments.



Handling bundled and palletted freight, sawn timber, barrels or drums, with regular angle-tine and drum forks.



Pipelaying, materials handling and machine removals on construction sites, using the extendable crane jib.



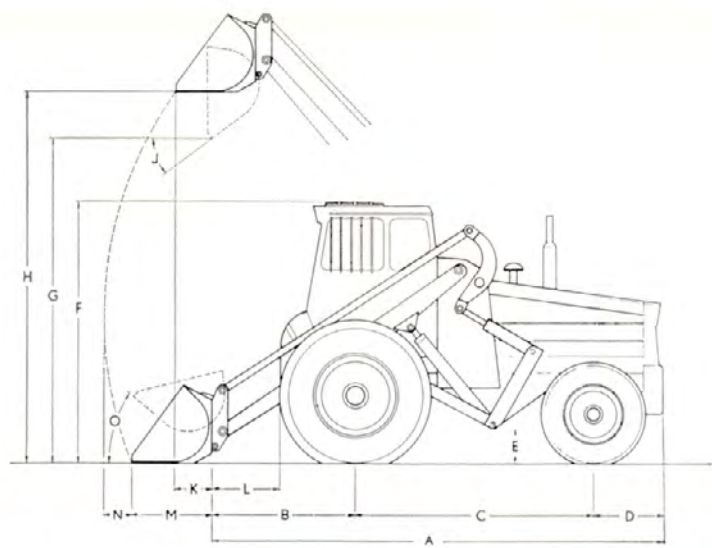
Skidding and loading logs and pulpwood, equipped with half-tracks and log or pulpwood fork.

Transporting concrete, mortar and other bulk materials with the hydraulically-operated, bottom-dumping concrete bucket.



**Dimensions**

A	mm. (ft. in.)	4,375 (14' 4")
B	mm. (ft. in.)	1,390 (4' 7")
C	mm. (ft. in.)	2,300 (7' 7")
D	mm. (ft. in.)	680 (2' 3")
E	mm. (ft. in.)	350 (1' 2")
F	mm. (ft. in.)	2,540 (8' 3")
G	mm. (ft. in.)	3,080 (10' 1")
H	mm. (ft. in.)	3,500 (11' 6")
J	.....	35°
K	mm. (ft. in.)	450 (1' 6")
L	mm. (ft. in.)	660 (2' 2")
M	mm. (ft. in.)	750 (2' 6")
N	mm. (ft. in.)	480 (1' 7")
O	.....	40°



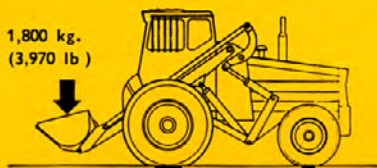
# LM 218

# SPECIFICATION



2,600 kp.  
(5,730 lb.)

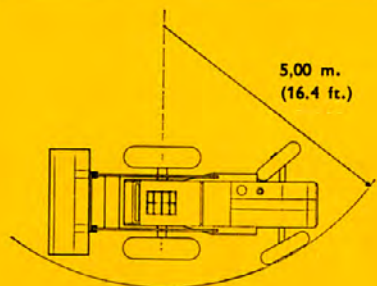
**Maximum  
penetrating force**



1,800 kg.  
(3,970 lb.)

6,590 kg.      790 kg.  
(14,530 lb.)      (1,740 lb.)

**Favourable  
weight distribution**



5,00 m.  
(16.4 ft.)

**Small turning  
circle**

**Principal data**

Max. lifting power at implement attachment, to top elevation	..... kp. (lb.)	3,200 (7,000)
Lift capacity with gravel scoop, to top elevation <sup>1)</sup>	..... kg. (lb.)	1,800 (3,970)
Lift time to top position	..... sec.	6
Lowest scoop depth below ground level	..... mm. (in.)	150 (6")
Weight of machine excg. implement	..... kg. (lb.)	5,400 (11,900)
— on driving wheels	..... kg. (lb.)	2,675 (5,900)
— on steering wheels	..... kg. (lb.)	2,725 (6,000)
Track width, driving wheels	..... mm. (ft. in.)	1,740 (5' 9")
Track width, steering wheels	..... mm. (ft. in.)	1,700 (5' 7")
Maximum width	..... mm. (ft. in.)	2,110 (6' 11")

**Engine**

Bolinder Munktell 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. DIN	..... h.p.	56
Engine rating at 1,800 r.p.m. SAE	..... h.p.	60
Maximum torque, at 1,100 r.p.m., DIN	..... kg.m (ft.lb.)	24.5 (177)

**Hydraulic system**

Pump: Plessey gear pump. Capacity at pressure of 75 kg/cm <sup>2</sup> (1066 lb./sq. in.) and speeds of 1,200 and 1,800 r.p.m. (approx.)	..... l/min. (g.p.m.)	85/130 (19/28)
Relief valve opening pressure	..... kg/cm <sup>2</sup> (lb./in. <sup>2</sup> )	75 (1066)
Capacity of hydr. oil tank	..... litres (gall.)	90 (20)

**Clutch**

Single dry-plate clutch, self adjusting. Outer diam. .... in. 13

**Transmission**

Gearbox: Speeds at 1,800 r.p.m., k.p.h. (m.p.h.)

Gear	1st	2nd	3rd	4th	5th
Forward	3.6 (2.3)	6.6 (4.2)	9.1 (5.6)	15.0 (9.3)	26.0 (16.2)
Reverse	2.8 (1.7)	5.1 (3.2)	7.0 (4.3)	11.6 (7.2)	20.1 (12.4)

Differential lock, manually operated.

**Brakes**

Steering brakes, foot operated driving brake, parking brake

**Tires**

Steering wheels	.....	9.00—20/10
Driving wheels	.....	14—30/10

**Standard equipment**

Cab, direction indicators, electric windscreen wiper, horn, rubber mat, twin headlamps at front and rear, parking lights, and hydraulic power steering.

**Extra equipment**

Implements, industrial towing hook, wheel weights, anti-spin device, hydraulic gear for tipping trailer and other hydraulically operated equipment, fresh-air heater and engine pre-heater.

<sup>1)</sup> Capacity with load in non-toothed scoop. When using larger scoops the lift capacity must be reduced accordingly.

Specifications subject to change without notice.

## BOLINDER-MUNKTELL · ESKILSTUNA · SWEDEN



**VOLVO**

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