

THE NEW DIESEL MOTOR GRADER



The 9 tons Diesel Grader for road building and road maintenance.

Bolinder-Munktell's New Road Grader

The new 9 tons (19,750 lbs) Diesel Grader from Bolinder-Munktell is designed and built for modern efficient road building and road maintenance. The Bolinder-Munktell Company has long experience in manufacturing of road building machinery and the new Grader is based upon this long experience and embodies at the same time the most modern features: Diesel power, rear-mounted engine, differential gear, power controls, and low pressure tyres. The new Bolinder-Munktell Grader is built for long life and high work capacity.

The proper balance of weight, the strong driving and steering wheels, and the sturdy highly economical engine secure maximum capacity. The mechanical power control is geared so that the Grader works equally easily and smoothly as an hydraulically manoeuvred Grader but with the reliability and long life characterizing mechanical controls.

The tandem drive, the 8 speeds — all well balanced to give maximum versatility — and the differential gear make the new Bolinder-Munktell VHK 55 an outstanding model.

DIMENSIONS:

Length over-all	24' 8" (7,520 mm)
Width over-all	7' 4" (2,230 mm)
Height over-all with cab ..	9' 8" (2,950 mm)
Wheelbase	18' (5,500 mm)
Tread (same for front and rear wheels)	6' 1" (1,850 mm)
Distance between centers of tandem wheels	4' 9" (1,450 mm)
Turning radius (measured to outside of tyre approx.)	31' 2" (9,500 mm)
Distance between blade and front axle	7' 9" (2,360 mm)

AKTIEBOLAGET
**BOLINDER-
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ESKILSTUNA



WEIGHT:

Total approx. 19,750 lbs (9,000 kg)
 Carried by front wheels approx. 5,600 lbs (2,560 kg)
 Carried by rear wheels approx. 14,100 lbs (6,440 kg)
 Blade load at 1,100 lbs (500 kg)
 steering pressure approx. 7,900 lbs (3,600 kg)

SPEEDS:

Normal gear	1st	2nd	3rd	4th	Reverse
M.P.H.	2.0	4.0	5.3	11.5	2.6
km/h	3.2	6.5	8.5	18.4	4.1
High gear					
M.P.H.	3	6.2	8.1	17.4	3.9
km/h	4.8	10.0	13.0	28.0	6.2

(Lower speeds available by throttle control)

DIFFERENTIAL LOCKING DEVICE: The Road Grader is equipped with differential gear which protects rear tyres from excessive wear. Differential action can be locked by manoeuvring lever from driver's seat.

CONTROLS: Type: Mechanical, Power operated.

BLADE DIMENSIONS: Length 10' (3,050 mm) or — upon special request — 12' (3,650 mm).
 Height 1' 11 1/2" (600 mm).
 Thickness 3/4" (18 mm).
 Reinforcement special box section.

BLADE RANGE: Lift above ground 1' 7 3/4" (500 mm).
 Side shift, power operated 3' 1/2" (930 mm).
 (Pitch positions: 33 different positions)
 Maximum bank cutting angle 90°.
 Maximum shoulder reach (measured outside rear wheels)
 4' 8" (for 10' blade)
 6' 8" (for 12' blade)
 For bank cutting the blade can be set at 45° towards the ground surface and simultaneously at 45° pitch whereby the blade's lowest point is on or outside a line connecting front and rear tyres outer edges.

CIRCLE: Diameter 4' 10 1/2" (1,486 mm).
 Section structural steel special reinforced box section.
 Circle center to front axle, distance 7' 1 1/2" (2,173 mm).
 Circle reversing control (360 degrees). Power operated.

DRAWBAR: Shape, two welded sections 5 1/2" x 3 3/8" x 1/2" (140 x 85 x 12 mm).

LIFTING MECHANISM: Wormgears powered from the manoeuvring gearbox.
 Lifting speed per second 3" (75 mm).

FRAME: Section, welded unit.

DRIVER'S PLATFORM: Size 4' 1" x 2' 5 1/2" (1,240 x 750 mm).
 Height, above ground 3' 5 1/2" (1,050 mm).

WHEELS AND TYRES: Frontwheels adjustable into leaning position.

Front tyres, pneumatic 13.00 x 24 12 ply
 Rear tyres, pneumatic 13.00 x 24 12 ply

BRAKES: Hydraulic footbrake, hydrovac manoeuvred.
 Brakedrums on leading tandem wheels (diam. x width) 17" x 4".
 Handbrake, mechanical type.

ELECTRICAL EQUIPMENT: Starting battery: 133 Ah (10 hours discharge), 24 Volts.
 Light in driver's cab
 Front headlamps 2
 Rear headlamps 1
 Adjustable lamps for blade lighting 2
 Rear lamps 2
 Warning labels (reflecting) front white 2
 Warning labels (reflecting) rear red 2
 Windscreen whipers 3
 Traffic indicators (blinkers) 2
 Signal 1

ENGINE: Four stroke cycle, water cooled, direct injection Diesel type D 67.
 Cylinders, number 6.
 Bore and stroke 4 1/8" x 5 1/8" (104.77 x 130 mm).
 Piston displacement 411 cu.inches (6.72 l).
 R.P.M. governed at full load 1,400.
 Brake horsepower at 1,400 r.p.m. 75.
 Compression ratio 17:1.
 Cylinders: Wet liners easy replaceable with two sealing joints.
 Pistons: Alluminium alloy fitted with 3 compression rings and 2 oil scraper rings and floating pin. Top piston ring chromium plated.

LUBRICATING SYSTEM: Force feed to all bearings, piston pins, valve gear and transmission gears. Self cleaning section filter for lubricating oil. Hour meter.

CRANKSHAFT: Dropforged alloy steel, tempered and ground, dynamically balanced and carried in 7 main bearings (steel shells with lead bronze lining), all journals with induction hardened surfaces.

STARTING METHOD: 24-volt electric starting system.

TOOLS: Toolbox with necessary set of tools supplied as standard.

EXTRA ATTACHMENTS:

SCARIFIER: Frame equipped with brackets for shanks suspension. Manoeuvring gearbox arranged for scarifier's power operation. Hydraulic unit for extra attachments, windrowspreader, snow plow etc.

