

THE DOMINION MOTORS LT
(Licensed Motor Vehicle Dealers)
455 BROADWAY, NEWMARKET
PHONE 545-099

BMC



NUFFIELD

3/45 & 4/65





NUFFIELD

3/45 SPECIFICATION

WEIGHTS: Basic model plus oils, fuel, and water: 4,045 lb. (1834.8 kg.); Standard model including hydraulic power unit, electric lighting, horn, plus oils, fuel, and water, with 11-00—28 tyres: 4,460 lb. (2023 kg.); De-luxe model as standard but including independent power take-off: 4,610 lb. (2091 kg.).

ENGINE: Compression ignition, direct-injection type. Three cylinders; bore and stroke 100 mm. x 120 mm. (3.94 in. x 4.724 in.), cubic capacity 2827 c.c. (172.5 cu. in.); compression ratio 16.5 : 1. Cylinder block and crankcase is a one-piece casting. Detachable, wet cylinder liners. Cylinder head carries valves, rocker gear, and injectors, and is completely water-jacketed around the ports and injector sleeves. Induction and exhaust manifolds are mounted on opposite sides of cylinder head. The inlet valves are shrouded to promote air swirl on induction. Four-bearing crankshaft. Camshaft is mounted in the crankcase and is driven through nickel-chrome helical gears. Cavity-type aluminium-alloy pistons with three compression and two scraper rings. High-pressure forced lubrication throughout engine. A thermostat is fitted for rapid warm-up. A large oil-bath-type air cleaner is incorporated in the air intake.

COOLING: Cooling is by centrifugal pump with a 2-bladed fan mounted on the rotor spindle. The water circulation is thermostatically controlled and a temperature gauge is provided. The radiator is protected by a robust pressed-steel cowl.

FUEL SYSTEM: Fuel is fed to the injector pump by an A.C.-type lift pump operated by the camshaft. Tank capacity is 16 gallons (72.6 litres).

INJECTOR UNIT: Of Simms design, comprising injection pump and mechanical governor of in-

creased sensitivity, giving constant engine speed under varying load.

ELECTRIC STARTING: Comprises Lucas 12-volt pre-engaged-type starter motor, 12-volt dynamo and control box.

GOVERNOR: The mechanical-type governor allows the engine to be set and maintained at any speed between tick-over and maximum, regardless of load.

STEERING AND FRONT AXLE: The 16 in. (40.6 cm.) diameter steering-wheel operates a high-efficiency screw and roller type gear; there are 3.7 turns of the steering-wheel from lock to lock. Power-assisted steering is available at extra cost. The front axle is designed with centre-point steering giving light and strong self-centring action.

INSTRUMENTS: The instrument panel is housed immediately beneath the steering-wheel and includes a large tractometer, ammeter, temperature, oil pressure, and fuel gauges.

CLUTCH: Standard 11 in. (28 cm.) diameter single dry Borg & Beck type, requiring no internal lubrication or adjustment. With independent P.T.O. Borg & Beck 11 in. (28 cm.) double clutch.

GEARBOX, DIFFERENTIAL, AND FINAL DRIVE RATIOS:

Gearbox Ratios

Low	1st	47/14 x 46/16	9.65 : 1
High	1st	45/17 x 46/16	7.61 : 1
Low	2nd	47/14 x 40/22	6.11 : 1
High	2nd	45/17 x 40/22	4.81 : 1
Low	3rd	47/14 x 33/29	3.82 : 1
High	3rd	45/17 x 33/29	3.01 : 1
Low	4th	47/14 x 24/38	2.12 : 1

High	4th	45/17 x 24/38	1.67 : 1
Low	5th	1 : 1	1 : 1
High	5th	45/17 x 14/47	0.79 : 1
Low Rev.		47/14 x 13/29 x 46/21	3.30 : 1
High Rev.		45/17 x 13/29 x 46/21	2.60 : 1
Differential Ratio			4.38 : 1

FINAL DRIVE: By spiral bevel gears and heavy-duty spur gears, with an overall ratio of 18.4 : 1. Oil capacity of transmission, 12 gallons (54.5 litres).

DISC BRAKES: Self-energizing independent disc-type steering brakes, 6½ in. diameter (16.5 cm.).

WHEEL EQUIPMENT:

		<i>Tyre Size</i>
Front tyres (standard)	4-ply	5.50—16
Front tyres (alternative)	6-ply	6.00—16
Front tyres (alternative)	6-ply	7.50—16
Rear tyres (standard)	4-ply	10.00—28
Rear tyres (alternative)	6-ply	11.00—28
Rear tyres (alternative)	6-ply	11.00—32
Rear tyres (alternative)	6-ply	13.00—28
Twin rear tyres (alternative)	4-ply	10.00—28
Twin rear tyres (alternative)	6-ply	11.00—28
Twin rear tyres (alternative)	6-ply	11.00—32

ADDITIONAL WEIGHTS: To cope with the varying loads imposed by a wide range of front-, mid-, and rear-mounted implements in current use, a variety of well-designed additional weights are provided as optional equipment for the tractor. To increase front axle weight, hook-on hand weights are available up to a maximum of eight, giving a maximum additional axle load of 700 lb. approximately. Front wheel weights inner and outer are available supplied in pairs, inner 100 lb. (45.3 kg.) outer 100 lb. (45.3 kg.) each. Rear wheel weights 100 lb. (45.3 kg.) each supplied in pairs.

4/65 SPECIFICATION

WEIGHTS: Basic model plus oils, fuel, and water: 4,780 lb. (2168.2 kg.); Standard model including hydraulic power unit, electric lighting, horn, plus oils, fuel, and water with 11.00—36 tyres: 5,140 lb. (2330.5 kg.); De-luxe model as standard but including independent power take-off; 5,290 lb. (2398.5 kg.).

ENGINE: Compression ignition, direct-injection type. Four cylinders; bore and stroke 100 mm. x 120 mm. (3.94 in. x 4.724 in.), cubic capacity 3770 c.c. (230 cu. in.); compression ratio 16.5 : 1; normal speed range 1,000—2,000 r.p.m. The cylinder block and crankcase is a one-piece casting, ensuring maximum rigidity. Detachable, wet liners are fitted, giving excellent cooling and ease of maintenance. The cylinder head carries the valves, rocker gear, and injectors, and is completely water-jacketed around the ports and injector sleeves. Induction and exhaust manifolds are mounted on opposite sides of the cylinder head. The inlet valves are shrouded to promote air swirl on induction. A large oil-bath-type air cleaner ensures a supply of filtered, dust-free air, and prolongs cylinder life. The crankshaft is mounted on five main bearings consisting of steel shells lined with copper-lead. The camshaft is mounted in the crankcase and is driven through nickel-chrome helical gears. The aluminium-alloy pistons are of the cavity type, mounted on the connecting rods by fully-floating gudgeon pins. Three compression and two oil control rings are fitted, the top compression ring being chromium-plated to give greater wear resistance and extended life. High-pressure forced lubrication is used throughout the engine.

COOLING: The cooling system comprises a centrifugal pump and a 2-bladed (or 4-bladed) fan mounted on the front of the cylinder block and belt driven from a pulley on the crankshaft. The radiator is

protected by a robust, pressed-steel cowl. A temperature gauge is provided and a thermostat is fitted to ensure a rapid warm-up.

FUEL SYSTEM: Fuel is fed to the injector pump by an A.C.-type lift pump operated by the camshaft. Tank capacity is 16 gallons (72.6 litres).

INJECTOR UNIT: Of Simms design, comprising injection pump and mechanical governor of increased sensitivity, giving constant engine speed under varying load.

ELECTRIC STARTING: Comprises Lucas 12-volt starter motor of the pre-engaged type, 12-volt Lucas dynamo, and control box.

EASY-STARTING DEVICE: A manually-operated excess fuel device is incorporated in the Simms injector pump unit.

GOVERNOR: The mechanical-type governor allows the engine to be set and maintained at any speed between tick-over and maximum, regardless of load.

STEERING AND FRONT AXLE: The 16 in. (40.6 cm.) diameter steering-wheel operates a high-efficiency screw and roller type gear; there are 3.7 turns of the steering-wheel from lock to lock. Power-assisted steering is available at extra cost. The front axle is designed with centre-point steering giving light and strong self-centring action.

INSTRUMENTS: The instrument panel is housed immediately beneath the steering-wheel and includes a large tractorometer, ammeter, temperature, oil pressure, and fuel gauges.

CLUTCH: 11 in. (28 cm.) diameter single dry plate Borg & Beck type, requiring no internal lubrication or adjustment, with independent P.T.O. Borg & Beck 11 in. (28 cm.) double clutch.

GEARBOX, DIFFERENTIAL, AND FINAL DRIVE RATIOS

Gearbox Ratios

Low	1st	47/14 x 46/16	9.65 : 1
High	1st	45/17 x 46/16	7.61 : 1
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Low	5th	1 : 1	1 : 1
High	5th	45/17 x 14/47	0.79 : 1
Low Rev.		47/14 x 13/29 x 46/21	3.30 : 1
High Rev.		45/17 x 13/29 x 46/21	2.60 : 1
Differential Ratio			4.38 : 1

FINAL DRIVE: By spiral bevel gears and heavy-duty spur gears, with an overall ratio of 18.4 : 1. Oil capacity of transmission, 12 gallons (54.5 litres).

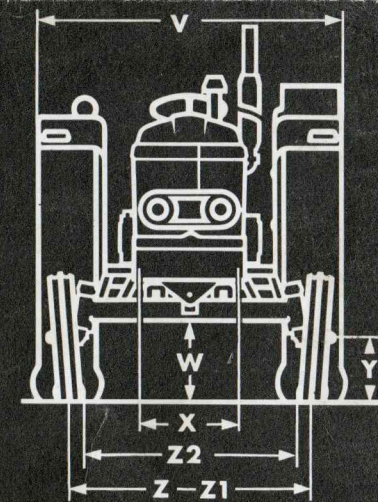
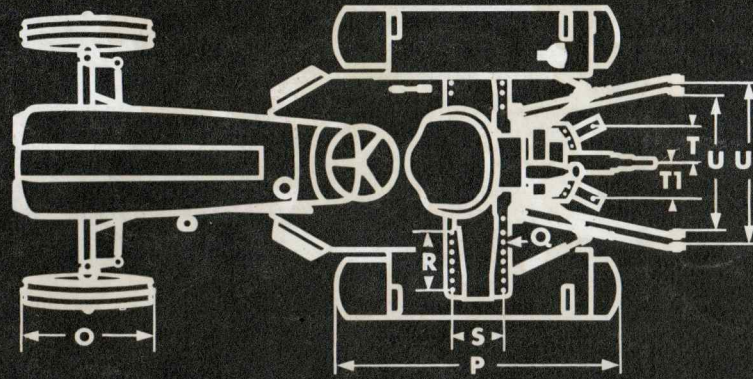
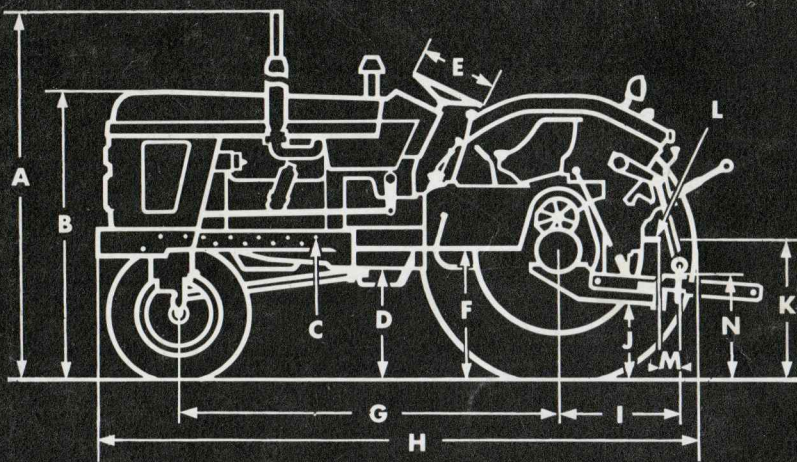
DISC BRAKES: Self-energizing independent disc-type steering brakes, 6½ in. diameter (16.5 cm.).

WHEEL EQUIPMENT:

		<i>Tyre Size</i>
Front tyres (standard)	4-ply	6.00—16
Front tyres (alternative)	6-ply	7.50—16
Rear tyres (standard)	4-ply	11.00—36
Rear tyres (alternative)	6-ply	11.00—36
Rear tyres (alternative)	6-ply	12.00—36
Rear tyres (alternative)	6-ply	12.00—38
Rear tyres (alternative)	6-ply	14.00—30
Rear tyres (alternative)	8-ply	15.00—30

ADDITIONAL WEIGHTS: To cope with the varying loads imposed by a wide range of front-, mid-, and rear-mounted implements in current use, a variety of well-designed additional weights are provided as optional equipment for the tractor. To increase front axle weight, hook-on hand weights are available up to a maximum of eight, giving a maximum additional axle load of 700 lb. approximately. Front wheel weights inner and outer are available supplied in pairs, inner 100 lb. (45.3 kg.) outer 100 lb. (45.3 kg.) each. Rear wheel weights which are each 110 lb. (50 kg.) supplied in pairs.

EXTENDED REAR AXLES: Extended rear axles (optional extra), with their sliding hubs for quick and easy adjustment of rear wheel track settings, are available as an alternative to the standard flanged-type axle.



DIMENSIONS

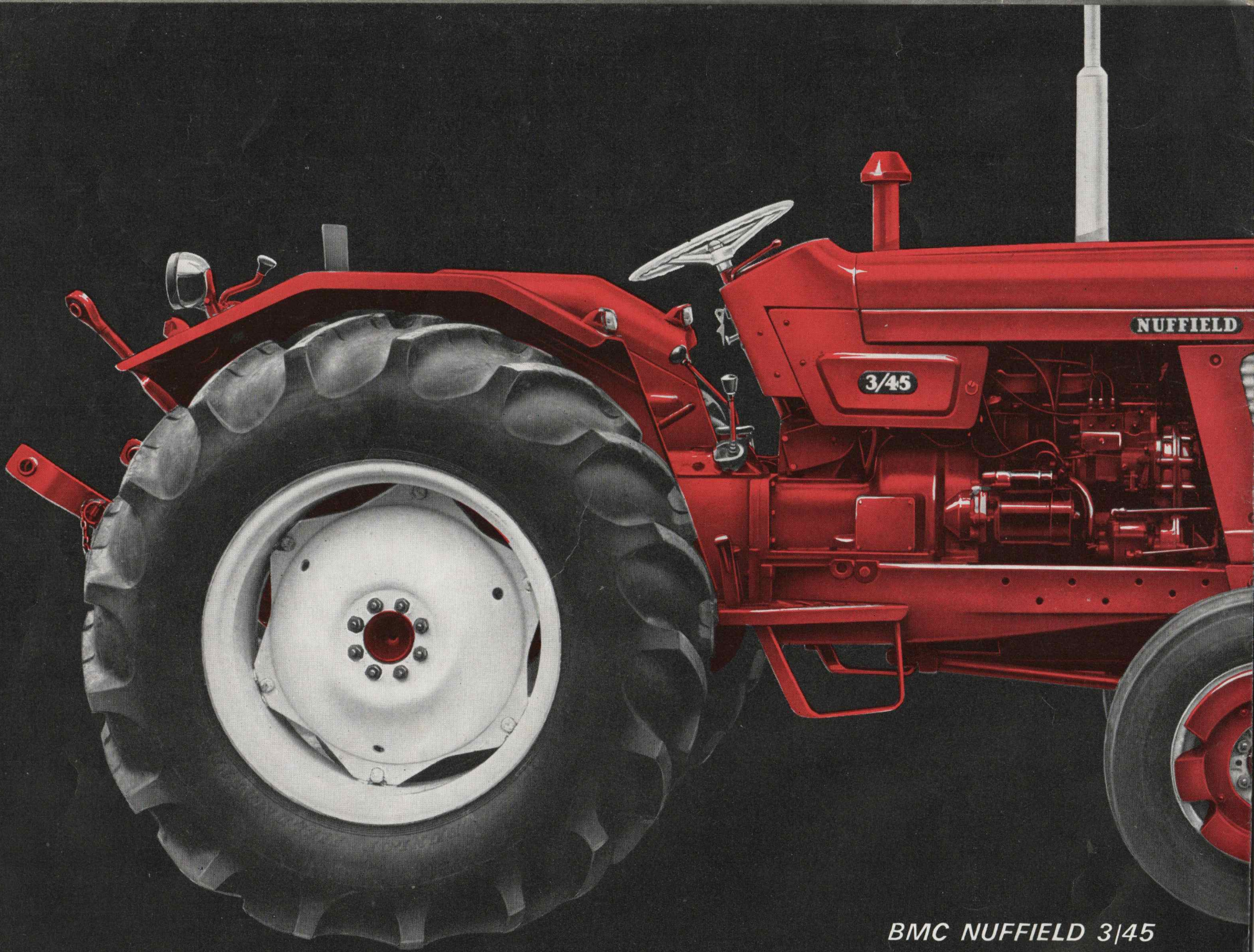
	3/45	4/65	S	Distance between attachment holes across rear axle	10 1/2" (26.67 cm.)	10 1/2" (26.67 cm.)	
A	Overall height	6' 10 1/2" (2.10 m.)	7' 2 1/2" (2.2 m.)	T	Drawbar swing—R.H.	7 1/2" (18.41 cm.) Standard	7 1/2" (18.41 cm.) Standard
B	Height—ground to bonnet top	4' 9" (1.44 m.)	5' 1" (1.54 m.)			1' (30.48 cm.) Extension	1' (30.48 cm.) Extension
C	Implement attachment points	(18 holes) 3/8" (1.98 cm.) dia.	(18 holes) 3/8" (1.98 cm.) dia.	T1	Drawbar swing—L.H.	7 1/2" (18.41 cm.) Standard	7 1/2" (18.41 cm.) Standard
D	Height—ground to bottom of chassis frame	1' 7 1/8" (48.57 cm.)	1' 11 1/8" (58.73 cm.)	U	Hitch points conform to B.S.S. 1841 1951	1' (30.48 cm.) Extension	1' (30.48 cm.) Extension
E	Steering-wheel diameter	1' 4" (40.64 cm.)	1' 4" (40.64 cm.)	Category 1		2' 2 3/8" (68.26 cm.)	2' 2 3/8" (68.26 cm.)
F	Height—ground to footplate	1' 11 3/8" (60.64 cm.)	2' 3 1/2" (70.48 cm.)	U1	Hitch points conform to B.S.S. 1841 1951	2' 8 3/8" (82.39 cm.)	2' 8 3/8" (82.39 cm.)
G	Wheelbase	6' 3" (1.90 m.)	6' 8 1/2" (2.03 m.)	Category 2		5' 8" (1.72 m.) at	5' 8" (1.72 m.) at
H	Overall length	9' 9 1/2" (2.97 m.)	10' 6 1/2" (3.21 m.)	V	Overall width	4' 8" (1.42 m.) track	4' 8" (1.42 m.) track
I	Centre of rear axle to drawbar hitch pin	2' 1" (63.50 cm.)	2' 1" (63.50 cm.)	W	Height—ground to underside of front axle	1' 4 3/8" (40.95 cm.)	1' 5 3/8" (43.65 cm.)
J	Height—ground to underside of drawbar	1' 1 3/8" (33.97 cm.)	1' 3 1/2" (38.73 cm.)	X	Width of frame	1' 9 3/8" (54.29 cm.)	1' 9 3/8" (54.29 cm.)
K	Height—ground to P.T.O. shaft	2' 1 1/2" (64.77 cm.)	2' 5 1/2" (74.93 cm.)	Y	Height—ground to centre of front hub	1' 0 3/8" (31.43 cm.)	1' 1 1/2" (34.29 cm.)
L	P.T.O. shaft diameter	1 3/8" (3.49 cm.)	1 3/8" (3.49 cm.)	Z	Track—rear	4' 4" to 6' 8" (1.32 m. to 2.03 m.)	4' 4" to 6' 8" (1.32 m. to 2.03 m.) Standard
M	End of P.T.O. shaft to drawbar hitch pin	3 3/8" (7.93 cm.) Standard	3 3/8" (7.93 cm.) Standard	Z1	Track—front	4' 4" to 6' 4" (1.32 m. to 1.93 m.)	4' 4" to 6' 4" (1.32 m. to 1.93 m.) Sliding Hubs
N	Height of hitching point (min.)	1' 2" (35.56 cm.) Extension	1' 2" (35.56 cm.) Extension	Z2	Distance between inner edge of front tyres at ground	3' 10" (1.16 m.)	3' 9 1/2" (1.15 m.)
	Height of hitching point (max.)	1' 7 3/8" (48.57 cm.)	1' 9 3/8" (55.24 cm.)				
O	Diameter of front wheels	2' 3 1/2" (69.85 cm.)	2' 5 1/2" (73.97 cm.)				
P	Diameter of rear wheels	4' 2 1/2" (1.28 m.)	4' 10 3/8" (1.48 m.)				
Q	No. of attachment holes in rear axle case	14	14				
R	Maximum width attachment holes for implements—rear axle	1' (30.48 cm.)	1' (30.48 cm.)				

THE BRITISH MOTOR CORPORATION LIMITED
(Agricultural Sales Division) BOX 41 G.P.O.
LONGBRIDGE, BIRMINGHAM

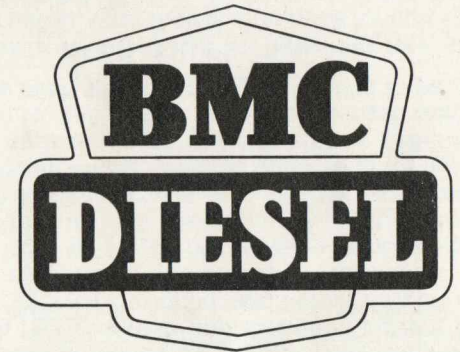
Overseas Business:

BMC EXPORT SALES LIMITED
LONGBRIDGE, BIRMINGHAM, ENGLAND





BMC NUFFIELD 3/45



At last, tractors built for drivers!

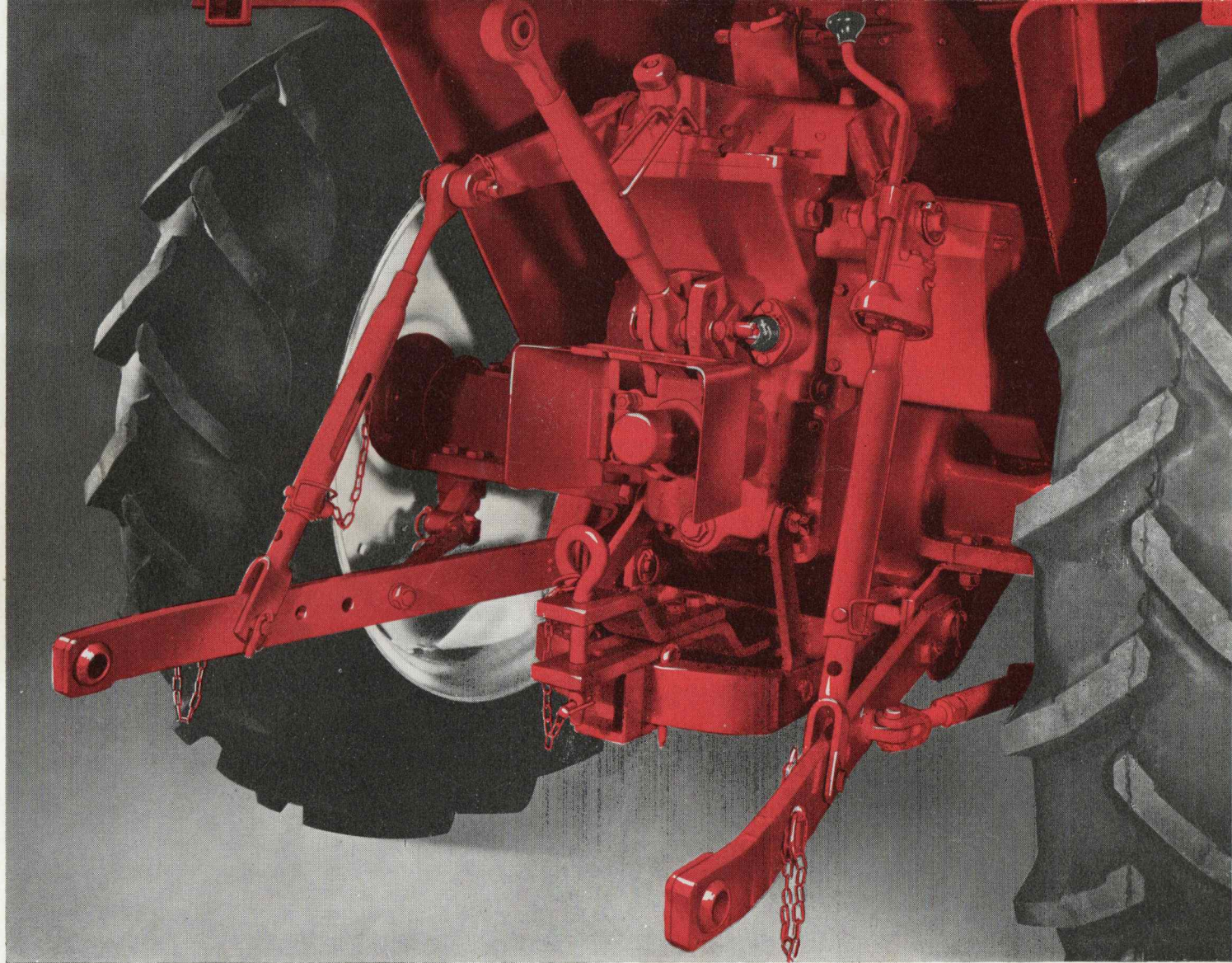
Designed entirely for optimum working space and comfort for the driver allied to big usable power, the 3/45 and 4/65 are ahead in everything that matters. The 3-cylinder BMC diesel in the 3/45 gives 45 b.h.p. There is 39 h.p. at 1,800 engine r.p.m. and a related P.T.O. shaft speed of 540 r.p.m. The 4/65 has a 4-cylinder BMC diesel which provides 65 b.h.p. At 1,800 engine r.p.m. and a P.T.O. speed of 540 r.p.m. there is 52 h.p. available. Both models have a 10-speed gearbox (and 2 reverse). Driver visibility is unrivalled by any other tractor. Controls are designed around the driver. Ideal weight distribution and safety-inspired layout ensure a superior performance under all conditions. With big Nuffield power, differential lock, Independent P.T.O., Nuffield Draught Control and power steering (if required) the new 3/45 and 4/65 will handle all work with (Category 1 and 2 implements) speed, accuracy, and unfailing reliability.



BMC



NUFFIELD 4/65



The 3/45 and 4/65. Wide, heavy guards shroud the rear wheels. The swinging drawbar is adjustable in two planes. In the new Nuffield Draught Control the top link valve is two-way sensitive and has a wide range of movement. Shallow draught with heavy implements or at deep draught settings, the system ensures uniformly accurate work.