

AVELING-BARFORD ROAD ROLLERS

MODELS

GDR, GDQ, GDO, GDM

Weight range

21,000 lb. to 35,740 lb.

9,525 kg. to 16,212 kg.



ORIGINATORS AND WORLDS LARGEST MAKERS OF ROAD ROLLERS

WEIGHTS — in working order	GDR		GDO		GDO		GDM	
	lb.	kg	lb.	kg	lb.	kg	lb.	kg
STANDARD MACHINE								
Ballasted — sand	27,680	12,555	29,000	13,154	32,170	14,592	35,740	16,212
— water	24,520	11,122	25,940	11,766	29,200	13,245	33,130	15,027
Unballasted	21,000	9,525	22,530	10,219	25,900	11,748	30,220	13,708

Working order weights include weight of cooling water and proportion of fuel. Weight of driver not included.
Weight of Awning or Cab and any other extra fittings is not included.

ENGINE—Choice of

Perkins 4.236 four-cylinder diesel, developing 62 b.h.p. at 1,800 r.p.m. Max. torque 193 lb.ft. at 1,250 r.p.m. Bore 3.875 ins. (98 mm) Stroke 5 ins. (127 mm). Capacity 236 cu. ins. (3870 c.c.). Electric Starting. Max b.h.p.- 78.

Ford 2701E four-cylinder diesel, developing 58 b.h.p. at 1,800 r.p.m. Max. torque 170 lb. ft. at 1,700 r.p.m. Bore 4.1255 ins. (104 mm) Stroke 4.524 ins. (115 mm) Capacity 241.9 cu. ins. (3965 c.c.). Electric Starting. Max. b.h.p.- 71.

TRANSMISSION

Propeller shaft transfers power from engine to transmission assembly. The clutch is of the dry plate quick-reverse type with twin single plates controlling forward and reverse travel. The gearbox, fabricated from stout steel plate, electrically welded provides four speeds both forward and reverse. Two final drive pinions, one projecting from each side of the gearbox, are in constant mesh with a driving ring bolted to each rear roll. The bevel type differential can be locked from the driver's seat.

TORQUE CONVERTER (Optional)

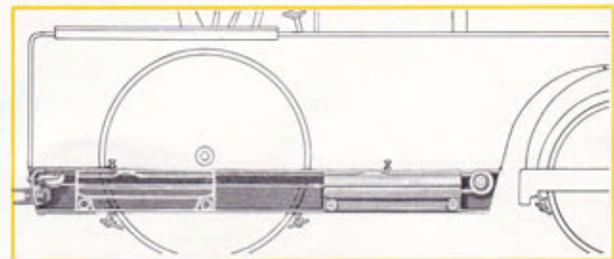
The single stage torque converter-coupling is mounted direct to the engine flywheel. The standard transmission is used.

HYDRAULIC COUPLING (Optional)

Fitted between engine and clutch and ensures smoothest take-up of drive and reduces shocks to engine and transmission.

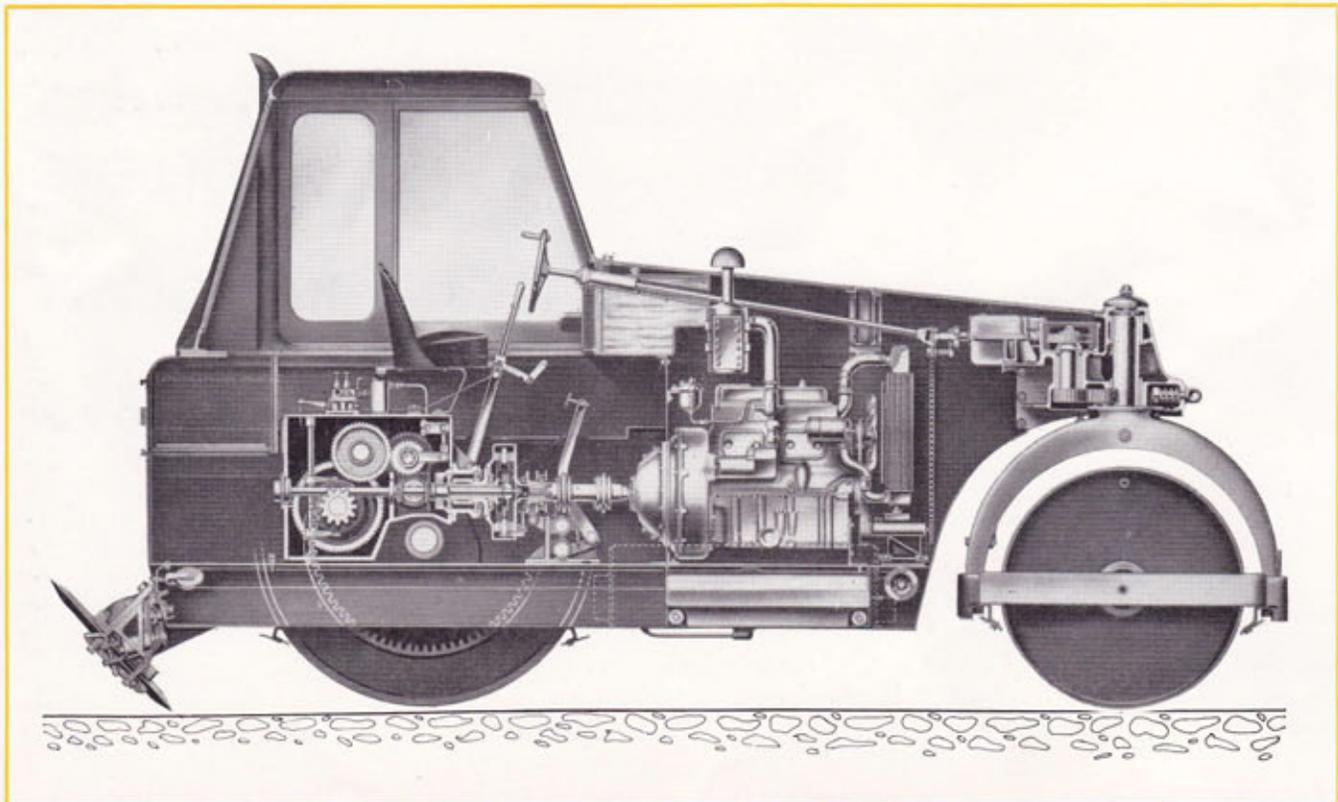
SPEEDS

Forward and Reverse—1.2, 1.9, 3.9 and 6.0 m.p.h.
1.9, 3.0, 6.2 and 9.6 k.p.h.



PRESSURE BALANCING DEVICE

Comprises a heavy trolley-borne weight movable along the length of the main frame. With the weight in the forward position and appropriate ballast in the rolls, front and rear rolling pressures can be equalised for surface finishing. For foundation compaction, scarifying, and climbing steep gradients, when maximum pressure on the rear roll is important, the weight is moved to the rear position.



ROLLS

Front and rear rolls are suitable for both sand and water ballast as standard.

Rim thickness—GDO & GDM Front and Rear $1\frac{1}{2}$ " (38 mm).
—GDR & GDO Front $1\frac{1}{8}$ " (28.5 mm) Rear $1\frac{1}{2}$ " (38 mm).

AXLES

Front $3\frac{3}{8}$ " dia. (85 mm)—Rear 5" dia. (127 mm) of heat treated steel ground on all bearing faces.

BRAKES

Hand or foot operated, fully self-wrapping external contracting band type, acting on machined outer surfaces of driving rings bolted to each rear roll.

STEERING

By handwheel, through worm and wheel reducing gear and pinion and segment movement.

POWER STEERING (Optional)

A power steering gearbox, driven from the engine, mounted behind the worm and wheel of the hand steering gear.

FORECARRIAGE ASSEMBLY

Spanning the roll longitudinally, the bridge carries the forecarriage by steel trunnion pins. This arrangement ensures uniform pressure over the full width of the front roll, and allows maximum articulation.

FRAME

Two straight deep-section rolled steel channels, cross braced and stayed to form a rigid unit ensuring permanent alignment of engine and transmission.

SCRAPERS

Full width adjustable scrapers are fitted fore and aft of each roll. Blades are reversible for maximum life.

CAPACITIES

Fuel tank

20 Imp. galls. 24 U.S. galls. 90 litres

Sprinkler Tanks (Optional Extra)

100 Imp. galls. 120 U.S. galls. 450 litres

EXTRAS

CAB

Totally enclosed, of fabricated steel construction with large safety glass windows, sliding glass doors and windscreen wiper.

AWNING

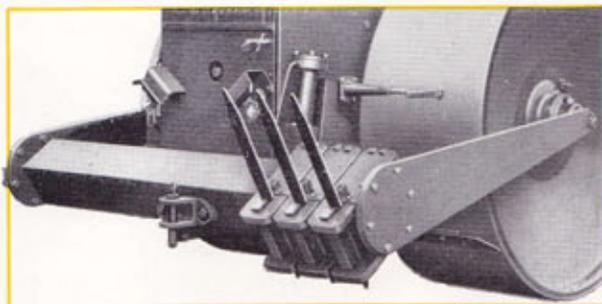
Sheet steel, long awning carried on four vertical supports. Four canvas curtains and timber lining available if required.

SPRINKLER SYSTEM

A diaphragm pump feeds the water from two interconnected large-capacity tanks, through three flow-regulating screw valves to the spray arms which span the full width of each roll. A semi-rotary hand pump with 25 ft. (7620 mm) suction hose and 10 ft. (3048 mm) delivery hose can also be supplied.

HYDRAULIC SCARIFIER

Hydraulic pressure is applied by two double-acting rams placed either side of the roller. The tines (2 or 3 to choice) are carried in clamps that can be fitted in various positions across the full width of the beam. The scarifier can be controlled by the driver from his seat or from either side of the roller by pedestrian operator.



Other Extras available include—Spring drawbar at rear, Spring-loaded scrapers, Electrical Hours Counter.

'PRICE' RESILIENT SCARIFIER

A manually-operated two or three tine unit attached to the roller behind the right-hand rear roll. Load is applied by a large handwheel operating through a worm and wheel to a spur pinion in mesh with a vertical rack which raises and lowers the tine holders. These are resiliently mounted through a heavy spring shock absorber.

ASPHALT JOINT CUTTER

Can be mounted on to the roller or on to the side of both resilient and hydraulic scarifier. Trims the edge of a newly laid carpet allowing a clean joint to be made when the adjacent carpet is laid.

TRENCH ROLLER

The "Hydra-Roll" trench reinstatement roller is 9" wide (228 mm) and will operate to a depth of 6" (152 mm) below ground level. Attached to the beam of the hydraulic scarifier.

ELECTRIC LIGHTING

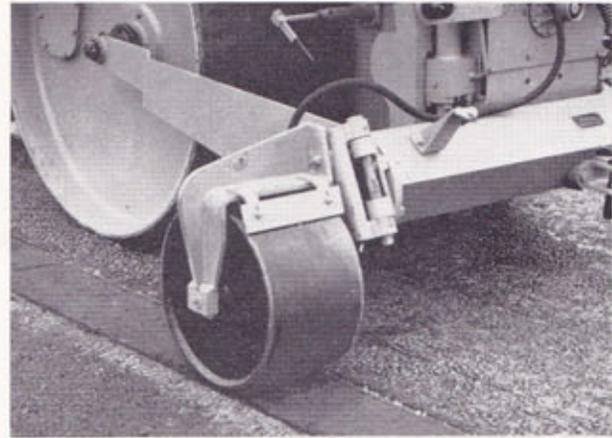
Comprises two headlights and two sidelights in front, and one reversing and two rear lamps, registration plate lamp and reflectors at rear.

WEIGHTS OF EXTRAS

	lb.	kg.
Cab	532	241
Awning and Curtains	404	183
Water Sprinkler Tanks—Empty	452	205
—Full	1,452	659
Hydraulic Coupling	168	76
Power Steering	221	100
Hydraulic Scarifier—2 tine	1,431	649
—3 tine	1,596	724
'Price' Scarifier —2 tine	1,194	541
—3 tine	1,354	614
Hand Pump and Hose	112	51
Torque Converter	270	122
'Hydra-Roll' Trench Roller	820	372
Asphalt Joint Cutter	70	31

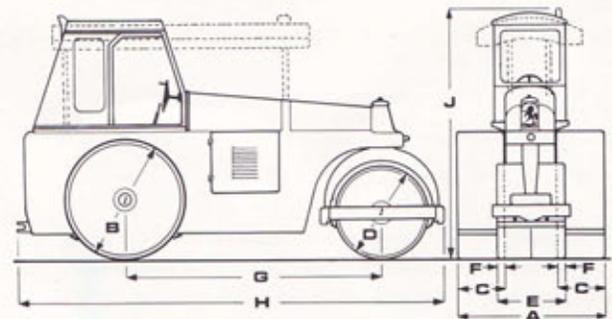
MOTORWAY MARGINAL STRIP ROLLER

Comprises a 20" dia. (508 mm) by 12" (305 mm) wide roll mounted to the nearside end of the hydraulic scarifier beam. The strip roller is controlled from the cab through the scarifier hydraulic system into which a safety valve has been inserted which when open, ensures that the ground pressure never exceeds the requirements of the present Ministry of Transport specification for Motorway marginal strips. With the valve closed, the strip roller operates under the full hydraulic pressure of the system. When not in use, the roller can be swung back and locked to the beam well clear of the ground enabling scarifying operations to be carried out. Scrapers are fitted, as is a water sprinkler pipe fed from, but independent of, the machine's main sprinkler system. An adjustable finger tracer is also provided.



DIMENSIONS

		ft.	ins.	mm
A	Rolling Width	6	2	1880
B	Diameter of Rear Rolls	5	0½	1540
C	Width of Rear Rolls	2	0	610
D	Diameter of Front Roll—GDR & GDQ 3	10½		1185
	Diameter of Front Roll—GDO & GDM 3	11½		1200
E	Width of Front Roll	2	10	865
F	Overlap of Rolls		4	100
G	Wheelbase	10	8½	3260
H	Length	17	10	5435
J	Height with Awning	10	1	3075
	Height with Cab	10	1	3075
	Height to Handwheel	7	5	2260
Turning Radius:				
	Hand Steering	16	0	4875
	Power Steering	20	0	6095



SHIPPING SPECIFICATION (Approx.)

	GDR, GDQ, GDO & GDM			GDR	GDQ	GDO	GDM
	Length	Width	Height	Long Tons	Long Tons	Long Tons	Long Tons
Roller on wheels	18' 0"	6' 2"	7' 0"	9.5	10.35	11.825	13.425
	mm 5485	1880	2135	kg 9652	10,516	12,014	13,640
Roller on wheels with Hydraulic Scarifier	18' 6"	6' 7"	7' 0"	10.1	10.95	12.425	14.025
	mm 5640	2005	2135	kg 10,262	11,126	12,624	14,250

If "Price" Scarifier fitted add 5" (127 mm) to Width and add weight as shown on page 3.

For Long Sea Voyage		16' 4"	3' 10"	6' 8"	5	5.35	6.55	6.95
Chassis in case		mm 4980	1170	2030	kg 5081	5436	6658	7064
Front Roll Assembly		mm 1755	1120	1625	kg 1930	2286	3048	3445
Real Rolls—two each		mm 1550	610		kg 1575	1626	1626	2032

Extras		6' 9"	1' 6"	1' 10"	.4875	.4875	.4875	.4875
Hydraulic Scarifier Case		mm 2055	455	560	kg 495	495	495	495
Awning in case		mm 3380	1525	405	kg 355	355	355	355
Cab in Cse		mm 2080	1117	1525	kg 495	495	495	495

For other Extras, as shown on page 3 to Chassis Case or Roller on Wheels.

Dimensions, weights and other particulars shown in this leaflet are not binding in detail and the right to modify is reserved.

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