

RUSTON

MOTOR ROAD ROLLER



RUSTON & HORNSBY LTD.,
Engineers LINCOLN England.

Telegrams : "Ruston, Lincoln."

Telephone 580 Lincoln

and at GRANTHAM and STOCKPORT.

LONDON OFFICE: 46 QUEEN VICTORIA STREET, E. C. 4.

Telegrams : "Ruston, Cannon, London."

Telephone : City 7997.

Ruston Motor

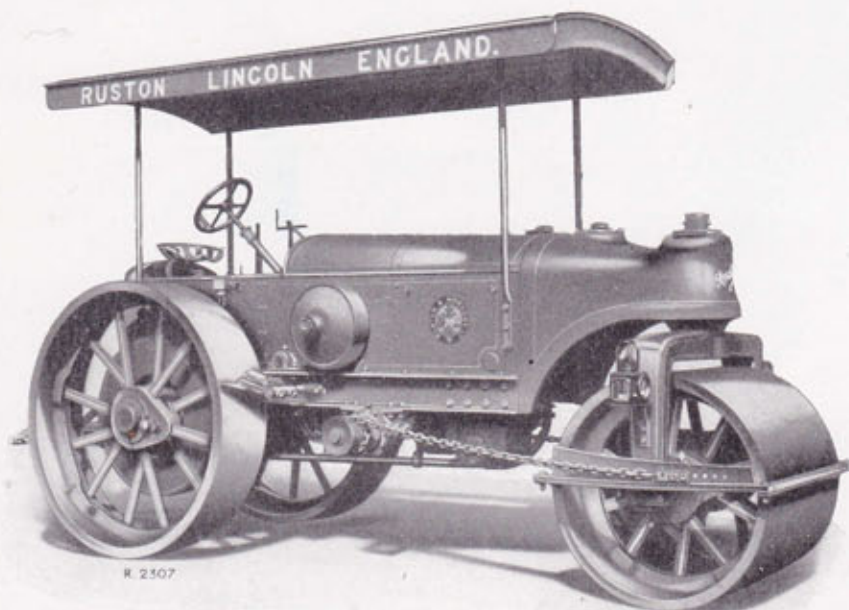
CLASS

Special advantages of the

Ruston Quick Reverse Motor Rollers.

- No waiting to get up steam.
- No fuel consumed when not actually working.
- No cartage of coal or water.
- No boiler insurance.
- No smoke.
- No loss of time for cleaning boiler.
- No working parts exposed.
- Instant reversing without changing gears.
- Three travelling speeds in either direction.
- Extreme ease of handling.

Ruston Motor Rollers are made in two types, the Tandem type (Illustrated on page 4) for Asphalt rolling, and the Three Wheel type (Illustrated below) for general use on ordinary or tar Macadam roads.



Supplied for working on Petrol or Paraffin as desired.

Road Roller.

M.R.

We wish to call special attention to the fact that Gears are not disengaged when reversing, a separate clutch being used for both forward and reverse. This is safer on hills, more convenient in driving, and saves wear and tear on teeth of gears, a Road Roller being different from all other vehicles in that it travels, when working, as much backward as forward.

This design is very much better than the usual arrangement, in which gears are disengaged at every reverse of direction, and removes entirely the danger of the driver "missing the gears" when reversing on a hill.

The change-speed and reverse gears are of hardened steel, mounted on shafts running in ball or roller bearings, and therefore require no lubrication other than the supply of oil carried in the sump of the gearbox.

The extra slow bottom gear allows the roller to travel as slowly as is possible with a Steam Roller, without slowing the engine. It is therefore possible to develop full power on steep hills while travelling very slowly.

TABLE OF DIMENSIONS — THREE WHEEL TYPE.

	6 TON		7 TON		8 TON		9 TON	
Weight empty approx.	6 tons	6000kg	7 tons	7000kg	8 tons	8000kg	9 tons	9000kg
„ Working order „	6½ „	6200kg	7½ „	7200kg	8½ „	8200 „	9½ „	9200 „
Width rolled	5' 3"	1600m/m	5' 5"	1650m/m	5' 9"	1750m/m	6' 1"	1850m/m
Front rollers dia.	3' 4"	1020m/m	3' 4"	1020m/m	3' 6"	1070m/m	3' 6"	1070m/m
„ „ width	3' 2"	960m/m	3' 2"	960m/m	3' 6"	1070m/m	3' 6"	1070m/m
Hind rollers dia.	4' 8"	1420m/m	4' 8"	1420m/m	5' 0"	1520m/m	5' 1"	1550m/m
„ „ width	14"	355m/m	15"	380m/m	15"	380m/m	17"	430m/m
Pulley for belt driving, dia.	15"	380m/m	15"	380m/m	18"	457m/m	18"	457m/m
„ „ „ width	4"	100m/m	4"	100m/m	5"	127m/m	5"	127m/m
„ „ „ r.p.m.	180 or 340		180 or 340		150 or 286		150 or 286	
Fuel tank capacity	12 galls. 54 lit.		12 galls. 54 lit.		18 galls. 80 lit.		18 galls. 80 lit.	
Speed, fast gear, per hour	2½ miles 4 km.		2½ miles 4 km.		2½ miles 4 km.		2½ miles 4 km.	
„ middle „ „ „	1 mile 1.6 km.		1 mile 1.6 „		1 mile 1.6 „		1 mile 1.6 „	
„ slow „ „ „	½ mile .8 „		½ mile .8 „		½ mile .8 „		½ mile .8 „	
Engine E.H.P.	15		15		20		20	

For General Specification see pages 6 and 7.

Ruston Motor

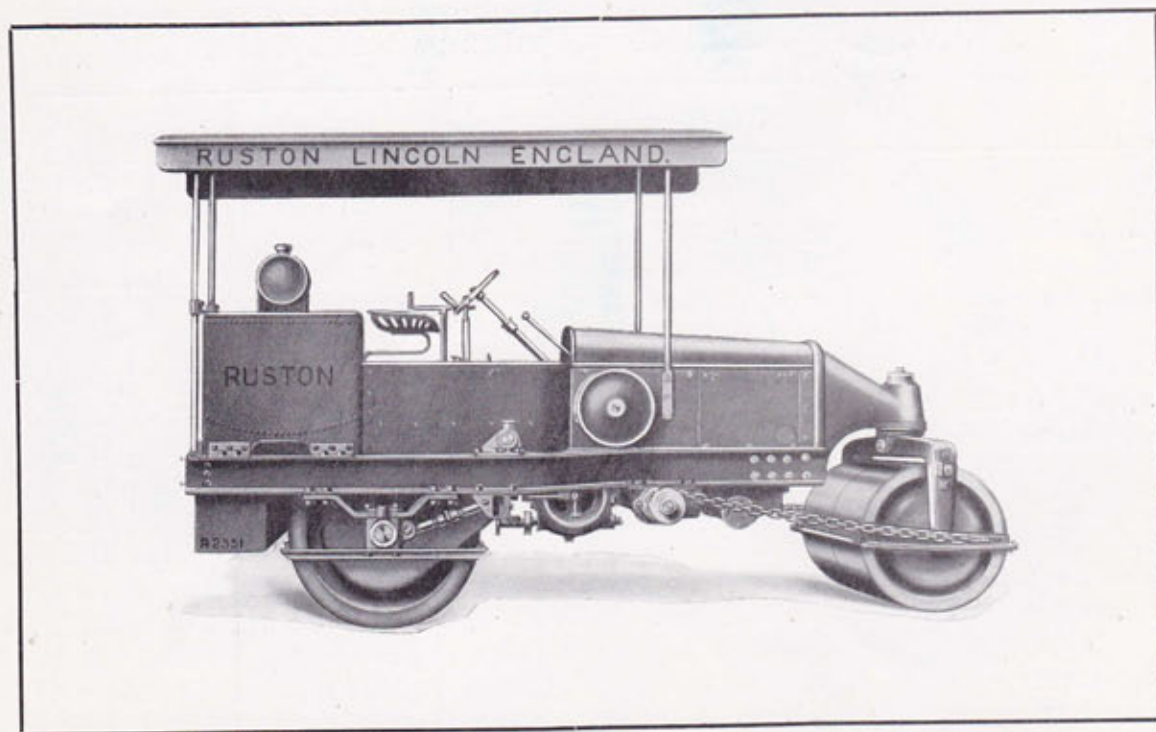
CLASS

TANDEM

The ability to reverse instantly is particularly important in an asphalt roller.

Owing to no pause being made when reversing the Ruston Quick Reverse Tandem Roller, there is no tendency to cause depressions in the asphalt owing to the weight remaining stationary while gears are being changed.

There is, of course, also the same advantage as obtained with our Three-Wheel Rollers, viz.—absence of wear and tear on the gears due to frequent engagement and disengagement.



Supplied for Working on Petrol or Paraffin as desired.

Road Roller.

M.R.

TYPE.

The following departures from specification on pages 6 and 7 should be noted in case of Tandem Roller.

The final transmission is by enclosed roller chain.

The Rollers are as shown in illustration No. R.2351 on page 4.

Cooling is by a large tank fitted at the rear.

Angle Scrapers are fitted to both front and hind rollers.

Provision is made for water-ballasting the hind roller, so that the weight may be varied as desired.

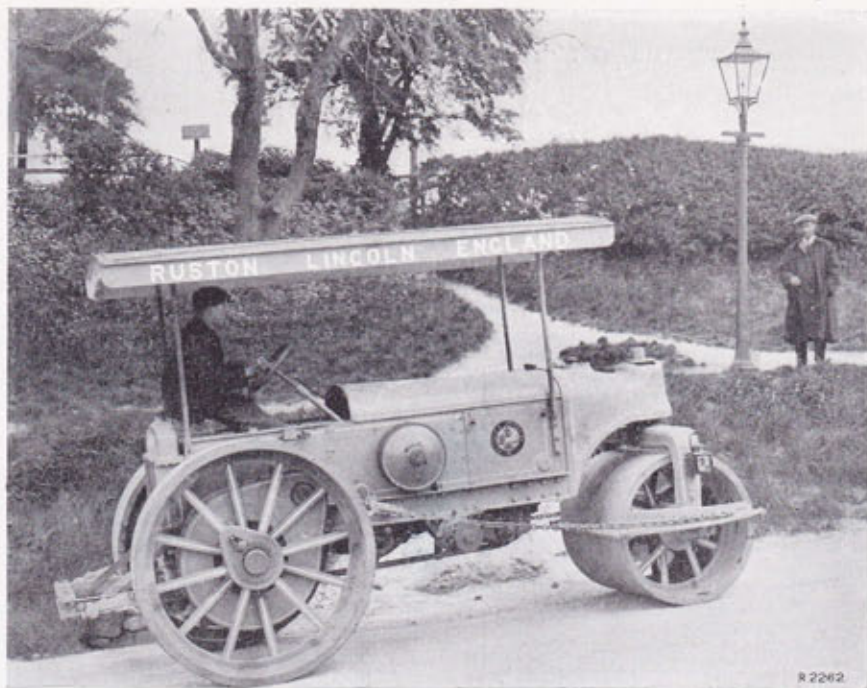
TABLE OF DIMENSIONS — TANDEM TYPE,

	6 TON		7 TON	
Weight empty approx.	6 tons	6000 kg	7 tons	7000kg
„ in working order approx.	6½ „	6500 „	7½ „	7500 „
„ with water ballast approx.	7½ „	7500 „	8½ „	8500 „
Width rolled	4' 0"	1220m/m	4' 0"	1220m/m
Front Rollers dia.	3' 0"	915m/m	3' 0"	915m/m
„ „ width	3' 0"	915m/m	3' 0"	915m/m
Hind Roller dia,	3' 6"	1070m/m	3' 6"	1070m/m
„ „ width.	4' 0"	1220m/m	4' 0"	1220m/m
Pulley for belt driving diam.	18"	457m/m	18"	457m/m
„ „ „ „ width	5"	127m/m	5"	127m/m
„ „ „ „ r.p.m.	150 or	286	150 or	286
Fuel tank capacity	12 galls.	54 lit.	12 galls.	54 lit.
Speed, fast gear, per hour	2½ miles	4 km.	2½ miles	4 km.
„ middle „ „	1 mile	1.6 „	1 mile	1.6 „
„ slow „ „	½ mile	.8 „	½ mile	.8 „
Engine I.H.P.	20		20	

For General Specification see pages 6 and 7.

Ruston Motor

CLASS



An 8 Ton Ruston Motor Roller.

GENERAL SPECIFICATION.

This Motor Roller is driven by a two-cylinder Vertical Paraffin Engine placed longitudinally on the frame. The drive is taken from the Engine to the gearbox through a short shaft with flexible disc couplings at each end, two clutches being provided on the gearbox one for forward and one for reverse, so that it is not necessary to disengage any gears when reversing. This is a great advantage on a Motor Roller, the reverse being more frequently used than on any other type of vehicle. Three travelling speeds are provided for in the gearbox, and the drive from gearbox to driving rollers is by spur gears.

Engine.—The Engine is of the Vertical Type, with two cylinders fitted with high-tension magneto, governor, and water-circulating pump. Petrol is used for starting; when warmed up, the Engine runs efficiently on paraffin.

Road Roller.

M.R.

Gearbox.—All gears in the gearbox are machine cut and hardened, and are carried on shafts running in ball or roller bearings. Provision is made for three speeds, and the gears can be readily disconnected from the final transmission to the driving rollers when necessary to drive machinery by belt. All gear changes are effected by one lever.

Final Transmission.—The drive is taken from the gearbox to the driving rollers by two trains of spur gearing, which are enclosed in sheet steel guards.

Frame.—The frame is built up of rolled steel channels, with strong cross members.

Front Rollers.—Front Rollers of hard cast iron, made in two sections to allow of easy steering.

Hind Rollers.—Hind Rollers of hard cast iron, with extra strong steel spokes.

Steering Gear.—Of similar type to our Steam Rollers, with strong box section steering fork, and operated by worm gear and chains. The worm and worm-wheel are totally enclosed.

Brakes.—Two brakes are provided, one being a foot-brake acting on a drum on one of the shafts of the gearbox, and the other a screw brake acting on a drum on the driving axle.

Pulley.—A pulley is fitted for driving machinery by belt when desired, and is arranged to run in either direction.

Cooling.—An efficient radiator of ample size is fitted at the rear of the roller, and water is circulated by a pump on the Engine. The fan is driven by a belt from a shaft running from the gearbox to the rear, this shaft being also used for starting by means of a crank handle.

Scrapers.—Our patent spring scrapers as used on the Ruston Steam Rollers, are fitted to the driving rollers, and angle scrapers to the front rollers.

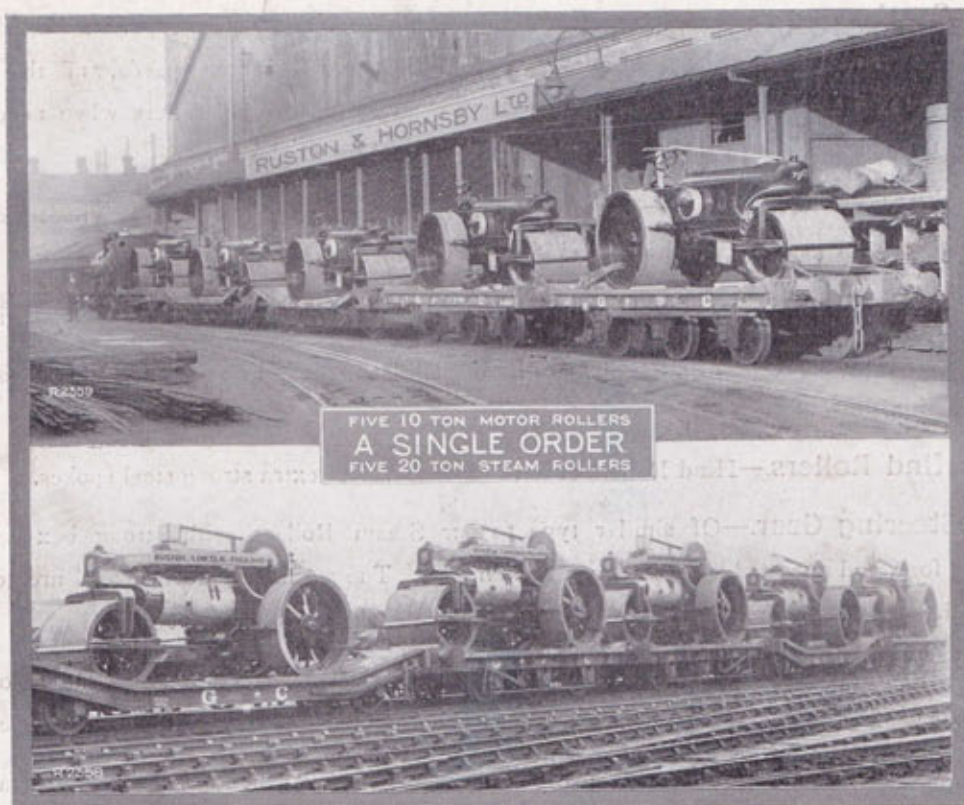
Bonnet.—A neat sheet steel bonnet is fitted over the Engine and gearbox.

Awning.—An awning is fitted to protect driver and machine.

Outfit.—All necessary tools and equipment are supplied with the Roller.

Painting.—The whole is painted, lined and varnished in the best style.

RUSTON ROAD ROLLERS.



Ruston Steam Rollers, Single Cylinder and Compound
are made in sizes from 5 to 20 tons by

Ruston & Hornsby Ltd.
LINCOLN ENGLAND.