

# **ROAD-MARSHALL**

## **JUNIOR TANDEM**

### **DIESEL ROLLER**



**WEIGHT 35 / 50 C W T S**

# **ROAD-MARSHALL**

## **JUNIOR TANDEM Diesel Roller**

Here is the roller you have been waiting for embodying the essential features of our larger tandem rollers and introducing others deemed necessary in a lightweight machine.

**Air cooled diesel engine.**

**Bevel gear drive to compression roll.**

**Smooth quick reversing over-centre clutches.**

**Oil bath two speed gearbox.**

**All steel welded rolls with adjustable scrapers.**

**Water ballast compression roll.**

**Transmission footbrake.**

**Hand screw parking brake.**

**Water tank and sprayers to both rolls.**

**Low centre of gravity.**

**Minimum frame overhang and compression roll edge visible for close rolling.**

The Road-Marshall Junior Tandem gets over the work quicker—every pass is effective across the full rolling width—no re-tracing of passes to cover roll tracks or marks!

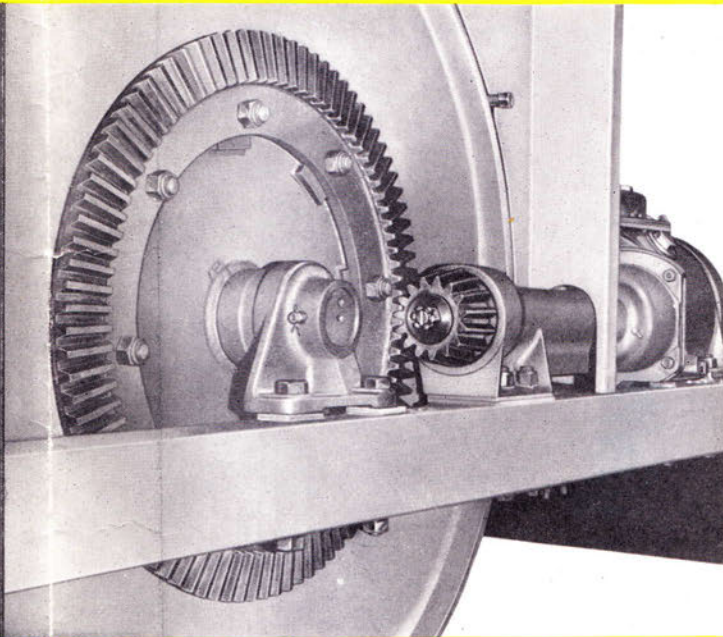
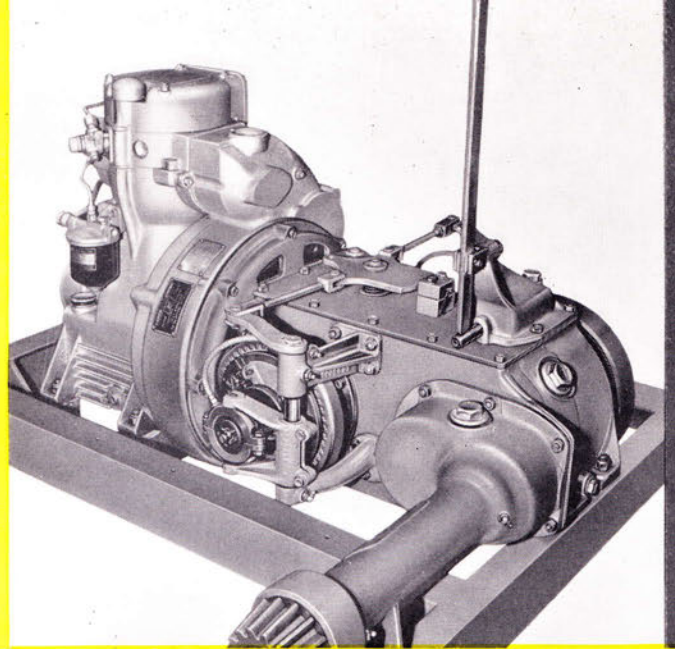


## POWER UNIT

"Ruston" air cooled diesel engine. These engines have been designed to give the highest possible standard of reliability, simplicity of operation and maximum accessibility for maintenance. They are extremely robust in construction and in consequence are able to stand up to long periods of continuous running.

## GEARBOX

A sturdy compact oil bath casing encloses the two speed gear ratios and incorporates the two over-centre plate reversing clutches which give smooth and quick change of direction of travel. The footbrake is of the expanding shoe type contained in a drum keyed to the final drive shaft of the gearbox.

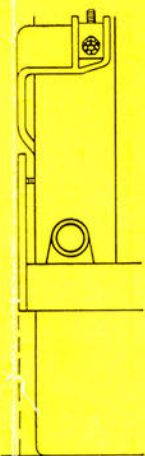


## FRAME

Constructed of rolled steel channels and plates forming a rigid structure. Machined seatings are provided to carry the engine and the gearbox unit.

## BEVEL GEAR DRIVE

The drive is transmitted from the gearbox by an external pinion to a lay shaft thence by a bevel pinion to a bevel gear ring attached to the compression roll. This final drive is enclosed yet readily accessible for examination.



## CLOSE ROLLING

To allow the roller to operate close to obstructions, by skilful arrangement, the frame overhang on the hand brake side is reduced to one inch and the edge of the driving roll is visible from the driving position.

1 INCH

*This photograph and the one on the front cover by courtesy of the City Engineer, Kingston-upon-Hull, William Morris, Esq., O.B.E.*



# ROAD-MARSHALL

## JUNIOR

### TANDEM ROLLER

brief

#### SPECIFICATION

|                                   |                    |
|-----------------------------------|--------------------|
| Working weight (water tank empty) | 35 cwts. (approx.) |
| " " (unballasted)                 | 40 cwts. ( " )     |
| " " (ballasted)                   | 50 cwts. ( " )     |

#### POWER UNIT

Single cylinder 7 B.H.P. air cooled RUSTON 1 YBA diesel engine 1800 r.p.m. 4½ gallons capacity fuel tank with filter.

#### TRANSMISSION

The oil bath two speed gear box is bolted in unit with the engine, the gear ratios giving road speeds of 1.7 and 3.4 m.p.h. The reversing clutches are of the over-centre plate type and give smooth change of direction of travel. The final drive is taken from the gearbox by enclosed spur pinion through a lay shaft. A bevel pinion mounted on the lay shaft engages with a bevel ring attached to the compression roll.

#### STEERING

The steering is by means of a drop arm and rod to steering roll through worm and segment enclosed in box.

#### FOOT BRAKE

This is of the expanding shoe type contained in a drum keyed to the final drive shaft of the gearbox.

#### HAND BRAKE

A screw operated contracting band acting on a drum bolted to the compression roll on the opposite side to the bevel gear drive.

#### FRAME

Constructed of rolled steel channels and plates forming a rigid structure. Machined seatings are provided to carry the engine and gearbox unit.

#### STEERING FORK

The steering fork is a steel casting, the lower ends being pivoted fore and aft to a steel frame which carries the steering rolls. The fork spindle has gunmetal bushes top and bottom and a thrust washer is fitted on the underside of the forecarriage to take the thrust load.

**COMPRESSION ROLL** 3' 4" diameter  
x 3' 3¼" wide.

**STEERING ROLL** 2' 6" diameter  
x 3' 0½" total width  
in halves.

Both the compression roll and the steering roll are of all steel welded construction and have gunmetal bushes. The compression roll is suitable for water ballast. Adjustable scraper blades are fitted to the front and rear of both rolls.

#### WATER TANK and SPRAYERS

A 55 gallon capacity water tank is built into the housing covering the compression roll. Sprayer pipes are fitted to both rolls.

#### DRIVERS' SEAT

A comfortable bench type seat is provided from which the driver has a clear view of the edges of the compression roll and the simple controls are conveniently placed for easy operation.

|  |                |
|--|----------------|
| Length overall                                 | 10' 11½"       |
| Width overall                                  | 3' 9½"         |
| Height to top of steering wheel                | 5' 11"         |
| Rolling width                                  | 3' 3¾"         |
| Wheelbase                                      | 6' 2"          |
| Ground clearance under frame                   | 12¼"           |
| Side overhang from edge of compression roll... | Drive side 4¾" |
|  | Brake side 1"  |

*In pursuance of this company's policy of constant development, the right is reserved to depart, without notice, from any detail illustrated or specified in this leaflet, without incurring the obligation to provide such modifications on machines previously delivered.*

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