

व्यावसायिक परीक्षण रिपोर्ट  
COMMERCIAL TEST REPORT

संख्या / No. : Imp. 100/144  
माह / Month : November, 2011



**TATA-RT-MG-536L-540 ROTAVATOR**



सत्यमेव जयते

भारत सरकार  
GOVT OF INDIA

कृषि मन्त्रालय

MINISTRY OF AGRICULTURE

कृषि एवं सहकारिता विभाग

DEPARTMENT OF AGRICULTURE AND COOPERATION

उत्तर पूर्वी क्षेत्र कृषि यंत्र प्रशिक्षण एवं परीक्षण संस्थान

**NORTH EASTERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE**

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#### 4. SPECIFICATIONS

##### 4.1 General:

Manufacturer : TATA STEEL LTD.  
 AGRICO DIVISION  
 ARMOURY GROUND ROAD  
 BISTUPUR, JAMSHEDPUR – 831 001

Name of machine : Rotavator

Type : Tractor-Mounted (Gear drive)

Make : TATA

Model : TATA-RT-MG-536L-540

Serial number : Not available

Year of manufacture : 2010

Type of blade : Hatchet (L-Shaped)

Working width of  
 implement (mm) : 1450

Recommended power : 35-40 HP  
 source

Prime Mover Used during : New Holland 5500  
 test

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### **9. EASE OF OPERATION & ADJUSTMENTS**

No noticeable difficulty was observed during the operation and adjustment of rotavator.

### **10. DEFECTS, BREAKDOWNS AND REPAIRS**

- 10.1 Ingress of water & mud was observed in the primary reduction gearbox.
- 10.2 Shear bolt of PTO drive shaft got broken after 18.3 hours of field operation, which was replaced by new one.
- 10.3 Two numbers of rotor blades were found broken after 28.6 and 39.6 hours of field operation; and replaced by new ones.

### **11. COMMENTS AND RECOMMENDATIONS**

- 11.1 The specifications of implement hitch, in full, do not conform to the IS: 4468 (Part-1)-1997. Hence, it is recommended that implement should be provided with the hitch conforming to relevant Indian standards.
- 11.2 Dimensions of PIC of implement, in full, do not conform to IS: 4931-1995 and therefore, it should be looked into for corrective action.
- 11.3 Dimensions of PIC Yoke bore of PTO drive shaft, in full, do not conform to the requirements of IS: 4931-1995. It should be looked into for corrective action.
- 11.4 Hardness of rotor blades does not conform to relevant Indian Standards. This needs to be looked into for corrective action.
- 11.5 Proper sealing must be provided to prevent ingress of mud and water in the gearboxes.

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- 11.6 Suitable stickers indicating the grade & change period of oil used in gear boxes should be pasted on Rotavator.
- 11.7 A labeling plate indicating the particulars like Make, Model, Serial No., month/year of manufacture, manufacturer's name and trade mark, (if any), size of implement & power requirement needs to be provided on a non-wearing part of the implement.

**11.8 Technical literature**

The following literatures were provided for reference during testing:

- User manual
- Instruction manual & Spares list.

**TESTING AUTHORITY**

<b>P. K. PANDEY</b> <b>SENIOR TEST ENGINEER</b>	
<b>M.K. VISHWAKARMA</b> <b>DIRECTOR</b>	

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## 12. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
12.1	11.1	We will provide all implements as per Indian Standards IS: 4468(Pt-1)-1997.
12.2	11.2	Dimensions of PIC of implement will be changed as per IS: 4931-1995.
12.3	11.3	PIC yoke bore of PTO shaft will be changed as per IS: 4931-1995.
12.4	11.4	Blade hardness will be changed as per Indian Standards.
12.5	11.5	Sealing quality will be improved to prevent such happenings.
12.6	11.6	The stickers will be put indicating the grade and change period of oil.
12.7	11.7	We will place labeling plate on the Rotavator to include this information.
12.8	11.8	Leaflet, operator's manual and spare parts catalogue will be provided.