



**DHARANEE AGROVATOAR 300 SE ROUND BALER  
(TRACTOR MOUNTED, PTO POWERED)**



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि, सहकारिता एवं किसान कल्याण विभाग

Department of Agriculture, Cooperation and Farmers Welfare

दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Southern Region Farm Machinery Training and Testing Institute

ट्रैक्टर नगर, गार्लदिन्ने - 515 731, जिला: अनंतपुर (आं. प्र.)

Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.)

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<b>Machine- 298/1053</b>	<b>DHARANEE AGROVATOAR 300 SE ROUND BALER (TRACTOR MOUNTED, PTO POWERED)</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Dhramee Agrovaroar,  
5/123, Kandhampalayam Pirivu,  
Bhavani Main Road, Perundurai - 638 052,  
Erode Dist., Tamil Nadu, **India.**

Applicant : The Manufacturer

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Report No. : Machine-298/1053 Month: August

Year: 2019



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#### **8.1 Rate of work**

- The rate of work was recorded as 0.621 to 0.640 ha/h and the speed of operation varies from 3.02 to 3.09 kmph.
- The time required to cover one hectare was recorded as 1.56 to 1.61 h.
- The number of bales in hay was recorded as 46 to 49 bales per hour.
- The mass of the bale varied from 23.04 to 25.88 kgs.
- Bales output varies from 1060 to 1247 kg/h

#### **8.2 Quality of wrapping the bale :**

- wrapping of the twine has been tight enough.

#### **8.3 Quality of work :**

- The field efficiency and straw recovery varied from 74.46 to 76.12 % and 91.65 to 95.65 % respectively.
- Bale density was recorded as 83.78 to 93.77 kg/m<sup>3</sup>.

#### **8.4 Adequacy of power of prime mover**

The power of prime mover was found adequate.

#### **8.5 Labour Requirements**

Prior to each test, about two man hour were required for daily maintenance of tractor and baler for operation otherwise one skilled operator is enough to operate tractor with baler.

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

No difficulty was observed during the operation and adjustment of round baler.

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

No defect/breakdown and repair was occurred during entire period of field & lab tests.

### **11. COMMENTS & RECOMMENDATIONS**

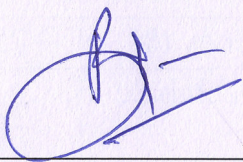

- 11.1** Stickers for precautions, warning symbols is pasted at front of the baler.
- 11.2** The amplitude of mechanical vibration on various assemblies of the round baler was observed to the extent of 306 micron, which is on higher side and, is directly concerned with the useful life of the components. In view of the above, this deserves to be looked into.
- 11.3** Max. Noise level at operators ear level was observed as 91 dB (A). The noise observed is on higher side the limit specified by ILO. The Sound Pressure level is directly influencing the Human/Operator's Health, Safety and Comfort; and therefore suitable corrective action may be taken.



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- 11.4 Dimensions of power input connection (PIC) and its yoke are conforming the relevant code i.e. IS 4931: 1995.
- 11.5 Bale counting mechanism is very useful during the hiring works and therefore it is suggested to provide the same in the machine in future production.
- 11.6 Dimensions of three point linkage of baler does not conform to IS 4468 (Part 1): 1997 and hence it should be looked into for corrective action.
- 11.7 Bale discharge is done after actuating the hydraulic distributor manually through mechanical linkage, whereas it should be of automatic type for sake and comfort of operator.
- 11.8 The provided labeling plate should be as per the requirement of IS.
- 11.9 **Technical literature:**  
Operator's manual, service manual and Part's catalogue in separate booklets in English were supplied with the Round Baler for reference during the test. It is however, recommended that same may be revised and bought out in Hindi & other regional languages as per IS 8132: 1999 (Reaffirmed 2004) for the sake of user & technical personnel.

**TESTING AUTHORITY:**

B.N. DIXIT AGRICULTURAL ENGINEER	
Dr. P.P. RAO DIRECTOR	

**12. APPLICANT'S COMMENTS**

"We will make all possible necessary changes as per your recommendations in our future production".