



**SHAKTIMAN BALE MASTER (SBM-165) SQUARE BALER
(TRACTOR DRAWN, 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

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

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine- 343/1159	SHAKTIMAN BALE MASTER (SBM-165) SQUARE BALER (Tractor Drawn, PTO Powered)	COMMERCIAL (ICT)
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Manufacturer : M/s. Tirth Agro Technology Pvt. Ltd.,
SHAKTIMAN, Survey No. 108/1,
Plot No. B, NH - 27, Near Bharudi Toll
Plaza, Bhunava (Village), Gondal (Taluka),
Rajkot Dist.- 360 311, Gujarat, India.

Applicant : The manufacturer

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Report No.: Machine-343/1159

Month: May

Year: 2020



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12. COMMENTS & RECOMMENDATIONS

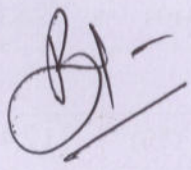
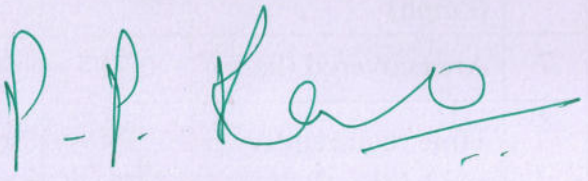
- 12.1 Provision for bale counting mechanism is provided in the baler.
- 12.2 The amplitude of mechanical vibration on various assemblies of the square baler was observed to the maximum extent of 820 micron, which is on higher side and, is directly concerned with the useful life of the components. In view of the above, this should be looked into.
- 12.3 Max. Noise level at By stander position was observed as 91 dB (A). The noise observed is more than 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.
- 12.4 Hardness of stationary (channel knife) & movable (piston knife) blades of plunger unit was observed as 57.4 to 60.5 & 51.7 to 56.0 HRC against the IS 1511:1979 (Reaffirmed 2012) requirement of 35 to 50 HRC. This should be looked into for corrective action.
- 12.5 Chemical composition of stationary & movable blades of plunger unit are not conforming to IS 1511: 1979 (Reaffirmed 2012). This should be looked into for corrective action.
- 12.6 Dimensions of power input connection (PIC) of universal drive shaft is conforming the relevant code i.e. IS 4931: 1995.
- 12.7 The provided labeling plate should be as per the requirement IS.

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12.8 Technical literature:

Operator's manual & parts manual in English were supplied with the Square Baler for reference during the test. However, this may be brought out in Hindi and 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	

13. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
13.1	12.2	We will look into feasibility of reducing vibration.
13.2	12.3	Suggestion is noted, will examine and look into possibility of reducing noise level and will take appropriate action. We will also advice operators to use ear plugs while operating machine and will mentions same in operator manual.
13.3	12.4	Hardness is more than the IS limit as it is better for wear of component.
13.4	12.5	We are using boron steel for blades which is most suitability of carbon or alloy steel as per IS 1511:1979. For this particular application and incorporate accordingly.
13.5	12.7	It will be provided as per the requirements of IS
13.6	12.8	We will take in consideration soon.