

परीक्षण रिपोर्ट (प्रारंभिक)
COMMERCIAL TEST REPORT
(INITIAL)

संख्याNo: Machine-397/1225
माहMonth: November, 2020
Validity: 31.10.2025



S RAJA R-152 BRUSH CUTTER (Back pack)



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.)

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Machine-397/1225	S RAJA R-152 BRUSH CUTTER (Back pack)	COMMERCIAL (ICT)
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Manufacturer : M/s. Jinhua Jusen Import & Export Co.,
Linhu Road, Jinxi Development Area,
Jinhua City, Zhejiang, **China**

Name of Applicant : M/s. Raja Enterprises,
Dr. Saron Wali Gali, Mandi,
Ahmedgarh, Dist. Sangrur,
Punjab - 148 021, India.

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Ring end gap:

Rings	Ring end gap, (mm)			Max. permissible end gap limit, (mm)
	Top	Middle	Bottom	
1 st comp. Ring	0.26	0.25	0.25	2.00
2 nd comp. Ring	0.26	0.25	0.25	

Ring side clearance:

Rings	Ring side clearance, (mm)	Max. permissible clearance limit, (mm)
1 st Compression ring	0.07	0.30
2 nd Compression ring	0.07	

Main bearings:

Bearing No.	Type of bearings	Diametrical clearance, (mm)	Crankshaft end float, (mm)	Max. permissible clearance limit, (mm)	
				Diametrical clearance	Crankshaft end float
1.	Ball bearing	NA	0.10	NA	0.20
2.	Ball bearing	NA		NA	0.20

Remarks: Measurement of big end bearing clearance was not possible, as the piston along with connecting rod was not detachable.

15.2 Transmission system:

All the gears of the transmission system were found in normal condition.



16. COMMENTS & RECOMMENDATIONS

- 16.1** The safety provisions, as mentioned at para 5.14, have been provided by the applicant for safety aspect of operator's.
- 16.2** Max. Noise at operator's ear level was observed as 105 dB (A), which is on higher side as per ILO. Therefore suitable corrective action should be taken to reduce the noise level.
- 16.3** The equivalent mechanical vibration on engine cover was observed to the extent of 410 micron. This should be looked into for dampening the vibration.
- 16.4** It was observed that the capacity of fuel tank of this machine is only 1.20 liter.
- 16.5** A fuel on/off knob may be considered for providing in the fuel system of engine.

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- 16.6 The hardness of straight and circular disc are conforming to the requirement of 48 to 58 HRC as per IS 6025:1982 (Reaffirmed 1999).
- 16.7 The chemical composition of straight blade and circular disc were not as per requirement of the relevant code IS 6025:1982 (Reaffirmed 1999) & therefore it should be looked into for the corrective action.
- 16.8 **Adequacy of literature supplied with the machine:**
The Service, Operator's manual cum parts catalogue of brush cutter in English was supplied with the brush cutter for reference during the test. It is however, recommended that same may be revised and brought out 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	

17. APPLICANT'S COMMENTS

"We have gone through the test report and we will make all possible necessary changes in future production'.