



BMS MARUTHI 5 DLX POWER WEEDER



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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Machine-317/1090	BMS MARUTHI 5 DLX POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer : M/s. Chongqing Hangfang Technology Development Co. Ltd., No. 18-3-1-2, No. 10, Chuangxin Road, Jiulongpo District, Chongqing, **China**-401 482.

Applicant : M/s. B.M. Suresh Agro Service, 2-10, Bazaar Street, Agricultural Implements sales and service, Newpet, Chandragiri-517 101, Chittoor Dist., Andhra Pradesh. **India**

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Report No. : Machine-317/1090 Month: November

Year: 2019



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SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.)	Page 2 of 32
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Machine-317/1090	BMS MARUTHI 5 DLX POWER WEEDER	COMMERCIAL (ICT)
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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum & rated power were observed as 3.6 kW & 2.7 kW under natural ambient condition against the declared value of 3.7 kW as maximum & rated power.
- 17.1.2 Back up torque of engine was observed as nil, against the declared value of 10 %. **This should be looked into for corrective action.**
- 17.1.3 Specific fuel consumption of engine corresponding to maximum power and at rated engine speed was recorded as 489 g/kWh & 312 g/kWh respectively against the declared value of 325 g/kWh. This should be looked into for corrective action.
- 17.1.4 Maximum torque was observed as 9.57 Nm against the declared value of 12.5 Nm. This should be looked into for corrective action.
- 17.2 The applicant has not provided rotary cover on the test sample, whereas it is very essential for the safety of operator. Hence it is strongly recommended to provide safety cover in the power weeder.**
- 17.3 Maximum Noise at operator's ear level was observed as 93 dB (A), which is higher as per ILO. Therefore corrective action to reduce the noise should also be taken.
- 17.4 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 350 microns, Which is directly concerned with Operator's Health, Safety and Comfort. Besides, it also adversely affect the useful life of the components. In view of the above, this should be taken care for corrective action.
- 17.5 The hardness of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Carbon and manganese content of chemical composition of rotary blades are not conforming the requirement of IS 6690:1981 (Reaffirmed 2012). this should be looked into for corrective action.

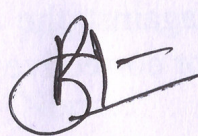
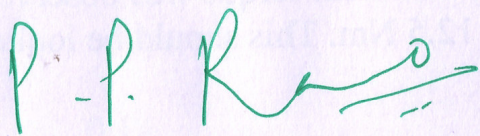
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17.7 Labeling plate provided should be as per the requirement of IS.

17.8 Technical literature:

The Owner's manual & parts catalogue of engine and power weeder single booklet was supplied along with the test sample for reference during the test. It is however, recommended that same may be revised & bought out in Hindi & other regional languages as per IS 8132: (Reaffirmed 2004) for the sake of user & technical personnel.

TESTING AUTHORITY:

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

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
18.1	17.1.2	The suggestion is noted and we will inform to our manufacturer to improve it.
18.2	17.1.3	The suggestion is noted and we will inform to our manufacturer to improve it.
18.3	17.1.4	The suggestion is noted and we will inform to our manufacturer to improve it.
18.4	17.2	We will definitely incorporate the rotary covers in our products
18.5	17.3 & 17.4	We will take corrective action in future products
18.6	17.5 & 17.6	We will make all possible necessary changes in blade ma
18.7	17.7	We will take corrective action in future products
18.8	17.8	We will change the literature as per your recommendation