व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक) **संख्या/No: Machine-362/1182**

COMMERCIAL TEST REPORT **माह/Month: July, 2020**

(INITIAL) **Validity: 30.06.2025**

BAHAR BIC/86 POWER WEEDER

सत्यमेव जयते

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.)

[An ISO 9001:2015 CERTIFIED INSTITUTE]

Website: http://srfmtti.dacnet.nic.in/

E-mail: fmti-sr@nic.in Tele./FAX: 08551-286441

Manufacturer : M/s. Chongqing Keye Power Machinery Manufacture Co. Ltd., Hailong Industrial Park, Baishiyi Town, Jiulongpo District, Chongqing, **China** .

Applicant : M/s. Bahar Agrotech, 993, Dapoli - Dabhol Road, At. Post & Tal. Dapoli Dist. Ratnagiri, Maharashtra – 415 712, **India**

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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

17.1.1 The maximum power and rated power were observed as 5.9 kW under natural ambient condition against the declared value of 6.2 kW respectively.

17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 228 g/kWh against the declared value of 285 g/kWh. This should be looked into for corrective action

17.1.3 Max. Torque was observed as 19.45 Nm against the declared value of 23.0 Nm.

17.1.4 Back up torque of engine was observed as 3.73 %, against the declared value of 11 %. This should be looked into for corrective action.

17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 19.45 Nm & 18.98 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**

17.2 Max. Noise at operator's ear level was observed as 94 dB (A).

17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 334 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.

17.4 The hardness of rotary blades conforms to the requirement of IS 6690:1981 (Reaffirmed 2012).

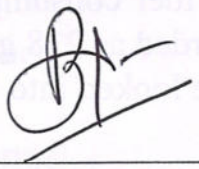
17.5 The chemical composition of rotary blades conforms to the requirement of IS 6690:1981.

17.6 The provided labeling plate should be as per the requirement IS.

17.7 Technical literature:

Operation manual and parts catalogue of power weeder and in separate booklets were supplied with the test sample 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**	

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
18.1	17.1.2 & 17.1.5	We will inform the same thing to our principal manufacturer to look into it.
18.2	17.3	We will try for the provision of some vibration dampening devices to deduce the vibration
18.3	17.6	We will look into it
18.4	17.7	We will try to implement your suggestion