



**VIJAY KRUSHI AVAJARE VKA-173FA 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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<b>Machine-423/1367</b>	<b>VIJAY KRUSHI AVAJARE VKA-173FA POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/S. Zhejiang Chengyang Machinery & Electric Co. Ltd., Qiao Yang Zone, Fengjiang Road, Luqiao District, Taizhou City, Zhejiang Province, China

Applicant : M/s.Vijay Krush Avajare, H.No 1993, Takawade Road, Takawade-416 121, Tal. Shirol, Dist. Kolhapur, Maharashtra, INDIA

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Report No. : **Machine-423/1367**

Month: **April**

Year: **2022**



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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 3.1 kW and 1.1kW respectively under natural ambient condition against the declared value of 3.8 kW. This may be looked into for corrective action.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 308 g/kWh against the declared value of 350 g/kWh.
- 17.1.3 Max. Torque was observed as 11.02 Nm against the declared value of 15 Nm. This should be looked into for corrective action.
- 17.1.4 Back up torque of engine was observed as 2.23%, against the declared value of 7%. This should be looked into for corrective action.
- 17.2 Max. Noise at operator's ear level was observed as 97 dB (A), which is on higher side , therefore necessary corrective action should be taken
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 306 microns, which is on higher side therefore corrective action to read the vibration should be taken .
- 17.4 The hardness of rotary blades do not conform to the requirement of IS 6690:1981 (Reaffirmed 2017). This should be looked into for corrective action.
- 17.5 Chemical composition of rotary blade is not as per the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Air cleaner oil pull over was observed form 0.22 to 0.45%. which is an higher side . therefore corrective action should be taken.
- 17.7 The provided labeling plate should be as per the requirement of the IS.

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**17.8 Technical literature:**

Operation and maintenance manual of power weeder were supplied with test sample for reference during the test. It is however, recommended that same may be revised and brought 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	
P. C. MESHARAM SENIOR AGRICULTURAL ENGINEER	
Dr. P. P. RAO DIRECTOR	

**18. APPLICANTS COMMENTS**

Para No.	Our Ref. No.	Applicants comments
18.1	17.1.1	We will take corrective action in our future products
18.2	17.1.3	This comments is noted, we will take corrective action in future products
18.3	17.1.4	We will take necessary action in future products
18.4	17.2	We will inform our principle manufacturer to reduce noise level
18.5	17.3	We will inform our principle manufacturer to reduce mechanical vibration
18.6	17.4	The blades material will be improved and supplied during our next products supply
18.7	17.5	The blades material will be improved and supplied during our next products supply
18.8	17.6	We will look in to it and will take corrective action against this
18.9	17.7	The plate will be provided as per your recommendation
18.10	17.8	We have noted your comment, will develop the manual as per your recommendation