



**SAAMY VIS-MDY 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

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

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

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<b>Machine- 318/1091</b>	<b>SAAMY VIS-MDY POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Venus Industries,  
Survey No. 762/1,  
Vazhuthalampedu Road,  
Kundrathur-600069, Tamil Nadu,  
**India**

Applicant : The manufacturer

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Report No. : Machine-318/1091    Month: November    Year: 2019



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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 3.5 kW under natural ambient condition against the declared value of 3.7 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 303 g/kWh against the declared value of 405 g/kWh.
- 17.1.3 Max. Torque was observed as 9.57 Nm against the declared value of 12.4 Nm. This should be looked into for corrective action.
- 17.1.4 Back up torque of engine was observed as 2.46 %.
- 17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 9.57 Nm & 8.87 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 93 dB (A), which is more than the limit as specified by the ILO. This should be looked into for corrective action.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 320 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 rotor blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.5 All the constituents except carbon content of chemical composition of rotor blades conforms to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Labeling plate provided should be as per the requirement of IS.

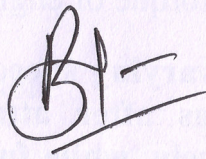
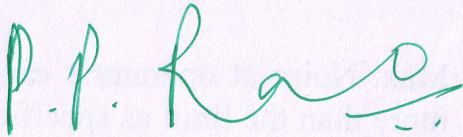


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### 17.7 Technical literature:

The owner's manual and parts catalogue of power weeder and engine was 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>B.N. DIXIT</b> <b>AGRICULTURAL ENGINEER</b>	
<b>Dr. P.P. RAO</b> <b>DIRECTOR</b>	

### 18. APPLICANT'S COMMENTS

<b>Para No.</b>	<b>Our reference</b>	<b>Applicant's comments</b>
18.1	17.1.3	The suggestion is noted and we will inform to our engine supplier
18.2	17.1.4	The suggestion is noted and we will inform to our engine supplier
18.3	17.1.5	The suggestion is noted and we will inform to our engine supplier
18.4	17.2	We will take corrective action in future products
18.5	17.3	We will take corrective action in future products
18.6	17.4 & 17.5	We will make necessary changes in blade material.
18.7	17.6	We will take corrective action
18.8	17.7	We will brought out the literature as per your recommendation.