



FARMAK FM- 105 DP6 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-337/1141	FARMAK FM- 105 DP6 POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer : M/s. V.R. Agro Equipments,
7-299/A, Koilakuntla Road,
Allagadda - 518 543, Kurnool (Dist.),
Andhra Pradesh, **India**

Applicant : The manufacturer

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Report No. : Machine-337/1141 Month: April

Year: 2020



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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 4.3 kW under natural ambient condition against the declared value of 4.4 & 4.0 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 220 g/kWh against the declared value of 280 g/kWh.
- 17.1.3 Max. Torque was observed as 14.7 Nm against the declared value of 11.9 Nm.
- 17.1.4 Back up torque of engine was observed as 5.05 %, against the declared value of 10%. 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 14.7 Nm & 13.4 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 96 dB (A), which is higher as per ILO. Therefore corrective action to reduce the noise should also be taken.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed on higher side and upto the maximum extent of 369 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 does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.
- 17.5 The chemical composition of rotor blades do not conform to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.


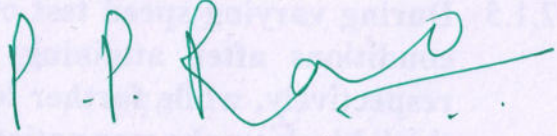
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17.6 The provided labeling plate should be as per the requirement of IS.

17.7 **Technical literature:**

The User manual cum parts catalogue of power weeder and engine 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	17.0	We will take corrective action at the time of production level for all your recommendations in S.No.17 (17.1 to 17.7) as per IS Standards
18.2	4.1	It is observed that under 4.1, the country of origin is mentioned as China . Here only the prime mover, engine is imported from china and the rest all parts are manufacturer in India . Hence we request you to consider mentioning country of origin as India (Refer Annexure-II) .