



FARMAK FM-55 PW 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- 326/1105	FARMAK FM-55 PW 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

FARMAK FM-55 PW POWER WEEDER

Report No. : Machine-326/1105 Month: December

Year: 2019



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Condition of pilot bearing : Normal

Condition of pressure : Normal
plate

Presence of oil and water : None
in clutch housing

15.3 Transmission gears:

All the gears of the transmission system were found in normal working condition.

15.4 Rotary drive unit:

The rotary drive unit was dismantled and all the components were found in normal working condition.

16. COMMENTS & RECOMMENDATIONS

16.1 Engine Performance:

16.1.1 The maximum power and rated power were observed as 3.5 & 3.4 kW respectively under natural ambient condition against the declared value of 4.1 kW & 3.7 kW respectively.

16.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 359 g/kWh.

16.1.3 Max. Torque was observed as 9.34 Nm against the declared value of 12.4 Nm. This should be looked into for corrective action.

16.1.4 Back up torque of engine was observed as 2.64 %.

16.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 9.34 Nm & 8.87 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**

16.2 Max. Noise at operator's ear level was observed as 90 dB (A)

16.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed on higher side and up to the maximum extent of 460 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.

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16.4 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.

16.5 Chemical composition of rotor blades does not conform to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.

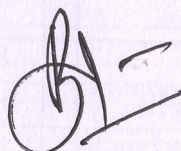
16.6 The provided labeling should be as per the requirement of IS.

16.7 Technical literature:

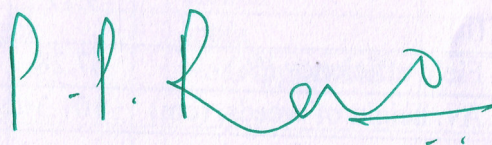
The owner's manual of engine & user's manual of power weeder in separate booklets were supplied with the test sample for reference during the test. It is however, recommended that same may be revised and bought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

TESTING AUTHORITY:

B.N. DIXIT
AGRICULTURAL ENGINEER



Dr. P.P. RAO
DIRECTOR



17. APPLICANT'S COMMENTS

"We have gone through the comments, we will take corrective action at the time of production level for all your recommendations in Sl. No. 16.1, 16.3, 16.4, 16.5, 16.6 & 16.7 as per IS standards".