

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)
COMMERCIAL TEST REPORT
(INITIAL)

संख्या /No: Machine-422/1256
माह:/Month: March, 2021
Validity: 28.02.2026



FARMWORLD FWMT420DE 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

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Machine-422/1256	FARMWORLD FWMT420DE POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer : M/s. Chongqing Genkins Power Ltd.,
No. 6, Gangcheng East Loop Road,
Jiangbei District, Chongqing, **China.**

Applicant : M/s. Farmworld Agrotech Pvt. Ltd.,
SF 08, Shreemad Bhavan, Opp. Kanta
Stree Vikas Gruh, Dhebar Road,
Rajkot – 360 002, Gujarat, **India.**

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सत्यमेव जयते

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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed 6.4 kW under natural ambient condition against the declared value of 6.9 kW & 6.3 kW respectively.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 321 g/kWh against the declared value of 300 g/kWh.
- 17.1.3 Max. Torque was observed as 21.09 Nm against the declared value of 18.7 Nm.
- 17.1.4 Back up torque of engine was observed as 24.94 %, against the declared value of 12 %.
- 17.2 Max. Noise at operator's ear level & by stander's position was observed as 95 & 80 dB (A) respectively against the limit specified by the ILO.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed up to the maximum extent of 640 microns, which is on higher side. Therefore necessary action to dampen the vibration should be taken in to account.
- 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 (Reaffirmed 2012).
- 17.6 The provided labeling plate should be as per the requirement IS.
- 17.7 The maximum power and rated power declared by manufacturer/ applicant is 6.9 kW and 6.3 kW respectively. However on labeling plate of said power weeder it is mentioned as 5.9 kW @3600 rpm. This should be looked into.
- 17.8 The crankshaft end float is observed as 0.30 mm against declared value of 0.25 mm. This is on higher side against declared value and should be looked into.




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17.9 Technical literature:

Operation manual, service manual and parts catalogue 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 brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

The adequate literatures are required to supply in booklet form.

TESTING AUTHORITY:

B. N. DIXIT AGRICULTURAL ENGINEER	
P. C. MESHARAM SENIOR AGRICULTURAL ENGINEER	
Dr. P. P. RAO DIRECTOR	

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
18.1	17.1.2	We will work on comments for better result of Fuel Consumption, In support with our R & D and Production Team. We will make all possible necessary changes in our product in future.
18.2	17.2	In future we will give positive efforts to decrease further and maintain standards which are specified by the ILO. We will make all possible necessary changes in our product in future.
18.3	17.3	Noted, We will work on it and take necessary steps, in support with our R & D and Production team. We will provide anti vibration rubber grips at handle bars for operator comfort, safety and health. We will also look into adding vibration damping gaskets at all joint wherever possible. We will make all possible necessary changes in our product in future
18.4	17.6	We will provide as per the IS. We will make all possible necessary changes in our product in future
18.5	17.7	Noted, It was not harmful to user because actual power observed during the test is higher against value of power printed on name plate. It was consider as "Under Promise Over Delivery" with our promise of "Honour customer's Trust" as per company tag line. We will look on comment and update it on future Production after Final Report. We will make all possible necessary changes in our product in future
18.6	17.8	Noted, We will work on it and take necessary steps, In support with our R & D and Production Team. We will make all possible necessary changes in our product in future.
18.7	17.9	Yes, We provided English & Hindi Language Operation manual, Service manual and Part catalogue of Power Weeder and Engine During the test. We will also look into adding Multiple Language Literature as per IS 8132: 1999(Reaffirmed 2004).