

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

संख्या/No: Machine-525/1558

COMMERCIAL TEST REPORT (INITIAL)

माह/Month: October, 2023

THIS REPORT IS VALID UPTO 30.09.2028



KISSAAN KING KK100G POWER WEEDER



सत्यमेव जयते

भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि किसान कल्याण विभाग

Department of Agriculture and Farmers Welfare

दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Southern Region Farm Machinery Training and Testing Institute

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

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

Website: <http://srfmtti.dacnet.nic.in/>

E-mail: fmti-sr@nic.in

Tele. 08551-286441

Machine- 525/1558	KISSAAN KING KK100G POWER WEEDER	COMMERCIAL
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Manufacturer : M/s Southern Agro Engine Private Limited,
#119, Bangalore High Road, Pappanchatram,
Thiruvallur, Chennai -600123, Tamil Nadu

Applicant : M/s Southern Agro Engine Private Limited,
#119, Bangalore High Road, Pappanchatram ,
Thiruvallur, Chennai -600123, Tamil Nadu

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17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

- 17.1.1 The maximum power was observed as 3.75 kW, under natural ambient condition against the declared value of 4.1 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 425 g/kWh against the declared value of 340 g/kWh.
- 17.1.3 Max. Torque was observed as 10.97 Nm against the declared value of 11 Nm.
- 17.1.4 Back up torque of engine was observed as 4.48 %, against the declared value of 10%.

17.2 The amplitude of mechanical vibration on most of the assemblies of the Power weeder was observed up to the maximum extent of 371 microns, which is on higher side. Therefore corrective action to reduce the vibration should be taken up.

17.3 Chemical composition of Carbon of rotary blade is not as per the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

17.4 The labeling plate does not reveal all the required information. It is therefore recommended that a suitable labeling plate covering all essential components, inter alia , the following must be provided:

1. Make
2. Engine Serial number
3. Specific fuel consumption (g/kWh)

17.5 Technical literature:




Operators manual and parts catalogue 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 2019) for the sake of user & technical personnel in booklet form.

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18. APPLICANTS COMMENTS

REFERENCE	APPLICATION'S ACTION PLAN
17.1.1	To improve the engine power from 3.75 kW to 4.1 kW. We will work on to improve the performance of Carburetor.
17.1.2	Above action plan will applicable for this point also.
17.1.3	To improve the torque from 10.97 Nm to 11 Nm. We will work on to reduce frictional horse power and improve carburetor efficiency.
17.1.4	Above action plan will applicable for this point also.
17.2	To overcome this vibration problem, we will provide extra gusset & linkage to minimize vibration level.
17.3	The supplier will be insisted to adhere to the carbon constituent as per IS 6690:1981
17.4	We will provide the labeling plate as recommended.
17.5	We will provide the operators manual, parts catalogue of user & technical personnel in booklet form as per IS 8132:1999

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. D.C. MOULI AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR	

