

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या/ No.: Power weeder- 154/2887/2022

माह/Month: August, 2022

THIS TEST REPORT VALID UP TO : 31st August, 2027



**SUKOON SOLUTIONS PVT. LIMITED, KRISHIRAJ PRO,
ELECTRICAL POWER WEEDER**



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि एवं किसान कल्याण विभाग

Department of Agriculture and Farmers Welfare

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

Northern Region Farm Machinery Training and Testing Institute

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2.	Working width, mm	300-1500	370	Conforms
3.	Type of engine	Compression/Spark ignition	Not applicable	--
4.	Starting method	Manual/recoil/self-starting	Not applicable	--
5.	Type of clutch	Dry/Wet	Not applicable	--
6.	Type of primary gear box	Sliding/constant mesh or combination of both	Constant mesh	Conforms
7.	Type of secondary gear box	Gear type, chain & sprocket type	Chain & sprocket	Conforms
8.	Material for rotor shaft	SAE 1045 (CRS) / EN8 / EN9	EN8	Conforms
9.	No. of flanges	4 – 10	4	Conforms
10.	Types of flanges	Square/circular/rectangular	Square	Conforms
11.	Distance between consecutive flanges, mm	80 to 150	130	Conforms
12.	No. of blades in each flange	3-6	04	Conforms
13.	No. of rotor blade	12 (min.)	16	Conforms
14.	Thickness of rotor blade, mm	5 (min.)	5.50	Conforms
15.	Material of blade	Boron (28MnCrB5) / High carbon steel EN 42j	High carbon steel EN 42j	Conforms
16.	Hardness of Blade, HRC	38 (min.)	36.37 (Average)	Does not conform
17.	Shape of rotor blade	C / J shape	J shape	Conforms
18.	Provision for handle height adjustment	Must be provided	Provided	Conforms
19.	Provision for handle rotation	Must be provided	Not Provided	Does not conform
20.	Provision for emergency stop of engine	Must be provided	Not applicable	--
21.	Provision for easy start of engine	Must be provided	Not applicable	--
22.	Provision for shield/cover to prevent flying of mud & stone from rotor	Must be provided	Provided	Conforms
23.	Depth control mechanism	Must be provided	Provided	Conforms
24.	Provision for transport wheels	Must be provided	Provided	Conforms
25.	Provision for cover on exhaust	Must be provided	Not applicable	--

26.	Direction of exhaust emission away from operator	Must be provided	Not applicable	--
27.	Marking/labeling machine	The labeling plate should be riveted on the body of machine having Name and address of manufacturer & Applicant, Country of origin, Make, Model, Year of manufacturer, Serial number, Engine number, Engine HP, rated rpm & SFC.	Partially meet the requirement	Partially conform
28.	Literature	Operator manual, service manual and Parts catalogue should be provided.	Provided	Conforms

Note:- The implementation of critical technical specifications has been deferred till 30.09.2022 vide Ministry's O.M. No. 13-1/2021 M&T (I&P) dated 03.02.2022

16. COMMENTS & RECOMMENDATIONS

16.1 The make of charger is not specified. It should be looked into.

16.2 Height adjustment of tyne is not provided. It MUST be provided.

16.3 Provision for handle rotation is not provided. It MUST be provided.

16.4 Mechanical vibration

The amplitude of mechanical vibration marked as (*) on the relevant chapter, are on drastically higher side. It is not just directly concerned with operator's health, safety and comfort, but also adversely affect the useful life of the components. In view of above, this deserve to be given top priority for corrective action.

16.5 The chemical composition of blades does not conform in toto, to the requirements of IS: 6690-1981. This needs to be looked into for corrective action.

16.6 The hardness of blades does not conform in toto, to the requirements of IS: 6690-1981. This needs to be looked into for corrective action.

16.7 The electrical power weeder is provided with two batteries which is sufficient for only 3 to 4 hours.


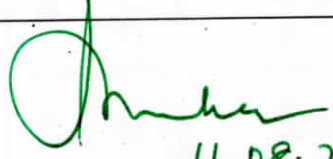
17. TECHNICAL LITERATURE

The following literatures are provided by the applicant.

i) Operator manual

However, the manuals need to be updated as per IS: 8132-1999

TESTING AUTHORITY

Er. SANJAY KUMAR AGRICULTURAL ENGINEER	
Dr. MUKESH JAIN DIRECTOR	 11.08.2022

Test report is compiled by Er. Dharmendra Kumar, Technical Assistant

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicants comments
18.1	15.27	Labelling plate shall be improved in production to fully confirm with the prescribed standards.
18.2	16.1	We will provide make of charger with every equipment from now on.
18.3	16.2	Height adjustment of tyne shall be provided as per the recommendation.
18.4	16.3	Handle rotation shall be provided as per the recommendation.
18.5	16.4	We will make sure that the mechanical vibration, marked as (*) in relevant chapter shall be significantly reduced to safe limits in the production model complying the recommendation.
18.6	16.5	The chemical composition of blades shall be changed to confirm with the standards of IS:6690-1981
18.7	16.6	The hardness of blades shall be improved in the production model to confirm in toto with IS:6690-1981 standards
18.8	16.7	While one battery is in used, another battery could be charged, thereby increasing the time of service delivery.
18.9	17 (i)	The manuals shall be updated as per IS: 8132-1999