



SWASTIK FARM KRAFTS SFK-208 CC 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 (आ. प्र.)

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

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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|------------------------------|--|-----------------------------|
| Machine- 286/1031 | SWASTIK FARM KRAFTS SFK-208 CC POWER WEEDER | COMMERCIAL (ICT) |
|------------------------------|--|-----------------------------|

Name and address of manufacturer : M/s. Chongqing Meiqi Industry Co. Ltd., Chongqing Kzoor Electromechanical Co. Ltd., **China**

Applicant : M/s. Swastik Fram Krafts, # 27/2 M, Ramaiah Industrial Area, Herohalli Cross, Magadi Main Road, Vishwaneedam Post, Bangalore- 560 091, Karnataka, India.

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Report No. : Machine-286/1031 Month: June Year: 2019



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| Valve, guides and timing gears: | Observation |
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| | |
|--|--------|
| Any marked sign of overheating of valves | : None |
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| | |
|---------------------------------|--------|
| Pitting of seat/faces of valves | : None |
|---------------------------------|--------|

| | |
|--|--------|
| Any visual damage to the teeth of timing gears | : None |
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Clearance between valve guide and valve stem (mm)

| | | | |
|-----------------|---|-----------------|---------------|
| - Intake valve | : | 0.10 ± 0.03 | Discard limit |
| - Exhaust valve | : | 0.15 ± 0.03 | Not specified |

16.2 Transmission gears:

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

16.3 Rotary drive unit:

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

17. COMMENTS & RECOMMENDATIONS

17.1 Engine Performance:

17.1.1 The maximum power and rated power were observed as 4.1 kW under natural ambient condition against the declared value of 4.0 kW.

17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 348 g/kWh against the declared value of 275 g/kWh. This should be looked into for corrective action.

17.1.3 Max. Torque was observed as 14 Nm against the declared value of 18 Nm. This should be looked into for corrective action.



17.1.4 Back up torque of engine was observed as 7.12 %, against the declared value of 10%.

17.2 Max. Noise at operator's ear level was observed as 92 dB (A), which is more than the limit as specified by the ILO. This should be looked into for corrective action.

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- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed on higher side and to the extent of maximum 329 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 rotor blades conforms to the requirement of IS 6690:198 (Reaffirmed 2012).
- 17.5 All the constituents except silicon content of chemical composition of rotor blades conforms to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.
- 17.6 Most of the parameters mentioned on labeling plate are provided as per requirement.
- 17.7 **Technical literature:**
The operation and maintenance manuals of power weeder in a single booklet was 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 2000) for the sake of user & technical personnel.

TESTING AUTHORITY:

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| B.N. DIXIT AGRICULTURAL ENGINEER |  |
| Dr. P.P. RAO DIRECTOR |  |

18. APPLICANT'S COMMENTS

"As per your recommendations, we will take all possible necessary corrective action in future production".