



**SOUZA SIFANG AGRO SZ- 700 D 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

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

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

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<b>Machine-309/1075</b>	<b>SOUZA SIFANG AGRO SZ- 700 D POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Chongqing Meidoing Machinery Co. Ltd., Office No. 2 Factory, Panlong Printing Center, No. 3, Juyuan Rd., Shuangfu St., Jiangjin Dist., Chongqing City, **China**

Applicant : M/s. Souza Sifang Agro Engineering Pvt., Ltd., No. 402, 3<sup>rd</sup> Floor, Kailash Tower, Puttenalli Main Raod, Yelahanka New Town, Bangalore -560 064, Karnataka, **India** .

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Report No. : Machine-309/1075    Month: September    Year: 2019



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## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 4.6 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 281 g/kWh against the declared value of 300 g/kWh.
- 17.1.3 Max. Torque was observed as 15.0 Nm against the declared value of 13 Nm.
- 17.1.4 Back up torque of engine was observed as 3.23 %, against the declared value of 10%. This should be looked into for corrective action.
- 17.1.5 **During varying speed test of engine at both natural & high ambient conditions after attaining max. torque at 15.00 Nm & 14.06 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**
- 17.1.6 Initially the applicant has declared their high idle speed as  $3800 \pm 100$  and rated speed 3600 rpm, later on as per request letter dated 09/08/2019 the speed is changed as  $3200 \pm 100$  and rated 3000 rpm respectively.
- 17.2 Max. Noise at operator's ear level was observed as 99 dB (A) , against the limit of ILO is below 90 dB (A). This should be looked into for corrective action.
- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 316 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 rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked into for corrective action.



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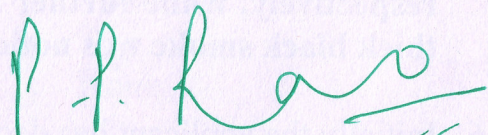
**17.5** All the constituents except carbon and manganese contents of chemical composition of rotary blades conforms to the requirement of IS 6690:1981 (reaffirmed 2012). This should be looked into for corrective action.

**17.6** Labeling plate provided should be as per the requirement of IS.

**17.7 Technical literature:**

The Operation manual of 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 bought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the sake of user & technical personnel.

**TESTING AUTHORITY:**

<b>B.N. DIXIT</b> AGRICULTURAL ENGINEER	
<b>Dr. P.P. RAO</b> DIRECTOR	

**18. APPLICANT'S COMMENTS**

"We will inform to our principle manufacturer to make all possible necessary changes in future products".