



GREAVES GS 8 DIL 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.)

[An ISO 9001:2015 CERTIFIED INSTITUTE]

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

E-mail: fmti-sr@nic.in

Tele./FAX: 08551-286441

Machine- 289/1037	GREAVES GS 8 DIL POWER WEEDER	COMMERCIAL (ICT)
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Manufacturer : M/s. Greaves Cotton Ltd.,
72, SIPCOT Industrial complex,
Ranipet – 632 403, Tamil Nadu, India.

Applicant : The manufacturer

GREAVES GS 8 DIL POWER WEEDER

Report No. : Machine-289/1037 Month: July Year: 2019



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SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.)	Page 2 of 38
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17. COMMENTS & RECOMMENDATIONS

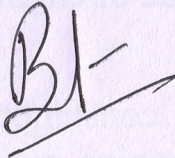
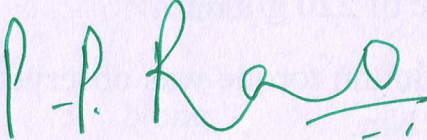
17.1 Engine Performance:

- 17.1.1 The maximum & rated powers were observed as 5.7 kW under natural ambient condition against the declared value of 5.66 kW & 5.15 kW as max. power & rated power respectively.
- 17.1.2 Back up torque of engine was observed as 14 % against the declared value of 15%.
- 17.1.3 Specific fuel consumption of engine corresponding to maximum power and at rated engine speed was recorded as 274 g/kWh against the declared value of 220 g/kWh.
- 17.1.4 Maximum torque was observed as 17.1 Nm against the declared value of 13.6 Nm.
- 17.2** On/off provision in fuel system of engine should be provided.
- 17.3** Provision for handle height & it rotation should also be provided in the machine.
- 17.4** Maximum Noise at operator's ear level was observed as 99 dB (A), which is higher as per ILO. Therefore corrective action to reduce the noise should be taken.
- 17.5** The amplitude of mechanical vibration on all of the assemblies of the Power Weeder was observed on higher side and to the maximum extent of 370 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.
- 17.6** The hardness of rotor blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2012). Therefore, corrective action should be taken.
- 17.7** The carbon & manganese content of rotor blade are not as per the requirement of IS 6690:1981 (Reaffirmed 2012). This should be looked in to for corrective action.
- 17.8** The labeling plate should be provided as per the requirement of IS.

17.9 Technical literature:

The user manual & parts catalogue of power weeder, spare parts catalogue of engine in separate booklets were supplied in English along 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.N. DIXIT AGRICULTURAL ENGINEER	
Dr. P.P. RAO DIRECTOR	

18. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's comments
(1)	(2)	(3)
18.1	17.2	Necessary action will be taken with supplier to fulfill the requirement.
18.2	17.3	Since the configuration of the vehicle is belt driven this requirement i. e. handle rotation is not applicable. However we are working for handle height adjustment as a feature.
18.3	17.4	Necessary action will be taken for reduction of operator noise level to achieve the limit.
18.4	17.5	We are working on reduction of vibration levels with the various vendors. We will implement the same in the production lot.
18.5	17.6	Action Initiated at supplier end for conformance to the raw material standards & inspecting the process to maintain the hardness as per IS6690:1981.
18.6	17.7	Action Initiated at supplier end for conformance to the raw material standards & inspecting the process to maintain the carbon & manganese as per IS6690:1981.
18.7	17.8	Labeling plate will be introduced as per IS from next lot.
18.8	17.9	As suggested by testing agency the improvement will be