

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)  
COMMERCIAL TEST REPORT  
(INITIAL)

संख्या/No: Machine-371/1195  
माह/Month: August, 2020  
Validity: 31.07.2025



**TEXAS ALLIGATOR 5 DP 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 (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](mailto:fmti-sr@nic.in)

Tele./FAX: 08551-286441

<b>Machine-371/1195</b>	<b>TEXAS ALLIGATOR 5 DP POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
-------------------------	--	-------------------------

Manufacturer : Texas A/S, Knullen 22, DK-5260,  
Odense S, **Denmark.**

Applicant : M/s. Farm and Garden Technologies  
Pvt. Ltd., (Subsidiary unit of TEXAS  
A/S Denmark), 544 P, Pace City 2,  
Sector 37, Gurgaon,  
Haryana - 122 001, **India.**

**TEXAS ALLIGATOR 5 DP POWER WEEDER**

Report No. : Machine-371/1195 Month: August

Year: 2020



**Government of India**  
**Ministry of Agriculture and Farmers Welfare**  
**Department of Agriculture, Cooperation and Farmers Welfare**  
**Southern Region Farm Machinery Training and Testing Institute**  
**Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)**  
**[An ISO 9001:2015 CERTIFIED INSTITUTE]**

Telephone: 08551-286441  
Website: <http://srfmtti.dacnet.nic.in/>

Fax: 08551-286441  
E-mail: [fmti-sr@nic.in](mailto:fmti-sr@nic.in)

Machine- 371/1195	TEXAS ALLIGATOR 5 DP POWER WEEDER	COMMERCIAL (ICT)
----------------------	-----------------------------------	---------------------

## 17. COMMENTS & RECOMMENDATIONS

### 17.1 Engine Performance:

- 17.1.1 The maximum power and rated power were observed as 3.5 kW under natural ambient condition against the declared value of 4.5 kW.
- 17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 308 g/kWh against the declared value of 280 g/kWh. This should be looked into for corrective action
- 17.1.3 Max. Torque was observed as 10.7 Nm against the declared value of 12.0 Nm.
- 17.1.4 Back up torque of engine was observed as 1.90 %, 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 10.7 Nm & 10.0 Nm respectively, while further loading, sudden drop of engine speed and thick black smoke was noticed.**
- 17.2 Max. Noise at operator's ear level was observed as 93 dB (A), which is higher than the limit specified by the ILO. Therefore, 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 up to the maximum extent of 437 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.
- 17.5 All constituents except silicon of chemical composition of blade are conforming to IS 6690:1981. Therefore, this should be looked into for corrective action.



Machine- 371/1195	TEXAS ALLIGATOR 5 DP POWER WEEDER	COMMERCIAL (ICT)
----------------------	-----------------------------------	---------------------

17.6 The provided labeling plate should be as per the requirement IS.

**17.7 Technical literature:**

Owner's manual and parts catalogue of power weeder and engine separate booklets were supplied with the test sample for reference during the test. It is however, recommended that same June be revised and brought 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
18.1	17.1.1	We will inform our R & D team to look into this.
18.2	17.1.2	Noted, will inform our R & D team to correct the fuel consumption according to the declared value.
18.3	17.1.3	The same will be informed to our test engineers for the corrective action.
18.4	17.1.4	Will inform to our R & D team for corrective action.
18.5	17.1.5	Will inform the same to our R & D for remedial of sudden engine rpm.
18.6	17.2	Will suggest our R & D to decrease further
18.7	17.3	Will suggest design engineers to provide necessary anti vibration rubbers to decrease the vibration level & increase the component life.
18.8	17.4	Will inform our R & D team to maintain the IS standards.
18.9	17.5	Noted, will take necessary steps to maintain the Silicon as per IS 6690:1981.
18.10	17.6	Will provide as per the IS
18.11	17.7	Will provide in Hindi & regional language