

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT  
(INITIAL)

संख्या / No: Machine-368/1192

Month: August, 2020

Validity: 31.07.2025



### CHAMP PTG 700 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.)

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Tele./FAX: 08551-286441

<b>Machine- 368/1192</b>	<b>CHAMP PTG 700 POWER WEEDER</b>	<b>COMMERCIAL (ICT)</b>
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**Manufacturer (apa) :** M/s. Champ Energy Ventures Pvt. Ltd.  
Plot. No. 7, Gat No.- 399/1/2/3/B,  
Village Bhare, Tal. – Mulshi,  
Dist. - Pune, Maharashtra-412115, India.

**Applicant :** The Manufacturer

**CHAMP PTG 700 POWER WEEDER**

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सत्यमेव जयते

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**Valve, guides and timing                      Observation**

**gears:**

Any marked sign of                      :    None  
overheating of valves

Pitting of seat/faces of                      :    None  
valves

Any visual damage to the                      :    None  
teeth of timing gears

Clearance between valve                      :  
guide and valve stem  
(mm)

- Intake valve                      :    0.09

- Exhaust valve                      :    0.10

**16.3                      Transmission gears:**

All the Gears and sprockets of the transmission system were found in normal condition.

**16.4                      Rotary drive unit:**

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

**17. COMMENTS & RECOMMENDATIONS**

**17.1                      Engine Performance:**

17.1.1 The maximum and rated power were observed as 3.6 & 1.3 kW respectively under natural ambient condition against the declared value of 3.7 kW.

17.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 331 g/kWh against the declared value of 400 g/kWh.

17.1.3 Max. Torque was observed as 11.0 Nm against the declared value of 10.5 Nm.



17.1.4 Back up torque of engine was observed as 10.0 %, against the declared value of 7%.

**17.2                      Max. Noise at operator's ear level was observed as 89 dB (A).**

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- 17.3 The amplitude of mechanical vibration on most of the assemblies of the Power Weeder was observed to the maximum extent of 510 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 the constituents of chemical composition except carbon content of rotary blades conform to the requirement of IS 6690:1981 (reaffirmed 2012). Therefore, this should be looked into for corrective action.
- 17.6 The provided labeling plate should be as per the requirement IS.
- 17.7 **Technical literature:**  
Operator manual and parts catalogue of power weeder in separate booklets 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.N. DIXIT AGRICULTURAL ENGINEER	
Dr. P.P. RAO DIRECTOR	

**18. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's comments
18.1	17.3	We will take corrective action for this point
18.2	17.4	We shall take corrective action for this point
18.3	17.5	We shall look into for corrective action
18.4	17.7	We will revise the literature as per IS 8312:1999