व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक) COMMERCIAL TEST REPORT (INITIAL) माह/Month: January, 2025

संख्या/No: Machine-716/1818

E-mail: fmti-sr@nic.in

THIS TEST REPORT IS VALID UP TO 31.12.2031



ANNAPURNA, 1250 POWER WEEDER



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय Ministry of Agriculture and Farmers Welfare कृषि एवं किसान कल्याण विभाग

Department of Agriculture 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 (ऑ. प्र.) Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.) [An ISO 9001:2015CERTIFIEDINSTITUTE]

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

Machine-716/1818

ANNAPURNA,1250 POWER WEEDER

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COMMERCIAL (ICT)

Manufacturer

M/s. Hangzhou Joins Imp & Exp. Co. Ltd.,

Room 809, No. 1451, Binxing Road, Change Street, Binxing District Hangzhou, 310052,

Zhejiang Province China.

Applicant,

M/S. New Karnataka Agro Engineering Works,

3-4-83/A, N Next to JM Sales Corporation, PWD Camp, Ward No. 31, Sindhanur-584128, Raichur

Dist., Karnataka.

ANNAPURNA, 1250 POWER WEEDER

Report no.: Machine-716/1818 Month: January Year: 2025



Government of India

Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare
Southern Region Farm Machinery Training and Testing Institute
Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.)
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SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.)

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ANNAPURNA,1250 POWER WEEDER

THIS TEST REPORT IS VALID UP TO 31.12.2031

COMMERCIAL (ICT)

Type of test

: COMMERCIAL (ICT)

Period of test

December, 2024 to January, 2025

Test Report No.

Machine-716/1818

Month / Year of release

January, 2025

i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.

ii) The data given in this report pertain to the particular machine randomly selected by testing authority.

iii) The results presented in this report do not, in any way, attribute to the durability of the machine.

iv) This Test Report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training & Testing Institute, Garladinne, Anantapur (A.P.).

v) This is a report on Commercial Test of Power Weeder named "ANNAPURNA, 1250 POWER WEEDER". This report is valid up to 31.12.2031, Vide Ministry's O.M. No. 13-22/2020-M&T (I&P) dated 12.12.2023.

SELECTED CONVERSIONS

| SELECTED CONVERSIONS | | |
|----------------------|-----------------------|---------------------------------------|
| S. No. | Units | Conversion Factor |
| 1 | Force | |
| | 1 kgf | 9.80665 N |
| | | 2.20462 lbf |
| 2 | Power | |
| | 1 hp | 1.01387 metric hp (Ps) |
| | | 745.7 W |
| | 1 Ps | 735.5 W |
| | 1 kW | 1.35962 Ps |
| 3 | Pressure | |
| | 1 psi | 6.895 kPa |
| | 1 kgf/cm ² | 98.067 kPa = 735.56 |
| | | mm of Hg |
| | 1 bar | $100 \text{ kPa} = 10 \text{ N/cm}^2$ |
| | 1 mm of Hg | 1.3332 m-bar |

Machine-716/1818

ANNAPURNA,1250 POWER WEEDER

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COMMERCIAL (ICT)

18. COMMENTS & RECOMMENDATIONS

18.1 Engine Performance:

- 18.1.1 The maximum and rated power was observed as 3.75 kW under natural ambient condition against the declared value of 3.5 kW.
- 18.1.2 Specific fuel consumption of engine corresponding to maximum power was recorded as 427 g/kWh against the declared value of 380 g/kWh.
- 18.1.3 Back up torque of engine was observed as 5.94 % against declared value of 10%.
- 18.1.4 Max. torque was observed as 12.66 Nm against the declared value of 12 Nm.

18.2 Controls

Provision for handle rotation and provision for emergency stop of engine are does not conform to the requirement. This should be looked into for corrective action.

18.3 Mechanical vibration:

The amplitude of mechanical vibration on various assemblies of the Power weeder was observed to the extent of 469 micron, which is on higher side. In view of the above, this should be given top priority for corrective action.

18.4 Chemical composition:

The chemical analysis of rotary blades does not conform to the requirement of IS 6690:1981 (Reaffirmed 2022). This should be looked into for corrective action.

18.5 Marking /labeling:

The labeling plate does not reveal all the required information. It is therefore recommended that a suitable labeling plate covering all essential components, interlaid, the following must be provided:

- i) Address of the manufacturer,
- ii) Country of origin,
- iii) Specific fuel consumption, (g/kWh)

18.6 Technical literature:

User's manual, service manual, and parts catalogue is provided during the test. However, the same must be brought out in Hindi & other regional languages as per IS 8132:1999 (Reaffirmed 2004) for the guidance of users.

Machine716/1818 ANNAPURNA,1250 POWER WEEDER
THIS TEST REPORT IS VALID UP TO 31.12.2031

COMMERCIAL (ICT)

TESTING AUTHORITY

Er. PRAMOD YADAV AGRICULTURAL ENGINEER

frinning

Er. VIJAY KUMAR BADAYA SENIOR AGRICULTURAL ENGINEER

Dr. B.M. NANDEDE DIRECTOR

19. APPLICANT COMMENTS

| Reference No. | Comments |
|------------------|--|
| 18.2 | We will take corrective action to meet the requirement in future production. |
| 18.3 | We will take corrective action to meet the requirement in future production. |
| 18.4 | We will take corrective action to meet the requirement as per IS 6690:1981 (Reaffirmed 2022). |
| 18.5 | We will provide correct labelling plate in future production. |
| 18.6 | We will take corrective action to meet the requirement as per per IS 8132:1999 (Reaffirmed 2004) in future production. |