

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट
INITIAL COMMERCIAL TEST REPORT

संख्या/No. CSIR/CMERI/FMTTC/2025/005

माह/Month: January, 2025

THIS TEST REPORT VALID UP TO

:

31st December 2031



**ICS POWER WEEDER
(MODEL: ICS-500 CUB)**



सत्यमेव जयते
Government Of India



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र
Farm Machinery Training and Testing Centre
सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान
CSIR - Central Mechanical Engineering Research Institute

महात्मा गांधी एवेन्यू, दुर्गापुर
Mahatma Gandhi Avenue, Durgapur

पश्चिम बंगाल - 713209

West Bengal - 713209

Website: <https://cmeri.res.in>

E-mail: fmttc.cmeri@gmail.com

Telephone: 9434592007 / 7001361295

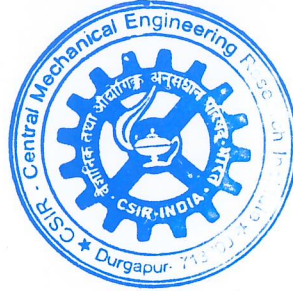
Fax: +91-343-2546745

CSIR/CMERI/FMTTC/2025/005

ICS MERCHANDISE PVT. LTD.
POWER WEEDER
(MODEL NO.-ICS-500 CUB)
(INITIAL COMMERCIAL TEST)

Name of Machine : Engine Powered Manually Operated Weeder
Type : Self-propelled, Walk Behind
Make : ICS MERCHANDISE PVT. LTD.
Model : ICS 500 CUB
Name and address of Manufacturer : ICS MERCHANDISE PVT. LTD.
#3679, 6th Block, Sir. M. Visvesvaraya
Layout, Near Oxford Pu & Degree College,
Bengaluru-560060.
Name and address of Applicant : ICS MERCHANDISE PVT. LTD.
#3679, 6th Block, Sir. M. Visvesvaraya
Layout, Near Oxford Pu & Degree College,
Bengaluru-560060.
Test Conducted at : Farm Machinery Training and Testing Centre
CSIR - Central Mechanical Engineering
Research Institute, M G Avenue, Durgapur,
Pin – 713209, West Bengal.

THIS TEST REPORT IS VALID UP TO: 31st December 2031
[vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]



Report No.: CSIR/CMERI/FMTTC/2025/005

Month: January

Year: 2025

**CSIR - Central Mechanical Engineering Research Institute,
Durgapur - 713209
(W.B.), INDIA**

Report prepared by

Report verified by

**Farm Machinery Training and Testing Centre,
CSIR-Central Mechanical Engineering Research Institute, Durgapur
THIS REPORT IS VALID UPTO: 31st December 2031**

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4 SPECIFICATIONS

4.1 General

Type of machine	:	Self-propelled, Walk Behind Power Weeder
Make	:	ICS MERCHANDISE PVT. LTD.
Model	:	ICS-500 CUB
Serial No.	:	4003
Name and address of manufacturer	:	ICS MERCHANDISE PVT. LTD. #3679, 6 th Block, Sir. M. Visvesvaraya Layout, Near Oxford Pu & Degree College, Bengaluru-560060.
Year of manufacture	:	2024
Country of origin	:	India

4.2 Details of prime mover

Name and address of manufacturer	:	ICS MERCHANDISE PVT. LTD. #3679, 6 th Block, Sir. M. Visvesvaraya Layout, Near Oxford Pu & Degree College, Bengaluru-560060.
Type	:	Single Cylinder, 2 – Stroke, Air – Cooled, Spark Ignition Engine
Make	:	ICS MERCHANDISE PVT. LTD.
Model	:	4003
Country of origin	:	India
Year of manufacture	:	2024
Engine speed (Manufacturer's recommended setting), (rpm)	:	
High idle speed	:	8000
Low idle speed	:	2000
Rated speed, (rpm)	:	6500
No load engine speed for field operation, (rpm)	:	6500
Speed at maximum torque, rpm	:	5500
Max Torque (Nm)	:	2.1 @ 5500 rpm
Rated Power (kW)	:	1.54 @ 7000 rpm
Max Power (kW)	:	1.54 @ 7000 rpm

4.3 Cylinder & cylinder head

Number	:	One
Disposition	:	Inclined
Bore/ Stroke, mm	:	40/ 34
Capacity, cc	:	42.7
Compression ratio	:	Not Specified

Report verified by
Subrata Kumar Mandal

Report prepared by
Subrata Kumar Mandal

CSIR/CMERI/FMTTC/2025/005	ICS MERCHANDISE PVT. LTD. POWER WEEDER (MODEL NO.-ICS-500 CUB) (INITIAL COMMERCIAL TEST)
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19.	Provision for handle Rotation	Must be provided	Not Provided	Does not Confirm
20.	Provision for emergency stop of engine	Must be provided	Provided	Conforms
21.	Provision for easy start of Engine	Must be provided	Provided	Conforms
22.	Provision for shield/cover to prevent flying of mud & stone from rotor	Must be provided	Provided	Conforms
23.	Depth control mechanism	Must be provided	Provided	Conforms
24.	Provision for transport Wheels	Must be provided	Provided	Conforms
25.	Provision for cover on Exhaust	Must be provided	Provided	Conforms
26.	Direction of exhaust emission away from Operator	Must be provided	Provided	Conforms
27.	Marking / labeling machine	The labeling plate should be riveted on the body of machine having Name and address of manufacturer & Applicant, Country of origin, Make, Model, Year of manufacturer, Serial number, Engine number, Engine HP, rated rpm & SFC.	Provided	Conforms
28.	Literature	Operator manual, service manual and Parts catalogue should be provided.	Provided	Conforms

14 COMMENTS & RECOMMENDATION

- 14.1** The mechanical vibration marked as (*) under section 7, are on higher side. It is not just directly concerned with operator's health, safety and comfort, but also adversely affects the useful life of the components. It needs to be corrected.
- 14.2** Observed Noise level of the Power weeder by operator's ear level is on the higher side. This needs to be considered for corrective action.
- 14.3** Chemical composition of the blade partially conforms with the IS Standard requirement. It needs to be looked into for corrective actions.
- 14.4** Provision for handle Rotation is not provided in the machine. It needs to be provided.

Report prepared by

[Signature]

Report verified by

[Signature]

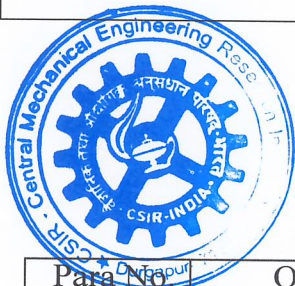
Farm Machinery Training and Testing Centre, CSIR-Central Mechanical Engineering Research Institute, Durgapur THIS REPORT IS VALID UPTO: 31st December 2031	18 of 20
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15 TECHNICAL LITERATURE

The operator, maintenance & parts manual of sprayer was provided during the test which found adequate; however, the manual should be updated as per IS: 8132:1999, with the inclusion of safety instructions regarding handling poisonous agrochemical and first aid.

TESTING AUTHORITY

Report Prepared by	Sr. Technical Officer, CSIR-CMERI Farm Machinery Testing Centre	<i>J. K. Jha</i> 10/01/2025
Report Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	<i>Subrata Kumar</i> 10/1/2025
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	<i>Sudip Samanta</i> 10/1/25

**16 APPLICANT'S COMMENTS**

Para No.	Our Reference	Applicant's Comments
16	14.1	Mechanical vibration our technical team working under your suggestions to reduce it.
	14.2	Noise level also rectify as higher level as you suggested in our further production.
	14.3	Blades chemical composition also checking with our labs to strengthen the blade composition.
	14.4	Our technical team also discuss this matter as soon as possible we come across to solve this problem. we are consider your suggestions and implement in our production.

Report prepared by

J. K. Jha

Report verified by

Subrata Kumar