

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट

संख्या/No. CSIR/CMERI/FMTTC/2025/010

INITIAL COMMERCIAL TEST REPORT माह/Month: FEBRUARY, 2025

THIS TEST REPORT VALID UP TO

: 31st JANUARY 2032



**FIELDPRO BRUSH CUTTER
(MODEL NO.- FP-346S)**



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
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CSIR/CMERI/FMTTC/2025/010	FIELDPRO BRUSH CUTTER (MODEL NO.- FP-346S) (INITIAL COMMERCIAL TEST)
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Name of the Machine : Brush Cutter
Type of Machine : Self-Propelled Shoulder Type Brush Cutter
Make : FIELDPRO
Model : FP-346S
Name and address of Manufacturer : Zhejiang Huaao Power Machinery
No. 661 Jiuzhou West Road, Yongkang, Jinhua, Zhejiang
Name and address of Applicant : AGRITOUGH MACHINERIES
9-2-1, Ring Road, Railway Station Road, Anakapalle,
Andhra Pradesh, Pin -531001
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 VALID UP TO: 31st January, 2032
[vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]



Report No.: CSIR/CMERI/FMTTC/2025/010

Month: February

Year: 2025

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

Report prepared by

[Signature]

Report verified by

[Signature]

5. SPECIFICATIONS

5.1 General

Name of the Machine	: Brush Cutter
Type of Machine	: Self-Propelled Shoulder Type Brush Cutter
Make	: FIELDPRO
Model	: FP-346S
Name and address of Manufacturer	: Zhejiang Huao Power Machinery No. 661 Jiuzhou West Road, Yongkang, Jinhua, Zhejiang
Name and address of Applicant	: AGRITOUGH MACHINERIES 9-2-1, Ring Road, Railway Station Road, Anakapalle, Andhra Pradesh, Pin -531001
Country of origin	: China
Serial no	: Not Specified
Year of manufacturer	: 2024
Recommended use	: All kind of Weed / Brushes / Paddy Harvesting

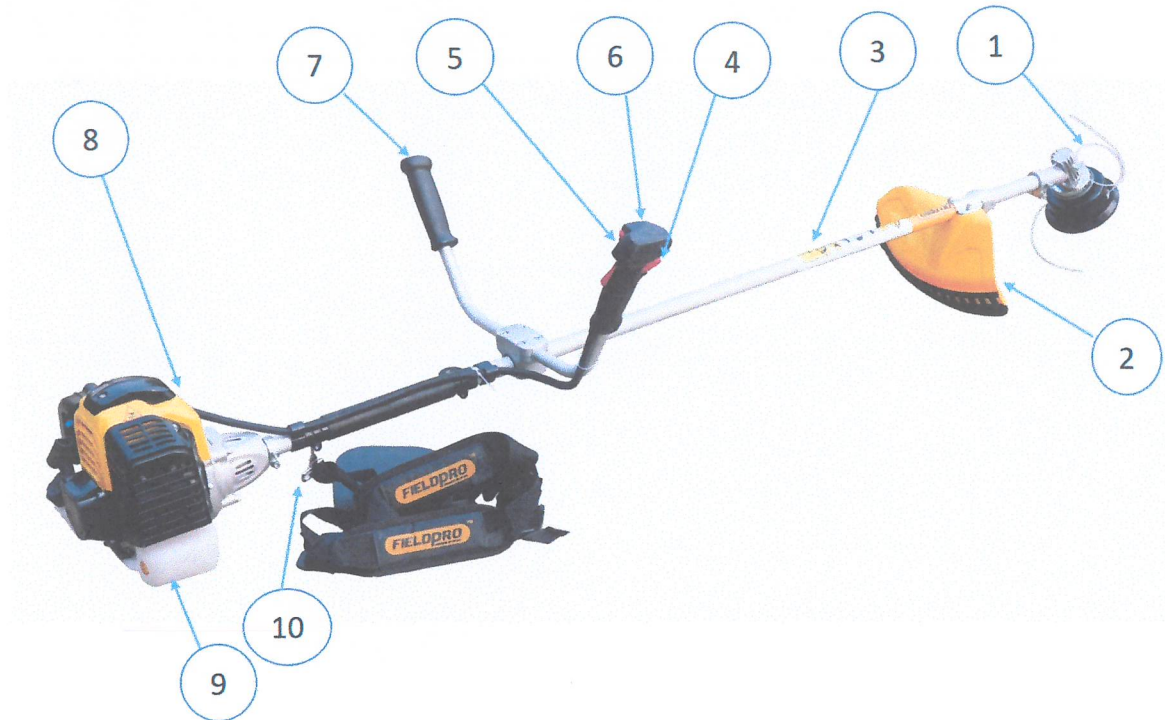


FIG. 2: SCHEMATIC VIEW OF BRUSH CUTTER

- | | | |
|--------------------------------------|---------------------------|---------------|
| 1. Nylon rope | 2. Grass deflector | 3. Frame pipe |
| 4. Throttle cum clutch lever | 5. Engine stopping switch | 6. RHS handle |
| 7. LHS Handle | 8. Engine | 9. Fuel tank |
| 10. Hook for attaching shoulder belt | | |

Report prepared by

Shah

Report verified by

Subrata Kr Mandal

CSIR/CMERI/FMTTC/2025/010	FIELDPRO BRUSH CUTTER (MODEL NO.- FP-346S) (INITIAL COMMERCIAL TEST)
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12.5 Wear analysis of critical components

Components	Duration of operation (h)	Initial length/ mass (mm/gm)	Length/ Mass after operation (mm/gm)	Loss of length /mass (mm/gm)	Percentage wear (%)	Percentage wear on hour basis (%)
Nylon rope	07.00	4830	920	3910	80.95	11.60
Straight blade	18.40	330	325.4	4.6	1.39	0.1

13. EASE OF OPERATION, ADJUSTMENT AND SAFETY

No problem was observed during the test except, the fatigue was observed during the operation of the machine due to excessive mechanical vibration and noise.

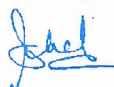
14. DEFECTS, BREAKDOWN AND REPAIR

No breakdown occurred during 25.40 hours of operation.

15. COMMENTS AND RECOMMENDATIONS

- 15.1 The noise level at the OEL lever is higher, which needs to be reduced to improve the operator's comfort and safety.
- 15.2 The mechanical vibration is on the higher side. It is not just directly affect the operator's health, safety, and comfort, but also adversely affect the useful life of the components. Corrective action needs to be taken to reduce the vibration level.
- 15.3 The chemical composition of cutter blade material partially meet the requirement as per IS:1511-79 (RA 2012). It needs to be updated.

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16. TECHNICAL LITRATURE

The operator, maintenance & parts manual of Brush Cutter was not provided during the test, the manuals should be provided following 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>[Signature]</i> 13/02/2025
Report Verified & Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	<i>[Signature]</i> 13/02/2025
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	<i>[Signature]</i> 13/2/25

17. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicants Comments
17	15.1 to 15.3	We will take corrective measures to provide the Manuals and Instructions.

