



INCOMPLETE REPORT



FAI-500 CUB FORTUNEAGRO POWER WEEDER



भारत सरकार
GOVT OF INDIA

कृषि एवं किसान कल्याण मंत्रालय

MINISTRY OF AGRICULTURE & FARMERS WELFARE

कृषि एवं किसान कल्याण विभाग

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

उत्तर पूर्वी क्षेत्र कृषि यंत्र प्रशिक्षण एवं परीक्षण संस्थान

NORTH EASTERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE

विश्वनाथ चारिआलि, जिला-विश्वनाथ (असम)

BISWANATH CHARIALI: BISWANATH: ASSAM, PIN - 784 176

[AN ISO 9001:2015 CERTIFIED INSTITUTION]

1. SCOPE OF TEST

The scope of test was limited to check and assess the following:

- 1.1 Specification and other data furnished by the applicant.
- 1.2 Engine performance test
- 1.3 Vibration Measurement
- 1.4 Noise level measurement
- 1.5 Hardness & chemical composition
- 1.6 Field Performance test
- 1.7 Wear analysis of rotor blades
- 1.8 Ease of operation and adjustments
- 1.9 Defects, breakdowns and repairs

2. METHOD OF SELECTION

As per Govt. of India, OM No. 13-1/2021-M&T (I&P), dated 03.02.2022, the selection of sample for test was exempted. Hence, the machine was directly submitted by the applicant at this Institute for test.

3. TEST CODE AND PROCEDURE

There is no Indian standard/test code available for testing of power weeder as such. The guidelines, however, have been taken from the following:

- | | |
|-------------------------------------|---|
| IS 9935 : 2002
(Reaffirmed 2012) | : Power Tiller - Test code |
| IS 9980 : 1999
(Reaffirmed 2004) | : Guidelines for field performance and haulage tests of power tillers |
| IS: 7347-1974
(Reaffirmed 2006) | : Specification for Performance of Small Size Spark Ignition Engines. |
| IS 1976 : 1976
(Reaffirmed 2009) | : Specification for Rotary paddy weeder, manually operated |
| IS 6690 : 1981
(Reaffirmed 2012) | : Specification for Blades for Rotavator for Power Tillers |

4. SPECIFICATIONS

4.1 General:

- | | |
|----------------------------------|--|
| Make | : FORTUNEAGRO |
| Model | : FAI-500 CUB |
| Name and address of manufacturer | : Changzhou Machinery & Equipment Imp. & Exp. Co., Ltd. No.62, Xinggang Road., Changzhou, Jiangsu, China |

Machine 74/445	(INCOMPLETE REPORT) FAI-500 CUB FORTUNEAGRO POWER WEEDER	COMMERCIAL (INITIAL)
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Name and address of applicant : **FORTUNE AGRO IMPEX**, Fortune House, #343, 9th Block, Sir M Visvesvaraya Layout, Kengunte first Main Road, Mallathahalli Lake Road, Bangalore-560056

Name of machine : Power Weeder

Type of machine : Self-propelled, Walk behind

Country of origin : **CHINA**

Working size of machine (mm) : 243

Year of manufacture : 2022

Serial no. of machine : 2021557

4.2 Constructional details :

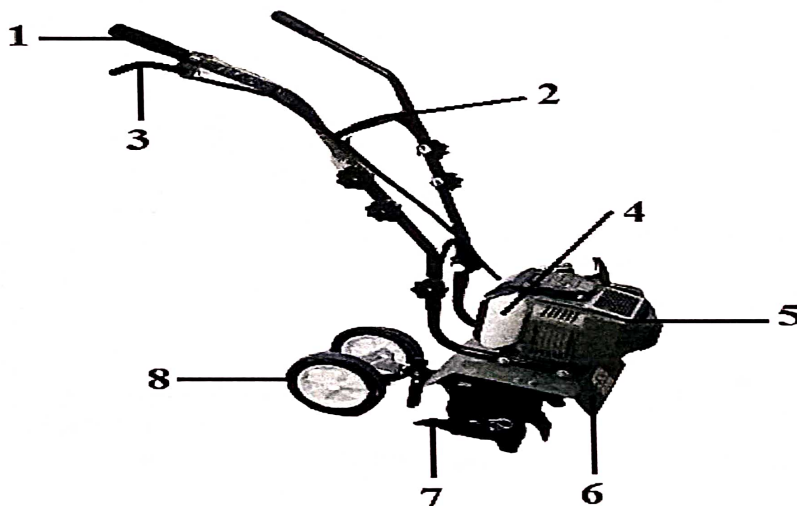


Fig.1 FAI-500 CUB FORTUNEAGRO POWER WEEDER

KEYS:

- | | |
|-----------------|------------------------|
| 1. Handle grip | 5. Engine |
| 2. Handle bar | 6. Rotary Shield Cover |
| 3. Clutch lever | 7. Rotary blade |
| 4. Fuel tank | 8. Transport wheel |

Machine 74/445	(INCOMPLETE REPORT) FAI-500 CUB FORTUNEAGRO POWER WEEDER	COMMERCIAL (INITIAL)
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10.2 Chemical composition of rotor blades :

Constituents	As per IS 6690:1981 (Reaffirmed 2012)		Composition as observed (% by weight)	Remarks
	Carbon Steel (%)	Silico Manganese Steel (%)		
Carbon (C)	0.70 -0.85	0.50-0.60	NR	--
Silicon (Si)	0.10 -0.40	1.50-2.00	NR	--
Manganese (Mn)	0.50 -1.0	0.50-1.00	NR	--
Sulphur (S)	0.05(max)	0.05(max)	NR	--
Phosphorous (P)	0.05(max)	0.05(max)	NR	--

11. FIELD PERFORMANCE TEST

Field performance test could not be completed due to breakdown during field test after 11.39 hours of operation. Results of field test are shown in ANNEXURE.

12. EASE OF OPERATION & ADJUSTMENTS

Field performance test was not completed due to breakdown.

13. DEFECTS, BREAKDOWNS AND REPAIRS

During field performance test after 11.39 hours of operation, it was observed that engine was not got started. On request of the applicant, engine main bearing both sides and engine oil seal were changed. Even though engine was not started, hence field test could not be completed.

14. COMMENTS & RECOMMENDATIONS

- 14.1 During field performance test after 11.39 hours of operation, it was observed that engine was not got started. On request of the applicant, engine main bearing both sides and engine oil seal were changed. Even though engine was not started, hence field test could not be completed. Accordingly incomplete test report is released.
- 14.2 Noise at operator's ear level was observed on higher side against danger limits of 90 dB(A) as specified by International Labour Organization (ILO) for continuous exposure of 8 hours per day. This calls for reduction in noise level to improve the operational comfort and safety.
- 14.3 The amplitude of mechanical vibration marked as (*) is on drastically higher side and is directly concerned with operator's health, safety and comfort. Besides, it is also adversely affect the useful life of the component in view of above this deserves to be given top priority for corrective action.

14.4 The engine was not marked with Manufacturer name or trade-mark, Serial No of engine, Rated power, Rated speed, and type of fuel used which does not fulfill the requirement of IS 7347-1974 (Amended 2011). This may be looked into.

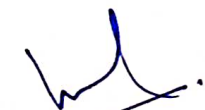
14.5 **Adequacy of Literature**

The following literature in English language was provided for reference during testing:

- Operator's/ Service manual
- Parts catalogue

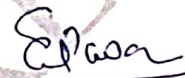
It is recommended to bring out the manual in Hindi and other vernacular languages as per IS: 8132-1999.

TESTING AUTHORITY



(M.R. PATIL)

AGRICULTURAL ENGINEER



(S.G. PAWAR)

AGRICULTURAL ENGINEER



(Dr. P.P. RAO)

DIRECTOR

Draft test report compiled by - Shri Khagendra Bora
Sr. Technical Assistant

15. APPLICANT'S COMMENTS

Sr. No. Page No. /Clause No.

Applicant's Comments

01 Page No. 13&14/14.1 to 14.5

No Comments