

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट  
INITIAL COMMERCIAL TEST REPORT

संख्या/No. CSIR/CMERI/FMTTC/2025/001

माह/Month: January 2025

THIS TEST REPORT VALID UP TO

:

31<sup>st</sup> DECEMBER, 2031



**FORTUNE AGRO POST HOLE DIGGER  
(MODEL: FAI-PHD 500)**



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**

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**West Bengal - 713209**

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CSIR/CMERI/FMTTC/2025/001

**FORTUNE AGRO IMPEX  
POST HOLE DIGGER  
(MODEL: FAI-PHD 500)  
(INITIAL COMMERCIAL TEST)**

**Name of Machine** : Post Hole Digger  
**Type of Machine** : Engine Powered Manually operated  
**Make** : Fortune Agro Impex  
**Model** : FAI-PHD 500  
**Brand's Name** : Fortune Agro  
**Name and address of Manufacturer** : M/s. Fortune Agro Impex  
'Fortune House', #343, 9<sup>th</sup> Block, Sir M.  
Visvesvaraya Layout, Kengunte 1<sup>st</sup> Main  
Road, Bangaluru-560056  
**Name and address of Applicant** : M/s. Fortune Agro Impex  
'Fortune House', #343, 9<sup>th</sup> Block, Sir M.  
Visvesvaraya Layout, Kengunte 1<sup>st</sup> Main  
Road, Bangaluru-560056  
**Test Conducted at** : Farm Machinery Training and Testing Centre  
CSIR - Central Mechanical Engineering  
Research Institute, M G Avenue, Durgapur,  
Pin – 713209, West Bengal.



सत्यमेव जयते  
Government Of India



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

Report No.: CSIR/CMERI/FMTTC/2025/001

Month: January

Year: 2025

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

Report verified by

*Subrata Kr Mandal*

Report prepared by

*Subrata*

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

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Type of Test : Initial Commercial Test  
 Period of Test : December 2024  
 Test Report No. : CSIR/CMERI/FMTTC/2025/001  
 Month and Year : 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 pertains to the particular machine submitted by the applicant for test.
- iii. The results presented in this report do not in any way attribute to durability of the machine.
- iv. The report should not be reproduced in part or full without prior permission of the Director, CSIR- Central Mechanical Engineering Research Institute, M G Avenue, Durgapur -713209 (West Bengal)
- v. This test report is not covered under BIS certification. Therefore, the manufacturers cannot market the machine with ISI mark, only on the strength of this report.
- vi. This report cannot be used for legal purposes.

### SELECTED CONVERSIONS

#### 1. Force

$$1 \text{ kgf} = 9.80665 \text{ N}$$

$$= 2.20462 \text{ lbf}$$

#### 2. Power

$$1 \text{ HP} = 1.01387 \text{ Metric HP (Ps)}$$

$$= 745.7 \text{ W}$$

$$1 \text{ Ps} = 735.5 \text{ W}$$

#### 3. Pressure

$$1 \text{ psi} = 6.895 \text{ kPa}$$

$$1 \text{ kgf/sq.cm} = 98.067 \text{ kPa}$$

$$= 735.56 \text{ mm of Hg}$$

$$1 \text{ bar} = 100 \text{ kPa}$$

$$= 10 \text{ N/sq.cm.}$$

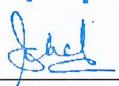
$$1 \text{ mm of Hg} = 1.3333 \text{ m-bar}$$

#### 4. Area

$$1 \text{ ha} = 10000 \text{ m}^2$$

$$= 2.471 \text{ Acres}$$

Report prepared by



Report verified by





CSIR/CMERI/FMTTC/2025/001	<b>FORTUNE AGRO IMPEX POST HOLE DIGGER (MODEL: FAI-PHD 500) (INITIAL COMMERCIAL TEST)</b>
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#### 4 SAFETY WEARS RECOMMENDED

1. Helmet, 2. Ear Protector, 3. Hand Gloves, 4. Safety Glass (Goggle), 5. Protective Cloth, 6. Safety Shoes

#### 5 SPECIFICATIONS

##### 5.1 General

Name of machine	: Earth Auger/ Post Hole Digger
Type of machine	: Self-Propelled Screw Auger
Name and address of manufacturer	: M/s. Fortune Agro Impex 'Fortune House', #343, 9 <sup>th</sup> Block, Sir M. Visvesvaraya Layout, Kengunte 1 <sup>st</sup> Main Road, Bangaluru-560056
Name and address of applicant	: M/s. Fortune Agro Impex 'Fortune House', #343, 9 <sup>th</sup> Block, Sir M. Visvesvaraya Layout, Kengunte 1 <sup>st</sup> Main Road, Bangaluru-560056
Make	: Fortune Agro Impex
Model	: FAI-PHD 500
Serial No.	: 6004
Brand's Name	: Fortune
Country of origin	: India
Year of manufacture	: 2024
Recommended use	: Digging Holes for plantation

Report prepared by

*[Signature]*

Report verified by

*[Signature]*

<b>Farm Machinery Training and Testing Centre, CSIR-Central Mechanical Engineering Research Institute, Durgapur THIS REPORT IS VALID UPTO: 31<sup>st</sup> December 2031</b>	<b>6 of 18</b>
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### 13 EASE OF OPERATOR, ADJUSTMENT AND SAFETY

Fatigue was observed just 20 mins of operation of the machine, mainly, due to excessive mechanical vibration and noise. The operator complained about pain in different parts of body like wrist & shoulder etc. during operation.

Work-Rest cycle for this machine is observed on follows :

20 minutes' work – 10 minutes' rest - 20 minutes' work – 10 minutes' rest - 20 minutes' work – 5 minutes' rest & so on.

### 14 ADJUSTMENT, DEFECTS, BREAKDOWNS & REPAIRS

No noticeable breakdown occurred during 25.61 hours of operation.

### 15 COMMENTS & RECOMMENDATION

**15.1** 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.

**15.2** Chemical Composition of the Auger blade does not confirm with the requirement as per IS: 6025-1982. It should be looked into.

**15.3** One labelling plate is riveted on the machine. The labelling plate should be updated with following information as per BIS norms.

- |   |                      |
|---|----------------------|
| a. Name and address of the manufacturer | b. Country of origin |
| c. Make                                 | d. Model             |
| e. Year of manufacturer                 | f. Serial no         |
| g. Engine number                        | h. Engine HP         |
| i. Rated rpm                            |                      |

**Report prepared by**

*[Signature]*

**Report verified by**

*[Signature]*

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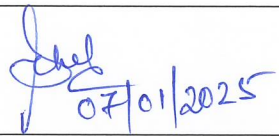
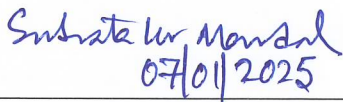
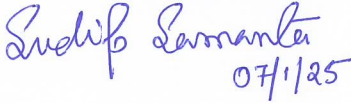
## 16 TECHNICAL LITERATURE

The following literatures are not provided by the applicant during the test along with the application form.

- User's manual book
- Parts' catalogue
- Service manual

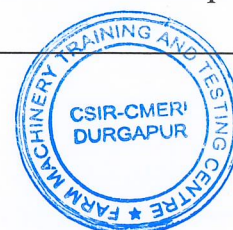
These manuals are need to be updated as per IS: 8132-1999.

## TESTING AUTHORITY

Report Prepared by	Sr. Technical Officer, CSIR-CMERI Farm Machinery Testing Centre	 07/01/2025
Report Verified & Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	 07/01/2025
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	 07/1/25

## 17 APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's Comments
17	15.1	We will inform our concerned Production team to take steps towards reducing Mechanical vibration.
	15.2	We are taking care about Auger blades as per your suggestion.
	15.3	Regarding NUMBER or NAME plates as per BIS norms we already informed the concerned department. We accept all your suggestions.



Farm Machinery Training and Testing Centre,  
CSIR-Central Mechanical Engineering Research Institute, Durgapur  
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