

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट  
**INITIAL COMMERCIAL TEST REPORT**

संख्या/No. CSIR/CMERI/FMTTC/2022/003  
माह/Month: May, 2022

**THIS TEST REPORT VALID UP TO : 31<sup>ST</sup> May, 2027**



**ASPEE H/GX200  
POWER WEEDER**



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## 4. SPECIFICATIONS

### 4.1 General

|                                     |                                                                                                                |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Type of machine                     | : Power weeder with Petrol Engine,<br>Walk Behind Type                                                         |
| Make                                | : ASPEE                                                                                                        |
| Model                               | : H/GX200                                                                                                      |
| Serial No.                          | : MDY171FQ21080055                                                                                             |
| Name and address<br>of manufacturer | : Snowball Group Co. Limited<br>Room 2105, Trend Center, 29-31 Cheung Lee<br>Street, Chai Wan, Hongkong, China |
| Year of manufacture                 | : 2021                                                                                                         |
| Country of origin                   | : P.R. of China                                                                                                |

### 4.2 Details of prime mover

|                                                             |                                                                                           |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Name and address of<br>manufacturer                         | : JIALING HONDA MOTOR CO. LTD.<br>No. 1, Nanyue Road, Yubei district, Chongqing,<br>China |
| Type                                                        | : Air Cooled; 4-Stroke; OHV, Single Cylinder,<br>Petrol Engine, Horizontal Shaft.         |
| Make                                                        | : HONDA                                                                                   |
| Model                                                       | : GX200                                                                                   |
| Sr. No.                                                     | : GCAYH-1147588                                                                           |
| Country of origin                                           | : P.R. of China                                                                           |
| Month & Year of manufacture                                 | : July 2021                                                                               |
| Engine speed (Manufacturer's<br>recommended setting), (rpm) | : 3600                                                                                    |
| High idle speed                                             | : 3600                                                                                    |
| Low idle speed                                              | : 1800                                                                                    |
| Rated speed (rpm)                                           | : 3600                                                                                    |
| No load engine speed for field<br>operation, (rpm)*         | : 3300                                                                                    |
| Speed at maximum torque,<br>rpm*                            | : 2500                                                                                    |
| Max Torque (Nm)*                                            | : 12.4                                                                                    |
| Rated Power (kW)*                                           | : 3.7                                                                                     |
| Max Power (kW)*                                             | : 4.1 /5.5hp                                                                              |
| Fuel Tank Capacity, (L)                                     | : 3.5                                                                                     |

\*As per specification sheet provided by applicant

|                                  |                                                                     |
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## 12. FIELD TEST

The field test under dry land condition was conducted for 27.4 h. The field performance tests were conducted at the rated 3560 rpm. Multiple test trials were conducted in sandy loam soil at the FMTTC, CSIR-CMERI farm, Durgapur. The results of the field test for dry land operation are summarized in Table-4.

### Crop parameters

|     |                    |   |                |
|-----|--------------------|---|----------------|
| i)  | Type of weed       | : | Seasonal weeds |
| ii) | Height of weed, cm | : | 4 to 20        |

**Table 4: Summary of field performance test**

| Sl. No. | Parameter                          |   | Range        |
|---------|------------------------------------|---|--------------|
| i       | Type of soil                       | : | Sandy loam   |
| ii      | Average Soil moisture, %           | : | 10.2 to 14.0 |
| iii     | Average Bulk density of soil, g/cc | : | 1.55 to 1.62 |
| iv      | Average Speed of operation, kmph   | : | 1.7- 2.7     |
| v       | Average depth of cut, cm           | : | 6.4 to 7.3   |
| vi      | Average Width of cut, m            | : | 0.71 to 0.74 |
| vii     | Average Area covered, ha/h         | : | 0.11 to 0.17 |
| viii    | Average Time required for one ha   | : | 6.0 to 9.1   |
| ix      | Average Fuel consumption           |   |              |
|         | l/h                                | : | 1.3 to 1.7   |
|         | l/ha                               | : | 9.0 to 13.5  |
| x       | Average Weeding efficiency, %      | : | 63.6 to 88.4 |
| xi      | Average Field efficiency, %        | : | 68.6 to 82.7 |

The detailed field performance testing data is given in Annexure I.

## 13. ADJUSTMENT, DEFECTS, BREAKDOWNS & REPAIRS

No noticeable breakdown occurred during test.

|                                  |                                                                     |
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|     |                          |                                                                                                                                                                                                                                  |                                                                                                                          |                    |
|-----|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------|
| 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 but following details are not available; address of manufacturer & Applicant, Country of origin, Engine HP, SFC | Partially Conforms |
| 28. | Literature               | Operator manual, service manual and Parts catalogue should be provided.                                                                                                                                                          | Provided                                                                                                                 | Conforms           |

## 16. COMMENTS & RECOMMENDATION

### 16.1 Mechanical vibration

The amplitude of mechanical vibration marked as (\*) under section 9, are on higher side. It is not just directly concerned with operator's health, safety and comfort, but also adversely affect the useful life of the components. It needs to be corrected.

16.2 The hardness of blades does not conform to the requirements of IS: 6690-1981 as mentioned in section 10. Corrective action needs to be taken for this.

16.3 Chemical composition of blades does not conform to the requirements of IS: 6690-1981 as mentioned in section 10. Corrective action needs to be taken for this.

16.4 Material of blade does not conform the requirement. This need to be looked into for corrective action.

16.5 Marking/labeling Marking/labeling machine plate partially does not confirm the critical specification requirement. This need to be consider for corrective actions.

## 17. TECHNICAL LITERATURE

The following literatures are provided by the applicant during the test along with the application form.

- a) User's manual book
- b) Parts' catalogue
- c) Service manual

However, these manuals need to be updated as per IS: 8132-1999.

|                                                                                                                                                                                 |          |
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| <b>Farm Machinery Training and Testing Centre, CSIR-Central Mechanical Engineering Research<br/>Institute, Durgapur<br/>THIS REPORT IS VALID UPTO: 31<sup>ST</sup> MAY 2027</b> | 25 of 28 |
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|---------------------------|---------------------------------------------|

### TESTING AUTHORITY

|                                                        |                                      |
|--------------------------------------------------------|--------------------------------------|
| Dr. ANJALI CHATTERJEE<br>Chief Scientist               | <i>Anjali</i><br>20/05/2022          |
| Dr. SUBRATA KUMAR MANDAL<br>Senior Principal Scientist | <i>Subrata K Mandal</i><br>20/5/2022 |
| Md. IMRAN SHEKH<br>Senior Scientist                    | <i>Imran</i>                         |

### 18. APPLICANT'S COMMENTS

| Para No. | Our Reference                   | Applicant's Comments                                        |
|----------|---------------------------------|-------------------------------------------------------------|
| 18       | 16.1, 16.2, 16.3, 16.4,<br>16.5 | Noted the same and will take<br>necessary corrective action |

