# व्यावसायिक परीक्षण रिपोर्ट COMMERCIAL TEST REPORT

संख्या / No: PT-129/1036

माह/Month: July, 2019

Validity: 30.06.2024

## **COMMERCIAL TEST (SECOND BATCH TEST)**



## **GREAVES GS 15 DIL-S POWER TILLER**



#### भारत सरकार

#### **Government of India**

कृषिएवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि, सहकारिता एवं किसान कल्याण विभाग

Department of Agriculture, Cooperation and Farmers Welfare दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान Southern Region Farm Machinery Training and Testing Institute

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PT-129/1036

#### **GREAVES GS 15 DIL-S POWER TILLER**

COMMERCIAL (SECOND BATCH TEST)

Manufacturer : M/s. Ghangzhou Donfeng Agriculture

Machinery Group Co. Ltd. (DFAM), Changzhou Tractor Plant, No 10, Xinye Road, Changzhou, Jiangsu,

**China** - 213012.

Applicant : M/s. Greaves Cotton Limited,

72, SIPCOT Industrial Complex,

Ranipet, Tamil Nadu - 632 403, India.

Indigenous/Imported : Imported

### **GREAVES GS 15 DIL - S POWER TILLER**

Report No.: PT-129/1036 Month: July Year: 2019



# Government of India Ministry of Agriculture and Farmers Welfare Department of Agriculture, Cooperation and Farmers Welfare Southern Region Farm Machinery Training and Testing Institute Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.) [An ISO 9001:2015 CERTIFIED INSTITUTE]

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| PT-129/1036 GR |   | GREAVES GS 15 D                               | GREAVES GS 15 DIL-S POWER TILLER |           |           |  |
|----------------|---|---|----------------------------------|-----------|-----------|--|
| 1              | -Specific fuel consumption corresponding to maximum power, (g/kWh) -Maximum equivalent crankshaft torque, (Nm) -Back-up torque, (%)  Maximum temperature, (°C): -Engine oil |   |                                  | 3         | 4         |  |
|                |   |   | :                                | 256       | 264       |  |
|                |   |   | :                                | 57.7      | 53.9      |  |
|                |   |   | :                                | 9.28      | 7.99      |  |
|                |   |   | :                                |           |           |  |
|                |   |   | :                                | 121       | 97        |  |
|                | -Coolant (water)  |   | :                                | 118       | 109       |  |
|                | -Exhaust gas  |   | :                                | 565       | 710       |  |
|                | -Air intake   |   | :                                | 45        | 45        |  |
|                | Lube oil consumption, (g/kWh)   |   | :                                | 0.61      | 1.04      |  |
| 19.2.2         | Rotary shaft performance:   |   |                                  |           |           |  |
|                | -Maximum power, (kW)  |   | :                                | 9.5       | 9.1       |  |
|                | -Specific fuel consumption<br>corresponding to maximum<br>power at rated engine speed,<br>(g/kWh)   |   | :                                | 323       | 284       |  |
|                | -Maximum rotary shaft torque, (Nm)  |   | :                                | 488       | 455.2     |  |
|                | Maximum<br>temperatu  | n operating<br>are of rotary<br>ion oil, (°C) | :                                | 81        | 60        |  |
| 19.2.3         | Drawbar performance:  |   |                                  |           |           |  |
|                | Maximum drawbar power, (kW)   |   | :                                | 4.8       | 4.7       |  |
|                | Maximum drawbar pull, (KN)  |   | :                                | 3.3       | 3.48      |  |
|                | Maximum transmission oil temperature, (°C)  |   | :                                | 56        | 54        |  |
| 19.2.4         | Parking Brake:  |   |                                  |           |           |  |
|                | Maximum breaking device control force, (N)  |   | :                                | 268       | 531       |  |
|                | Efficacy  | of parking brake                              | :                                | Effective | Effective |  |
| 19.2.5         | Noise measurement:  |   |                                  |           |           |  |
|                |   | n noise at by-<br>s position, dB(A)           | :                                | 72        | 80        |  |
|                |   | n noise at operator's                         | :                                | 96        | 96        |  |

| PT     | T-129/1036   | GREAVES GS 15 D  | OIL | -S POWER TILLER                | COMMERCIAL<br>(SECOND BATCH TEN) |
|--------|--|--|-----|--------------------------------|----------------------------------|
| 1      |  | 2  |     | 3                              | 4                                |
| 19.2.6 | Air cleaner oil-pull-over test:  |  |     | Et : F to murgements           | But chief had                    |
|        | Maximum oil pull over (%)  |  |     | 0.22                           | 0.15                             |
| 19.2.7 | Mechanic   | Mechanical vibration:  |     |                                |                                  |
|        | Maximum  | Maximum amplitude of vibration at, (micron):   |     |                                |                                  |
|        |  |  |     | TOTAL SOLI                     |                                  |
|        | -Gear shifting lever -Steering handle grip -Rotary shaft speed change lever -Steering clutch lever |  | :   | 124                            | 139                              |
|        |  |  | :   | 227                            | 220                              |
|        |  |  | :   | 272                            | 196                              |
|        |  |  | :   | 434                            | 307                              |
|        | -Accelerate  | or lever   | :   | 342                            | 347                              |
| 19.2.8 | Haulage test:  |  |     | ASSOCIATION OF THE STREET      |                                  |
|        |  | ss of trailer, (tones)   | :   | 1.5                            | 1.5                              |
|        | -Av. traveled speed, (kmph)  |  | :   | 18.62                          | 19.12 to 19.26                   |
|        | -Distance to   | raveled per liter of   | :   | 15.52                          | 13.09 to 13.79                   |
|        | fuel consun  | nption, (km)   |     | A District Committee Committee |                                  |
|        |  | onsumption,  | :   | 43.00                          | 48.34 to 50.92                   |
|        | (cc/km/toni  |  |     |                                |                                  |
| 19.3   | Maintenan  | ce/service   | :   | None of the problems           | None of the prol                 |
|        | problems:  |  |     | was observed in the            | was observed in                  |
| 10.1   |  |  |     | previous sample.               | present sample.                  |
| 19.4   | Adequacy of  | of literature:   | :   | Operation/Maintenance          | Maintenance mai                  |
|        |  |  |     | manual and spare parts         | and spare parts li               |
|        |  |  |     | list of power tiller in        | power tiller in                  |
|        |  |  |     | English and operation          | English and oper                 |
|        |  |  |     | & maintenance manual           | & maintenance                    |
|        |  |  |     | & spare parts list of          | manual & spare                   |
|        |  |  |     | engine in English              | list of engine in                |
|        |  | Charles and Charle |     |                                | English                          |

# **TESTING AUTHORITY:**

| RAKESH PALIWAL<br>AGRICULTURAL ENGINEER | Opalina  |
|---|----------|
| Dr. P.P. RAO<br>DIRECTOR                | P.P. Ras |

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