# व्यावसायिक परीक्षण रिपोर्ट COMMERCIAL TEST REPORT

# संख्या / No.: PT-140/1151

माह / Month: May, 2020 Validity: 30.04.2023

#### VARIANT TEST



#### KIRLOSKAR KMW-MEGA-T 12 LW-S POWER TILLER



भारत सरकार Government of India कृषि एवं 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 ट्रैक्टर नगर, गार्लदिन्ने – 515 731, जिला: अनंतपुर (आं. प्र.) Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.) [An ISO 9001:2015 CERTIFIED INSTITUTE]

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| Manufacturer : | M/s. Kirloskar Oil Engines Ltd. (KOEL),<br>Unit-KMW, Plot No. E-18,<br>Opp M/s. Soktas India Ltd., 5 Star<br>MIDC, KAGAL-Hatkanangale Industrial<br>Area, Kolhapur - 416 202, Maharashtra,<br><b>India</b> . |
|----------------|--|
| Applicant :    | M/s. Kirloskar Oil Engines Ltd., (KOEL),<br>Laxmanrao Kirloskar Road, Khadki,<br>Pune - 411 003,<br>Maharashtra, <b>India</b> .  |

| Indigenous/Imported | : Indigenous |
|---------------------|--------------|
|---------------------|--------------|

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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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SOUTHERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE, ANANTAPUR, (A.P.) PT-140/1151

## KIRLOSKAR KMW-MEGA-T 12 LW-S POWER TILLER

# 3.4 SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

Evaluative (mandatory)/ Non-evaluative (non-mandatory) parameters applicable for Qualifying Minimum Performance Criteria as per **Clause – 4.1 (Table-1) of IS 13539: 2018 (Second revision)** for acceptance of the power tiller for the purpose of subsidies/institutional financing are summarized as under:

|       |   |              | Doquiramanta   | V.          | luce    |       |         | Whathar   |
|-------|---|--------------|--|-------------|---------|-------|---------|-----------|
|       |   | Catagoria    | 1  |             | Values  |       |         | Whether   |
| S1.   | C1  | Category     | as per IS  |             | ared by |       | 1 1     | meets the |
| No.   | Characteristics   | (Evaluative/ | 13539: 2018  | -           | he      | As o  | bserved | requireme |
|       |   | Non          | (Second  | applicant/  |         |       |         | nts       |
|       |   | Evaluative)  | revision)  | requirement |         |       |         | (Yes/No)  |
| 1     | 2   | 3            | 4  |             | 5       | 6     |         | 7         |
|       |   |              |  | Base        | Variant | Base  | Variant |           |
| 3.4.1 | Rotary shaft p  | erformance:  |  |             |         |       |         |           |
| a)    | Max. Power<br>test, (kW)  | Evaluative   | Minimum 80<br>percent of<br>observed<br>maximum<br>bhp of power<br>tiller                | 7.3         | 7.3     | 7.8   | 7.7     | Yes       |
| b)    | Power at rated<br>engine<br>speed,(kW)  | Evaluative   | Minimum 75<br>percent of<br>observed<br>rated bhp of<br>power tiller                     | 6.3         | 6.3     | 7.0   | 7.0     | Yes       |
| c)    | Specific fuel<br>consumption<br>corresponding<br>to power at<br>rated engine<br>speed,(g/kWh) | Evaluative   | To be<br>declared by<br>the<br>manufacturer<br>with a<br>tolerance of<br>+ 5 percent     | 310         | 310     | 251   | 251     | Yes       |
| d)    | Max.<br>equivalent<br>rotary shaft<br>torque, Nm  | Evaluative   | To be<br>declared by<br>the<br>manufacturer<br>with a<br>tolerance of<br>$\pm 8$ percent | 460         | 460     | 483.2 | 481.5   | Yes       |

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| P          | PT-140/1151 KIRLOSKAR KMW-MEGA-T 12 LW-S<br>POWER TILLER             |  |  |   |         | COMMERCIA<br>(VARIANT) |         |                   |
|------------|--|--|--|---|---------|------------------------|---------|-------------------|
| Sl.<br>No. | Characteristics  | Category<br>(Evaluative/<br>Non<br>Evaluative) | Requirements<br>as per IS<br>13539: 2018<br>(Second<br>revision) | Values<br>Declared by<br>the<br>applicant/<br>requirement |         | As observed            |         | W me<br>req<br>(Y |
| 1          | 2  | 3  | 4  | 5   |         | 6                      |         |                   |
|            |  |  |  | Base  | Variant | Base                   | Variant |                   |
| e)         | Max.<br>operating<br>temp. of<br>rotary<br>transmission<br>oil, (°C) | Evaluative                                     | To be<br>declared by<br>the<br>Manufacturer                      | 120   | 120     | 71                     | 60      |                   |

# 3.4.2 Salient Observations:

- **3.4.2.1** As compare to base model, the following features are changed in Varia model and details are given in Annexure I & II.
  - 1. Gearbox
  - 2. Tail wheel
  - 3. Sheet metal styling

#### **TESTING AUTHORITY:**

B.N. DIXIT AGRICULTURAL ENGINEER Dr. P.P. RAO DIRECTOR

## 4. APPLICANT'S COMMENTS

No specific comment received from the applicant.

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