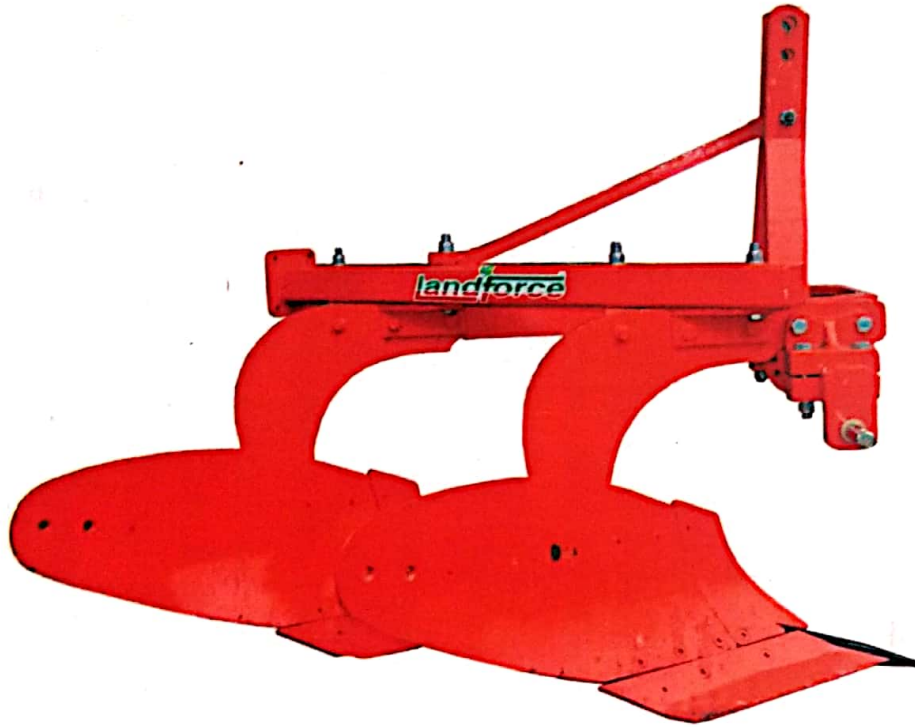




व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT



संख्या / No.: Imp. 213/285
माह / Month: July, 2017



LANDFORCE, TWO BOTTOM FIXED MOULD BOARD PLOUGH
Model :M-2FA (Tractor Mounted)



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कृषि एवं किसान कल्याण मन्त्रालय

MINISTRY OF AGRICULTURE & FARMERS WELFARE

कृषि, सहकारिता एवं किसान कल्याण विभाग

DEPARTMENT OF AGRICULTURE, COOPERATION & FARMERS WELFARE

उत्तर पूर्वी क्षेत्र कृषि यंत्र प्रशिक्षण एवं परीक्षण संस्थान

NORTH EASTERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE

विश्वनाथ चारिअली, जिला-विश्वनाथ (असम)

BISWANATH CHARIALI :: BISWANATH :: ASSAM, PIN - 784 176

Ph. No. 03715-222094

Website: <http://nerfmtti.nic.in>

Fax No: 03715-230358

E-Mail: fmtti-ner@nic.in



8.5.1.2.2 Share bar of rear bottom :

| S. No. | Notation | Dimension (mm) | | Wear (%) | |
|--------|--------------------------|----------------|------------------------|--------------|----------|
| | | Initial | After 26.2 h operation | After 26.2 h | Per hour |
| 1. | Total length | 710 | 700 | 1.41 | 0.05 |
| 2. | Width at pointed portion | 7.01 | 1.03 | 85.31 | 3.26 |

Remarks: The hourly percentage of wear on dimension basis was observed as 0.05 to 3.26 %.

8.5.2 On mass basis:

8.5.2.1 Share :

| S.No. | Initial mass of share (g) | Mass of share after 26.2 h of operation (g) | Difference (g) | Wear (%) | |
|-------|---------------------------|---|----------------|--------------|----------|
| | | | | After 26.2 h | Per hour |
| 1 | 365 (front) | 345 | 20 | 5.48 | 0.21 |
| 2 | 350 (rear) | 340 | 10 | 2.86 | 0.11 |

Remarks: The hourly percentage of wear on mass basis was observed as 0.11 to 0.21 %.

8.5.2.2 Share bar:

| S.No. | Initial mass of share (g) | Mass of share after 26.2 h of operation (g) | Difference (g) | Wear (%) | |
|-------|---------------------------|---|----------------|--------------|----------|
| | | | | After 26.2 h | Per hour |
| 1 | 525 (front) | 518 | 7 | 1.33 | 0.05 |
| 2 | 510 (rear) | 500 | 10 | 1.96 | 0.07 |

Remarks: The hourly percentage of wear on mass basis was observed as 0.05 to 0.07 %.

9. EASE OF OPERATION AND ADJUSTMENTS

No noticeable difficulty was observed during the operation and adjustment of Two Bottom Fixed M.B plough.

10. DEFECTS, BREAKDOWNS AND REPAIRS

No breakdown was occurred during 26.2 h of field test of the Two Bottom Fixed M.B plough.

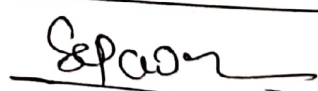
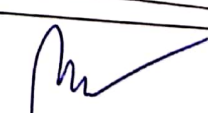

11. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

- 11.1 The dimensions of the share and share bar of plough does not conforms to IS: 10691-1983. This should be looked into for corrective action for standardisation.
- 11.2 The dimension of three point linkage, hitch pyramid does not conform to IS: 4468-1997. Therefore, this should be looked into for corrective action.
- 11.3 The hardness of the share and share bar does not conform to IS: 10691-1983. This should be looked into for corrective action for standardization.
- 11.4 The carbon content in share bar was not within its range as per IS:10691-1983. This is recommended to looked into for corrective action of standardisation.



- 11.5 The size of sunk headed bolts fixing the share with frog was not as per IS: 10691-1983. This is recommended to looked, for corrective measures.
- 11.6 **Labelling plate :**
Product, model, serial number and mfg. Year is indicated on the labelling plate. However, it is recommended to specify size and power requirement of the implement.
- 11.7 **Rate of work :**
a) The area cover was recorded as 0.192 to 0.207 ha/h at the speed of operation from 3.15 to 3.41 km/h.
b) The time required to cover one hectare area was recorded as 4.84 to 5.21h.
- 11.8 **Quality of work:**
a) The depth of cut was recorded as 18 to 20 cm.
b) Average working width was observed as 68 to 75 cm.
c) Field efficiency was observed as 80.4 to 90.2 %.
- 11.9 The hourly wear percentage of share on dimension basis was recorded as 0.17 to 0.33 and share bar was recorded as 0.05 to 3.26.
- 11.10 The hourly wear percentage of share on mass basis was recorded as 0.11 & 0.21 and share bar was recorded as 0.05 & 0.07.
- 11.11 **Technical literature :**
Operator manual, service manual, parts manual covered with English was submitted along with the implements. However, it is recommended to bring out the same covered with Hindi and other vernacular languages as per IS: 8132-1999

TESTING AUTHORITY

| | |
|---|--|
| S. G. PAWAR AGRICULTURAL ENGINEER |  |
| A.K. UPADHYAY SENOIR AGRICULTURAL ENGINEER |  |
| K.K. NAGLE DIRECTOR |  |

Test conducted & Report compiled by -

Sh. Rahul Prajapathi & Sh. VithatoKeyho

12. APPLICANT'S COMMENTS

- 12.1 We agree with the report. However in respect of non-conformities, we will make the improvements in accordance to the relevant BIS Standards in next production line.

FARM MACHINERY TRAINING & TESTING INSTITUTE (NER), B. CHARIALI, BISWANATH, ASSAM