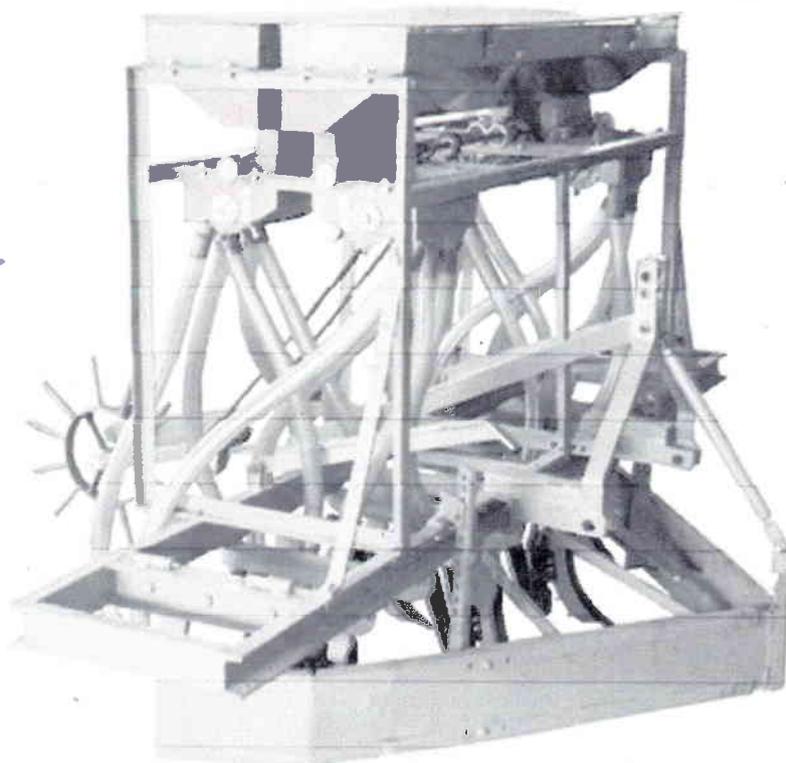


व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

No-20

संख्या/No. : Imp: 67/107
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Master Copy

MAUSAM MODEL: T-1 SEED CUM FERTILIZER DRILL
(TRACTOR DRAWN)



सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
कृषि मन्त्रालय

MINISTRY OF AGRICULTURE
(कृषि एवं सहकारिता विभाग)

(DEPARTMENT OF AGRICULTURE AND CO-OPERATION)

उत्तर पूर्वी क्षेत्र कृषि यन्त्र प्रशिक्षण एवं परीक्षण संस्थान

NORTH EASTERN REGION FARM MACHINERY TRAINING AND TESTING INSTITUTE

विश्वनाथ चारिआलि, शोणितपुर, असम

BISWANATH CHARIALI:: SONITPUR:: ASSAM - 784 176

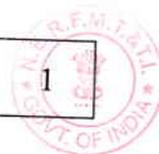
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1. SCOPE OF TEST

The scope of test was to check and assess the following

1.1 Laboratory Test

- i) Checking of specifications
- ii) Metering mechanism to meter seeds at desired seed rate
- iii) Variation in dropping of seed in different opener (Inter opener variation)
- iv) Variation of seed rate due to quantity of seed in the seed box
- v) Evenness of seed distribution
- vi) Hardness and chemical composition of the soil engaging parts
- vii) Visible damage caused by metering mechanism.

1.2 Field Test

- i) Rate of work
- ii) Power requirement
- iii) Ease of operation and adjustment
- iv) Field efficiency and Labour requirement
- v) Breakdowns & repairs

2. METHOD OF SELECTION

The seed cum fertilizer drill was directly submitted for test by applicant at this Institute. Therefore, the method of selection is not known.

3. TEST CODE / PROCEDURE

The implement was tested in accordance with the relevant clauses of following Indian Standards

1. IS: 6316: 1993 : (Sowing equipment – seed- cum- fertilizer drill- Test code) (reaffirmed in 2009)
2. IS: 6813: 2000 (Sowing Equipment – Seed cum fertilizer Drill -Specifications) (reaffirmed in 2006)
3. IS: 4468 (pt-I)-1997 (Specification for Three Point Linkage) (reaffirmed in 2007)

4. SPECIFICATIONS

4.1 General

Manufacturer

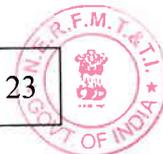
: Mausam Agro Pvt. Ltd.,
Survey No.192,
Near Shantidham Gate
Rajkot-Gondal National Highway 8-B,
Veraval (Shaper)
Dist.-Rajkot (Gujarat)-360 024

Name of Machine

: Seed -cum -fertilizer drill

Type of implement

: Tractor Drawn



10. COMMENTS & RECOMMENDATIONS

- 1 The specifications of reversible type furrow openers do not conform with IS: 6813 –2000. This needs to be modified as per said Indian standard.
- 2 The dimensions of seed metering mechanism do not conform fully to the requirement of IS: 6813-2000. Suitable improvement should be done.
- 3 The three point linkage system of the seed drill does not conform fully with IS. This may be looked into.
- 4 The permanent type metallic plate is not provided on the machine .Hence it is recommended that the permanent type metallic calibration plate indicating the metering position and quantity of seed and fertilizer shall be attached under the top cover of seed box as per IS: 6813-2000.
- 5 The lubrication arrangement is not provided for all moving parts as per IS: 6813-2000. Therefore it is recommended that proper lubrication arrangement should be provided for all moving components except the portions exposed to seed and fertilizer.
- 6 The necessary tools were not supplied during the submission of machine. Hence it is recommended that the drill should be supplied with necessary tools before delivery of machine.
- 7 The diameter of holes on the tool bar of the drill does not conform to the requirement of the IS: 6813-2000. This may be looked into.
- 8 Thickness of seed and fertilizer tubes does not conform to IS: 6813-2000. This may be looked into.
- 9 Fertilizer rate is adjustable up to 419.45 kg/ha, against the requirement of 1000 kg/ha. This may be looked into.
- 10 Provision should be made to easily adjust for fertilizer rate up to 1000 kg/ha.
- 11 Suitable clutches are not provided to stop the movement of metering mechanisms when the wheels are turned in reverse direction. This should be looked into.
- 12 The foot board is not provided on the drill. This should be looked into.
- 13 Provisions should be made for tightening of belt and adjustment of chain.
- 14 Suitable row marker should be provided to maintain equal row spacing.
- 15 Provision should be made to drop fertilizer at a minimum of 25 mm to the side of the seed.
- 16 It is recommended that the all transmission system should be provided with guard for safety.



- 17 Model of implement, year of manufacture, batch or code number, Mass, size and recommended power is not marked on the drill. Hence particulars like make, model, power requirement, size, type of seeds (suitability) and mass should be stamped, engraved or embossed on metallic plate rigidly attached or riveted on a non-wearing part of the implement.
- 18 **Adequacy of literature:** Only one leaflet supplied with the implement during testing. Hence operator's service manual and spare parts catalogue should be provided containing method of operation and installation of the drill, performance detail, special features, drawing and dimensions of the implement in English, Hindi and other regional languages for operator's use as per IS: 8132-1999. Separate literatures according to model should be provided with safety note warnings, accessories and attachments, maintenance instruction and instruction for storage, handling transport, installation, etc.
The cover shall be of reasonable durability and shall be of an appropriate size to protect the internal pages and the binding or binders shall be appropriate and durable for the intended usage.

TESTING AUTHORITY

P. C. MESHAM ASSISTANT ENGINEER (T)	
P. K. PANDEY SENIOR TEST ENGINEER	
M.K. VISHWAKARMA DIRECTOR	

11. APPLICANT'S COMMENTS

We had examined the draft test report on "Masusam seed cum fertilizer Drill" Model: T-1 (Tractor Drawn)' and we assure you that we will improve our quality products and also we will consider your comments and recommendations. Now we have no comments in the matter.