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SPECIFICATION SHEET OF SEED CUM FERTILIZER DRILL

| | | | |
|-----------------------------------|---|---|--|
| 1.0 General: | | | |
| a) | Name | : | |
| b) | Address of manufacturer | : | |
| c) | Address of applicant | : | |
| d) | Type | : | |
| e) | Make | : | |
| f) | Serial Number | : | |
| g) | Model | : | |
| h) | Year of manufacture | : | |
| i) | Different seeds which the drill is designed to sow | : | |
| j) | Source of power | : | |
| k) | Recommended traveling speed of the drill | : | |
| l) | Recommended power of tractor, if tractor operated | : | |
| m) | Location of fertilizer outlet in relation to seed outlet. | : | |
| 2.0 Constructional Details | | | |
| 2.1 Mainframe | | | |
| | Material detail | : | |
| | Size | : | |
| 2.2 Furrow openers: | | | |
| a) | Type | : | |
| b) | No. of openers : | : | |
| c) | Arrangement of Openers | : | |
| d) | Range of selection of openers | : | |
| e) | Method of changing row space and range | : | |
| f) | Nominal width (cm) | : | |
| g) | Lifting and lowering of openers | : | |
| h) | Depth control | : | |
| i) | Fertilizer placement with respect to seeds. | : | |
| 2.3 Metering mechanism: | | | |
| a) | Seed metering device | : | |

| | | | | | |
|---|---|---|-----------------|--------------|----------------|
| | 1) Type | : | | | |
| | 2) Size of feed shaft (mm) | : | | | |
| 3) Size (dia) and number of fluted rollers (in case of plate type, the number of holes) | | : | Feed Roller No. | No. of cells | Cell size (mm) |
| | | | 1 | | |
| | | | 2 | | |
| | | | 3 | | |
| | | | 4 | | |
| | | | 5 | | |
| | | | 6 | | |
| | | | 7 | | |
| | 4) Source of power (ground wheel or other) | : | | | |
| | 5) Transmission ratio of shaft of seed metering device to land wheel axle | : | | | |
| | 6) Type of agitator | : | | | |
| | 7) Method of feed rate control for different sizes of seeds | : | | | |
| | 8) Provision for closing seed discharge. | : | | | |
| | 9) Fertilizer distributor | : | | | |

2.4 Hopper :

| | | | |
|----|-------------------|---|--|
| a) | Capacity (kg) | : | |
| | 1) Seed box | : | |
| | 2) Fertilizer box | : | |
| b) | Type of hoppers | : | |

2.5 Marker details:

| | | | |
|----|--------------------------------|---|--|
| a) | Type | : | |
| b) | Details of range of adjustment | : | |

2.6 Seed covering arrangement:

| | | | |
|----|-----------|---|--|
| a) | Type | : | |
| b) | Size (mm) | : | |

2.7 Type of hitch and its details :

| | | | |
|----|---------------------------------|---|--|
| a) | Type | : | |
| b) | Specifications of Hitch pyramid | : | As per IS:4468 Part-I, 2001 (Cl.5.1) & Part-II, 1998 (Cl.5.1) (All dimensions are in mm) |

| Sr. | Dimension | Description (Refer Fig.) | Dimension in mm |
|--------------------------------|----------------------------|-----------------------------------|-----------------|
| Upper Hitch attachments | | | |
| 1 | d_1 | Diameter of hitch pin hole | |
| 2 | b'_1 | Width between inner faces of yoke | |
| 3 | b'_2 | Width between outer faces of yoke | |
| Lower hitch points | | | |
| 4 | D_2 | Dia of hitch pin | |
| 5 | b'_3 | Linch pin hole distance | |
| 6 | l | Lower hitch point span | |
| Other dimensions | | | |
| | Diameter of linch pin hole | | |
| 7 | d | For upper hitch pin | |
| 8 | | For lower hitch pin | |
| 9 | h | Mast height | |

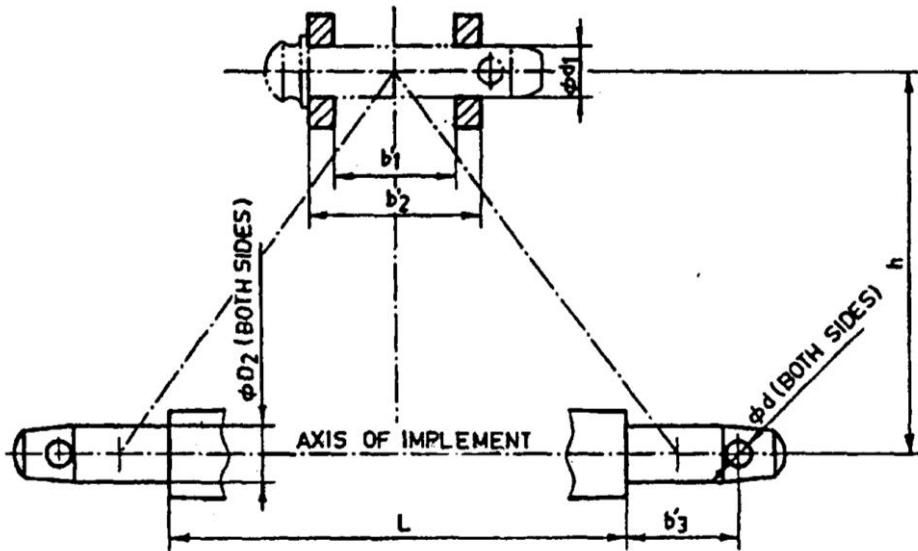


Fig. : Implement Hitch Attachment

2.8 Ground drive details :

| | | | |
|----|---|---|--|
| a) | No. of wheels | : | |
| b) | Type of wheel | : | |
| c) | Size (mm) | : | |
| d) | Circumference (mm) | : | |
| e) | Method of transmitting power to feed shafts | : | |

2.9 Details of adjustments :

| Sr. | Adjustments | : | |
|-----|------------------------------------|---|--|
| 1. | Feed rate | : | |
| 2. | Spacing of furrow openers | : | |
| 3. | Depth of sowing | : | |
| 4. | Height of covering device | : | |
| 5. | Drive wheel height | : | |
| 6. | Reduction ratio of drive mechanism | : | |
| 7. | Bund forming device | : | |

2.10 Details of safety arrangement for rotating parts

2.11 Overall dimensions (mm) :

| | | | |
|----|---------------------------------------|---|--|
| a) | Length | : | |
| b) | Width | : | |
| c) | Height | : | |
| d) | Weight with seeds and fertilizer (kg) | : | |
| e) | Ground clearance | : | |

2.12 Number of greasing points:

| | | | |
|----|----------------------------------|---|--|
| a) | Drive wheel bearing | : | |
| b) | Depth control wheel bearing | : | |
| c) | Chain & sprocket | : | |
| d) | Seed & fertilizer metering shaft | : | |

| 2.13 Details of material of construction : | | | |
|---|-------------------------|-----------------|------------------------------|
| Sr. | Name of part | Material | Section or size in mm |
| 1 | 2 | 3 | 4 |
| 1 | Feed shafts | | |
| 2 | Seed and fertilizer box | | |
| 3 | Tyne | | |
| 4 | Boot | | |
| 5 | Seed/fertilizer tube | | |
| 6 | Covering device | | |

| 2.14 Material of construction: | | | |
|---------------------------------------|---|---|----------------------|
| Sr. | Component | Material | Used material |
| 1 | 2 | 3 | 4 |
| i) | Frame and toolbar | Mild Steel | |
| ii) | Wheel | Mild Steel/ Cast Iron/ Pneumatic type | |
| iii) | Axle and shaft | Mils steel | |
| iv) | Seed and fertilizer boxes | Mild Steel/ Galvanized sheet/ Seasoned wood/ Plastic/ Fiber glass/ Reinforced plastic | |
| v) | Tines | Mild Steel / Carbon steel | |
| vi) | Boot | Mild Steel/ Cast Iron | |
| vii) | Furrow opener | High Carbon Steel | |
| viii) | Seed agitator | Mild Steel/ Cast Iron/ Aluminum/ PVC/ Rubber/ Canvas | |
| ix) | Fertilizer agitator | Mild Steel/ Cast Iron/ Aluminum/ Canvas | |
| x) | Seed and fertilizer tubes | Steel ribbon/ Plastic/ Rubber | |
| xi) | Seed metering mechanism (fluted feed roller type) | Cast Iron/ Mild Steel/ Nylon | |
| xii) | Fertilizer metering mechanism (fluted feed roller type) | Cast Iron/ Mild Steel/ Nylon | |
| xiii) | Bushes | Brass/ Gun metal/ Nylon | |
| xiv) | Covering device | Mild Steel/ Cast Iron/ Seasoned wood | |
| xv) | Pulley, sprocket | Cast Iron/ Mild Steel | |
| xvi) | Hitching mechanism | Mild Steel | |
| xvii) | Feed adjusting mechanism | Mild Steel/ Cast Iron | |
| xviii) | Depth adjusting mechanism | Mild Steel | |
| xix) | Row marker | Mild Steel/ Cast Iron | |

| 2.15 Accessories | |
|---|-----------------|
| The following accessories may be provided with each drill : | |
| a) | Foot broad |
| b) | Covering device |
| c) | Row marker |
| d) | Press wheel |

| | |
|-------------------|--|
| e) Area recorder. | |
|-------------------|--|

| 2.16 | Marking and packing |
|------|--|
| | Marking: Each drill shall be marked with the following particulars: |
| a) | Indication of the source of manufacture |
| b) | Model, code and serial number |
| c) | Type and size |
| d) | Type of seeds (suitability) |
| e) | Mass |
| f) | Permanent type metallic calibration plate indicating the metering position and quantity of seed and fertilizer |

Place:

Date:

Signature : _____

Name : _____

Designation: _____