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SPECIFICATION SHEET OF TRACTOR OPERATED FERTILIZER BROADCASTER

1.0	**General**	:	
	Name	:	
	Type	:	
	Make	:	
	Serial Number	:	
	Model	:	
	Year of manufacture	:	
	Name and address of manufacture	:	
	Source of power	:	
	Recommended power of tractor, if tractor operated	:	
	Selling price in India	:	

2.1	**Main frame / Chassis:**			
	a)	Type	:	
	b)	Size of box section (mm)	:	
	c)	Size of supporting flat (mm)	:	
	d)	Type of mounting of box section	:	
2.2	**Hopper:**			
	a)	Shape	:	
	b)	Inner diameter of hopper (mm)	:	
	c)	Hopper capacity (lit)	:	
	d)	Material and thickness (mm)	:	
	e)	Internal height at side (mm)	:	
	f)	Internal height at centre (mm)	:	
	g)	Size of hole at bottom (mm)	:	
	h)	Bottom slope (degree)	:	
	i)	Ratio between diameter and height of hopper	:	
	k)	Method of fixing the hopper with main frame	:	
2.3	**Agitator:**			
	a)	Shape	:	
	b)	Location	:	
	c)	Material and thickness (mm)	:	
	d)	Size of agitator (mm)	:	
	e)	Vertical clearance of agitator above the aperture (mm)	:	
	f)	Arrangement for fixing of agitator to the centre shaft	:	
2.4	**Feed control mechanism:**			
2.4.1	**Funnel**			
	a)	Shape	:	
	b)	Material and thickness (mm)	:	
	c)	Size of hole (mm)	:	
	d)	Outer dia. of cone (mm)	:	
	e)	Cone slope (degree)	:	
	f)	Arrangement for fixing of feed control of hopper	:	
2.4.2	**Feed control lever**			
	a)	Type	:	

	b)	Material and thickness (mm)	:	
	c)	Size of lever (mm)	:	
	d)	Arrangement for fixing of lever to feed control	:	
2.4.3	**Lever grip**			
	a)	Shape	:	
	b)	Material	:	
	c)	Size of plastic grip (mm)	:	
	d)	Method of fixing the grip to hopper	:	
2.4.4	**Locking device (feed control)**			
	a)	Shape	:	
	b)	Material	:	
	c)	Size of grip (mm)	:	
	d)	Arrangement for fixing of screw to hopper	:	
2.4.5	**Guide strip**			
	a)	Shape	:	
	b)	Material	:	
	c)	Size of strip (mm)	:	
	d)	Arrangement for holding the strip on hopper	:	
2.5	**Collar for spreading disc:**			
	a)	Shape	:	
	b)	Material	:	
	c)	Dia. of collar	:	
	d)	Length of collar (mm)	:	
	e)	Thickness of collar (mm)	:	
	f)	Arrangement for fixing of collar to centre shaft and spreading disc	:	
2.6	**Spreading disc:**			
	a)	Shape	:	
	b)	Material	:	
	c)	Dia. of disc (mm)	:	
	d)	Width of outer edge (mm)	:	
	e)	Vertical clearance below the hopper bottom (mm)	:	
	f)	Thickness of disc (mm)	:	
	g)	Direction of rotation	:	
	h)	Arrangement for fixing of disc to collar	:	
2.7	**Fins:**			
	a)	Shape	:	
	b)	Material	:	
	c)	No. of fins	:	
	d)	Size of fins (mm)	:	
	e)	Spacing between two fins at outer edge (mm)	:	
	f)	Arrangement for fitting of fins to spreading disc	:	
2.8	**Drive mechanism:**		:	
2.8.1	**Centre shaft**			
	a)	Shape	:	
	b)	Material	:	
	c)	Dia. (mm)	:	
	d)	Length (mm)	:	
	e)	Arrangement for fixing of centre shaft to main frame	:	
2.8.2	**Driven gear**			
	a)	Type	:	
	b)	Material	:	
	c)	No. of teeth	:	
	d)	Method of firing the gear with shaft	:	
2.8.3	**Gear shaft**			
	a)	Type	:	

	b)	Material	:	
	c)	Dia. (mm)	:	
	d)	Length (mm)	:	
	e)	Arrangement for fixing the gear shaft to main frame	:	
2.8.4	**Intermediate gear**			
	a)	Type	:	
	b)	Material	:	
	c)	No. of teeth	:	
	d)	Arrangement for fixing the gears to gear shaft	:	
2.8.5	**Crank rod**			
	a)	Shape	:	
	b)	Material	:	
	c)	Dia. (mm)	:	
	d)	Length (mm)	:	
	e)	Arrangement for fixing of crank rod	:	
2.8.6	**Drive gear on crank rod**			
	a)	Type	:	
	b)	Material	:	
	c)	No. of teeth	:	
	d)	Gear ratio between drive and intermediate bevel gear	:	
	d)	Arrangement for fixing of drive gear on crank shaft	:	
2.8.7	**Crank bolt**			
	a)	Type	:	
	b)	Material	:	
	c)	Size of crank bolt (mm)	:	
	d)	Pitch (mm)	:	
	e)	Size of threaded locking bolt (mm)	:	
	f)	Arrangement for fixing crank bolt	:	
2.8.8	**Crank**			
	a)	Shape	:	
	b)	Material	:	
	c)	Max. length of crank (mm)	:	
	d)	Dia. of crank rod (mm)	:	
	e)	Length of crank between the centre of crank shaft to centre of handle (mm)	:	
	f)	Arrangement for fixing crank bolt and handle	:	
2.9	**Type of hitch and its details :**			
	a)	Type and material	:	
	b)	Shape	:	

Specification of Hitch Pyramid

Sr.	**Dimension (Refer Fig.1)**	**Description**	**Measurement**
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	

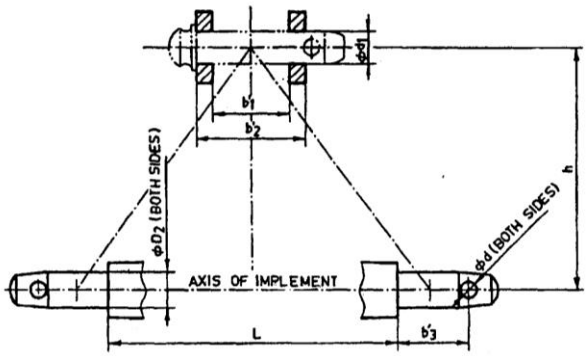

Fig. 1 : Implement Hitch Attachment

2.10	**Power transmission system:**			
	a)	Method of transmission	:	
2.10.1	**Spline end of input shaft:**			**Ref. Fig.2**
	a)	PTO Type and material	:	
	b)	Nominal speed (rpm)	:	
	c)	Nominal dia.(mm)	:	
	d)	Number and type of splines	:	

Dimension of Implement Power Input Shaft

Sr.	Specification/ Notations (Refer Fig.2)	Measurement
1	PTO Type	
2	Nominal speed (rpm)	
3	Nominal dia.(mm)	
4	Number and type of splines	
Dimensions (mm)		
5	D Φ	
6	d Φ	
7	B Φ	
8	A Φ	
9	W	
10	a	
11	b	
12	c	
13	x	
14	B	
15	h	

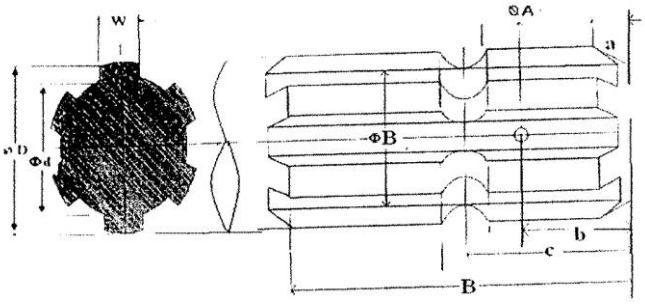

Fig. 2 Dimension of Implement Power Input Shaft

2.10.2	**Gear box assembly (primary reduction):**			
	a)	Type	:	
	b)	No. of teeth on pinion		

	c)	No. of teeth on bevel gear	:	
	d)	Reduction ratio at gear box	:	
	e)	Oil capacity (L)	:	
	f)	Oil change period	:	
	g)	Recommended grade of oil		
	h)	Length of power transmission		
	i)	Shaft (mm) (from gear box to secondary reduction unit)		
		Dia of shaft (mm)		
	j)	Provision of breather		
	k)	No. of bearing		
2.10.3	**Gear box assembly (secondary reduction):**			
	a)	Type		
	b)	No. of teeth on drive gear		
	c)	No. of teeth on driven gear		
	d)	Reduction ratio		
	e)	No. of teeth on idler gear		
	f)	Oil capacity (L)		
	g)	Oil change period (hrs.)		
	h)	No. of bearing		
2.10.4	**Propeller shaft:**			
	a)	Type and material		
	b)	Length of shaft (mm)		
		Minimum		
		Maximum		
	c)	Mass of shaft (kg)		
	d)	Provision for locking		

Propeller Shaft Insert Dimensions

Sr.	Notations (Refer Fig.3)	
1	D Φ	
2	d Φ	
3	W	
4	B	

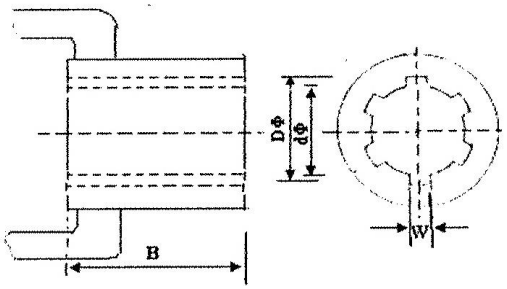

Fig. 3 : Propeller Shaft Insert Dimensions

2.10.5	**Safety clutch/device:**			
	Size of bolt(mm) :		:	
	a)	Length	:	
	b)	Dia.	:	
	c)	Pitch	:	

3.0	**Overall Dimensions (mm)**			
	a)	Length	:	
	b)	Width	:	

	c)	Height	:	
	d)	Mass, (kg)	:	
4.0	**Color of implement**			

5.0 **Details of Material of Construction :**

Sr.	Name of part	Material	Section or size in mm
1	**2**	**3**	**4**
1	Frame		
2	Hitch		
3	Hitch pin		
4	Hopper		
5	Lid		
6	Spreading disc		
7	Handle		
8	Gears		
9	Agitators		
10	Gear shaft		
11	Centre shaft		
12	Crank shaft		
13	Feed control mechanism		
14	Strap		

Place:
Date:

Signature: _____

Name : _____

Designation: _____