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SPECIFICATION SHEET FOR TRACTOR OPERATED ROTAVATOR

1	**General**		
	Name and address of manufacturer	:	
	Name and address of applicant	:	
	Type	:	
	Make	:	
	Model	:	
	Year of manufacture	:	
	Serial number	:	
	Tractor engine power required, kW	:	
	Type of blade	:	
	Size of rotavator, mm	:	
2	**Prime mover used**		
	Tractor Power, kW	:	
	Min. PTO Power, kW	:	
3	**Constructional Details**		
3.1	**Chassis:**		
	Type	:	

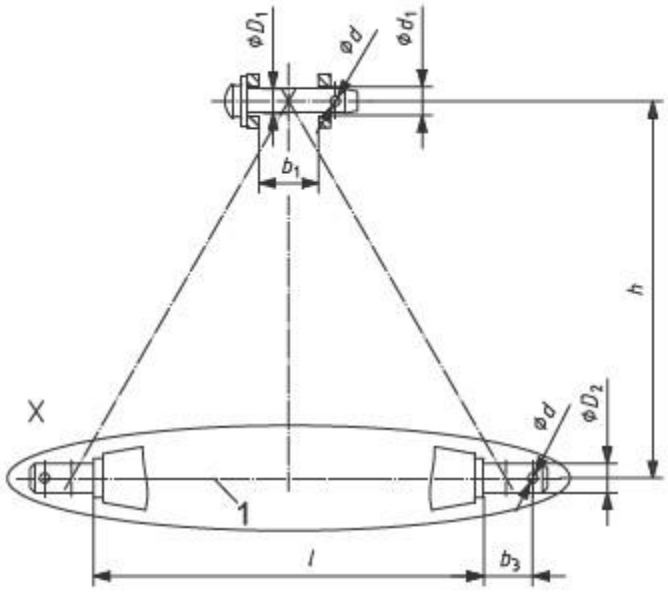
	Size of box section, mm (L x B x T)	:	
	Size of supporting flat, mm (L x B x T)	:	
	Type of mounting box section	:	
3.2	**Side support**		
	Type	:	
	Size of plate, mm (L x B x T)	:	
	Size of bolt, mm		
	Length	:	
	Diameter	:	
	Method of fixing	:	
3.3	**Shield (Cover)**		
	Type	:	
	Size, mm (L x B)	:	
	Thickness of sheet, mm	:	
	Method of mounting	:	
4	**Trailing board:**		
	Type	:	
	Material	:	
	Size of board, mm	:	
	Thickness of sheet, mm (L x B)	:	
	Locking system	:	
	Method of mounting plate sector	:	
	Type of hinge	:	
	No. of hinges	:	

	Method of fixing	:	
5	**Rotor shaft:**		
	Material	:	
	Type of rotor axle	:	
	Size of shaft, mm	:	
	No. of flanges	:	
	Type of flanges	:	
	Diameter of flange, mm	:	
	Thickness of flange, mm	:	
	No. of blades on each flange	:	
	Method of mounting blades on flange	:	
	Distance between two flanges, mm	:	
	Total No. of blades	:	
	Diameter of rotor with blades, mm	:	
	Method of fixing	:	
5.1	**Rotor Blade:**		
	Number	:	
	Type	:	
	Material	:	
	Overall thickness, mm	:	
	Thickness at beveled edge, mm	:	
	Length of the beveled edge, mm	:	
	Speed of rotor shaft corresponding to 540 rpm of PTO shaft, rpm	:	
	Peripheral speed of rotor blades, m/s	:	
6	**Depth control mechanism:**		
6.1	**Skid**		
	Type & Material	:	

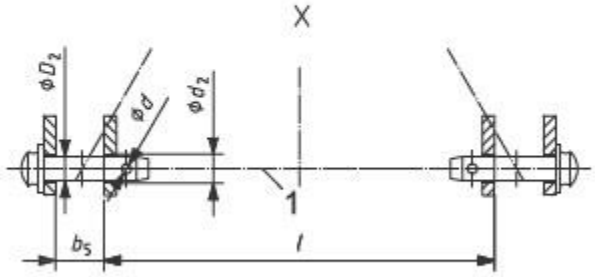
	Size, (mm)		
	Curved length	:	
	Width	:	
	Thickness	:	
	No. of skid	:	
6.2	**Adjusting Rack**		
	Type & material	:	
	Size, mm (L x B x T)	:	
	Range of depth adjustment, mm	:	
	Method of mounting	:	
7	**Implement hitch point as per IS**		
	Type	:	

Sr. No.	**Notations**	**As per IS: 17231:2019 (1N, 1, /2N, 2), mm**	**As measured, mm**	**Remarks**
I	**Upper hitch point**			
D_1	Diameter of hitch pin	19 (0-0.08)/ 25.5 (0-0.13)		
b_1	Width between inner faces of yoke	52 (Min.)		
II	**Lower hitch points**			
D_2	Diameter of hitch pin	22 (0-0.2)/ 28 (0-0.2)		
b_3	Linch pin hole distance	49 (Min.)		
b_5	Clevis width	65+20		
l	Lower hitch point span	400±1.5, 683±1.5, 683±1.5, 825±1.5		
III	**Other dimensions**			

	d	Diameter for linch pin hole			
		Upper hitch pin	12 (min.)		
		Lower hitch pin	12 (min.)		
	h	Mast height	360±1.5 460±1.5 610±1.5 610±1.5		



a) Pin type



b) Clevis type

Fig 1 Dimensions related to implement hitch attachment

7.1	**Mast**

	Type	:	
	Size of flat, mm (L x B x T)	:	
	Shape	:	
8	**Power transmission system:**		
	Method of transmission:		
8.1	**Dimensions of splined end of pinion shaft, mm (Refer Fig. 2) :**		

Specification	**As per IS: 4931-2004**	**As observed**	**Remarks**
1	**2**	**3**	**4**
DΦ	34.79±0.06		
dΦ	28.91±0.05		
BΦ	29.4±0.1		
S	8.69		
R	6.7±0.25		
α	30˚		
G	7		
H	38		
A	54 (Min.)		
B	76 (Min.)		
I	25±0.5		
J (optional hole)	8.3		

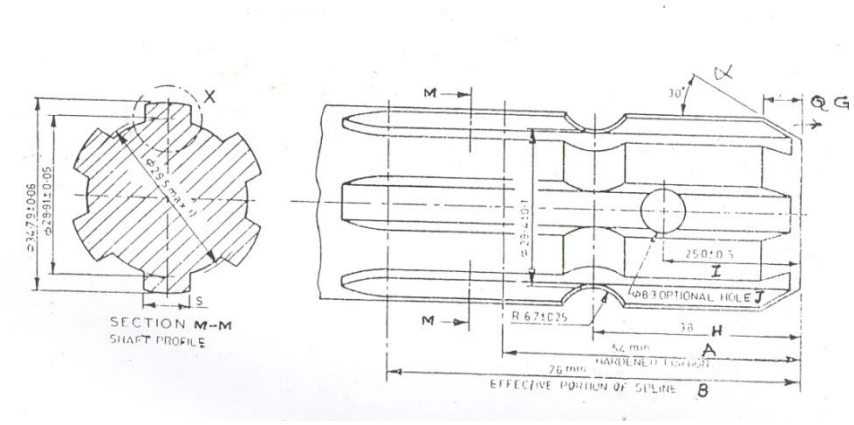
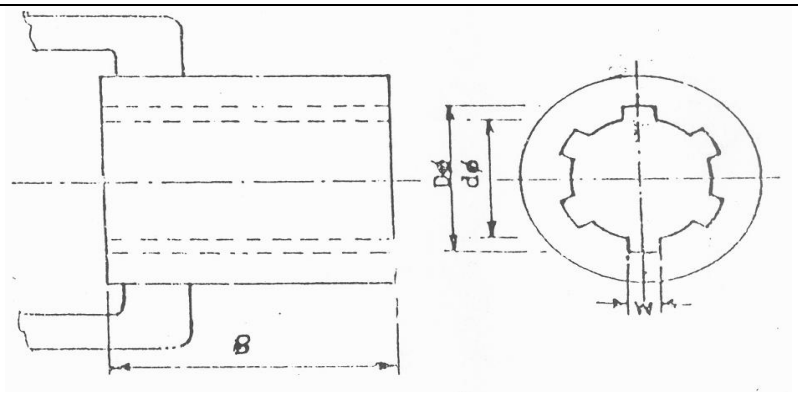


Fig. 2: Dimensions of Implement Power Input Shaft, mm

8.2	**Gear box assembly (primary reduction): Multi Speed**		
	Type	**:**	
	Spur		
	No. of teeth on drive gear	**:**	
	No. of teeth on driven gear	**:**	
	Bevel and Pinion		
	Bevel	**:**	
	Pinion	**:**	
	Optional gear (Spur gear set)	**:**	
	Reduction ratio at gear box	**:**	
	Oil capacity, lit	**:**	
	Oil change period, h	**:**	
	Length of power transmission shaft, mm (from gear box to secondary reduction unit)	**:**	
	Diameter of shaft, mm	**:**	
	Provision of breather	**:**	
	Provision for dipstick	**:**	
	Nos. of bearing	**:**	
8.3	**Gear box (secondary reduction):**		
	Type	**:**	
	No. of Gears	**:**	

	Type of gears	:	
	No. of teeth on drive gear	:	
	No. of teeth on driven gear	:	
	No. of teeth on idle gear	:	
	Reduction ratio	:	
	Grease capacity, kg	:	
	Grease change period, h	:	
	Grease level checking bolt	:	
	No. of bearing	:	
8.4	**Propeller shaft:**		
	Type: - Telescopic (with two segments) having one universal joint on each segment with splined ends to insert the PTO of tractor and drive shaft of bevel box.		
	Length of the shaft, mm:		
	-Minimum	:	
	-Maximum	:	
	Mass of shaft, kg	:	
	Provision for locking	:	
8.4.1	**Propeller shaft**		
	Propeller shaft insert dimension (Refer Fig.3):		

S. No.	Notations	Dimensions (mm)		Conformity to IS
		As per IS: 4931-2004	As observed	
1	Dϕ	34.93 ± 0.03		
2	dϕ	29.7 ± 0.1		
3	W	8.69		
4	B	54 (min)		

	 **Fig. 3: Propeller Shaft Insert Dimensions, mm**		
9	Rotavator Stand	**:**	
	Safety clutch/device	**:**	
10	**Overall dimensions,** mm		
	Length,	**:**	
	Width	**:**	
	Height	**:**	
11	**Mass of the Machine, kg**	**:**	

Place:

Date:

Signature: _ _____

Name: _____

Designation: _____