



Farm Machinery Testing and Training Centre
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SPECIFICATION SHEET OF TRACTOR MOUNTED POWER SHREDDER

1	General		
	Name & address of manufacturer	:	
	Name & address of applicant	:	
	Type	:	
	Make	:	
	Model	:	
	Year of manufacture	:	
	Serial number	:	
	Tractor horse power required, hp	:	
	Size of shredder, mm	:	
2	Constructional Details		
2.1	Main frame		
	Type	:	
	Size of box section, mm	:	
	Size of front support, mm		
	Square Tube	:	
	C - Section	:	

	Type of mounting box section	:	
2.2	Side support		
	Number	:	
	Material	:	
	Thickness of plate, mm	:	
	Size, mm	:	
	Method of fixing	:	
3	Rotor Shaft and Assembly		
	Material	:	
	Type	:	
	Size of rotor shaft	:	
	Length of shaft, mm	:	
3.1	Rotor Blade		
	Total no number of blades	:	
	Type of blade	:	
	Material	:	
	Overall thickness, mm	:	
	Thickness at beveled edge, mm	:	
	Length of the beveled edge, mm	:	
	Peripheral speed of rotor blades, m/sec	:	
	Speed of rotor shaft corresponding to 540 rpm of PTO shaft, rpm	:	

4	Depth control mechanism				
4.1	Support wheel				
	Type	:			
	Size, mm	:			
	Method of mounting	:			
4.2	Skid				
	Type	:			
	Size, mm	:			
	Number of skid	:			
	Method of mounting	:			
5	Three point linkage: (Refer Fig.1)				
	Three point linkage Dimensions				
	Sr. No.	Notations	As per Is: 4468-2001 (Cat-I/Cat-II), mm	As measured, mm	Remarks
	I	Upper hitch point			
	a)	Diameter of hitch pin (A)	18.92 to 19.00/ 25.37 to 25.50		
	b)	Diameter of hitch pin hole (B)	19.3 to 19.5/ 25.70 to 25.91		
	c)	Linch pin hole distance (D)	76/93 (Min.)		
	d)	Width between outer faces of yoke (E)	69/86 (Max.)		
	e)	Width between inner faces of yoke (F)	44.5/52 (min)		
	II	Lower hitch points			
	a)	Diameter of hitch pin	21.80 to 22.01/ 27.8 to 28.0		
	b)	Diameter of hitch pin hole (H)	22.40 to 22.65/ 28.70 to 29.00		
	c)	Linch pin hole distance (K)	39/49 (Min.)		
	III	Diameter of linch pin hole			

a)	Upper hitch pin (L)	12/12 (min.)		
b)	Lower hitch pin (L)	12/12 (min.)		
IV	Mast height (M)	458.5 to 461.5/ 608.5 to 611.5		
V	Lower hitch point spans (N)	681.5 to 684.5/ 823.5 to 826.5		

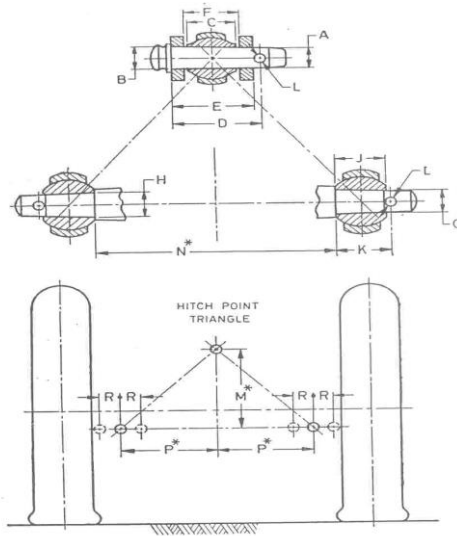


Fig. 1 Specifications of hitch pyramid

6	Mast			
	Type	:		
	Size of flat, mm	:		
7	Power transmission system			
	Method of transmission	:		
7.1	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		

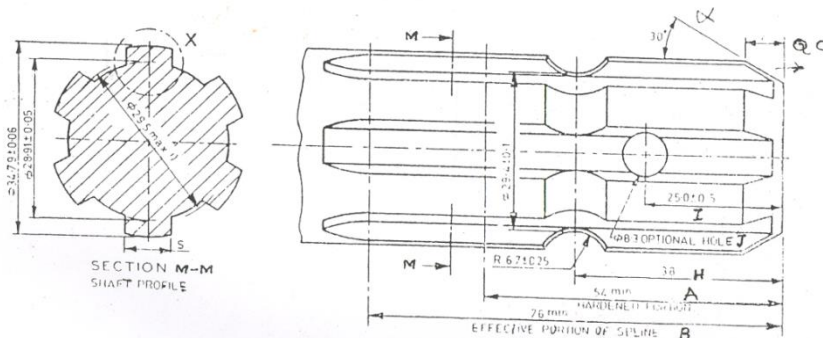


Fig. 2: Dimensions of Implement Power Input Shaft, mm

7.2	Gear box assembly (primary reduction)		
	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	:	
7.3	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	:	
7.4	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	:	
7.4.1	Propeller shaft		
	Propeller shaft insert dimension (Refer Fig.3):		

	Sr. No.	Notations	Dimensions, mm		Conformity to IS
			As per IS: 4931-2004	As observed	
	1	D ϕ	34.93 \pm 0.03		
	2	d ϕ	29.7 \pm 0.1		
	3	W	8.69		
	4	B	54 (min)		

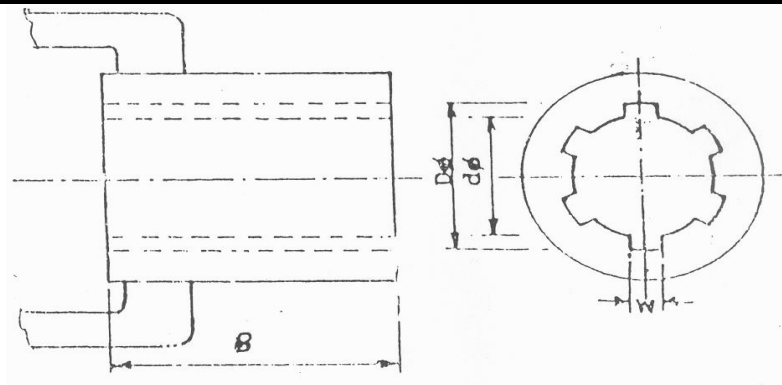


Fig. 3: Propeller Shaft Insert Dimensions, mm

8	Overall dimensions, mm		
	Length,	:	
	Width	:	
	Height	:	
	Mass of the Machine, kg	:	

Place:

Date:

Signature: _____

Name: _____

Designation: _____