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SPECIFICATION SHEET OF TRACTOR OPERATED POWER HARROW

1	General:		
	Name of Manufacturer/ applicant and Address	:	
	Type	:	
	Make	:	
	Model	:	
	Serial No	:	
	Year of manufacture	:	
	Tractor horse power required, hp	:	
	Type of blade	:	
	Nominal Size, mm	:	
2	Prime mover used: (Refer Annexure-II)		
	Tractor	:	
	Max. PTO Power, kW	:	
3	Constructional Details		
3.1	Main frame		
	Type	:	
	Size of box section, mm	:	
	Size of front support, mm	:	
	Type of mounting box section	:	
3.2	Side support:		
	Number	:	
	Material	:	
	Thickness of plate, mm	:	
	Size, mm	:	
	Method of fixing	:	

4	Trailing board:		
	Type	:	
	Material	:	
	Size of board, mm	:	
	Thickness of sheet, mm	:	
	Adjustment	:	
5	Rotor shaft:		
	Material	:	
	Type of rotor axle	:	
5.1	Flange:		
	No. of flanges	:	
	Type of flanges	:	
	Dia. of flange, mm	:	
	Thickness of flange, mm	:	
	No. of blades on each flange	:	
	Method of mounting blades on flange	:	
	Distance between two flanges, mm	:	
	Dia. of rotor with blades, mm	:	
5.2	Rotor Blade:		
	Total no number of blades	:	
	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	:	
6	Depth control mechanism:		
6.1	Pivoted Cage Roller :		
	Type	:	
	Size, (mm)	:	
	Method of mounting	:	

7	Three point linkage: (Refer Fig.1)			
	Three point linkage Dimensions			
Sl. No.	Notation	As per IS:4468-2001 (Cat-I/Cat-I) (mm)	As measured (mm)	Remarks
I	Upper hitch point			
a)	Diameter of hitch pin (A)	25.37 to 25.50		
b)	Diameter of hitch pin hole (B)	25.70 to 25.91		
c)	Linch pin hole distance (D)	93 (Min)		
d)	Width between outer faces of yoke (E)	86 (Max.)		
e)	Width inner faces of yoke (F)	52 (Min.)		
II	Lower hitch points			
a)	Dia of hitch pin	27.8 to 28		
b)	Diameter of hitch pin hole (H)	28.7 to 29		
c)	Linch pin hole distance (K)	49 (Min.)		
d)	Dia. of Linch pin hole	12.0 (Min)		
III	Mast height	608.5 to 611.5		
IV	Lower hitch point spans (N)	823.5 to 826.5		

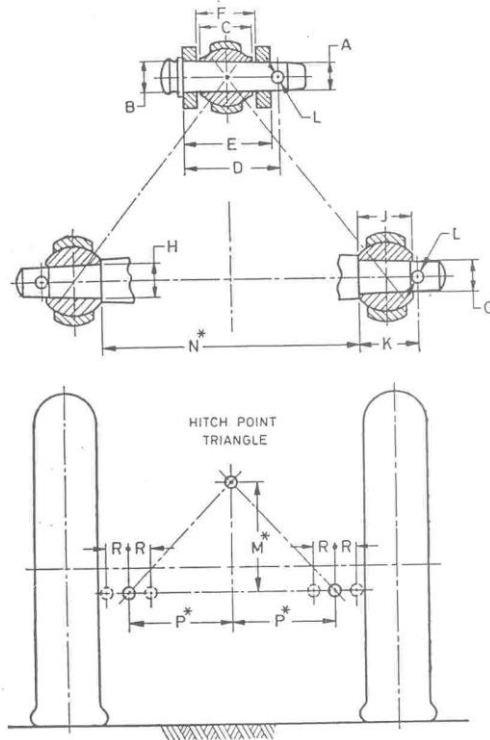


FIG. 1. DIMENSIONS OF HITCH POINTS

7.1 Mast

Type	:	
Size of flat, (mm)	:	
Construction	:	

8 Lubricants:

Reduction Gearbox	:	
Lubricant Change Period	:	
Gear Train	:	
Lubricant Change Period	:	

9 Power transmission system:

9.1 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		

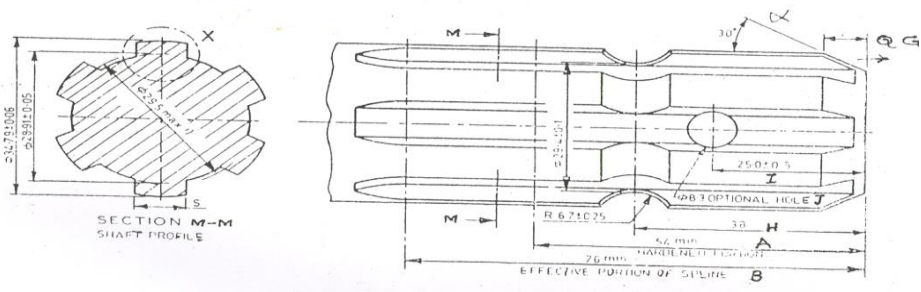
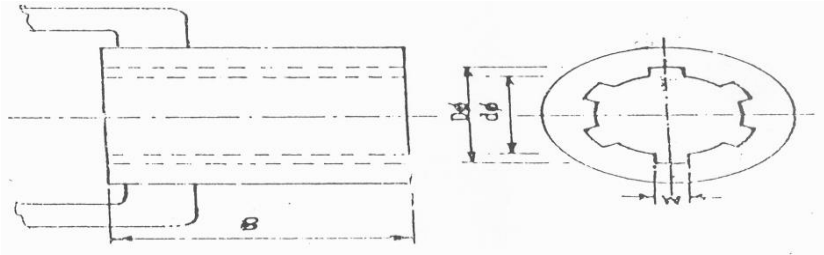


Fig. 2: Dimensions of Implement Power Input Shaft, mm

9.2	Transmission (Primary Reduction):		
	Type	:	
	No. of teeth on drive gear	:	
	No. of teeth on driven gear	:	
	Reduction ratio at gear box	:	
	Transmission (Secondary Reduction):		
	Type	:	
	No. of teeth on drive gear	:	
	No. of teeth on driven gear	:	
	Reduction ratio at gear box	:	
9.3	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	:		
9.4	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)				
10	Safety clutch/device	:		
11	Overall Dimensions (Ref. Fig. 4):			
	Length, (mm)	:		
	Width, (mm)	:		
	Height, (mm)	:		
12	Mass of the Machine, kg	:		

Place:
Date:

Signature : _____

Name : _____

Designation: _____