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**SPECIFICATION SHEET FOR TRACTOR OPERATED ROTAVATOR**

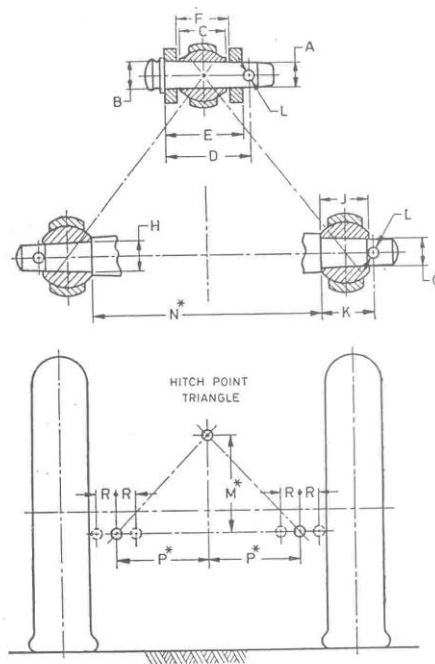
<b>1</b>	<b>General</b>		
	Name and address of manufacturer	:	
	Name and address of applicant	:	
	Type	:	
	Make	:	
	Model	:	
	Year of manufacture	:	
	Serial number	:	
	Tractor engine power required, kW	:	
	Type of blade	:	
	Size of rotavator, mm	:	
<b>2</b>	<b>Prime mover used</b>		
	Tractor Power, kW	:	
	Min. PTO Power, kW	:	
<b>3</b>	<b>Constructional Details</b>		
<b>3.1</b>	<b>Chassis:</b>		
	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	:	
<b>3.2</b>	<b>Side support</b>		
	Type	:	
	Size of plate, mm (L x B x T)	:	
	Size of bolt, mm		
	Length	:	
	Diameter	:	
	Method of fixing	:	
<b>3.3</b>	<b>Shield (Cover)</b>		
	Type	:	
	Size, mm (L x B)	:	
	Thickness of sheet, mm	:	
	Method of mounting	:	
<b>4</b>	<b>Trailing board:</b>		
	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	:	
<b>5</b>	<b>Rotor shaft:</b>		
	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	:	
<b>5.1</b>	<b>Rotor Blade:</b>		
	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	:	
<b>6</b>	<b>Depth control mechanism:</b>		
<b>6.1</b>	<b>Skid</b>		
	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	Three point linkage: ( Refer Fig.1 ) Three point linkage Dimensions, mm				
	Sr. No.	Notation	As per IS:4468-2001 ( Cat-I/Cat-II )	As measured	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)	19.30 to 19.50/ 25.70 to 25.91		
	c)	Linch pin hole distance (D)	76.00 (Min.)/ 93.00 (Min.)		
	d)	Width between outer faces of yoke (E)	44.50 (Min.)/ 52.00 (Min.)		
	e)	Width inner faces of yoke (F)	69 (Max.)/ 86 (Max.)		
	II	Lower hitch points			
	a)	Diameter of hitch pin	21.8 to 22.00/ 27.8 to 28.00		
	b)	Diameter of hitch pin	22.4 to 22.65/ 28.7 to 29.00		

		hole (H)			
	c)	Linch pin hole distance (K)	39.00 (Min.)/ 49.00 (Min.)		
	<b>III</b>	<b>Dia. of linch pin hole</b>			
	a)	Upper hitch pin (L)	12.00 (Min)		
	b)	Lower hitch pin (L)	12.00 (Min)		
	<b>IV</b>	<b>Mast height</b>	458.5 to 461.5/ 608.5 to 611.5		
	<b>V</b>	<b>Lower hitch point spans (N)</b>	681.5 to 684.5/ 823.5 to 826.5		

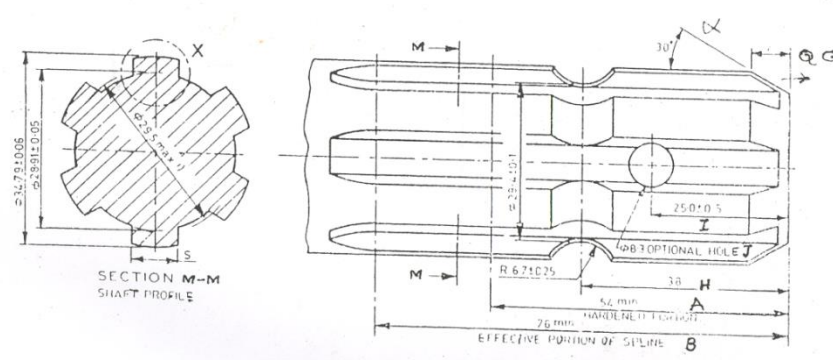


**Fig. 1 Dimensions of Hitch points**

<b>7.1</b>	<b>Mast</b>			
	Type	:		
	Size of flat, mm (L x B x T)	:		
	Shape	:		
<b>8</b>	<b>Power transmission system:</b>			
	<b>Method of transmission:</b>			

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
	D $\Phi$	34.79 $\pm$ 0.06		
	d $\Phi$	28.91 $\pm$ 0.05		
	B $\Phi$	29.4 $\pm$ 0.1		
	S	8.69		
	R	6.7 $\pm$ 0.25		
	$\alpha$	30°		
	G	7		
	H	38		
	A	54 (Min.)		
	B	76 (Min.)		
	I	25 $\pm$ 0.5		
	J (optional hole)	8.3		

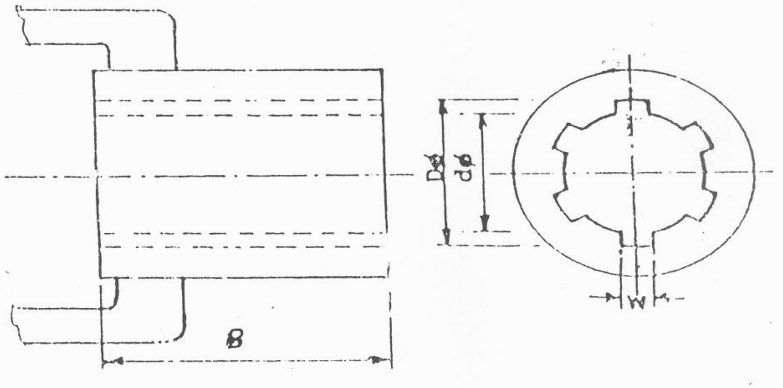
  



The figure consists of two technical drawings of a splined shaft. The left drawing is a cross-section labeled 'SECTION M-M' and 'SHAFT PROFILE', showing a circular shaft with a splined end. Dimensions include an outer diameter of  $\Phi 34.79 \pm 0.06$ , an inner diameter of  $\Phi 28.91 \pm 0.05$ , a keyway width of 8.69, a fillet radius of 6.7, and a 30-degree angle. The right drawing is a side view of the shaft, showing the length of the splined portion. Dimensions include a total length of 76 mm, a keyway depth of 5.4 mm, a keyway width of 8.69, a fillet radius of 6.7, a 30-degree angle, and a 38 mm distance from the end to the start of the splined portion. A note indicates 'HARDENED TO 40-45 HRC'.

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

<b>8.2</b>	<b>Gear box assembly (primary reduction): Multi Speed</b>		
	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	:		
<b>8.3</b>	<b>Gear box (secondary reduction):</b>		
	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 ):																													
	<table> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Notations</th> <th colspan="2">Dimensions (mm)</th> <th rowspan="2">Conformity to IS</th> </tr> <tr> <th>As per IS: 4931-2004</th> <th>As observed</th> </tr> <tr> <td>1</td> <td>D<math>\phi</math></td> <td>34.93 <math>\pm</math> 0.03</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>d<math>\phi</math></td> <td>29.7 <math>\pm</math> 0.1</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>W</td> <td>8.69</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>B</td> <td>54 (min)</td> <td></td> <td></td> </tr> </table>			S. No.	Notations	Dimensions (mm)		Conformity to IS	As per IS: 4931-2004	As observed	1	D $\phi$	34.93 $\pm$ 0.03			2	d $\phi$	29.7 $\pm$ 0.1			3	W	8.69			4	B	54 (min)		
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	<p align="center"><b>Fig. 3: Propeller Shaft Insert Dimensions, mm</b></p>																													
9	Rotavator Stand	:																												
	Safety clutch/device	:																												
		:																												
		:																												
		:																												
		:																												



<b>10</b>	<b>Overall dimensions, mm</b>		
	Length,	:	
	Width	:	
	Height	:	
<b>11</b>	<b>Mass of the Machine, kg</b>	:	

Place:

Date:

Signature:    — \_\_\_\_\_

Name:           \_\_\_\_\_

Designation:   \_\_\_\_\_