



**Farm Machinery Testing and Training Centre**  
**Department of Farm Power and Machinery**  
**College of Agricultural Engineering and Technology**  
**Dr. PANJABRAO DESHMUKH KRISHI VIDYAPEETH**  
**AKOLA- 444 104 (MS)**



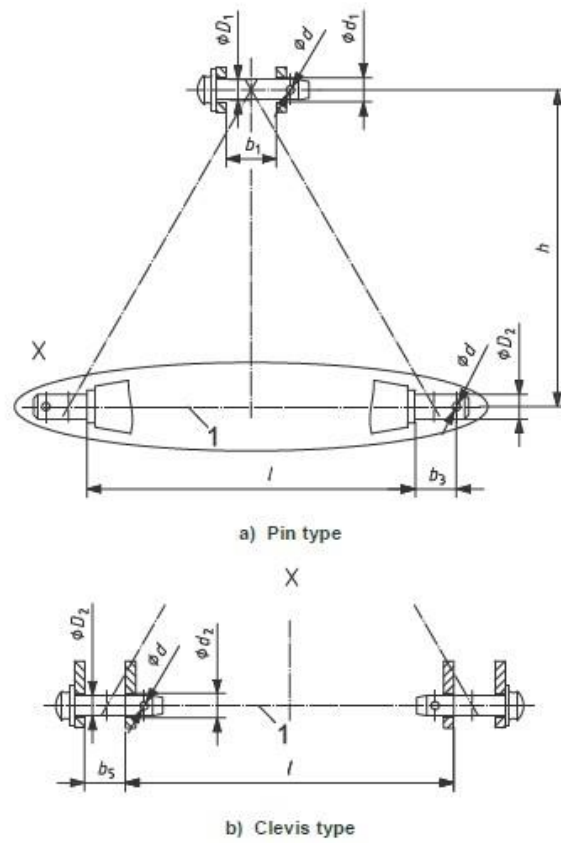
*E-mail: [fmtt28@gmail.com](mailto:fmtt28@gmail.com)*

**SPECIFICATION SHEET OF POTATO DIGGER**

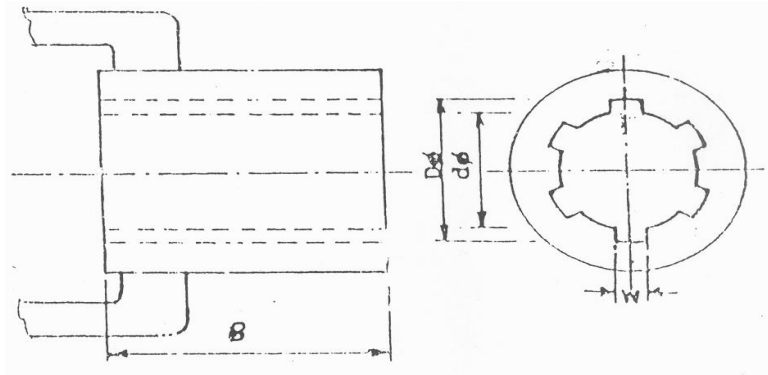
<b>1</b>	<b>General</b>		
	Name of manufacturer	:	
	Name of machine	:	
	Type	:	
	Make	:	
	Model	:	
	Serial No	:	
	Size, mm	:	
	Year of Manufacture	:	
	Recommended power source	:	
	Power source used, kW	:	
<b>2</b>	<b>Constructional details</b>		
<b>2.1</b>	<b>Main frame</b>		
	Material	:	
	Shape	:	
	Size (L x B x T), mm	:	
<b>3</b>	<b>Blade</b>		
	Type and Material	:	
	Number	:	
	Size, mm	:	

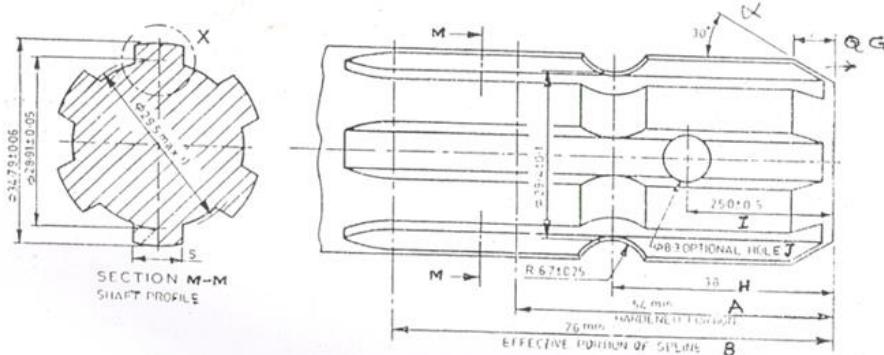
	Inclination angle, degree	:	
	Clearance from ground, mm	:	
	Clearance from main frame, mm	:	
	Method of fixing	:	
<b>4</b>	<b>Elevator chain conveyor</b>		
	Material and type	:	
	Size, mm	:	
	Peripheral length	:	
	Width	:	
	Conveyor rack material and size, mm	:	
	Spacing between racks, mm	:	
	Number of racks	:	
	Material, Nos. and size (mm) of spikes on racks	:	
	Slope of conveyor	:	
	Method of power transmission	:	
<b>5</b>	<b>Rear support / Depth control wheel</b>		
	Type	:	
	Number	:	
	Size, mm	:	
	Spacing, mm	:	
	Hub Diameter, mm	:	
<b>6</b>	<b>Safety features</b>		
<b>6.1</b>	<b>PTO guard</b>		
	Material	:	
	Thickness of sheet, mm	:	
<b>6.2</b>	<b>V-belt guard</b>		
	Material	:	
	Thickness of sheet, mm	:	

<b>7</b>	<b>Implement hitch point as per IS</b>			
	Type	:		
	Construction details	:		
<b>Sr. No.</b>	<b>Notations</b>	<b>As per IS: 17231:2019 (1N, 1, /2N, 2), mm</b>	<b>As measured, mm</b>	<b>Remarks</b>
<b>I</b>	<b>Upper hitch point</b>			
D <sub>1</sub>	Diameter of hitch pin	19 (0-0.08)/ 25.5 (0-0.13)		
b <sub>1</sub>	Width between inner faces of yoke	52 (Min.)		
<b>II</b>	<b>Lower hitch points</b>			
D <sub>2</sub>	Diameter of hitch pin	22 (0-0.2)/ 28 (0-0.2)		
b <sub>3</sub>	Linch pin hole distance	49 (Min.)		
b <sub>5</sub>	Clevis width	65+20		
l	Lower hitch point span	400±1.5, 683±1.5, 683±1.5, 825±1.5		
<b>III</b>	<b>Other dimensions</b>			
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		



**Fig 1 Dimensions related to implement hitch attachment**

8	Power transmission system	:		
	Method of transmission	:		
8.1	Propeller shaft			
	Type	:		
	Length of shaft, mm			
	Maximum	:		
	Minimum	:		
	Mass of shaft, kg	:		
	Provision of locking	:		
	Hub Dimension, mm Refer Fig 2 As per IS 4931:1995			
	Notations	As per IS:4931:1995, mm	As observed, mm	Remarks
	D $\phi$	34.93 $\pm$ 0.03		
	d $\phi$	29.7 $\pm$ 0.7		
	W	8.69 (Min)		
	B	--		
	 <p style="text-align: center;">Fig 2 Hub dimensions, mm</p>			
8.2	Splined end of pinion shaft			



**Fig 3 Dimensions of splined end of pinion shaft, mm**

Specification	As per IS: 4931-2004	As observed	Remarks
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		

**8.3 Gear box assembly (primary reduction)**

Type	:	
No. of teeth on pinion	:	
No. of teeth on bevel gear	:	
Reduction ratio at gear box	:	
Oil capacity, l	:	
Oil change period, hr	:	
Recommended grade of oil	:	
Length of power transmission	:	

	shaft (mm) (from gear box to front pulley)		
	Diameter of shaft, mm	:	
	Provision of breather	:	
<b>8.4</b>	<b>Gear box to conveyor upper pulley (secondary reduction)</b>		
	Front pulley diameter, mm	:	
	Rear pulley diameter, mm	:	
	V-belt size, number	:	
	Provision of belt tightening	:	
	Dia. of casing of output shaft, mm	:	
	Dia. of rear drive shaft, mm	:	
<b>9</b>	<b>Windrowing mechanism</b>		
	Type and material	:	
<b>10</b>	Overall dimensions (L x B x H), mm	:	
<b>11</b>	Mass, Kg	:	
<b>12</b>	Colour of implement	:	

Place:

Date:

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Designation: \_\_\_\_\_