

## 1. SPECIFICATIONS

<b>1.1</b>	<b>General</b>		
	Manufacturer	:	
	Name of applicant	:	
	Name of machine	:	
	Make	:	
	Model	:	
	Type	:	
	Serial number	:	
	Year of manufacture	:	
	Size of Reaper (mm)	:	
	Type of crops recommended	:	
<b>1.2</b>	<b>Details of prime- mover (As recommended &amp; used)</b>	:	<b>Please attach a copy of test report of power tiller</b>

<b>1.3</b>	<b>Essential accessories required along with standard fitment of prime mover</b>	:	
<b>1.3.1</b>	<b>Engine mounting frame</b>	:	
	Constructional details	:	
	Dimensions of frame (mm)	:	
<b>1.3.2</b>	<b>Mode of power transmission from engine to power tiller clutch</b>	:	
<b>1.3.3</b>	<b>Reaper mounting frame</b>	:	
	Constructional details	:	
	Dimensions of frame (mm)	:	
	Mass of the frame (kg)	:	
<b>1.3.4</b>	<b>Balancing weights</b>	:	
	Numbers	:	
	Material	:	
	Size (mm)	:	
	Total mass (kg)	:	
	Location	:	

<b>1.4</b>	<b>Reaper Transmission (Refer Fig.2)</b>	:	
<b>1.4.1</b>	<b>Intermediate gear box</b>	:	
	Constructional details	:	
	Reduction ratio	:	
	Method of lubrication	:	
	Mode of power transfer from intermediate gear box to the reaping unit	:	
	Reduction ratio	:	
	Arrangement for belt tensioning	:	
<b>1.4.2</b>	<b>Reaper cut-off mechanism</b>	:	
	Location	:	
	Type	:	
	Mode of power transmission	:	
	Method of operation	:	

<b>1.4.3</b>	<b>Reaping bevel box</b>		
	Type	:	
	No. of gears	:	
	Reduction ratio	:	
	Mode of power transmission	:	
	Type of lubricant	:	
	Method of lubrication	:	
	Lubrication period	:	
<b>1.5</b>	<b>Reaper frame</b>		
	Constructional details	:	
<b>1.6</b>	<b>Cutter bar assembly</b>		
	Working width (mm)	:	
	Effective width (mm)	:	
	No. & spacing of knife guards (mm)	:	
	No. & type of knife blades	:	
	Knife stroke (mm)	:	
	Strokes per min	:	
	Knife speed corresponding to no load engine speed during field test (m/s)	:	
	Details of knife drive	:	
	Minimum height of cutter bar from	:	

	G.L. (mm)	:	
	Method of adjustment	:	
	Transporting height of cutter bar from G.L. (mm)	:	
<b>1.6.1</b>	<b>Crop divider</b>		
	Type	:	
	Number	:	
	Distance between two adjustment shoes (mm)	:	
	- Min.	:	
	- Max.	:	
	Height of shoe from GL (mm)	:	
	<b>Details of shoe :</b>		
	Constructional details	:	
	- Length (mm)	:	
	- Width at rear (mm)	:	
	- Width at front (mm)	:	
<b>1.6.2</b>	<b>Crop guide (star) wheel</b>		
	No. of wheels	:	
	Material	:	
	No. of projections on each wheel	:	
	Dia. of wheel (mm)	:	
	No & type of bearing if any	:	
	Method of mounting & its drive	:	

1.6.3	<b>Divider guide</b>		
1.6.4	<b>Guard</b>		
	Type	:	
	Total number of guards	:	
	Total number of guards	:	

<b>Specification of guard as per IS: 6024 -1983 (Reaffirmed in Dec/ i999)</b>					
s. No.	Designation	Dimension as per IS (mm)	Tolerances (mm)	As observed (mm)	Conformity to IS
1	A	152.4	$\pm 0.8$		
2	B	76.2	$\pm 0.2$		
3	C	--	--		
4	D	11.0	$\pm 1.8$		

1.6.5	Knife	:	
	Make	:	
	Total numbers	:	

<b>Specification of knife section as per IS: 6025-1982 (Reaffirm Dec 1999)</b>					
S. No.	Designation	Dimension as per IS (mm)	Tolerances (mm)	As observed (mm)	Conformity to IS
1	A	76.2	-0.2 to -0.4		
2	B	50.8;51.5;52.5	$\pm 0.1$		
3	C	11.8;12.7	$\pm 0.1$		
4	D	5.5	$\pm 1.2$		
5	E	9.5 min.	-		
6	F	9.0 min.	-		
7	G	0.8 min.	-		
8	H	11.0	$\pm 0.5$		
9	J	12.5 min.	-		
10	K	30.6;31.8	$\pm 0.25$		
11	L	65.0	$\pm 0.5$		
12	T	2.0 min	-		
13	$\alpha$	19°	$\pm 1^\circ$		

<b>1.6.6</b>	<b>Knife back</b>	:	
	Material	:	
	Length (mm)	:	

<b>Specification of knife back as per IS: 10378-1982 (Reaffirmed in Jan. 2001) Refer fig.3C)</b>					
s. No.	Designation	Dimension as per IS (mm)	Tolerances (mm)	As observed (mm)	Conformity to IS
1	A	20 min	-		
2	B	4.5 min	-		
3	C	50.8;51.5;52.5	$\pm 0.1$		
4	D	12.0 min.	-		
5	E	25.4	$\pm 0.1$		
6	F	5.5	$\pm 0.2$		
7	$\alpha$	75° or 90°	$\pm 1^\circ$		

<b>1.6.7</b>	<b>Knife clips</b>	:	
	Material	:	
	Size (mm)	:	
	No. of clips	:	
	No. type & size of bolts for fixing knife clips (mm)	:	
	Spacing of knife clips (mm)	:	
	Provision for adjusting the clearance between clip and cutter bar	:	
	Method of fixing	:	
<b>1.6.8</b>	<b>Ledger plate Assembly</b>		
	Constructional details	:	
	Size of ledger plate assembly (mm)	:	
	Size and spacing of holes (mm)	:	
<b>16.9</b>	<b>Knife Head</b>		
	Number	:	
	Material & size (mm)	:	
	Height of head from cutter bar (mm)	:	

	Size of slot for the movement of knife head (mm)	:	
	Method of fixing	:	

<b>1.6.10</b>	<b>Pitman</b>		
	Constructional details	:	
<b>1.6.10.1</b>	<b>Pitman shaft</b>	:	
	Effective length (mm)	:	
	Method of lubrication	:	
	Lubrication period	:	
<b>1.6.10.2</b>	<b>Crank pin</b>		
	Effective length of crank (mm)	:	
	Diameter of crank pin (mm)	:	
<b>1.7</b>	<b>Crop Conveyor</b>		
	Number of conveyors	:	
	Type	:	
	Material	:	
	Mode of power transmission from bevel box to conveyor pulleys	:	
	Number of links & length of drive chain (mm)	:	
	Roller dia. & pitch of chain	:	
	Speed of Drive/ Driven sprocket (rpm)	:	
	Number of teeth on Drive/ Driven sprockets	:	
	Speed reduction ratio	:	



	Speed of conveyor corresponding to no load engine speed for field test (m/s)	:	
	Provision for tensioning	:	
	Method of drive	:	
	Drive safety arrangement	:	Not provided

Details of Conveyor Belts				
S. No.	Parameters	Lower	Middle	Upper
1	2	3	4	5
1	No. of belts			
2	Length of belts (mm)			
3	Width of belts (mm)			
4	Thickness of belts			
5	No. of lugs on belts			
6	Size of lug (Length x width) (mm)			
7	Lug distance(horizontal)			
8	Vertical distance between Conveyors (mm)			
9	Thickness of lug			
10	No. & type of pulleys on each Conveyor belt			
11	Dia. & width of pulley			

**Note : The upper most belt is provided for wheat and other crops and not for paddy.**

<b>1.8</b>	<b>Tail wheel assembly</b>	:	
	Constructional details	:	

	Number of wheels	:	
	Type	:	
	Size (mm)	:	
	Make	:	
	Tyre number	:	
<b>4.9</b>	<b>Operator's seat</b>		
	Type	:	
	Provision for height adjustment	:	
	Range of height adjustment from GL (mm)		
	- Transporting condition	:	
	- Operating condition	:	
	Method of fixing	:	
<b>1.10</b>	<b>Foot rest</b>		
	Constructional details		
	Size (mm)		
	- Length	:	
	- Width	:	
	Height of foot rest from GL (mm)		

<b>1.11</b>	<b>Overall dimensions (mm)</b>		
<b>Parameters</b>	<b>Reaper Mounted on power Tiller</b>		<b>Reaper unit</b>
<b>Length</b>			
<b>Width</b>			
<b>Height</b>			
<b>Mass (kg)</b>			

<b>1.12</b>	<b>Ground clearance (mm)</b>	:	
<b>1.13</b>	<b>Colour of reaper unit</b>	:	