

Website: <http://srfmtti.dacnet.nic.in/>  
 E-mail: [fmti-sr@nic.in](mailto:fmti-sr@nic.in)  
 Tele./FAX: 08551-286441



भारत सरकार

**Government of India**

कृषि एवं किसान कल्याण मंत्रालय,

**Ministry of Agriculture and Farmers Welfare**

(कृषि, सहकारिता एवं किसान कल्याण विभाग)

**(Department of Agriculture, Cooperation and Farmers Welfare)**

दक्षिणी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

**Southern Region Farm Machinery Training and Testing Institute**

ट्रैक्टर नगर, गार्लदिन्ने - 515 731, जिला: अनंतपुर (आं. प्र.)

**Tractor Nagar, Garladinne- 515 731, District: Anantapur (A.P.)**

**[ISO 9001:2008 COMPLIANT INSTITUTION]**

1. SPECIFICATIONS

1.1 General

Manufacturer :

Name of applicant :

Name of machine :

Make :

Model :

Type :

Serial number :

Year of manufacture :

Name of the Manufacturer/Applicant	Document No, if any Revision status	Name of the Test Agency: SRFMTTI, Garladinne
Signature : Name : Designation : Date :	Make : Model : Sheet No. _____ of _____	Signature : Name : Designation : Date :

Size of Reaper (mm) :

Type of crops recommended :

**1.2 Details of prime- mover (As recommended & used) : Please attach a copy of test report of power tiller**

**1.3 Essential accessories required along with standard fitment of prime mover :**

**1.3.1 Engine mounting frame :**

Constructional details :

Dimensions of frame (mm) :

**1.3.2 Mode of power transmission from engine to power tiller clutch :**

**1.3.3 Reaper mounting frame**

Constructional details :

Dimensions of frame (mm) :

Mass of the frame (kg) :

**1.3.4 Balancing weights**

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Numbers :

Material :

Size (mm) :

Total mass (kg) :

Location :

**1.4 Reaper Transmission :**

**1.4.1 Intermediate gear box**

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 :

**1.4.2 Reaper cut-off mechanism :**

Location :

Type :

Mode of power transmission :

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Method of operation :

### 1.4.3 Reaping bevel box

Type :

No. of gears :

Reduction ratio :

Mode of power transmission :

Type of lubricant :

Method of lubrication :

Lubrication period :

### 1.5 Reaper frame

Constructional details :

### 1.6 Cutter bar assembly

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 :

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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) :

### 1.6.1 Crop divider

Type :

Number :

Distance between two adjustment  
shoes (mm)

- Min. :

- Max. :

Height of shoe from GL (mm) :

#### Details of shoe :

Constructional details :

- Length (mm) :

- Width at rear (mm) :

- Width at front (mm) :

### 1.6.2 Crop guide (star) wheel

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 :

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**1.6.3 Divider guide****1.6.4 Guard**

Type :

Total number of guards :

Total number of guards :

Specification of guard as per IS: 6024 -1983					
s. No.	Designation	Dimension as per IS (mm)	Tolerances (mm)	As observed (mm)	Conformity to IS
1	A	152.4	+0.8		
2	B	76.2	+0.2		
3	C	--	--		
4	D	11.0	+1.8		

1.6.5 Knife :

Make :

Total numbers :

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

**1.6.6 Knife back** :

Material :

Name of the Manufacturer/Applicant	Document No, if any Revision status	Name of the Test Agency: SRFMTTI, Garladinne
Signature : Name : Designation : Date :	Make : Model : Sheet No. _____ of _____	Signature : Name : Designation : Date :

Length (mm) :

<b>Specification of knife back as per IS: 10378-1982</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°	$\pm 1^\circ$		

**1.6.7 Knife clips** :

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 :

**1.6.8 Ledger plate Assembly**

Constructional details :

Size of ledger plate assembly (mm) :

Size and spacing of holes (mm) :

**16.9 Knife Head**

Number :

Material & size (mm) :

Height of head from cutter bar (mm) :

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

Method of fixing :

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**1.6.10 Pitman**  
 Constructional details :

**1.6.10.1 Pitman shaft** :  
 Effective length (mm) :  
 Method of lubrication :  
 Lubrication period :

**1.6.10.2 Crank pin** :  
 Effective length of crank (mm) :  
 Diameter of crank pin (mm) :

**1.7 Crop Conveyor** :  
 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 :

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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.**

**1.8 Tail wheel assembly :**

Constructional details :

Number of wheels :

Type :

Size (mm) :

Make :

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Tyre number :

**4.9 Operator's seat**

Type :

Provision for height adjustment :

Range of height adjustment  
from GL (mm)

- Transporting condition :

- Operating condition :

Method of fixing :

**1.10 Foot rest**

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>		

**1.12 Ground clearance (mm) :**

**1.13 Colour of reaper unit :**

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