



**DEPARTMENT OF FARM MACHINERY AND POWER ENGINEERING  
COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY  
CCS HARYANA AGRICULTURAL UNIVERSITY  
HISAR-125004, HARYANA**



Phone:01662-255447

e-mail: fpm@hau.ernet.in

<http://hau.ernet.in>

hau.machinerytesting@gmail.com

**SPECIFICATION SHEET OF PADDY THRESHER**

1.	Name of Machine	
2.	Name and address of Manufacturer	
3.	Name and address of applicant	
4.	Selling price in India	

**5. SPECIFICATIONS**

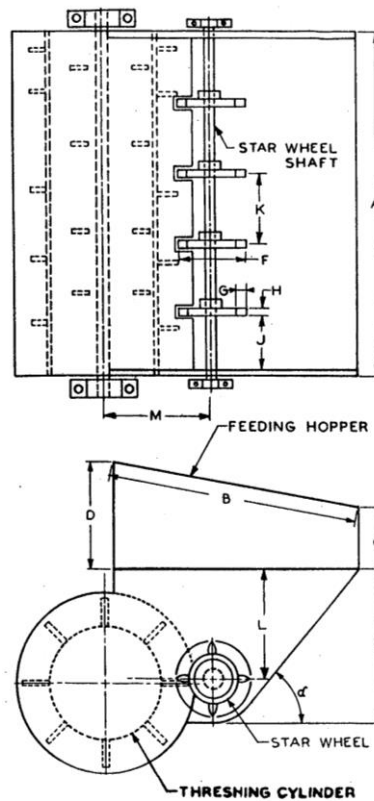
<b>5.1</b>	<b>General:</b>	
a)	Name	:
b)	Type	:
c)	Make	:
d)	Serial Number	:
e)	Model	:
f)	Size of thresher (mm)	:
g)	Recommended source of power by applicant	:
h)	Design suitability as per applicant	:
	-Main crop recommended	:
	-Other crops recommended	:
	-Thresher evaluated for	:
i)	Year of manufacture	:

<b>5.2</b>	<b>Constructional Details</b>	
5.2.1	<b>Frame/Stand:</b>	
	a) Constructional details	:
	b) Type	:
	c) Size (mm)	:
	d) Material	:
	e) Size of rectangular box (mm)	:
5.2.2	<b>Power unit</b>	
	a) Provision	:
	b) Type of prime mover, recommended by the applicant	:
	c) Recommended power, (kW or hp)	:
	d) Type of drive	:
5.2.3	<b>Main drive</b>	
	a) Type	:
	b) Size of belt	:
	c) Size of pulley (mm)	:
	d) Diameter of main shaft (mm)	:

5.2.4	<b>Threshing cylinder</b>		
5.2.4.1	<b>Cylinder</b>		
	a)	Type	:
	b)	Constructional feature	:
	c)	Diameter (mm)	:
	d)	Width (mm)	:
	e)	Recommended speed (rpm)	:
	f)	Number and type of bearings	:
	g)	Number and size of beaters /projections/bars (mm)	:
	h)	Spacing between beaters (mm)	:
	i)	Direction of rotation	:
5.2.4.2	<b>Concave</b>		
	a)	Type	:
	b)	Diameter or width (mm)	:
	c)	Length (mm)	:
	d)	Concave clearance range (mm)	:
	e)	Recommended concave clearance (mm)	:
	f)	Method of clearance adjustment	:
	g)	Constructional feature	:
	h)	Method of fixing	:
5.2.5	<b>Sieve</b>		
	a)	Type	:
	b)	Number	:
	c)	Total length and width (mm)	:
	d)	Effective length and width (mm)	:
	e)	Number of holes per cm <sup>2</sup>	:
	f)	Size of hole (mm)	:
	g)	Sieve clearance (mm)	:
	h)	Screen slope range (°)	:
		Recommended screen slope (°)	:
	i)	Method of mounting	:
5.2.6	<b>Shaker</b>		
	a)	Type	:
	b)	Number of strokes per minute	:
	c)	Drive	:
	d)	Number and type of bearings	:
5.2.7	<b>Blower</b>		
	a)	Number	:
	b)	Type	:
	c)	Number of blades	:
	d)	Size of blades (mm)	:
	e)	Diameter (mm)	:
	f)	Recommended speed (rpm)	:
	g)	Recommended air displacement (m <sup>3</sup> /h)	:
	h)	Provision for changing air displacement	:
	i)	Size of inlet opening (mm)	:

	j)	Size of outlet opening (mm)	:	
	k)	Drive	:	
	l)	Number and type of bearings	:	
5.2.8	<b>Elevator</b>			
	a)	Type	:	
	b)	Constructional details	:	
	c)	Capacity	:	
	d)	Drive	:	
	e)	Grain spout size (mm)	:	
	f)	Height above ground level (mm)	:	
	g)	Number and type of bearings	:	
5.2.9	<b>Crop feeding</b>			
	a)	Type	:	
	b)	Method of feeding	:	
	c)	Size of hopper (mm)	:	
	d)	Height and location of hopper (mm)	:	
	e)	Recommended maximum feed rate (kg/h)	:	

The dimensions of the hopper and star wheels when in conjunction with Fig. X shall be as given in below Table.



चित्र 2 भरण हापर के विवरण

FIG. 2 DETAILS OF FEEDING HOPPER

स्टार पहिये की धुरी	—	STAR WHEEL SHAFT
भरण हापर	—	FEEDING HOPPER
स्टार पहिया	—	STAR WHEEL
गहई सिलिण्डर	—	THRESHING CYLINDER
ए	—	A
बी	—	B
सी	—	C
डी	—	D
ई	—	E
एफ	—	F
जी	—	G
एच	—	H
के	—	K
एल	—	L
एम	—	M

		Table: Dimensions hopper and star wheel (mm)																																																						
		<table border="1"> <tr> <th rowspan="2">Notations</th> <th colspan="4">Size of the prime mover for thresher kW</th> </tr> <tr> <th>7.5</th> <th>11</th> <th>15</th> <th>18.7 and above</th> </tr> <tr> <td>B Min</td> <td>900</td> <td>900</td> <td>925</td> <td>950</td> </tr> <tr> <td>C Min</td> <td>180</td> <td>200</td> <td>220</td> <td>240</td> </tr> <tr> <td>D Min</td> <td>340</td> <td>370</td> <td>400</td> <td>430</td> </tr> <tr> <td>E Min</td> <td>75</td> <td>500</td> <td>535</td> <td>565</td> </tr> <tr> <td>F</td> <td>280</td> <td>280</td> <td>280</td> <td>280</td> </tr> <tr> <td>G</td> <td>45</td> <td>45</td> <td>45</td> <td>45</td> </tr> <tr> <td>H</td> <td>20</td> <td>20</td> <td>20</td> <td>20</td> </tr> <tr> <td><math>\alpha \pm 5^\circ</math></td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> </table>				Notations	Size of the prime mover for thresher kW				7.5	11	15	18.7 and above	B Min	900	900	925	950	C Min	180	200	220	240	D Min	340	370	400	430	E Min	75	500	535	565	F	280	280	280	280	G	45	45	45	45	H	20	20	20	20	$\alpha \pm 5^\circ$	50	50	50	50		
Notations	Size of the prime mover for thresher kW																																																							
	7.5	11	15	18.7 and above																																																				
B Min	900	900	925	950																																																				
C Min	180	200	220	240																																																				
D Min	340	370	400	430																																																				
E Min	75	500	535	565																																																				
F	280	280	280	280																																																				
G	45	45	45	45																																																				
H	20	20	20	20																																																				
$\alpha \pm 5^\circ$	50	50	50	50																																																				
		Note: Hopper feeding system is normally used with the threshers of 7.5 kW or more power ratings.																																																						
5.2.10	<b>Transport</b>																																																							
	a)	Type	:																																																					
	b)	Number of wheels	:																																																					
	c)	Size of wheels (mm)	:																																																					
	d)	Wheel bearings	:																																																					
	e)	Type of towing arrangement	:																																																					
5.2.11	<b>Flywheel size</b>																																																							
	a)	Number of flywheels	:																																																					
	b)	Diameter (mm)	:																																																					
	c)	Mass (kg)	:																																																					
5.2.12	<b>Overall dimension</b>																																																							
	a)	Length (mm)	:																																																					
	b)	Width (mm)	:																																																					
	c)	Height (mm)	:																																																					
	d)	Ground clearance (mm)	:																																																					
	e)	Total mass (without prime mover) (kg)	:																																																					
	f)	Colour	:																																																					

### 5.3 Details of material of construction :

Material of Construction Data Sheet (Annex B, Clause 6.2, IS:11234-2001)

Sr.	Components	Material
1	Frame	
2	Feeding chute	
3	Threshing unit	
4	Drum	
5	Beater/projection/bar	
6	Concave	
7	Blower	
8	Main shaft	
9	Blower shaft	
10	Flywheel	
11	Sieve	

	12	Shaker	
	13	Elevator	
	14	Transport wheel	
	15	Pulleys	
	16	Hoppe	
	17	Star wheels	
	18	Star wheel shaft	
	19	Others	

#### 5.4 Adjustments:

Items	Method of adjustment	Range	
		For Paddy crop	Other crops*
Threshing cylinder speed (rpm)	By changing pulley/setting the engine speed		
Concave clearance (mm)	By lowering/raising the concave		
Blower speed (rpm)	Changes according to threshing cylinder speed		
Shaker pulley speed (rpm)	By changing pulley		
Length of stroke (mm)	Fixed		
Angle of sieves (°) Top- Middle-Bottom	Fixed		
Blower inflow adjustment	Circular shutters are provided on both sides		

#### 5.5 Lubricating points:

Sr.	Location	Number of grease cups	Recommended lubricant	Lubricating schedule
1	Main shaft bearings			
2	Blower shaft bearings			
3	Shaking mechanism			
4	Straw Walker			
	- At rear			
	- At front			

Place:

Date:

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

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

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