



**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 WHEAT THRESHER

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

5. SPECIFICATIONS

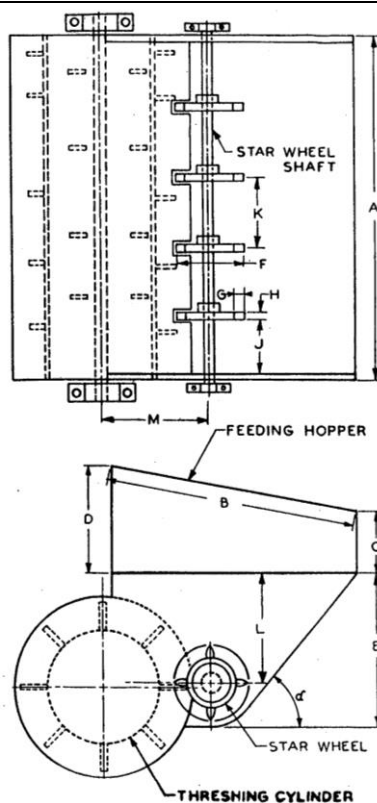
5.1	General:	
a)	Name	:
b)	Type	:
c)	Make	:
d)	Serial Number	:
e)	Model	:
f)	Size of thresher (mm)	:
g)	Recommended source of power by applicant	:
h)	Design suitability as per applicant	:
	-Main crop recommended	:
	-Other crops recommended	:
	-Thresher evaluated for	:
i)	Year of manufacture	:

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

5.2.4.1	Cylinder		
	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	Concave		
	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	Sieve		
	a) Type	:	
	b) Number	:	
	c) Total length and width (mm)	:	
	d) Effective length and width (mm)	:	
	e) Number of holes per cm ²	:	
	f) Size of hole (mm)	:	
	g) Sieve clearance (mm)	:	
	h) Screen slope range (°)	:	
	Recommended screen slope (°)	:	
	i) Method of mounting	:	
5.2.6	Shaker		
	a) Type	:	
	b) Number of strokes per minute	:	
	c) Drive	:	
	d) Number and type of bearings	:	
5.2.7	Blower		
	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 ³ /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	Elevator			
	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	Crop feeding			
	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 हॉपर के विवरण

FIG. 2 DETAILS OF FEEDING HOPPER

स्तर पहिये की धुरी	—	STAR WHEEL SHAFT
भरण हॉपर	—	FEEDING HOPPER
स्तर पहिया	—	STAR WHEEL
गह्राई 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)						
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	Transport				
	a)	Type	:		
	b)	Number of wheels	:		
	c)	Size of wheels (mm)	:		
	d)	Wheel bearings	:		
	e)	Type of towing arrangement	:		
5.2.11	Flywheel size				
	a)	Number of flywheels	:		
	b)	Diameter (mm)	:		
	c)	Mass (kg)	:		
5.2.12	Overall dimension				
	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 Wheat 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: _____