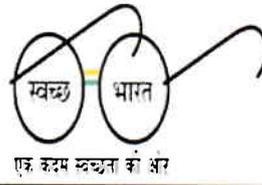


व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT



संख्या / No.: PHM-12/237
माह / Month: January, 2016



SHIWANI WINNOWING FAN, MODEL: BEST (MANUALLY OPERATED)



भारत सरकार
GOVT OF INDIA

कृषि एवं किसान कल्याण मन्त्रालय

MINISTRY OF AGRICULTURE & FARMERS WELFARE

कृषि, सहकारिता एवं किसान कल्याण विभाग

DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE

उत्तर पूर्वी क्षेत्र कृषि यंत्र प्रशिक्षण एवं परीक्षण संस्थान

NORTH EASTERN REGION FARM MACHINERY TRAINING & TESTING INSTITUTE

विश्वनाथ चारिआलि, जिला-शोणितपुर (असम)

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1. SCOPE OF TEST

The scope of test was to check and assess the following: -:

1.1 Laboratory Test:

- Checking of specifications

1.2 Field Test :

- Rate of work
- Quality of work
- Labour requirement
- Ease of operation, maintenance and adjustments
- Defects, Breakdowns & Repairs

2. METHOD OF SELECTION

The equipment was directly submitted for test by the applicant at this Institute. Hence, the method of selection is not known.

3. TEST PROCEDURE

As agreed between applicant and testing authority.

4. SPECIFICATIONS

4.1 General:

Manufactured by	: M/s. Shiwani Enterprises, Nahar Chowk, Koriyatola, Infront of Bus Stand, Raxaul, Raxaul East Champaran- 845305 Bihar
Name & Address of Applicant	: M/s. Shiwani Enterprises, Nahar Chowk, Koriyatola, Infront of Bus Stand, Raxaul, Raxaul East Champaran- 845305 Bihar
Name of machine	: Winnowing fan
Make	: Siwani
Model	: Best
Type	: Manually Operated
Serial Number of machine	: 001
Year of manufacture	: NA
Country of origin	: India

7. EASE OF OPERATION & ADJUSTMENTS

Operation and adjustments of the machine was found satisfactory.

8. DEFECTS, BREAKDOWNS AND REPAIRS

No breakdown was occurred during the operation of the winnowing fan.

9. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS

- 9.1 Performance of winnower :
- 9.1.1 Rate of work :
- a) The output of the machines was observed from 216 – 227 kg/hr.
- 9.1.2 Quality of work :
- a) The cleaning efficiency of the fan was observed from 91 – 94.83 %.
- b) The loss of grain with the blown sample was recorded as 8-13%
- 9.2 Fan guard is required to be provided for fan blade to avoid accidents/ injuries during operation.
- 9.3 It was observed that knocking sound from gear during operation it should be proper adjustment of drive and driven gear.
- 9.4 A provision should be provided to lock the movement of the fan when machine is not in use.
- 9.5 The name of manufacturer is written as SHIWANI ENTERPRISES in the literatures, whereas, in the labeling plate it is written as SHIVANI ENTERPRISES, which is erroneous. This should be looked into for corrective measures.
- 9.6 It is recommended that the operator manual, service manual and spare parts catalogue should be provided in English, Hindi and other regional languages for operators use as per IS 8132-2004.

TESTING AUTHORITY

S. G. PAWAR
AGRICULTURAL ENGINEER

Test conducted and report compiled by -



J. J. R. NARWARE
DIRECTOR

Sh. K.Bora, Technical Assistant

10. APPLICANT'S COMMENTS

Para No.	Our reference	Applicant's Comments
10.1	9.2	Fan guard will provided during commercial production.
10.2	9.3	Knocking sound will be reduced.
10.3	9.4	A lock will be provided to prevent the movement of fan while it is not in operation.
10.4	9.5	Name of the manufacturer on the labeling plate will be corrected as SHIWANI ENTERPRISES.

ANNEXURE-I

FIELD PERFORMANCE RESULTS

S.No.	Parameters	Test Trials				
		I	II	III	IV	V
1.	Date of test	28.12.15	28.12.15	29.12.15	29.12.15	29.12.15
2.	Net test duration (h)	0.78	0.75	0.83	0.83	0.83
3.	Name of grain	Paddy				
4.	Variety of crop	Keteki Joha				
5.	Fan speed (rpm)	360	340	360	350	360
6.	Distance from fan (m)	0.85	0.80	0.95	0.87	1.10
7.	Height of winnowing (m)	1.42	1.35	1.43	1.47	1.4
8.	Wind velocity (m/s)	1.50	1.56	1.56	1.53	1.81
9.	Air flow (m ³ /s)	6.2	6.4	6.4	6.3	7.5
10.	Dropping rate (kg/hr)	255	267	240	240	240
11.	Output (kg/hr)	222	220	228	227	216
12.	Cleaning efficiency (%)	93.5	94.83	91.5	91	91.33
13.	Loss of grain with blown sample (%)	8.0	13	11	10	10

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DATE: 19.4.16