

“KISANKRAFT, KK-FEC-2500” CHAFF CUTTER (Power 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

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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**

1.1.1 Checking of specification

1.1.2 Conformity to requirements against the relevant Indian Standards

**1.2 FIELD TEST**

Performance test to find out:

- (a) Quantity of work
- (b) Quality of work
- (c) Power consumption
- (d) Labour requirement
- (e) Ease of operation, adjustment & safety provisions
- (f) Wear of critical components

**2. METHOD OF SELECTION**

The machine was directly submitted by the applicant for test at this institute. Hence method of selection is not known.

**3. TEST CODE AND PROCEDURE**

The following codes were referred for testing of Power Operated Chaff Cutter

- i) IS:11459-1985 (Reaffirmed Feb., 2012) : Specification for Power operated chaff cutter
- ii) IS: 1511- 1979 (Reaffirmed Feb., 2012) : Specification for blades for Manually Operated Chaff-Cutter
- iii) IS:7897-1975 (Reaffirmed Feb., 2012) : Test Code for Chaff-Cutter
- iv) IS: 15542:2005 (Reaffirmed Feb., 2012) : Power Operated Chaff- Cutter- Safety Requirements

**4. SPECIFICATIONS****4.1 General:**

- Name and address of the manufacturer : **M/s. Dashing Global Trading Ltd.**  
Suit-13 First floor, Oliaji Trade Center, Francis Rachel Street, Victoria, Mahe Republic of Seychelles China
- Name & Address of Applicant/Importer : **M/s. Kisankraft Machine Tools Pvt Ltd.**  
Sri Huchhanna Tower #4 1<sup>st</sup> Main, 7-A Cross Maruthi Layout, Dasarahall, HAF Post Hebbal, Bangalore-560 024, Karnataka, India
- Indian Make : Kisankraft
- Indian Model : KK-FEC-2500

Type	: Flywheel, Chute fed, Blow up type
Serial No.	: Not provided
Year of manufacture	: Not provided
Country of origin	: Republic of China
Suitability	: Straw cutting (apa)

#### 4.2 Constructional details :

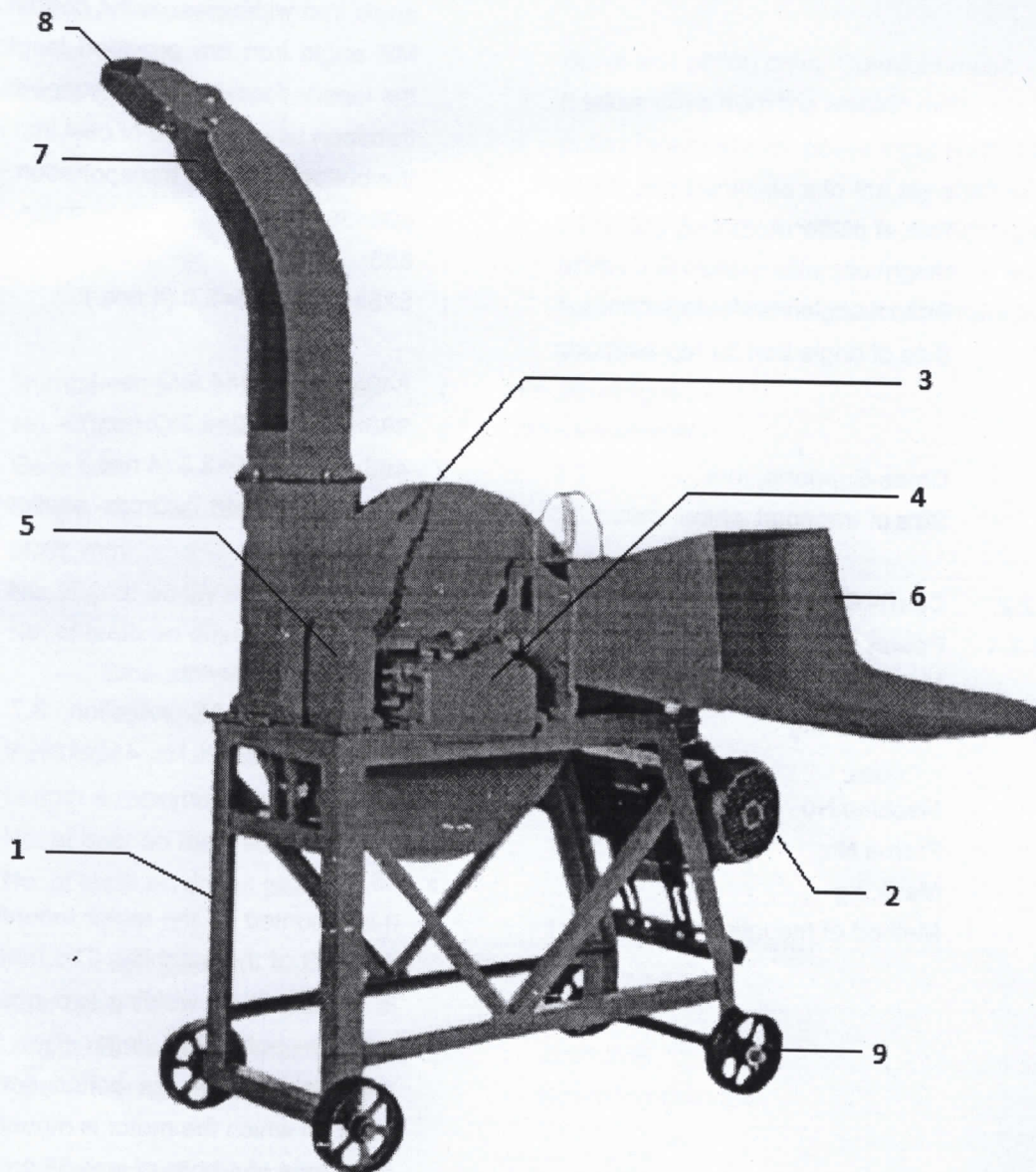


Fig. 1 : Kisankraft KK-FEC-2500 Chaff Cutter

#### Keys:

- |                            |                             |
|----------------------------|-----------------------------|
| 1. Stand                   | 6. Feeding chute            |
| 2. Prime Mover             | 7. Chaff outlet (Blow pipe) |
| 3. Cutter head cover       | 8. Air direction plate      |
| 4. Primary reduction box   | 9. Transport wheel          |
| 5. Secondary reduction box |                             |

**9. SUMMARY OF OBSERVATIONS, COMMENTS AND RECOMMENDATIONS****9.1 Performance of the chaff cutter:****9.1.1 Quantity of Cut:****Slow speed setting:**

- (a) The feed rate was observed as 933 to 1249 kg/h.
- (b) The quantity of cut fodder received was measured as 921 to 1237 kg/h.
- (c) The corrected quantity of cut was recorded as 250 to 350 kg/h.
- (d) The quantity of cut per unit energy consumed was recorded as 1103 to 1330 kg/kWh.
- (e) The corrected quantity of cut per unit energy consumed was recorded as 268 to 377 kg/kWh.

**High speed setting:**

- (a) The feed rate was observed as 1357 to 1509 kg/h.
- (b) The quantity of cut fodder received was measured as 1338 to 1488 kg/h
- (c) The corrected quantity of cut was recorded as 136 to 141 kg/h
- (d) The quantity of cut per unit energy consumed was recorded as 1518 to 1599 kg/kWh.
- (e) The corrected quantity of cut per unit energy consumed was recorded as 139 to 160 kg/kWh.

**9.1.2 Quality of cut:****Slow Speed setting:**

- (a) The quality of cut was determined from the deviation of measured length of cut from the theoretical length of cut of plastic pieces. The quality of cut ranged from -9.2 to -1.2.
- (b) The variation in length of cut of chaff cutter was recorded as 8.9 to 79.2 % against the requirement of 10 % which is considered on very higher side and calls for necessary improvement.
- (c) The blowing efficiency was recorded as 99.9 % against the minimum requirement of 99%

**High Speed setting:**

- (a) The quality of cut was determined from the deviation of measured length of cut from the theoretical length of cut of plastic pieces. The quality of cut ranged from -9.3 to -2.9.
- (b) The variation in length of cut of chaff cutter was recorded as 2.6 to 11.6 % against the requirement of 10 % which is considered on higher side and calls for necessary improvement.
- (c) The blowing efficiency was recorded as 99.9 % against the minimum requirement of 99%

**9.1.3 Power requirement:****Slow Speed setting:**

The power consumed by the chaff cutter was calculated after deducting the no-load power consumption of chaff cutter from the power consumption on load and it was measured as 0.83 to 0.93 kWh. The power requirement of chaff cutter was recorded as 1.8 to 1.9 kWh

**10. APPLICANT'S COMMENTS**

Para No.	Our reference	Applicant's Comments
10.1	9.5.2	Guards for all moving parts of Chaff Cutter will be provided.
10.2	9.5.3	Arrangement for cover of cutting edge of the blade and lock will be provided.
10.3	9.5.4	Cautionary note in Hindi will be pasted permanently on the main body of the Chaff Cutter.
10.4	9.9	Marking for the required particulars will be provided.