# व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक) COMMERCIAL TEST REPORT (INITIAL)

संख्या/No: Machine-351/1168 माह/Month: June, 2020

Validity: 31.05.2025



#### SWARNA AGRI-TECH SU-RY-4K50 REAPER CUM BINDER



#### 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.) [An ISO 9001:2015 CERTIFIED INSTITUTE]

Website: http://srfmtti.dacnet.nic.in/

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**Machine- 351/1168** 

## SWARNA AGRI-TECH SU-RY-4K-50 REAPER CUM BINDER

COMMERCIAL (ICT)

Manufacturer : M/s. Shandong Runyuan Industrial

Company Ltd., No. 15, Linbo Road, Linquing City, Shandong Province, P.R.

China

Applicant : M/s. Swarna Agri-Tech Consultants

Engineers, D. No. 8-3-833/96, Plot No. 96, Phase-I, Kamalapuri Colony,

Sringar Colony Extn.,

Hyderabad-500073, Telangana, India.

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Ministry of Agriculture and Farmers Welfare Department of Agriculture, Cooperation and Farmers Welfare Southern Region Farm Machinery Training and Testing Institute Tractor Nagar, Garladinne-515 731, District: Anantapur (A.P.) [An ISO 9001:2015 CERTIFIED INSTITUTE]

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Machine-	SWARNA AGRI-TECH SU-RY-4K-50	COMMERCIAL
351/1168	REAPER CUM BINDER	(ICT)

- ii) The average hourly fuel consumption varies from 0.64 to 0.89 l/h & the fuel requires for harvesting one hectare area was recorded as 9.64 to 11.32 l/ha.
- iii) The average mass of straw with grain harvested was recorded as 19796 to 24712 kg/ha.
- iv) The average mass of grains recovered was recorded as 4583 to 5832 kg/ha.

## **17.11.2 Quality of work:**

- i) The average post harvest loss was recorded as 0.45 to 1.78 %.
- ii) The average stubble height was recorded as 91.0 to 116.0 mm.
- iii) The crop harvested by the machine is left in windrows, which minimizes the time required for the collection and transportation of the crop.
- 17.12 One skilled operator can operate the machine continuously for about two hours only. Hence, two skilled operators are required to operate the machine continuously and two unskilled labours for cutting of the crop on sides and corners of the field to be harvested.

## 17.13 Wear of critical components:

- i) The wear rate of cutter bar on mass basis was recorded as 0.12 % per hour.
- ii) Hardness of movable & stationary blade conforms to the requirement of IS 6025:1982 (Reaffirmed 1999).
- iii) Chemical composition of movable and stationary blades are not conforming to the requirement of relevant code. Therefore, this should be taken care for corrective action.

## **17.14** Provision for safety:

- i) A safety pin at Horizontal upper conveyor chain is provided to take of overloading of cutter bar.
- ii) Guards against all moving parts/drives and hot parts are provided

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## SWARNA AGRI-TECH SU-RY-4K-50 REAPER CUM BINDER

COMMERCIAL (ICT)

#### 17.15 Technical literature:

The operator's manual and parts catalogue of reaper and engine in a single booklet was supplied with the reaper for reference during the test. It is however, recommended that same may be revised and bought out in Hindi & other regional languages as per IS 8132: 1999 (Reaffirmed 2004) for the sake of user & technical personnel.

## **TESTING AUTHORITY:**

B.N. DIXIT AGRICULTURAL ENGINEER	
Dr. P.P. RAO DIRECTOR	P.P. Ras

#### 18.APPLCIANT'S COMMENTS

"Applicant comments received & incorporated in the test report".