

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

संख्या/No: Machine-348/1164  
माह/Month: June, 2020  
Validity: 31.05.2025



**SWARNA AGRI-TECH SU-RY-4GL-120 POWER REAPER**



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.)

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<b>Machine-348/1164</b>	<b>SWARNA AGRI-TECH SU-RY-4GL-120 POWER REAPER</b>	<b>COMMERCIAL (ICT)</b>
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Manufacturer : M/s. Shandong Runyuan Industry  
Company Lyd., No. 15, Linbo Road,  
Linqing 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,  
Sringer Colony Extn.,  
Hyderabad-500073, Telangana State,  
India.

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### **17.11 Field Performance Test:**

#### **17.11.1 Rate of work:**

- i) The average area covered and time required for harvesting one hectare was recorded as 0.181 to 0.211 ha/h and 4.74 to 5.52 hours respectively.
- ii) The average hourly fuel consumption varies from 0.68 to 0.89 l/h & the fuel requires for harvesting one hectare area was recorded as 3.55 to 4.21 l/ha.
- iii) The average mass of straw with grain harvested was recorded as 22990 to 26686 kg/ha.
- iv) The average mass of grains recovered was recorded as 6238 to 6438 kg/ha.

#### **17.11.2 Quality of work:**

- i) The average post harvest loss was recorded as 0.02 to 0.04 %.
- ii) The average stubble height was recorded as 58 to 125 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 0.10 % 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 provision in conveyor chain is not provided to take care of overloading of cutter bar. The safety provision should be provided at suitable place.
- ii) Guards against all moving parts/drives and hot parts are provided

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**17.15 Technical literature:**

The operation 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	

**18. APPLICANT'S COMMENTS**

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