

व्यावसायिक परीक्षण रिपोर्ट

COMMERCIAL TEST REPORT (VARIANT)

संख्या/ No.: COMB-203/2347/2019

माह/Month : September, 2019

**THIS TEST REPORT VALID UP TO : 30<sup>th</sup> September, 2026**



## JOHN DEERE W50 SYNCHRO SMART SELF PROPELLED COMBINE HARVESTER



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

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

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## 8. SELECTED PERFORMANCE AND OTHER CHARACTERISTICS AS PER IS 15806:2018

Sr. No	Characteristics	Category (Evaluative /Non evaluative)	Requirement/ Declaration	Tolerance	Observed	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>I. Prime mover performance</b>						
a)	Max. Power (absolute) Average max. Power observed during 2 hrs. Max. Power test in natural ambient condition, kW	Evaluative	50.0	±5% of declared value	51.0	Conforms
b)	Specific fuel consumption corresponding to average maximum power under 2h maximum power test, g/kWh.	Evaluative	270	+ 5% of declared value	266	Conforms
<b>II. Safety requirement</b>						
a)	Guards against all moving parts	Evaluative	Belt and chain drives, pulleys hydraulic pipes around operators work place	--	Provided	Conforms
b)	Lighting arrangement	Evaluative	As per CMVR	-	Provided	Conforms
c)	Grain tank cover	Evaluative	Essential	-	Provided	Conforms
d)	Spark arrester in engine's exhaust in case naturally aspirated engine	Evaluative	Essential	-	Not provided as turbo charger is provided	--
e)	Stone trap before concave bars	Evaluative	Essential	-	Provided	Conforms
f)	Rear view mirror	Evaluative	Essential	-	Provided	Conforms
g)	Fire extinguisher	Evaluative	Essential	-	Provided	Conforms
h)	Slip clutch at following drives –					
	i) Cutting platform auger	Evaluative	Essential	-	provided	Conforms
	ii) Undershot conveyor drive	Non evaluative	Essential		provided	Conforms
	iii) Grain & tailing elevator	Non evaluative	Essential		provided	Conforms



(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Anti slip surfaces at operator platform & ladder & proper gripping for the control levers.	Evaluative	Essential	-	Provided	Conforms
j)	Working clearance around the controls	Non evaluative	Essential 70mm,min	-	Provided	Conforms
k)	Labelling of control and gauges	Evaluative	Essential	-	provided	Conforms

**III. Break down (critical, major & minor)**

Sr. No	Category of breakdowns	Category (Evaluative/ Non evaluative)	Requirements as per IS 15806 : 2018	As observed	Whether meets the requirements (Yes/No)
1.	Critical	Evaluative	No critical breakdown	None	Yes
2.	Major	Evaluative	Not more than two and neither of them should be repetitive in nature	None	Yes
3.	Minor	Evaluative	Not more than five and frequency of each should not be more than two	None	Yes
4.	Total breakdown	Evaluative	In no case total no of (major + minor) breakdowns exceed five	None	Yes

**9.COMPARISON BETWEEN BASE MODEL AND VARIANT MODEL**  
(Based on Table 3 of IS 15806:2018)

Sr. No.	Features	Observation on Base Model	Observations on Variant model	Remarks Changed / No Change
1	Change in Prime mover make and model beyond 10% but within 20% variation in power and engine speed	Make-John Deere Model - 4039 Power -50 kW @ 1950 rpm	Make-John Deere Model - 4039 HMY33 Power -51.0 kW @ 2126 rpm	Changed
2	Change in Crop conveyance	Radial	Radial	No Change
3	Increase or decrease in the size of header unit (Cutter bar)	3735 mm	3735 mm	No Change
4	Change in header unit, crop feeder unit, threshing unit, separating unit, cleaning unit and/ or other unit/units to suit harvesting of any other crop such as maize mustered and any other crop recommended by the manufacturer	Header unit - Serrate knife with guard, reel & crop conveying augur	Header unit - Serrate knife with guard, reel & crop conveying augur	No Change
5	Addition of number of speeds with add-on module and No. of speeds	4 F & 1R with step less hydraulic variator pulley	4 F & 2R with step less hydraulic variator pulley	Changed



(1)	(2)	(3)	(4)	(5)
6	Type of gear box	Mechanical, combination of Sliding and Constant mesh spur gears.	Mechanical, combination of Constant mesh and synchromesh helical/spur gears.	Changed
7	Type of drive (2W/4W drive)	2W Drive	2W Drive	No change
8	Fitment of cabin	No Cabin	No Cabin	No change
9	Straw walker number and size	4 Numbers, Length-2750 mm Width - 240 mm	4 Numbers, Length-2750 mm Width - 240 mm	No change

### 10. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS


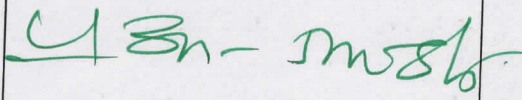
- 10.1 The results of the tests carried out on variant model 'JOHN DEERE W50 SYNCHRO SMART' have been compared with those of base model 'JOHN DEERE W50 V2' and found within the limit, as specified in IS 15806:2018
- 10.2 The governed range of engine speed is declared wrong by applicant. It should be looked into.
- 10.3 Literature supplied with the machine

The following literature was provided by the applicant during testing,

- i) Operator's manual

The operator manual needs to be updated as per IS : 8132-1999.

### TESTING AUTHORITY

R. K. NEMA SENIOR AGRICULTURAL ENGINEER	
P. K. PANDEY DIRECTOR	

### 11. APPLICANT'S COMMENTS

No specific comments received from applicant