

ADMINISTRATIVE EXTENSION REPORT

प्रशासनिक विस्तार रिपोर्ट

COMB- 245/2768/2022

JANUARY, 2022

COMMERCIAL TEST REPORT

व्यावसायिक परीक्षण रिपोर्ट

COMB-179/2155/2018

APRIL, 2018

TEST REPORT IS VALID UPTO : 30th APRIL, 2025



**MAHINDRA SWARAJ 8100 EX
SELF PROPELLED COMBINE HARVESTER**



भारत सरकार

Government of India

कृषि एवं किसान कल्याण मंत्रालय

Ministry of Agriculture and Farmers Welfare

कृषि एवं किसान कल्याण विभाग

Department of Agriculture and Farmers Welfare

उत्तरी क्षेत्र कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

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**5. SELECTED PERFORMANCE AND OTHER CHARACTERISTICS AS PER
IS 15806 : 2018 (The evaluation for the modified parameters only, for other
parameters, refer test report no. COMB- 179/2155/2018, April, 2018)**

S. No	Characteristics	Category (Evaluative/Non evaluative)	Requirement (R)/ Declaration (D)		Tolerance	Observed		Remarks
			Previous tested sample	Present sample		Previous tested sample	Present sample	
1	2	3	4	5	6	7	8	9
I.	Prime mover performance							
a)	Max. power (absolute) average max. Power observed during 2 hrs. max. power test in natural ambient condition, kW	Evaluative	74.3	71.7	±5% of declared value	70.7	73.8	Conforms
b)	Max. power observed during test after adjusting the no load engine speed as per recommendation of the manufacturer for field work, (1650 rpm) kW	Evaluative	Not Declared	68.0	±5% of declared value	52.6	68.8	Conforms
c)	Power at rated engine speed, kW (under natural ambient condition)	Non-evaluative	74.3	72.0	±5% of declared value	70.7	73.1	Conforms
d)	Specific fuel consumption corresponding to average maximum power under 2 h maximum power test, g/kWh.	Evaluative	238	240	+5% of declared value	290	244.7	Conforms
e)	Max. Smoke density (Bosch no) at 80% load between the speed at max. Power and 55% of speed at max. Or 1000 rpm whichever is higher	Evaluative	As per central motor vehicle rules (CMV) rules)		Nil	3.12	2.18	Conforms

f)	Max. Crank shaft torque, (Nm) observed during the test after no load engine speed is adjusted as per manufacturer's recommendation for field work	Evaluative	389	410	±8% of declared value	358.1	429.2	Conforms
g)	Back up torque, % (Natural Ambient)	Evaluative	7 % min.		Nil	20.1	42.12	Conforms
h)	Max. Operating temperature, °C i) Engine oil ii) Coolant	Evaluative	i) 120 ii) 108	i) 120 ii) 105	Should not exceed the declared value	i) 117 ii) 102	i) 115 ii) 98	Conforms
i)	Lubrication oil consumption, g/kWh	Evaluative	Not exceeding 1 % of SFC at maximum power (high ambient condition)		Nil	0.334	0.387	Conforms
IX	Safety requirement							
g)	Fire extinguisher	Evaluative	Essential	--	Not provided	Provided	Conforms	

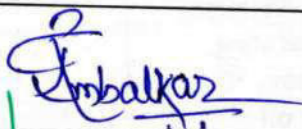

6. SUMMARY OF OBSERVATION, COMMENTS AND RECOMMENDATIONS

- 6.1 As per test report No. Comb.- 179/2155/2018 Para 18.1 Max. power observed during test after adjusting the no load engine speed as per recommendation of the manufacturer for field work does not conform to the requirement of O.M. No 7-6/2016-M&T (I&P) dated 28.08.2017 in that, manufacturer has not declared this value in the first place, leaving nothing to compare with for ascertaining the conformity. In the present sample, this parameter conforms the requirements of IS: 15806-2018.
- 6.2 As per test report No. Comb.- 179/2155/2018, Para 18.7, the specific fuel consumption corresponding to average maximum power under 2h maximum power test, does not conform to the requirement of O.M. In the present sample, this parameter conforms the requirements of IS: 15806-2018.
- 6.3 As per test report No. Comb.- 179/2155/2018, Para 18.8, Fire extinguisher was not provided on the machine. Now, the applicant has provided the fire extinguisher and conforms the requirements of IS: 15806-2018.
- 6.4 As per test report No. Comb.- 179/2155/2018 Chapter 17, para 10, Labelling of combine harvester requirement does not conform in toto, now, the applicant has modified the labelling plate and provided the Max. power and SFC of the engine on combine labelling plate, which conforms the requirement.



- 6.5 As per test report No. Comb.-179/2155/2018 Chapter 17, para 11(12), Literature requirement does not conform in toto. Now, the applicant has provided the literature, which conforms the requirement.
- 6.4 Since, the effect of modifications do not affect the results of the original test, the original test report, therefore, applies to the modified combine harvester also.

TESTING AUTHORITY

Er. G.R. AMBALKAR AGRICULTURAL ENGINEER	
Dr. MUKESH JAIN DIRECTOR	 06.01.2022

6. APPLICANT'S COMMENTS

No specific comments received from the applicant except request to add another manufacturing plant Location/Address which is incorporated in this test report.

