

व्यावसायिक परीक्षण रिपोर्ट
COMMERCIAL TEST REPORT

संख्या/ No.: IMP-970/2250/2018

माह/Month : December, 2018

THIS TEST REPORT VALID UP TO : 31st DECEMBER, 2025



**EPL AGRO LEVEL MASTER
LASER LAND LEVELER**



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

Northern Region Farm Machinery Training and Testing Institute

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[ISO 9001:2015 CERTIFIED]

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13.2 Chemical composition**TABLE- VIII.**

Sr. No.	Material	Requirement as per IS 9813:2002	As observed	Remark
1.	Carbon (C)	0.4 to 0.07	0.0738	Does not conforms
2.	Silicon (Si)	--	0.3625	--
3.	Manganese (Mn)	--	0.9325	--
4.	Sulphur (S)	--	0.0084	--
5.	Phosphorous (P)	--	0.0487	--

14. FIELD TEST

The field tests of 20.75 hours with 4 replications were conducted. The field performance observations are given in Annexure-I to V.

The summary of field performance test is given in Table IX.

TABLE-IX: Summary of field performance

Sl. No.	Parameters	Observations
i)	Tractor used	John Deere 5050D
ii)	Gear used	B-1
iii)	Type of soil	Sandy loam
iv)	Av. soil moisture, %	11.7 to 18.4
v)	Av. bulk density of soil, g/cc	Before operation
		After operation
vi)	Av. area covered, ha/h	0.051 to 0.145
vii)	Av. time required for one hectare, h	6.90 to 14.29
viii)	Av. fuel consumption	
	- l/h	4.07 to 4.86
	- l/ha	28.08 to 87.07
ix)	Av-total volume of cut	17.91 to 95.21
x)	Av- total volume of fill	44.06 to 172.86
xi)	Av- total volume of earth work	m ³
		(m ³ /h)
		(m ³ /l)
xii)	Leveling Index before operation	4.99 to 25.06
xiii)	Leveling Index after operation	0.25 to 0.42
xiv)	Draft requirement, kg Range (Average)	375 to 402

14.1 Rate of Work

14.1.1 The field capacity in sandy loam soil was recorded as 0.051 to 0.145 ha/h.

14.1.2 Av-total volume of cut 6.90 to 14.29 m³

14.1.3 Av- total volume of fill 44.06 to 172.86 m³

16. SOUNDNESS OF CONSTRUCTION

No noticeable breakdown occurred during 20.75 hrs. of field operation.

17. COMMENTS & RECOMMENDATIONS

- 17.1 Marking of the implement does not provide all the important information to the users. The identification plate should provide at least following information:-
- Manufacturer's Name and Address
 - Make and model of the implement
 - Serial No. & size
 - Year of manufacture
 - Trade name
 - Approx mass
 - Minimum power of prime mover/tractor [kW(Ps)].
- 17.2 The safety warnings, signs and pictograms are not provided on the machine. It should be provided for safety of the users.
- 17.3 The hardness & chemical composition of the soil cutting blade does not meet the requirement of IS: 9813-2002. This Should be looked into.
- 17.4 The length of beveling and thickness of bevel edge of cutting blade does not conform to the requirement of Indian Standard. It should be looked into.

18. TECHNICAL LITERATURE

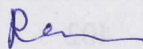
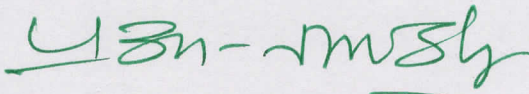
Following literature was submitted by applicant for reference during test.

- (i) User manual (ii) Technical Specification

However, the user's manual should be updated as per IS: 8132-1999.

Parts catalogues and service manual should also be brought out for the guidance of users & technical personnel.

TESTING AUTHORITY

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

Draft report compiled by Sh. V.S. Shinde, S.T.A

19. APPLICANT'S COMMENTS

No comments received from applicant.