

व्यावसायिक परीक्षण रिपोर्ट (प्रारंभिक)

COMMERCIAL TEST REPORT

(INITIAL)

THIS TEST REPORT IS VALID UPTO 31.10.2028

संख्या/No: Machine-531/1568

माह/Month: November, 2023



**DIBYANKA DAIP-DEA (ENGINE OPERATED)
POST HOLE DIGGER**



सत्यमेव जयते

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

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/>

E-mail: fnti-sr@nic.in

Tele.: 08551-286441

Machine- 531/1568	DIBYANKA DA IPL-DEA (ENGINE OPERATED) POST HOLE DIGGER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 31.10.2028	

Manufacturer : M/S. Zhejiang Wenxn Mechanical & Electrical Co. Ltd.,
Weiguo Industrial Area, Sanjia, Jiaojiang District,
Taizhou City, Zhejiang Province, **China** .

Name of Applicant : M/S Dibyanka Agro (India) Pvt. Ltd., Tadada,
Plot No 1149/1420/1424. Jamsuli, Single, Balasore,
Odisha – 756081, India.



**DIBYANKA DA IPL-DEA (ENGINE OPERATED)
POST HOLE DIGGER**

Report No.: **Machine-531/1568** Month: **November** Year: **2023**



Government of India
Ministry of Agriculture and Farmers Welfare
Department of Agriculture 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]

Website: <http://srfmtti.dacnet.nic.in/> Telephone No. 08551-286441

E-mail: fmti-sr@nic.in

Machine-531/1568	DIBYANKA DA IPL-DEA (ENGINE OPERATED) POST HOLE DIGGER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 31.10.2028	

Type of test : COMMERCIAL

Name of Machine : Post Hole Digger

Period of test : 25.09.2023 to 17.11.2023

Test Report No. : **Machine-531/1568**

Month / Year : November, 2023

- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The test sample was selected randomly through virtual mode.
- iii) The results presented in this report do not, in any way, attribute to the durability of the machine.
- iv) This Test Report should not be reproduced in part or full without prior permission of the Director, Southern Region Farm Machinery Training & Testing Institute, Garladinne, Anantapur (A.P.).
- v) This is a report on Commercial Test of Post hole digger named **"DIBYANKA DA IPL-DEA Post Hole Digger"** This report is valid up to **31.10.2028, Vide Ministry's O.M. No. 13-24/2018-M&T (I&P) dated 19.09.2018.**

SELECTED CONVERSIONS

S. No	Units	Conversion Factor
1	Force	
	1 kgf	9.80665 N
		2.20462 lbf
2	Power	
	1 hp	1.01387 metric hp (Ps)
		745.7 W
	1 Ps	735.5 W
	1 kW	1.35962 Ps
3	Pressure	
	1 psi	6.895 kPa
	1 kgf/cm ²	98.067 kPa = 735.56 mm of Hg
	1 bar	100 kPa = 10 N/cm ²
	1 mm of Hg	1.3332 m-bar

Machine- 531/1568	DIBYANKA DA IPL-DEA (ENGINE OPERATED) POST HOLE DIGGER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 31.10.2028	

Big end bearings:

Bearing No.	Clearance, (mm)		Max. permissible clearance limit,(mm)	
	Diametrical	Axial	Diametrical	Axial
1.	**	0.30	0.10	0.50

Remarks: Measurement of big end bearing clearance was not possible, as the piston along with connecting rod was not detachable

15.2 Transmission system:

All the gears of the transmission system were found in normal condition.

16. COMMENTS & RECOMMENDATIONS

16.1 Engine Performance:

- 16.1.1 The maximum power was observed as 1.53 kW under natural ambient condition against the declared value of 2.3 kW.
- 16.2 Max. Noise at operator's ear level was observed as 99 dB (A), which appears to be on higher side. Therefore, suitable corrective action to reduce the noise level should be taken.
- 16.3 The equivalent mechanical vibration on engine cover was observed to the maximum extent of 402 micron. Therefore, suitable corrective measure to reduce the vibration in the machine should be taken.
- 16.4 The auger bit should be removable but it is welded to augur attachment. Whereas, for easy repair and replacement, it should be detachable type.
- 16.5 A fuel on/off knob may be considered for providing in the fuel system of engine.
- 16.6 Chemical composition of augur blade and removable impact bit were not conforming as per requirement of the relevant code (IS: 6090-1981 (Reaffirmed 2002)) & therefore it should be looked into for the corrective action.
- 16.7 The safety gadgets as mentioned in Para 4.0, were not provided by the applicant during the test.
- 16.8 Transmission drive safety provision in the Post hole digger is not provided, whereas it is essential from the safety point of view. Therefore, it must be provided in the future product.


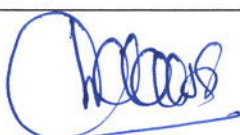
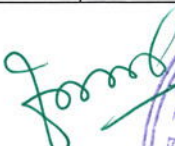

Machine- 531/1568	DIBYANKA DAIPPL-DEA (ENGINE OPERATED) POST HOLE DIGGER	COMMERCIAL (ICT)
	THIS TEST REPORT IS VALID UPTO 31.10.2028	

16.9 No labeling plate is provided by the applicant. A metallic labeling plate with engine serial no. make & model of engine should be riveted on the machine during production level

16.10 Adequacy of literature supplied with the machine:

A printed manual containing operation, maintenance, troubleshooting instructions and spare parts description in English, is provided by the applicant, which is not sufficient and it needs to be develop as per IS: 8132-1999 and also in other regional languages for the sake of users & technical personnel.

TESTING AUTHORITY

 Er. PRAMOD YADAV AGRICULTURAL ENGINEER	 Er. D.C. MOULI AGRICULTURAL ENGINEER
 Dr. B.M. NANDEDE DIRECTOR 	

17. APPLICANT'S COMMENTS

We have noted your comments and recommendations and forwarded the same to our principal manufacturer, we will take corrective action as suggested by you.