

व्यावसायिक परीक्षण रिपोर्ट (वैरिअंट)

संख्या/No. : T-1675/2206/2022

COMMERCIAL TEST REPORT (Variant)

माह/Month : September, 2022

[ONLINE TESTING]

(यहपरीक्षण रिपोर्ट 30/09/2025 तक वैध है / THIS TEST REPORT IS VALID UPTO 30/09/2025)



DEUTZ FAHR, AGROMAXX 4050E 2WD TRACTOR



भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय

(कृषि एवं किसान कल्याण विभाग)

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

(DEPARTMENT OF AGRICULTURE & FARMERS WELFARE)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

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1. BACKGROUND

1. The DEUTZ FAHR, AGROMAXX 4050E tractor had undergone “Initial Commercial Test” at this Institute vide Test Report No. T-1653/2184/2022 (released in June, 2022).
2. On 27.06.2022, when the tractor viz. DEUTZ FAHR, AGROMAXX 4050E 2WD tractor submitted for variant test, was still in the Institute’s campus only, the applicant came to apply for variant test, DEUTZ FAHR, AGROMAXX 4050E 2WD tractor as the variant of DEUTZ FAHR, AGROMAXX 4050E. The applicant was allowed for conversion from 4WD to 2WD on the same tractor lying in the campus of Institute. **There is, therefore, no need to conduct those tests as are required for conformity of sample as being the same as tested earlier.** However, for complete information on performance of this tractor, Test Report No. T-1653/2184/2022 is a necessary adjunct to this report.
3. After examination of the documents, only following tests were required to be conducted as laid down in IS: 12207-2019.
 1. Specification checking of variant feature i.e. 2WD
 2. Drawbar performance test

2. SPECIFICATIONS CHECKING OF VARIANT FEATURE

S.No.	Parameter	Base Model	Variant Model	Remarks
1	2	3	4	5
2.1.1	Tractor:			
	Make	: Deutz Fahr	Deutz Fahr	No Change
	Model	: Agromaxx 4050E	Agromaxx 4050E 2WD	Changed
	Type	: Four-wheel Driven, Standard Agricultural Tractor	Rear Wheel Drive, Standard Agricultural Tractor	Changed
	Month & Year of manufacture	: 08 / 21	08 / 21	No Change
	Chassis number	: M1TFP32RDHG00572	M1TFP31RDH G000572	Changed
	Country of Origin	: India	India	No Change
2.1.2	Front differential unit:			
	Type	: Crown wheel and bevel pinion with differential unit accommodated inside the centre of front axle housing	Not applicable	Changed
	Reduction through wheel & bevel pinion	: 3.273: 1 (36/11T)	Not applicable	Changed
	Oil capacity, (l)	: 5.50 (Common with front axle housing)	Not applicable	Changed
	Oil changing period	: After every 1000 hours of operation.	Not applicable	Changed
2.1.2.1	Front differential lock	: Not Provided	Not applicable	No Change

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1	2	3	4	5	6
17.	Other changes:				
a)	Tractor Model	AGROMAXX 4050E	AGROMAXX 4050E 2WD	Changed	
b)	Steered Wheel(s):				
	Size	8.0 -18	6.00 – 16	Changed	
	Ply rating	4	8	Changed	
	Make & size of rim	WILP & W6 x 18	WIL & 4.5E x 16	Changed	
	Track width, (mm)	1175,1195,1325(std.), 1415,1455,1515 & 1535	1240 (std.) & 1440	Changed	
c)	Mass unballast tractor, [Front/Rear/Total], (kg)	850/1245/2095	710/1250/1960	Changed	
d)	Overall dimensions, (mm)				
	-Length	3525	3525	No Changed	
	-Width	1865	1865	No Changed	
	-Height	2220	2230	Changed	
	-Ground clearances	375 (below front axle tie rod)	415 (below transmission drain plug)	Changed	
e)	Wheel base, (mm)	1950	1920	Changed	

6. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

6.1 On the basis of tests conducted the performance results have been summarized as evaluative (mandatory) and non-evaluation (not-mandatory) parameter applicable for qualifying Minimum Performance Criteria as per Clause-4 (Table-1) of IS: 12207-2019 for acceptance of the tractor for the purpose of subsidies/NABARD financing are summarized as under:-

Sl. No.	Characteristic	Category (Evaluative /Non-Evaluative)	Requirements as per IS: 12207-2019	Values declared by the applicant/ requirement		As observed		Whether variant model meets the requirements (Yes/No.)
				Base model	Variant Model	Base model	Variant model	
1	2	3	4	5 a	5 b	6 a	6 b	7
6.1.1	Drawbar performance:							
a)	Maximum drawbar pull with unballast corresponding to 15 percent wheel slip, (kN)	Evaluative	Minimum 70% of static mass of tractor without / standard ballast	14.28 (D)	13.6 (D)	19.98	18.17	Yes
				14.38 Minimum (R)	13.45 Minimum (R)			
b)	Maximum drawbar power without ballast, or with standard ballast as the case may be, kW	Evaluative	Minimum 80 % of PTO power as referred in SI No. i) a) of PTO performance in case of tractors having total static mass > 1500 kg Minimum 75 % of PTO power as referred in SI No. i) a) of PTO performance in case of light weight tractors having 1500 kg total static mass of tractor Minimum 75 % of the engine power as referred in SI No. i) a) of engine performance in case of tractors which do not have a PTO shaft.	25.95 (D)	25.95 (D)	27.4	27.6	Yes
				25.1 Minimum (R)	25.1 Minimum (R)			

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1	2	3	4	5 a	5 b	6 a	6 b	7
c)	Maximum transmission oil temperature (°C)	Evaluative	The declared value should not exceed the maximum value specified by oil company.	120 (D)	120 (D)	81	78	Yes
6.1.2	Labelling of tractors (Provision of labelling plate):							
1)	Make	Evaluative	Should conform to the requirements of CMVR along with maximum PTO Power in kW and year of manufacture in numerical form. MM YY Digit 01 – 12 in box No.1 for MM will represent the months and next two digits in box No.2 for YY will represent the year of Manufacturing.	DEUTZ-FAHR				Yes
2)	Model	Evaluative		AGROMAXX 4050 E 2WD				Yes
3)	Month & Year of manufacture	Evaluative		08 /21				Yes
4)	Engine number	Evaluative		3AD222654H21				Yes
5)	Chassis number	Evaluative		M1TFP31RDHG000572				Yes
6)	Declaration of PTO power, (kW)	Evaluative		32.4				Yes
7)	Specific fuel consumption, (g/kWh)	Evaluative		270				Yes
6.1.3	Literature (Submission to test agency):							
(a)	Operator manual	Evaluative	Provided/ Not Provided	Provided	Provided	Provided	Yes	
(b)	Parts Catalogue	Evaluative	Provided/Not Provided	Provided	Provided	Provided	Yes	
(c)	Workshop/Service manual	Evaluative	Provided/Not Provided	Provided	Provided	Provided	Yes	
6.1.4	Fitment of Roll Over Protective Structures (ROPS):							
	For tractor having more than 1150 mm rear track width	Evaluative	ROPS should meet the requirement of IS: 1182 or OECD code or equivalent International Standard.	Not Provided	Not fitted	Not fitted	Not Applicable	
6.1.5	Standard Accessories	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor.	Provided	Provided	Provided	Yes	
6.1.6	Accessories (optional)	Non Evaluative	Ballast weight, if fitted, should meet the requirement of CMVR.	Not Provided	Not Provided	Not Provided	Not Applicable	
6.2	CATEGORY OF BREAKDOWNS / DEFECTS:							
Sl. No.	Category of breakdowns	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2019	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 three and frequency of each should not be more than two.	None	Yes			
4.	Total breakdowns	Evaluative	In no case, the total number of breakdowns should exceed five, that is, (2 major + 3 minor) or 5 minor breakdowns.	None	Yes			

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6.3 Adequacy of Literature supplied with machine:

- 6.3.1** The following literature was supplied with test sample for reference during the test.
- a) Operator Manual of Agromaxx 4045 E, Agromaxx 4050 E, Agromaxx 4055 E & Agromaxx 4060 E tractor models.
 - b) Parts catalogue for "Agromaxx 4045 E" tractor model.
 - c) Workshop service manual of Agromaxx 4045 E & Agromaxx 4050 E tractor models.

- 6.3.2** The operator manual, parts catalogue & workshop service manual may be brought out for the guidance of users and service personnel as per IS:8132-1999 incorporating, inter alia, the following:
- i) Make & model of tractor.
 - ii) Two wheel drive front axle details & specification.

The results of the tests carried out on variant model "DEUTZ FAHR, AGROMAXX 4050E 2WD" tractor have been compared with those on base model "DEUTZ FAHR, AGROMAXX 4050E" tractor tested vide test report No. T-1653/2184/2022 (June, 2022) & found within the limit as specified in Indian Standard: **12207-2019**.

TESTING AUTHORITY:

C.V. CHIMOTE TEST ENGINEER	
P. K. PANDEY DIRECTOR	

Draft test report compiled by: **Mrs. Poonam Khurasia**, Senior Technical Assistant

7. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's comments
7.1	6.3.2	Suggestion is considered.

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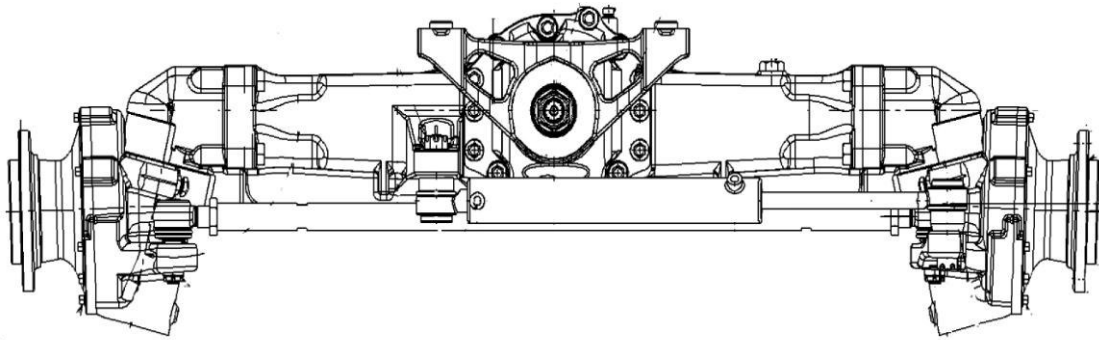
ANNEXURE-I

TRACTOR RUN HOURS DURING TEST

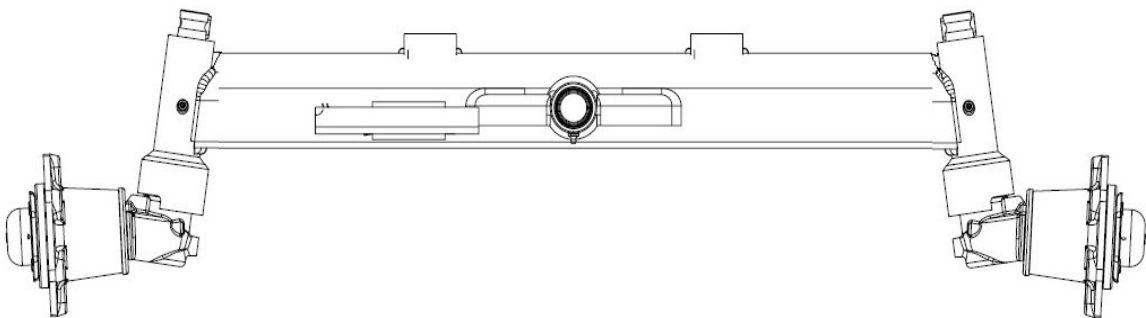
A.	LABORATORY AND TRACK TESTS	<u>HOURS</u>
1.	Drawbar Performance Test	2.00
B.	Miscellaneous test and other run hours, including idle run transportation, trial and preparation for test.	0.25
Total		2.25

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ANNEXURE-II



FRONT AXLE DESIGN ON BASE MODEL AGROMAXX 4050E



FRONT AXLE DESIGN ON VARIANT MODEL AGROMAXX 4050E 2WD