

व्यावसायिक परीक्षण रिपोर्ट (प्रथम बैच परीक्षण रिपोर्ट) संख्या / No. : T-1453/1980/2020  
COMMERCIAL TEST REPORT (First Batch Test) माह / Month : July, 2020

(यह परीक्षण रिपोर्ट 31/07/2025 तक वैध है। / THIS TEST REPORT IS VALID UP TO : 31/07/2025)



## DEUTZ-FAHR, AGROLUX 75 PROFILINE TRACTOR



सत्यमेव जयते

भारत सरकार

कृषि एवं किसान कल्याण मंत्रालय  
कृषि, सहकारिता एवं किसान कल्याण विभाग  
मशीनीकरण एवं प्रौद्योगिकी प्रभाग

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

(Department of Agriculture, Cooperation & Farmers Welfare, Mechanization & Technology Division)

केन्द्रीय कृषि मशीनरी प्रशिक्षण एवं परीक्षण संस्थान

ट्रैक्टर नगर, बुदनी (म.प्र.) ४६६ ४४५

**CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE**

(An ISO : 9001 - 2015 Certified Institute)

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The "DEUTZ-FAHR, AGROLUX 75 PROFILINE" tractor had undergone "Initial Commercial Test" at this Institute and a test report No. T- 882/1397/2013 released on August, 2013. Now the applicant has submitted application for Batch testing of "DEUTZ-FAHR, AGROLUX 75 PROFILINE" tractor.

All necessary tests as per Table-1 of clause 6.0 of IS: 5994 - 1998 (Reaffirmed in 2014) were carried out and test report released as under.

The applicant has informed vide letter no. ATE/019 dated: 09.03.2020 last cut off tractor chassis number and engine serial number of tractor model "DEUTZ-FAHR, AGROLUX 75 PROFILINE " tractor generated on production line as under:-

S. No.	Parameters Modified	Chassis Number	Engine Number
1.	Re-declaration of hydraulic lifting capacity at hitch point	M1TL792RDHE000073	1000.3WT11E3 *48557*H19
2.	Re-declaration of maximum operating temperature of engine lubrication oil		
3.	Audible warning signal		
4.	Specification of PTO shaft		
5.	Labelling plate		

**Manufacturer** : M/s. Same Deutz-Fahr India (P) Ltd  
72, Sipcot Industrial Complex,  
Ranipet – 632 403 (Tamil Nadu)

Test requested by (applicant) : The Manufacturer

Selected for test by : The testing authority

Place of running-in : At Applicant's works

**Duration of said running-in (h):**

- Engine : Nil

- Transmission : 25

**Method of Selection** : The test sample was selected randomly out of five tractors from the production line by the representative of testing authority.

**Tractors chassis serial number made available for random selection:**

- i) M1TL792RDHE000069
- ii) M1TL792RDHE000070
- iii) M1TL792RDHE000071
- iv) M1TL792RDHE000072
- v) M1TL792RDHE000073

### 1. SPECIFICATION

**1.1 Tractor:**

Make : Deutz-Fahr

Model : Agrolux 75 Profiline

Type : Four wheeled, 4WD, unit construction, standard ,Agricultural tractor.

Year of manufacture : 08 | 19

Chassis number : M1TL792RDHE000070

Country of origin : India



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1	2	3	4	5	6	7
14.1.10	<b>Safety features :</b>					
a)	Guards against moving and hot parts	Evaluative	Belt drives, pulleys, silencer, hydraulic pipes (As per IS 12239 (Part2))		Meets the requirement	Yes
b)	Lighting arrangement	Evaluative	As per CMVR		Meets the requirement	Yes
c)	Seating requirements (Tractors having more than 1150 mm rear track width)	Non Evaluative	Should meet the requirements of IS: 12343 (As amended from time to time)		Does not Meets the requirement	No
d)	Technical requirements for PTO shaft	Evaluative	Should meet the requirements of IS: 4931 (As amended from time to time)		Meets the requirement	Yes
e)	Dimensions of three point linkage	Non Evaluative	Should meet the requirements of IS: 4468 (Part-1) (As amended from time to time)		Meets the requirement	Yes
f)	Specifications of linkage	Evaluative	Should meet the requirements of IS: 12953 (As amended from time to time)		Meets the requirement	Yes
g)	Swinging drawbar (wherever fitted)	Evaluative	Should meet the requirement of IS: 12362 (Part 3) (As amended from time to time)		Not provided	Not applicable
h)	1) Maximum travelling speed at rated engine speed in reverse gears, Km/h	Evaluative	Should not exceed 20 Km/h		40.93 km/h	Yes
	2) Audible warning signal on tractor	Evaluative	As soon as the travelling speed in reverse gear reaches to 20 km/h, an audible warning signal on tractor shall be activated. The safety aspects about the operation of shuttle technology shall be brought in operation and manufacturer /dealer shall ensure the training on this aspect to operator before the delivery of tractor.		Audible warning signal provided	Yes
14.1.11	<b>Labelling of tractors (Provision of labelling plate):</b>					
	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		Agrolux 75 Profiline		Yes
	3) Month & Year of manufacture	Evaluative		08	19	Yes
	4) Engine number	Evaluative		1000.3WT11E3*51327*G19		Yes
	5) Chassis number	Evaluative		M1TL792RDHE000070		Yes
	6) Maximum PTO power, (kW)	Evaluative		46.7		Yes
	7) Specific fuel consumption, (g/kWh)	Evaluative		298		Yes
14.1.12	<b>Discard limit for:</b>					
(a)	Cylinder bore diameter, (mm)	Evaluative	To be specified by the manufacturer and supported by the printed literature	105.1(D)	104.998 to 105.029	Yes
(b)	Clearance between piston & cylinder liner at skirt, (mm)	Non Evaluative		0.42 (D)	0.123 to 0.138	Yes
(c)	Piston diameter at skirt, mm	Non Evaluative		104.68	104.891 to 104.897	Yes



TRACTOR -	
7/2025	
6	7
meets the requirement	Yes
meets the requirement	Yes
does not meet the requirement	No
meets the requirement	Yes
meets the requirement	Yes
meets the requirement	Yes
not provided	Not applicable
0.93 kmph	Yes
Audible warning signal provided	Yes
FAHR	Yes
5 Profiline	Yes
19	Yes
*51327*G19	Yes
DHE000070	Yes
1.7	Yes
98	Yes
98 to 105.029	Yes
23 to 0.138	Yes
91 to 104.897	Yes
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1	2	3	4	5	6	7
(d)	<b>Ring end gap (mm):</b>					
	Top comp. ring.	Evaluative	-do-	1.5 (D)	0.60 to 0.65	Yes
	2 <sup>nd</sup> comp. ring.		-do-	1.5 (D)	0.50	Yes
	Oil ring.		-do-	1.5 (D)	0.50 to 0.55	Yes
(e)	<b>Ring groove clearance (mm):</b>					
	Top comp. ring.	Evaluative	-do-	0.25 (D)	Tapered	Yes
	2 <sup>nd</sup> comp. ring.		-do-	0.25 (D)	0.052 to 0.053	Yes
	Oil ring.		-do-	0.15 (D)	0.043 to 0.053	Yes
(f)	<b>Clearance of main bearings (mm):</b>					
	Diametrical clearance	Evaluative	-do-	0.40 (D)	0.074 to 0.100	Yes
	Crankshaft end float	Evaluative		0.50 (D)	0.10	Yes
(g)	<b>Clearance of big end bearings, (mm):</b>					
	Diametrical	Evaluative	-do-	0.40 (D)	0.070 to 0.086	Yes
	Axial	Evaluative	-do-	0.80 (D)	0.20	Yes
(h)	Clearance between ring pin and bush, (mm)	Non Evaluative	-do-	0.85 (D)	0.022 to 0.037	Yes
(i)	Clearance between centre pin and bush, (mm)	Non Evaluative	-do-	0.85 (D)	0.149 to 0.170	Yes
14.1.13	<b>Literature (Submission to test agency)</b>					
(a)	Operator manual	Evaluative	Provided / Not Provided	Provided	Provided	Yes
(b)	Parts Catalogue	Evaluative		Provided	Provided	Yes
(c)	Workshop/Service manual	Evaluative		Provided	Provided	Yes
14.1.14	<b>Fitment of Roll Over Protective Structures (ROPS):</b>					
	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 fitted	Not applicable
14.1.15	Standard Accessories	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor		Provided	Yes
14.1.16	Accessories (optional)	Non Evaluative	Ballast weight, if fitted, should meet the requirement of CMVR		Provided	Yes
14.2	<b>CATEGORY OF BREAKDOWNS / DEFECTS ( As per clause 5.0 of IS:12207-2019):</b>					
Sr 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 one 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 four, that is, (1 major + 3 minor) or 4 minor breakdowns.	None	Yes	



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**14.3 Salient Observations:**

**14.3.1 Laboratory tests:**

**14.3.1.1 PTO Performance Test:**

- i) The maximum power in case of previous & present sample were observed as **49.3 & 45.0 kW** respectively, against the declaration of **46.7 kW**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- ii) The specific fuel consumption corresponding to maximum power in case of previous & present sample was recorded as **286 & 276 g/kWh** against respectively the declaration of **298 g/kWh**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- iii) The maximum equivalent crankshaft torque was recorded as **281.5 Nm** against the declaration of **295 Nm**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- iv) The backup torque is **44.3 %**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- v) Under high ambient condition test the coolant temperature was reaching to **110 °C** against the declaration of max. coolant temperature **110 °C**.

**14.3.1.2 Drawbar performance test:**

- i) Maximum drawbar pull in case of previous & present sample with unballast corresponding to 15 percent wheel slip, (kN) was recorded as **23.01 kN & 24.6 kN** respectively against the minimum requirement of **17.71 kN**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- ii) Maximum drawbar power with unballast in case of previous & present sample was recorded as **41.2 kW & 39.9 kW** respectively against the minimum requirement of **36.0 kW** in case of present sample, Which meet the minimum requirement of IS: 12207-2019.
- iii) During ten hours drawbar performance test under ballasted condition, creeping LHS & RHS tyre over the rim were observed as **20 mm & 05 mm**. This should be looked into for necessary corrective action.

**14.3.1.3 Hydraulic performance test:**

- i) Maximum lifting capacity throughout the range of lift at hitch point and stand frame was recorded as **15.83 kN & 14.62 kN** respectively against the declaration of **17.0 kN** (re-declaration) & **11.8 kN** respectively, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.

**14.4 Maintenance / Service Problems:**

No noticeable maintenance or service problem was observed during the test.

**14.5 Recommendation with regard to safety on tractor:**

The following requirements, inter alia, may be considered for incorporation on the tractor.

- i) Longitudinal distance from SIP to center line of differential lock pedal.
- ii) Vertical distance from SIP to foot rest.
- iii) The working clearance between the position control and range selector lever, mudguard and PTO clutch lever are less than the requirement as per IS: 12207-2019 (Part-2) – 1999.
- iv) Fuel shut-off lever does not remain in stop position.
- v) Provision for transport lock for loads on hydraulic lift.
- vi) Provision of trailer hook locking device.



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14.6 **Adequacy of Literature supplied with machine:**

14.6.1 The supplied literature was found adequate

- a) Use and Maintenance manual in respect of Agrolux 75 Profiline & Agrolux 80 Profiline tractor models.
- b) Workshop service manual for Agrolux 75 Profiline & Agrolux 80 Profiline tractor models.
- c) Spare Parts Catalogue for Agrolux 75 Profiline & Agrolux 80 Profiline tractor.

**15. Citizen charter**

Test duration under citizen charter	Duration of Test	Whether the report released within time frame given in the citizen charter	Remark
10 Months	11 Months (August, 2019 to June, 2020)	No	Delay due to covid -19 pandemic & the manufacturer has held up the components / assembly inspection of the tractor.

**TESTING AUTHORITY:**

**G.S. RAGHUWANSHI**  
AGRICULTURAL ENGINEER

**C.V. CHIMOTE**  
TEST ENGINEER

**J.J.R. NARWARE**  
DIRECTOR

This report compiled by: **Sh. Shivkumar Sharma**, Senior Technical Assistant.

**16. APPLICANT COMMENT'S**

Para No.	Our reference	Applicant's comment
16.1	14.5 (vii)	Safety locking provision available for rear hook with pin & linch pin arrangement -positive locking.



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**ANNEXURE- I****TRACTOR RUN HOURS DURING TEST**

A.	LABORATORY AND TRACK TESTS:	HOURS
1.	Running-in	25.0
2.	PTO performance test	11.5
3.	Drawbar performance test	15.3
4.	Power lift and hydraulic pump performance test	0.8
5.	Brake test	1.5
6.	Noise measurement	1.8
7.	Mechanical vibration test	1.0
8.	Theoretical speed test	3.5
B.	Haulage Test	4.6
C.	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	4.8
	<b>TOTAL</b>	<b>69.8</b>