

व्यावसायिक वैरिएंट परीक्षण रिपोर्ट (प्रथम बैच)  
COMMERCIAL VARIANT TEST REPORT (1st Batch Test)

संख्या / No. : T-1503/2030/2020  
माह / Month : December, 2020

(यह परीक्षण रिपोर्ट 31/12/2025 तक वैध है। / THIS TEST REPORT IS VALID UP TO : 31/12/2025)



**DEUTZ FAHR, 3040 E 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)

**Tractor Nagar, Budni (M.P.) 466 445**

E-mail [fmti-mp@nic.in](mailto:fmti-mp@nic.in)

Website : <http://www.fmttibudni.gov.in>

Telephone : 07564 - 234729, 234743

Page 1 of 29

T-1503/2030/2020	<b>DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1<sup>st</sup> Batch)</b>
	<b>THIS TEST REPORT IS VALID UPTO: 31/12/2025</b>

## 2. FUEL AND LUBRICANTS

**2.1 Fuel** : The High-speed diesel oil supplied by M/s Indian Oil Corporation Limited having density of 0.836 g/cc at 15°C was used.

**2.2 Lubricants:**

S. No.	Particulars	As recommended by the manufacturer	As used during the test
1.	Engine oil	Deutz – Fahr Super	As recommended
2.	Gearbox, differential, rear axle, rear final drive, hydraulic and brake system oil	Deutz – Fahr UTTO	Oil originally filled in the tractor systems were not changed
3.	Steering system oil	Servo HP 140	--do--
4.	Grease	Servo gem, EP-1	MP Grease

## 3. ESSENTIAL TESTS

### 3.1 SPECIFICATIONS

**3.1.1 Tractor:**

Make : DEUTZ-FAHR  
 Model : 3040 E  
 Brand name : None  
 Type : Four wheeled, rear wheel drive (2WD), unit construction, standard, agricultural tractor  
 Month & Year of manufacture : 09/19  
 Chassis number : M1TT151RDJE000456  
 Country of origin : India

**3.1.2 Engine:**

Make : Simpson Co. Ltd.  
 Model : TIII A S325.1-F2  
 Type : Four stroke, Liquid cooled, Naturally aspirated, Direct injection, Diesel engine.  
 Serial number : S325.1K49341  
 Month & Year of manufacture : 2019  
 Country of origin : India

**3.1.2.1 Engine speed (rpm), (Manufacturer's recommended production settings):**

- Maximum speed at no load : 2170 to 2230  
 - Low idle speed : 600 to 750  
 - Speed at maximum torque : 1100 to 1400

**Rated speed, (rpm):**

- For PTO use : 2000  
 - For drawbar use : 2000

**3.1.3 Cylinder & Cylinder Head:**

Number : Three  
 Disposition : Vertical, Inline  
 Bore/stroke, (mm) : 91.4/127  
 Capacity as specified by the applicant, (cc) : 2500  
 Compression ratio : 18.5 ± (0.3):1  
 Type of cylinder head : Monoblock

T-1503/2030/2020	<b>DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1<sup>st</sup> Batch)</b>
	<b>THIS TEST REPORT IS VALID UPTO: 31/12/2025</b>

### 7. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

7.1 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:-

S. No.	Characteristic	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2019	Values declared by the applicant (D) / Requirement (R)	As observed	Whether meets the requirements (Yes/No)
1	2	3	4	5	6	7
<b>7.1.1</b>	<b>PTO Performance :</b>					
a)	Max. power under 2 h test, (kW ) (Natural ambient condition)	Evaluative	Declared value to be achieved with a tolerance of: $\pm 5\%$ for PTO power or engine power $>26$ kW, $\pm 10\%$ for PTO power or Engine power $\leq 26$ kW.	26.0 (D)	26.8	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	26.0 (D)	26.8	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Evaluative	+ 10% Max.	255 (D)	272	Yes
d)	Maximum equivalent crankshaft torque, (Nm)	Non Evaluative	$\pm 8\%$	145 (D)	152.0	Yes
e)	Back-up torque, percent	Evaluative	12 percent, min.	12(D) 12 (R)	18.9	Yes
<b>7.1.2</b>	<b>Safety features :</b>					
a)	Guards against moving and hot parts	Evaluative	Belt drives, pullies, silencer, hydraulics pipes(as per IS-12239 Part 2)	Meet the requirements		Yes
b)	Lighting arrangement	Evaluative	As per CMVR	Meet the requirements		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)	<b>Does not meet the requirement</b>		<b>No</b>
d)	Technical requirements for PTO shaft	Evaluative	Should meet the requirements of IS: 4931 (As amended from time to time)	Meet the requirements		Yes
e)	Dimensions of three point linkage	Non Evaluative	Should meet the requirements of IS: 4468 (Part-I) (As amended from time to time)	<b>Does not meet the requirement</b>		<b>No</b>

T-1503/2030/2020	<b>DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1<sup>st</sup> Batch)</b>
	<b>THIS TEST REPORT IS VALID UPTO: 31/12/2025</b>

1	2	3	4	5	6	7
f)	Specifications of linkage drawbar	Evaluative	Should meet the requirements of IS 12953 (As amended from time to time)	Meet the requirements		Yes
g)	Specifications of Swinging drawbar (wherever fitted)	Evaluative	Should meet the requirements 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, kmph	Evaluative	Should not exceed 20 kmph	12.82 kmph (Meet the requirements)		Yes
	2) Audible warning signal on tractor.	Evaluative	As soon as the travelling speed in reverse gear reaches to 20 kmph, an audible warning signal on tractor shall be activated.	Not applicable		--
<b>7.1.3</b>	<b>Labelling of tractors (Provision of labelling plate):</b>					
	1) Make	Evaluative	Should conform to the requirements of CMVR along with maximum declared value of PTO power in kW and for month & year of manufacture in numerical MM YY Digit 01-12 in box No.1 for MM will represent the month and next two digit in the box No.2 for YY will represent the year of manufacturing	DEUTZ-FAHR		Yes
	2) Model	Evaluative		3040 E		Yes
	3) Month & Year of manufacture	Evaluative		09 /19		Yes
	4) Engine number	Evaluative		S325.1K49341		Yes
	5) Chassis number	Evaluative		M1TT151RDJE00 0456		Yes
	6) Declaration of PTO power, kW	Evaluative		26		Yes
<b>7.1.4</b>	<b>Literature (Submission to test agency)</b>					
(a)	Operator manual	Evaluative	Provided / Not Provided	Provided		Yes
(b)	Parts Catalogue	Evaluative	Provided / Not Provided	Provided		Yes
(c)	Workshop/ Service manual	Evaluative	Provided / Not Provided	Provided		Yes
<b>7.1.5</b>	<b>Standard accessories</b>	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor	Provided		Yes
<b>7.1.6</b>	<b>Accessories (Optional)</b>	Non Evaluative	Ballast weights if fitted should meet the requirement of CMVR.	Provided		Yes

T-1503/2030/2020	<b>DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1<sup>st</sup> Batch)</b>
	<b>THIS TEST REPORT IS VALID UPTO: 31/12/2025</b>

<b>7.2 CATEGORY OF BREAKDOWNS / DEFECTS (As per clause 5.0 of IS:12207-2019) :</b>					
<b>S. No.</b>	<b>Category of Breakdown</b>	<b>Category (Evaluative / Non Evaluative)</b>	<b>Requirements as per IS: 12207-2019</b>	<b>As observed</b>	<b>Whether meets the requirement (Yes/No.)</b>
1.	Critical breakdown	Evaluative	There is no 'critical breakdown' during the course of testing	None	Yes
2.	Major breakdowns	Evaluative	There are not more than 1 major breakdowns and neither of them is of repetitive nature	None	Yes
3.	Minor breakdowns	Evaluative	There are not more than 3 minor defects during the test and the frequency of each is 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

**7.3 Salient Observations:**

**7.3.1 Laboratory tests:**

**7.3.1.1 PTO Performance:**

- i) The maximum PTO power was recorded as **26.8 kW** against the declaration of **26.0 kW**, which meets the requirement of IS: 12207-2019 with regard to tolerance limit.
- ii) The specific fuel consumption corresponding to maximum power was recorded as **272 g/kWh** against the declaration of **255 g/kWh**, which is within the tolerance limit of IS: 12207-2019.
- iii) The maximum equivalent crankshaft torque was recorded as **152.0 N-m** against the declaration of **145.0 N-m**, which is within the permissible limit as specified in IS: 12207-2019.
- iv) The backup torque is **18.9 %** and meets the evaluative requirement of IS: 12207-2019.

**7.4 Maintenance / Service Problems:**

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

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

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

- i) Width of seat is recorded as 440 mm. It should be 450 mm (min) as per IS: 12239 (Part-1)-1996 (Reaffirmed in October, 2017).
- ii) There should be provision of differential lock IS: 12239 (Part-2) – 1999 (Reaffirmed in 2014).
- iii) Provision for spark arrester in exhaust system should be provided as per IS-12239 (Part-I) 1996 (reaffirmed in Oct. 2017).
- iv) Symbol for Power Take-off shaft should be provided as per IS: 6283 (Part-I -2006 &Part II-2007) (Reaffirmed in 2014).
- v) Fuel shut-off knob should be remained in stop position as per IS: 8133 -1983 (Reaffirmed in 2014).

T-1503/2030/2020	<b>DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1<sup>st</sup> Batch)</b>
	<b>THIS TEST REPORT IS VALID UPTO: 31/12/2025</b>

- vi) The working clearance between the position and draft control lever was recorded 35 mm against the minimum requirement of 70 mm. It should be as per IS: 12239 (Part-2) – 1999 (Reaffirmed in 2014).

**7.6 Adequacy of Literature:**

7.6.1 Following literature of following tractor models were supplied with the test sample for reference during the test.

- a) Operator's manual of Duetz- Fahr 3040E Tractor Model
- b) Spare Parts catalogue of Duetz- Fahr 3040E Tractor Model
- c) Workshop Service Manual of Duetz- Fahr 3040E Tractor Model

7.6.2 The supplied literature was found adequate.

7.6.3 However, these literatures should be brought out in other vernacular languages of India for guidance of users.

The results of the tests carried out on variant model "DEUTZ-FAHR, 3040 E" Tractor have been compared with those on base model "DEUTZ-FAHR, 3042 E" Tractor tested vide test report No. T- 1497/2024/2020 (December, 2020) and found within the limit, as specified in Indian Standard: 12207-2019.

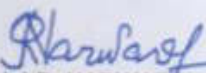
**8. CITIZEN CHARTER**

Time frame for Testing & Evaluation as per Citizen Charter	Duration of Test	Whether the Test Report is released within the time frame given in Citizen Charter	Remarks
10 Months	7 Months (June , 2020 to December, 2020)	Yes	None

**TESTING AUTHORITY:**

  
**RAJNEESH PATEL**  
AGRICULTURAL ENGINEER

  
**C.V. CHIMOTE**  
TEST ENGINEER

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

This test report is compiled by Smt. Poonam Khurasia, Senior Technical Assistant

**9. APPLICANT COMMENT'S**

Para No.	Our Reference	Applicant's comments
9.1	7.5 (ii, iv, v & vi)	Recommendations would be reviewed.
9.2	7.6.3	Literatures are already printed in all regional language for end user.

T-1503/2030/2020	DEUTZ FAHR, 3040 E TRACTOR – Commercial Variant (1 <sup>st</sup> Batch)
	THIS TEST REPORT IS VALID UPTO: 31/12/2025

**ANNEXURE – I**

**TRACTOR RUN HOURS DURING TEST**

<b>A.</b>	<b>LABORATORY AND TRACK TESTS</b>	<b>HOURS</b>
1.	Running-in	25.00
2.	PTO performance test	4.30
3.	Nominal speed test	1.00
<b>B.</b>	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	1.00
<b>TOTAL:</b>		<b>31.30</b>