

(यह परीक्षण रिपोर्ट 31/01/2026 तक वैध है। / THIS TEST REPORT IS VALID UP TO : 31/01/2026)



DEUTZ - FAHR 3035E 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

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T- 1508/2035/2021	DEUTZ-FAHR 3035E TRACTOR Commercial - (First Batch Test)
	(THIS TEST REPORT IS VALID UPTO 31/01/2026)

The “**DEUTZ - FAHR 3035E**” tractor had undergone “**Initial Commercial Test**” at this Institute, bearing report No.**T-1028/1553/2016** released in **June, 2016** and **Commercial Administrative Extension** test report **No. T-1396/1923/2020 (March, 2020)**. Now the applicant has submitted an application vide letter no. 3E Series/Batch/001 dated 02/07/2019 for batch testing of “**DEUTZ-FAHR 3035E**” **TRACTOR**.

All the 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:

Manufacturer	: M/s. SAME DEUTZ-FAHR INDIA(P) LTD., 72M, SIPCOT, Industrial Complex, Ranipet - 632 403, Tamil Naidu
Test requested by (applicant)	: The manufacturer
Selected for test by	: The applicant
Place of running-in	: At manufacturer work place
Duration of said running-in, (h):	
- Engine	: Nil
- Transmission	: 25
Method of Selection	: The tractor was submitted directly by the applicant for test. Hence method of selection is not known.

1. SPECIFICATIONS

1.1 Tractor:	
Make	: Deutz-Fahr
Model	: 3035E
Brand name	: None
Variant, if any	: None
Type	: Four wheeled, rear wheel driven, unit construction, general purpose, agricultural tractor
Month & Year of manufacture	: 12 & 19
Chassis number	: M1TT141RDME000319
Country of origin	: India
1.2 Engine:	
Make	: M/s. Simpsons & Co. Ltd.
Model	: T III A S324-F1.1
Type	: Four stroke, liquid cooled, naturally aspirated, direct injection, diesel engine
Serial number	: S324F00133
Year of manufacture	: 2019
1.2.1 Engine speed (rpm), (Manufacturer’s recommended production settings):	
- Maximum speed at no load	: 2160 to 2230
- Low idle speed	: 600 to 800
- Speed at maximum torque	: 1200 to 1600
Rated speed, (rpm):	
- For PTO use	: 2000
- For drawbar use	: 2000

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14. SUMMARY OF OBSERVATIONS, COMMENTS & RECOMMENDATIONS

14.1 On the basis of tests conducted the performance results have been summarized as evaluative (mandatory) and non-evaluative (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
14.1.1	PTO Performance :					
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 ≤ 26 kW.	24.5 (D)	24.4	Yes
b)	Power at rated engine speed, (kW)	Non Evaluative	-do-	24.5 (D)	24.4	Yes
c)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Evaluative	+ 10% Max.	255 (D)	277	Yes
d)	Maximum equivalent crankshaft torque (Nm)	Non Evaluative	$\pm 8\%$	130 (D)	137.2	Yes
e)	Back-up torque, percent	Evaluative	12 percent, min.	12 (D) 12 (R)	17.9	Yes
f)	Maximum operating temperature($^{\circ}$ C)					
	1) Engine oil	Evaluative	The declared value should not exceed the max. value specified by the oil company and the observed value under high ambient condition should not exceed the declaration.	150 (D)	118	Yes
	2) Coolant (liquid)	Evaluative	The declared value should not exceed the boiling temperature of coolant under the pressurized or otherwise and the observed value under high ambient condition should not exceed the declaration.	115 (D)	98	Yes
g)	Engine oil consumption,(g/kWh)	Evaluative	Not exceeding 1% of SFC at max. power under High ambient conditions	2.80 (R) Maximum	0.89	Yes
h)	Smoke level, (m^{-1})	Evaluative	Maximum light absorption coefficient of 3.25 per meter or equivalent BOSCH No. 5.2 or 75 Hat ridge value (As per CMVR)	3.25 (R)	0.28	Yes

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1	2	3	4	5	6	7	
14.1.2	Drawbar performance:						
a)	Maximum drawbar pull with ballast corresponding to 15 percent wheel slip, (kN)	Non Evaluative	Minimum 70% of static mass with ballast	17.09 (D)	18.66	Yes	
				16.82 (R) Minimum			
b)	Maximum drawbar pull with un-ballast corresponding to 15 percent wheel slip, (kN)	Evaluative	Minimum 70% of static mass of tractor without/ standard ballast	11.33 (D)	12.98	Yes	
				11.02 (R) Minimum			
c)	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.	19.6 (D)	22.0	Yes	
				19.5 (R) Minimum			
d)	Maximum transmission oil temperature (°C)	Evaluative	The declared value should not exceed the maximum value specified by oil company.	120 (D)	78	Yes	
14.1.3	Power lift and hydraulic pump performance :						
a)	Maximum lifting capacity throughout the range of lift, (kN):						
	1)	At hitch points	Evaluative	±10 percent	12.6 (D)	11.51	Yes
	2)	With the standard frame	Evaluative	The lift capacity should at least be 24 kg/PTO kW. and it should be 21.5 kg/engine kW where the tractor is not provided with a PTO shaft	5.6 (D) 5.74 Minimum (R)	9.99	Yes
b)	Maximum drop in the height of the point of application of the force after each 5 minutes interval for a total duration of 30 minute, (mm)	Non Evaluative	The observed value should not exceed 50 mm	50 (D)	00	Yes	
				50 (R) Maximum			

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1	2	3	4	5	6	7	
14.1.4	Brake performance at 25 kmph:						
a)	Maximum stopping distance at a force equal to or less than 600 N on brake pedal with road ballast, (m):						
	1)	Cold brake	Evaluative	10	10 (R)	7.99	Yes
	2)	Hot brake	Evaluative	10	10 (R)	8.71	Yes
b)	Maximum force exerted on the brake pedal to achieve a deceleration of 2.5 m/s ² (N)	Evaluative	600	600 (R)	330 to 421	Yes	
c)	Whether parking brake is effective at a force of 600 N at foot pedal(s) or 400 N at hand lever, N	Evaluative	Yes / No	Yes (R)	422 to 463	Yes	
14.1.5	Noise measurement :						
a)	Maximum ambient noise emitted by the tractor dB(A)	Evaluative	As per CMVR	88 (R)	83	Yes	
b)	Maximum noise at operator's ear level dB(A)	Evaluative	As per CMVR	96 (R)	94	Yes	
14.1.6	Amplitude of mechanical vibrations at :						
	1) Left foot rest	Non Evaluative	100 microns (max)	100 (R)	98	Yes	
	2) Right foot rest		-do-		142	No	
	3) Seat (with driver seated)		-do-		37	Yes	
	4) Steering wheel		do-		97	Yes	
14.1.7	Air cleaner oil pull over :						
	Maximum air cleaner oil pull over (%)	Evaluative	0.25 % (max.)	N.A	Dry type air cleaner is fitted	Not applicable	
14.1.8	Haulage requirements :						
a)	Gross mass of the trailers, (tonne):						
	1)	Two wheel	Non Evaluative	As specified by the manufacturer	4.0 (D)	4.0	Yes
	2)	Four wheel	Evaluative	As specified by the manufacturer	5.5 (D)	5.5	Yes
b)	Distance travelled / litre of fuel consumption, (km/l):						
	1)	Two wheel	Non Evaluative	As specified by the manufacturer	4.0 to 7.5 (D)	5.99 to 6.08	Yes
	2)	Four wheel			4.0 to 7.5 (D)	5.67 to 5.70	Yes
c)	Fuel consumption (ml/km/tonne):						
	1)	Two wheel	Non Evaluative	As specified by the manufacturer	25 to 50 (D)	41.10 to 41.71	Yes
	2)	Four wheel			25 to 60 (D)	31.87 to 32.09	Yes

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1	2	3	4	5	6	7
14.1.9	Wetland cultivation :					
	Sealing for the following assemblies:	Evaluative	The identified assemblies should essentially meet the requirement of IS: 11082. - No water ingress in the identified assembly given in column - 2. If tractor does not meet the requirements of wetland cultivation, it may be recommended for dry land operation only	There should be no ingress of water and / or mud (R)	No ingress of mud and / or water was observed during ICT vide test report no T- 1028/1553/2016 (June, 2016)	Yes
	1) Clutch assembly	-do-				
	2) Brake housings	-do-				
	3) Front axle hubs	-do-				
	4) Engine Oil	-do-				
	5) Transmissi on Oil	-do-				
14.1.10	Safety features :					
a)	Guards against moving and hot parts	Evaluative	Belt drives, pulleys, 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)	Does not meet the requirements	No	
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)	Does not meet the requirements	No	
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	(12.81 kmph) Meet the requirements	Yes	

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1	2	3	4	5	6	7
	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 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.		Not applicable	Not applicable
14.1.11	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 & next two digits in box No.2 for YY will represent the year of manufacturing.		DEUTZ-FAHR	Yes
	2) Model	Evaluative			3035E	Yes
	3) Month & Year of manufacture	Evaluative			12 / 19	Yes
	4) Engine number	Evaluative			S324F00133	Yes
	5) Chassis number	Evaluative			M1TT141RDME 000319	Yes
	6) Declaration of PTO power, kW	Evaluative			24.5	Yes
	7) Specific fuel consumption (g/kWh)	Evaluative			255	Yes
14.1.12	Discard limit for:					
(a)	Cylinder bore diameter, (mm)	Evaluative	To be specified by Manufacturer	89.115	88.950 to 88.961	Yes
(b)	Clearance between piston & cylinder liner at skirt, (mm)	Non Evaluative		0.50	0.135 to 0.150	Yes
(c)	Piston diameter at skirt, mm	Non Evaluative		Piston is discarded when the ring groove clearance exceed 0.25 with new ring	88.810 to 88.825	Yes
(d)	Ring end gap (mm):					
	- Top comp. ring.	Evaluative	-do-	1.50	0.25 to 0.30	Yes
	- 2 nd comp. ring.		-do-	1.50	0.35	Yes
	- Oil ring.		-do-	1.80	0.30	Yes
(e)	Ring groove clearance (mm):					
	- Top comp. ring.	Evaluative	-do-	0.25	0.078 to 0.085	Yes
	- 2 nd comp. ring.	-do-	-do-	0.25	0.048 to 0.057	Yes
	- Oil ring.	-do-	-do-	0.25	0.033 to 0.039	Yes
(f)	Clearance of main bearings, (mm):					
	- Diametrical	Evaluative	-do-	0.50	0.092 to 0.144	Yes
	- Crank shaft end float	Evaluative	-do-	0.75	0.20	Yes

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1	2	3	4	5	6	7	
(g)	Clearance of big end bearings, (mm):						
	-	Diametrical	Evaluative	-do-	0.50	0.067 to 0.115	Yes
	-	Axial	Evaluative	-do-	0.75	0.35	Yes
(h)	Clearance between king pin and bush,(mm)	Non Evaluative	-do-	0.85	0.208 to 0.269	Yes	
(i)	Clearance between center pin and bush,(mm)	Non Evaluative	-do-	0.85	0.442 to 0.491	Yes	
14.1.13	Literature (Submission to test agency):						
(a)	Operator manual	Evaluative	The printed literature in booklet form should be provided as per IS 8132 & should submit along with the test sample	As per relevant IS- 8132	Provided	Yes	
(b)	Parts Catalogue	Evaluative			Provided	Yes	
(c)	Workshop/ Service manual	Evaluative			Provided	Yes	
14.1.14	Fitment of Roll Over Protective Structure (ROPS): for tractors having more than 1150 mm rear track width	Evaluative	ROPS should meet the requirement of IS:11821 or OECD code or equivalent International Standard	Provided	Not fitted	Not applicable	
14.1.15	Standard accessories	Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor	Provided	Provided	Yes	
14.1.16	Accessories (Optional)	Non Evaluative	Ballast weights if fitted should meet the requirement of CMVR.	Provided	Provided	Yes	

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14.2 CATEGORY OF BREAKDOWNS / DEFECTS (As per clause 5.0 of IS:12207-2019):					
S. No.	Category of Breakdown	Category (Evaluative / Non Evaluative)	Requirements as per IS: 12207-2019	As observed	Whether meets the requirement (Yes/No.)
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 01 major breakdowns and neither of them is of repetitive nature	None	Yes
3.	Minor breakdowns	Evaluative	There are not more than 03 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, (01 major + 03 minor) or 04 minor breakdowns	None	Yes

14.3 Salient Observations:

14.3.1 Laboratory tests:

14.3.1.1 PTO Performance Test:

- i) The maximum PTO power was recorded as **24.4 kW** against the declaration of **24.5 kW**, which meets the evaluative requirement of IS: 12207-2019.
- ii) The specific fuel consumption corresponding to maximum power was recorded as **277 g/kWh** against the declaration of **255 g/kWh**, which meets the evaluative requirement of IS: 12207-2019.
- iii) The maximum equivalent crankshaft torque was recorded as **137.2 Nm** against the declaration of **130 Nm**, which meets the requirement of IS: 12207-2019 with regard to tolerance.
- iv) The backup torque was observed **17.9 %** & meets the evaluative requirement of IS: 12207-2019.

14.3.1.2 Hydraulic performance test:

- i) The moment about rear axle with standard frame was calculated as **13.83 kN-m**. Whereas, the moment about front axle was calculated as **12.25 kN-m** under unballasted condition. The moment about rear axle is on higher side as compared to the moment about front axle. It is, therefore, recommended that the lifting capacity of the hydraulic system may be reduced suitably or standard ballast recommendation may be reviewed to avoid the front lifting of the tractor.

14.3.1.3 Mechanical Vibration:

The amplitude of mechanical vibration on various assemblies marked as (*) in **Chapter - 8** of this test report is on higher side. This calls for dampening down of vibrations especially on LHS foot rest to improve the operational comfort and service life of components.

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14.3.1.4 Three point linkage:

Some of the parameters conform to Cat. I and some of them conform to Cat. II. Keeping in view the spirit of standardization, necessary improvement may be incorporated.

14.3.1.5 Operator's seat:

- i) Width of operator's seat does not meet the requirement of IS: 12343-1998. This should be looked into for necessary corrective action.
- ii) The longitudinal distance from Seat Index Point to centre of steering control wheel does not meet the requirement of IS: 12343-1998. This should be looked into for necessary corrective action.

14.3.1.6 Field performance:

14.3.1.7.1 Wetland operation:

No ingress of mud and / or water was observed during initial commercial test, tested vide test no.T-1028/1553/2016, (June).

14.4 Maintenance / Service Problems:

No noticeable maintenance or service problems were 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) Provision of spark arrester in the exhaust system.
- ii) The working clearance between the draft control lever and position control lever should be provided as per the requirement of relevant Indian Standard.
- iii) Fuel shut-off knob should remain in "STOP" position
- iv) Width of operator's seat should be as per relevant standard.
- v) Vertical retainers at both sides of pedals should be provided as per relevant standard.
- vi) Power Take-Off (ON-OFF) symbols should be provided

14.6 Adequacy of Literature supplied with machine:

14.6.1 The following literatures were supplied with the test tractor for reference during the test:-

- a) Operator's manual of Same-Deutz Fahr 3035E & 3040E Tractor model
- b) Service manual of Same-Deutz Fahr 3035 E, 3040E & 3042E Tractor model
- c) Parts Catalogue of Same-Deutz Fahr3035 E, 3040E & 3042E Tractor model

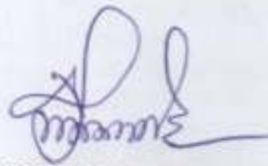
14.6.2 The supplied literature was found adequate. However, operator's manual was covered with Hindi, Service manual and Spare parts catalogue were covered with English. These literatures should be brought out in national as well as other regional languages of India for guidance of users.

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15. 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	07 Months (June, 2020 to December, 2020)	Yes	---

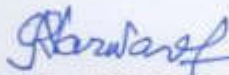
TESTING AUTHORITY:



SHWETABH SINGH
AGRICULTURAL ENGINEER



C.V. CHIMOTE
TEST ENGINEER



J.J.R. NARWARE
DIRECTOR

The report compiled by: **Shri Vithato Keyho**, Senior Technical Assistant

16. APPLICANT COMMENT'S

Para No.	Our Reference	Applicant's comments
16.1	14.5	Would be reviewed.
16.2	14.6.2	Literature available in following languages: Tamil, English, Hindi, Telugu, Kanada, Marathi, Guajarati & Nepali.

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ANNEXURE- I

TRACTOR RUN HOURS DURING TEST

A.	LABORATORY AND TRACK TESTS	HOURS
1.	Running-in	--
2.	PTO performance test	11.2
3.	Drawbar performance test	17.0
4.	Power lift and hydraulic pump performance test	3.0
5.	Brake test	1.7
6.	Noise measurement	1.3
7.	Mechanical vibration test	1.0
8.	Nominal speed test	0.8
B.	HAULAGE TEST	5.4
C.	Miscellaneous test and other run hours including idle run, transportation, trials and preparation for test	2.3
TOTAL:		43.7