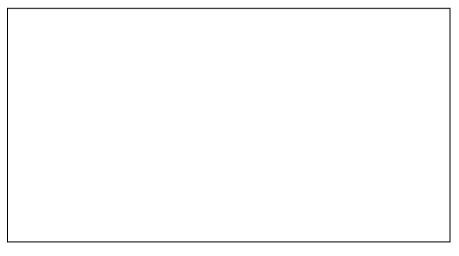
व्यावसायिक परीक्षण रिपोर्ट (वैरिएंट)-

रंख्या/No. : T- 1563/2091/2021

(प्रथम बैच परीक्षण) COMMERCIAL TEST REPORT (VARIANT)-FIRST BATCH TEST

माह/Month : July, 2021

(यह परीक्षण रिपोर्ट 31/07/2026 तक वैध है / THIS TEST REPORT IS VALID UPTO 31/07/2026)



JOHN DEERE, 5042D V3 TRACTOR



भारत सरकार कृषि एवं किसान कल्याण मंत्रालय कृषि, सहकारिता एवं किसान कल्याण विभाग GOVERNMENT OF INDIA MINISTRY OF AGRICULTURE AND FARMERS WELFARE (Department of Agriculture, Cooperation & Farmers Welfare) केन्द्रीय कृषि मशीनरी पशिक्षण एवं परीक्षण संस्थान ट्रैक्टर नगर, बुदनी (म.प्र.) 466 445 CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE (An ISO 9001: 2015 Certified Institute) TRACTOR NAGAR, BUDNI (M.P.) 466445

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	JOHN DEERE, 5042D V3 TRACTOR –
T- 1563/2091/2021	COMMERCIAL (VARIANT)- FIRST BATCH TEST
	THIS TEST REPORT IS VALID UPTO: 31/07/2026

		-			
	No of holes.		5 holes	5 holes	
6.	Make & model group		Bosch, India &	Bosch, India &	
	combination number of	RSV4	251050A2C1768R	RSV4251050A2C1933R	
	governor				
7.	Injection timing	12.5±	1 degree before TDC	13± 1 degree before TDC	
8.	Bare radiator capacity, (I)		3.7	3.7	
1	2		3	4	
9.	Total cooling capacity, (I)		8.0	8.20	
10.	Type of clutch		Single, Diaphragm,	Dual, dry friction pads	
			Dry friction plate		
11.	1. Range of nominal speed, kmph: - Forward				
			- Forward 3.13 to 34.18		2.83 to 30.91
	- Reverse		4.11 to 14.86	3.72 to 13.46	
12.	Speed reduction through rear	[.] axle	6.0:1 (Sun gear -	6.857 : 1 (Sun gear -14T,	
	& final drive		16T, planet-31 T &	planet-33T & ring gear -	
			ring gear -80T)	82T)	
13.	Engine to BTO speed ratio		2 022·1 (A6/12T)	3.83:1 (46/12T) &	
15.	Engine to PTO speed ratio		3.833:1 (46/12T)	2.933:1(44/15T) (Economy)	
14.	Tyre size & ply rating (rear wheels)		12.4 x 28 & 12PR	13.6 x 28 & 12PR	
15.	Make & size of rear wheel rim		WILP & W11 x 28	SSWL & W12 x 28	
16.	Unballasted mass of tractor, kg		660/1130/1790	620/1210/1830	
	(Front/Rear/Total)				
17.	Declared maximum PTO pow	ver, kW	23.0	26.5	

Subsequent to the examination of this case in light of clause 8.4 of IS:12207-2019, the following tests were considered to be carried out:

- Specification checking

- Nominal speed test

- Two-hour maximum PTO power performance test under normal ambient condition.

And accordingly, the batch testing of variant model has been carried out as per clause 7.4 of IS:12207-2019.

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** gm/cc at 15°C was used.

2.2 Lubricants:

	Particulars	As recommended by the manufacturer	As used during the test		
1.	Engine oil	SAE 15W-40	As recommended		
2.	Transmission, Hydraulic, Steering and brake systems oil	John Deere Hy Guard	Oil originally filled in the tractor was not changed		
3.	Grease	John Deere high temperature Extreme pressure non-clay grease	Servo grease MP		

3. ESSENTIAL TEST

3.1 SPECIFICATIONS

3.1.1 Tractor: Make

: John Deere

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T 4500	12004/2004				ERE, 5042D V3 TRACTOR –
1-1563	/2091/2021				(VARIANT)- FIRST BATCH TEST
		THIS IE	SIR	:2	ORT IS VALID UPTO: 31/07/2026
	Model			:	5042D V3
	Туре			:	Four wheeled, Rear-wheel drive, Unit
	Month & Ye	ar of manufacture		:	construction, Agricultural Tractor 02 & 21
	Chassis nur			÷	1PY5042DHMA029446
	Country of C	Drigin		:	India
3.1.2	Engine:				
	Make			:	John Deere
	Model			÷	3029DPY98
	Туре			•	Four stroke, naturally aspirated, liquid cooled, direct injection, diesel engine.
	Serial numb	er		:	PY3029D615043
	Engine spe	ed (Manufacturer'	's reco	- om	mended production setting), (rpm):
	- Maximum	speed at no load,		:	2250 to 2350
	- Low idle s			:	800 to 900
	•	maximum torque		:	1100 to 1400
	Rated spee	· · · · ·		_	2100
	- For PTO u - For drawb			÷	2100 2100
				•	2100
3. 1.3		Cylinder Head:			_
	Number			:	Three
	Disposition	<i>(</i>)		:	Vertical, inline
	Bore/stroke	. ,	u	:	106.5 / 110
	Capacity a applicant, (c		the	:	2940
	Compressio			:	18.5: 1
	Type of cylin	nder head		:	Monoblock, cross-flow
	Type of cylin	nder liners		:	Wet, replaceable
	• •	bustion chamber		:	Direct injection
	Arrangemer			:	Inline, Overhead
		ance (cold):			0.35
	 Inlet valve, Exhaust valve, 	,		÷	0.35 0.45
				•	0.40
3. 1.4	Fuel Syster				
	I ype of fuel	feed system		:	Gravity and force feed
3. 1.4.1	Fuel tank:				
	Capacity, (I)		:	60.0
	Location	_		:	Behind Operator's seat
	Provision	for draining	of	:	Not provided, however water separator is
	sediments/v Material of f			:	provided. Plastic-PELLD (apa)
0 4 4 0				-	V- L - /
3. 1.4.2	Water sepa Make	rator			Engine Tech (apa)
	Туре			2	Engine Tech (apa) Inverted funnel gravity separation.
	Location			:	On RHS of engine in between fuel tank and
	Location			•	filter.

3. 1.4.3 Fuel feed pump:

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		THIS TES	THIS TEST REPORT IS VALID UPTO: 31/07/2026					
iii)	- Pressure, (k		n: 27 to 29 NR 56 to 57	28 98.1 to 98.3 27 to 29				
iv)	Pressure, (kPa)Relative humidity, (%)		7.5 to 8.2 8.6 to 8.7	2.6 to 2.8 7.2 to 7.6				

4. OTHER APPLICABLE TESTS

None	

5. ADJUSTMENTS, DEFECTS, BREAKDOWNS AND REPAIRS

SI. No.	Adjustments/Defects/Breakdowns and Repairs	Tractor run hours
	None	

6. COMPARISON OF	SPECIFICATION	AND PERFORMANCE	CHARACTERISTICS OF
PREVIOUS SAMPLE	[TEST REPORT	NO. T-1069/1594/2017	(February, 2017) AND
PRESENT SAMPLE	-		

PRESEN	IT SAMPLE					
6.1	Specification:		Previous sample	Present sample		
6.1.1	Tractor:					
	Make	:	JOHN	DEERE		
	Model	:	5042	2D V3		
6.1.2	Engine:					
0.1.2	Make			DEERE		
	Model	:	3029DPY65	3029DPY98		
		•				
	Bore/Stroke, (mm)			.5/110		
	Specified cubic capacity, (cu.cm)	:	—	940		
	Rated engine speed (rpm)	:	2	100		
6.1.2.1	Fuel system:					
••••	Make & model/ Group combination		Bosch, India &	Bosch, India &		
	no. of fuel feed pump	•	FP/KSG 22AD 104,	FP/KSG 22AD 104,		
			F 002 A50 035	F 002 A50 038		
	Make & model of fuel filters		Bosch, India & 9 450 03 117			
		:				
	Make and model /Group		Bosch, India &	Bosch, India &		
	combination no. of fuel injection		F 002 A2Z 005,	F 002 A2Z A48,		
	pump		PES3A80D320RS2000	PES3A80D320RS2000		
	Make of fuel injectors	:	: Bosch, Made in India			
	Model of fuel injectors:		F002C70568			
	- Nozzle No.	:	DSLA154P5534	DSLA154P5666		
	-Holder No.	:	658170648	0432 193 395		
	Type of injector	:	Multi hol	e (5 holes)		
	Manufacturer's production pressure	:	25.5	5-26.9		
	setting, (MPa)					
	Injection timing	:	13±1 be	efore TDC		
	, 3	-				

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T- 1563	/2091/2021	COMMERCI	AL	ERE, 5042D V3 T (VARIANT)- FIRS	T BATCH 1	TEST		
		THIS TEST R	REP	ORT IS VALID U	PTO: 31/07	/2026		
	Make & model / G no. of governor	roup combination	:	Bosch, India & RSV425…1050A: C1768R	2 RSV42	ch, India & 25…1050A2 1933R		
6.1.2.2	5.1.2.2 Lubricating system: Total lubricating oil capacity, (I)			8.3	I	8.3		
	Ū.	capacity, (i)	•	0.5	Į	0.5		
6.1.3 6.1.3.1	Transmission: Clutch: Type			Dual, Dry fric	tion plates w	vith pads		
	Size, OD/ID, (mm)	: Transmission	:	280	diameter a	ind 30.3 cm ²		
		PTO	:	280	diameter a	and 30.3 cm^2		
6.1.3.2	Gear Box:							
	No. of speeds:							
	- Forward		:	8		8		
	- Reverse	(1	:	4		4		
	Range of speed, - Forward	(kmpn) :		2.78 to 30.88	283	3 to 30.91		
	- Reverse		:	3.75 to 13.35	3.72 to			
6.1.4	Service Brake:				·			
•••••	Make		: John Deere (apa)					
	Туре		:	: Oil immersed discs				
	No. of friction disc	2.	: Two (on each wheel side)					
	Area of liners, (cm		:		545.7			
6.1.5	Wheel equipmen Make & Size of ty		<u> </u>	Previous sample	Prese	nt sample		
	- Front		G	oodyear & 6.00-16	e & 6.00-16			
	- Rear	:		Goodyear & 13.6-28 JK Tyre & 13.6-28				
	Standard Track v	vidth, (mm):	•					
	- Front	:		1320		320		
	- Rear	:		1410		420		
6.1.5.1	Wheel base, (mm) :		1965	965			
6.1.6	Overall dimensio	ns, (mm):		0.440	1			
	- Length	:		3410		8410		
	 Width Height (with exhapped) 	ust nine)		1790 2200	1810 2220			
	- Ground clearanc	•••		370 (below fo				
6.1.7	Operational mass	of unballasted t	trac		1			
	- Front - Rear	:		660 1140		620 210		
	- Total	:		1800		1210		
6.1.8	Conformity with	following IS:			Previous	Present		
i)	Guide lines for d fuel consumption tractors (First revi in January, 2019)]	and labelling sion) [IS10273: 19	of	agricultural	<u>sample</u> Confirmed	<u>sample</u> Confirms		
ii)	Agricultural tractor - Types 1, 2 and (Reaffirmed in Jar	s - Rear mounted 3 (third revision)			Confirmed	Confirms		

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		JOHN I	DEERE.	5042	2D V3	TRACTO	R –		
T- 1563	/2091/2021	JOHN DEERE, 5042D V3 TRACTOR – COMMERCIAL (VARIANT)- FIRST BATCH TEST							
		THIS TEST R	EPORT	IS V		JPTO: 31	/07/2	2026	
iii)	three-point	wheeled tractors - F linkage: Part 1 Categori ion) [IS 4468 (Part-I):19	ies 1, 2, 3	3&4	ł	Confirme	d	Confirms	
iv)	Drawbar fo	r agricultural tractors – (Reaffirmed in 2019)]	- Link typ	be [IS	6 :	Confirme	d	Confirms	
V)	Agricultural requirement	tractors - Operator's [IS 12343 –1998 (in January, 2019)]				Confirme	d	Doesn't Confirm	
vi)	Guide for agricultural	safety & comfort of tractors: Part 1 Genera n): [IS 12239 (PT-1) 2	al requirer	ments	5	Did not Confirm		Doesn't Confirm	
vii)	Tractors and – Technica	d machinery for agricultu I means for ensuring rst revision) (IS 12239	safety Pa	art 2	:	Did not Confirm		Doesn't Confirm	
viii)	(Reaffirmed Guide lines controls on	in January, 2019)] for location and operat agricultural tractors a on) IS: 8133-1983 (ion of op and mack	erator hinery	- : /	Confirme	d	Doesn't Confirm	
ix)	Tractors and powered law operator con	d machinery for agricultur n and garden equipment trols and other displays [t – Symbo IS: 6283 (ols for	ſ	Confirme	d	Confirms	
x)	Agricultural device for the	006 & 2007 / ISO 3767-2: Tractors and Machin ravel on public roads (IS in January, 2019)]	ery - Lię			Confirme	d	Confirms	
6.2	Performance	ce Characteristics:		Pre	vious	<u>sample</u>	Pre	sent Sample	
6.2.1	PTO Perfor				_				
	•	ower, (kW) l consumption correspon ower, (g/kWh)	nding to	:		6.7 276		27.4 274	
6.3	Salient Obs	servations:							
6.3.1	Laboratory <u>Prev</u>	test: <u>/ious Sample</u>			ļ	Present Sa	ampl	<u>e</u>	
6.3.1.1	PTO Perfor								
i)	and variant & 26.7 kW & 26.5 kW	um PTO power in case models was observed a against the declaration respectively, which me t of IS: 12207-2014 with limit.	as 24.2 of 23.0 eets the		record declara meets 12207	ed as 27. ation of the req	4 kW 26.5	power was against the kW , which nent of IS: regard to	
ii)	base and v maximum p 276 g/kWh & 270 g/kV	c fuel consumption in o ariant models correspon ower was observed as against the declaration Vh respectively, which is e limit of IS: 12207-2014	nding to 248 & of 258 s within	ii)	The s corres was i agains g/kWh	specific fi ponding to recorded st the dea n, which	max as clarat is	consumption imum power 275 g/kWh tion of 270 within the 2207-2019.	
6.2	Following li	of literature: teratures of tractor mo uring the test.	odels we	re su	upplied	with the	test	sample for	

a) Service Manual (a) Service Manual

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b) Parts Catalogue

- b) Parts Catalogue
- c) Operator's manual
- c) Operator's manual
- 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)	obser -ved	Whether meets the require- ments (Yes / No)
1	2	3	4	5	6	7
7.1.1	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 \leq 26 kW.	26.5 (D)	27.4	Yes
b)	Specific fuel consumption corresponding to maximum power, (g/kWh)	Evaluative	+ 10% Max.	270 (D)	275	Yes
1	2	3	4	5	6	7
7.1.2	Safety features:					
a)	Guards against moving and hot parts	Evaluative	Belt drives, pullie silencer, hydraulics pip (as per IS-12239 Part 2)		et the ements	Yes
b)	Lighting arrangement	Evaluative	As per CMVR		et the ements	Yes
C)	Seating requirements (Tractors having more than 1150 mm rear track width)	Non- Evaluative	Should meet th requirements of IS: 123- (As amended from time time)	to t	not meet he ements	No
d)	Technical requirements for PTO shaft	Evaluative	Should meet th requirements of IS: 493 (As amended from time time)	31 requir	et the ements	Yes
e)	Dimensions of three- point linkage	Non- Evaluative	requirements of IS: 440 (Part-I) (As amended fro time to time)	68 requir m	et the ements	Yes
f)	Specifications of linkage drawbar		Should meet the requirements of IS 1299 (As amended from time time)	53 reguir	et the ements	Yes
g)	Specifications of Swinging drawbar (wherever fitted)	Evaluative	Should meet to requirements of IS 1230 (Part 3) (As amended fro time to time)	62 ·	rovided	Not appli- cable

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T- 1563/2091/2021				COMMER	IN DEERE, 5042D V3 TF RCIAL (VARIANT)- FIRS T REPORT IS VALID UF	Т ВАТСН	TEST	
h)	1)	Maximun travelling at rated speed reverse kmph	speed engine in	Evaluative	Should not exceed 20 kmph	13.46 kmph (Meets the requirement) Not fitted		Yes
	2)	Audible warning on tracto	-	Evaluative	As soon as the travelling speed in reverse gear reaches to 20 kmph, an audible warning signal on tractor shall be activated.			Not appli- cable
7.1.3	Lab	elling of t	ractors	(Provision	of labelling plate):			
	1)	Make		Evaluative	Should conform to the	John De	ere	Yes
	2)	Model		Evaluative	requirements of CMVR along with maximum	5042D V	3	Yes
	3)	Month & of manuf		Evaluative	declared value of PTO power in kW and for month & year of manufacture in	02 & 21		Yes
	4)	Engine n		Evaluative	numerical MM YY	PY3029D615043		Yes
	5)	Chassis number		Evaluative	Digit 01-12 in box No.1 for MM will represent the	1PY5042DHMA0 29446		Yes
	6)	Declarati PTO pow kW		Evaluative	month and next two digit in the box No.2 for YY will represent the year of manufacturing	26.5 (36)		Yes
7.1.4	Lite	erature (Si	ubmissio	on to test ag				
(a)		erator man		Evaluative	Provided /Not Provided	Provi	ded	Yes
(b)		ts Catalog		Evaluative	Provided /Not Provided	Provi		Yes
(c)	Wo	rkshop/ vice manu		Evaluative	Provided /Not Provided	Provi	ded	Yes
1		2		3	4	5	6	7
7.1.5	Pro (RC hav	0 mm rea	ructure tractors e than	Evaluative	ROPS should meet the requirement of IS:11821 or OECD code or equivalent International Standard	Not Provided	Not Fitted	Not appli- cable
7.1.6	Sta	ndard essories		Evaluative	Trailer hitch, front tow hook, linkage drawbar should be provided with tractor	Provided	Provided	Yes
7.1.7		essories tional)		Non Evaluative	Ballast weights if fitted should meet the requirement of CMVR.	Provided	Provided	Yes

7.2	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.)	

	JOHN DEERE, 5042D V3 TRACTOR –
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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:

- The maximum PTO power was recorded as 27.4 kW against the declaration of 26.5 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 275 g/kWh against the declaration of 270 g/kWh which meets the requirement of IS: 12207-2019 with regard to tolerance limit.

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) Vertical distance from Seat Index Point to the centre of clutch pedal & brake pedal does not meet the requirement of the IS: 12343 -1998 (Re-affirmed in January, 2019). This should be looked into for necessary corrective action.
- ii) Longitudinal distance from Seat Index Point centre to the centre of differential lock pedal & Steering control wheel does not meet the requirement of the IS: 12343 -1998 (Re-affirmed in January, 2019). This should be looked into for necessary corrective action.
- iii) Spark arrester has not been provided in the exhaust system as per the requirement of IS:12239 (Part-1)-2018. This should be looked into for necessary corrective action.
- iv) The working clearance between position and draft control lever of hydraulic system was observed as 55 mm against the minimum requirement 70 mm as per IS:12239 (Part-2)-1999 (Re-affirmed in January, 2019).
- v) The direction of hand operated lever motion to the control shall be towards the operator (generally rearward or downward) for increasing the engine speed. This should be looked into for necessary corrective action.

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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 (For 5036D,5038D,5039D, 5042D, 5042D V3,5045D,5045D V2,5050D V1 2WD,5050D V1 4WD,5105, 5205 & 5005D models tractor)
 - **b)** Repair Technical manual (For 5036D, 5038D, 5039D, 5042D, 5042D V3, 5045D, 5045D V2,5047D, 5050D, 5105, 5305, 5205 & 5005D models tractor)
 - c) Parts Catalogue (For 5042D V3 & 5045D V2 models tractor)
- **7.6.2** The literature should be brought out in national as well as other regional languages of India for guidance of users.

C.V. CHIMOTE TEST ENGINEER	Amunumente
Y.K.RAO SENIOR AGRICULTURAL ENGINEER	leteh
P.K. PANDEY DIRECTOR	431-msy

Draft Test Report is compiled by: C.S. Raghuwanshi, Agricultural Engineer.

8. APPLICANT'S COMMENTS

-None-

ANNEXURE -I

TRACTOR RUN HOURS DURING TEST

Α.	LABORATORY AND TRACK TESTS:	HOURS
1.	Running-in	24.0
2.	PTO performance test	4.0
3.	Nominal speed test	0.6
В.	Miscellaneous test and other run hours including idle run, transportation, preparation for test and trial runs.	0.4
	TOTAL:	29.0

TESTING AUTHORITY: