Report on test in accordance with
OECD STANDARD CODE I for the Official
Testing of Agricultural Tractor Performance

Full Code

OECD No. **1346**



Agricultural Tractor
JOHN DEERE 3255 (4WD)

Manufacturer
John Deere Werke Mannheim
D-6800 Mannheim

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This is a report on a tractor test in accordance with OECD STANDARD CODE for the Official Testing of Agricultural Tractor Performance (C(87)53(Final), Code I).

It does not contain an evaluation of the tractor on practical work.

Duration of tests: May 1991 till October 1991

DLG-Testing Station for Agricultural Machinery, Max-Eyth-Weg 1,
D-6114 Groß-Umstadt

This report has been approved by the OECD Co-Ordinating Centre (CEMAGREF, France) as being in accordance with the OECD STANDARD CODE.

Date of approval: 14th January 1992

OECD No. 1346
Full Code

In this report all performance characteristics are given corresponding to the International System of Units.

The reference to the former used Technical System of Units is given by the following relations:

Forces	1 kN	=	1000 N	=	102 kp
Powers			1 kW	=	1,36 PS
Pressures	1 MPa	=	10 bar	=	10,2 kp/cm²
	100 kPa	=	1000 mbar	=	750,10 mm Hg

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Tractor manufacturer:	JOHN DEERE D-6800 Mannheim
Location of tractor assembly:	D-6800 Mannheim
Submitted for test by:	Manufacturer
Selected by:	Manufacturer with agreement by DLG
Place of running in:	Mannheim and Groß-Umstadt
Duration of running in:	Engine 50 hours, tractor 10 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	JOHN DEERE
Trade name:	3255
Type:	Wheel tractor, unit construction, four wheel driven
Serial no.:	731 838
1st Serial no.:	600 001

Engine

Make:	JOHN DEERE
Model:	6.359 TL 007
Type:	Watercooled 4 stroke Diesel-engine, direct injection, supercharged
Serial no.:	920 856
Cylinders:	6, in line, bore 106,5 mm, stroke 110 mm, displacement 5878 cm^3 compression ratio 17,8 : 1
Valves:	Overhead

Supercharging

Make:	GARRET
Model:	TA 3401 - RE 26 2 91 exhaust driven
Max. pressure:	53 kPa

JOHN DEERE 3255 Test No. 91-144

Fuel system:	SOFABEX fuel supply pump, LUCAS distributor injection pump RE 36 773, DPA 4/TS, serial no.: 17 247 LHG; manufacturer's production setting 53 ±2 mm^3/stroke at full load and rated speed; automatic injection timing device, injection timing: 13 +8 degrees before TDC; STANADYNE multihole injection nozzles 26992; injection pressure 24,5 MPa±0,5 MPa; dual fuel filter with replaceable paper elements; capacity of fuel tank 173 dm^3
Governor:	LUCAS centrifugal variable speed governor, without supercharge pressure compensating device, governed range of engine speed 800 ± 50 to 2560 rev/min; rated engine speed 2400 rev/min
Air cleaner:	KNECHT dry paper element filter, replaceable cartridge; electric warning indicator lamp; cyclone type precleaner and air intake above bonnet
Exhaust silencer:	ROTH, AL 32 652 multi-chamber expansion reflection type, 160x240 mm oval, 368 mm long, below bonnet, vertical pipe; mouth showing to the left upwards, 2726 mm above ground
Lubrication system:	Forced feed by internal gear pump, oil filter in full flow with replaceable cartridge, engine oil/cooling-water heat exchanger between oil filter and socket
Cooling system:	Water cooling with impeller pump, overpressure relief valve set to 60 kPa ± 10kPa; thermostat and by-pass circuit; EATON model 610, viscous drive fan, V-belt driven variable fan speed controlled by air flow temperature, with 6 blades with 560 mm dia; water capacity 19 dm^3

Starting system:	Electrical BOSCH solenoid pre engaged-drive starter motor 3,1 kW; cold starting aid: BERU heating spiral in air intake manifold
Safety device:	Range gear in neutral position
Electrical system:	12 Volt, negative earth; BOSCH 3-phase alternator K1-14 V/ 85 A 1190 W; 2 lead acid batteries, 88 Ah each at 20 hours rating

Transmission

Clutch:	LUK, AL 67173 dry single plate, 328 mm dia, hydraulically actuated by pedal, separate fluid tank
Gear box:	JOHN DEERE-POWER SYNCHRON synchromesh speed change gear with 4 speeds, range gear with 2 collar shifted forward ranges (I, II) and 1 reverse range (R), power shift range gear with 2 speeds (Hi,Lo); totally 16 forward and 8 reverse speeds, 3 hand levers; oil cooler in front of water cooler of engine
Rear axle and final drives:	JOHN DEERE, bevel gear drive; bevel gear differential operated by lever, self-disengaging; planetary final drives
Front axle and final drives:	JOHN DEERE, ZF APL 350 (AL 66 850), driven by central propeller shaft and multi-plate clutch, electro-hydraulically actuated by valve and switch; bevel gear drive, bevel gear differential with limited slip type lock, self disengaging; planetary final drives

Number of revolutions of front wheels for one revolution of rear wheels: 1,4084

Total ratios and speeds

Range		Gear	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed at rated engine speed 2400 rev/min km/h *)
I	Lo	1	273,26	2,72
		2	197,76	3,75
		3	137,58	5,39
		4	102,08	7,27
	Hi	1	222,66	3,33
		2	161,13	4,60
		3	112,10	6,62
		4	83,18	8,92
II	Lo	1	79,77	9,30
		2	57,73	12,85
		3	40,16	18,47
		4	29,80	24,90
	Hi	1	64,99	11,42
		2	47,04	15,77
		3	32,72	22,67
		4	24,28	30,56
R	Lo	1	177,94	4,17
		2	128,77	5,76
		3	89,59	8,28
		4	66,47	11,16
	Hi	1	144,99	5,12
		2	104,92	7,07
		3	73,00	10,16
		4	54,16	13,70

*) calculated with the radius index (ISO 4251/1-1984) 820 mm

Main p.t.o.

Independent; driven by wet multi-plate clutch, 133 mm dia, hydraulically operated by lever and control valve; 1 shaft at tractor's rear, 2 p.t.o. speeds by exchangeable shafts, 35 mm dia, 6 splines, ISO 500-1979 type 1, or 35 mm dia, 21 splines, ISO 500-1979 type 2, 736 mm above ground, 532 mm behind rear wheel centre, 25 mm to the left of tractor's median plane;sense of rotation clockwise, viewed facing tractor's rear

p.t.o. type	p.t.o. speed rev/min	engine speed rev/min	p.t.o. transmission ratio	Power restriction kW
540	540 537	2414 2400	4,4700	-
1000	1000 997	2407 2400	2.4074	-

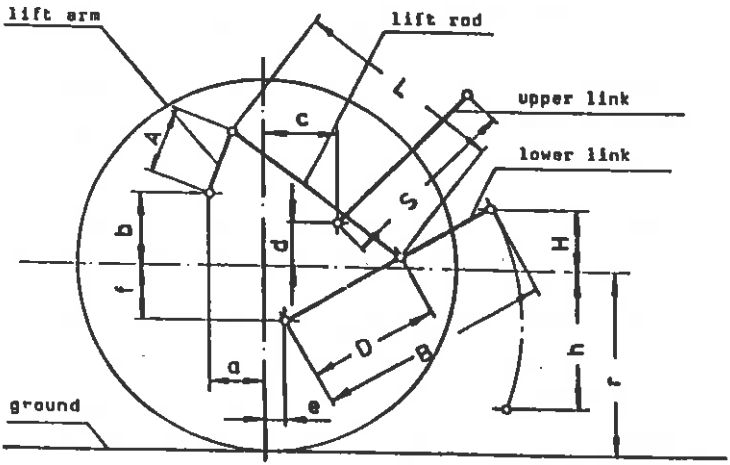
Power lift

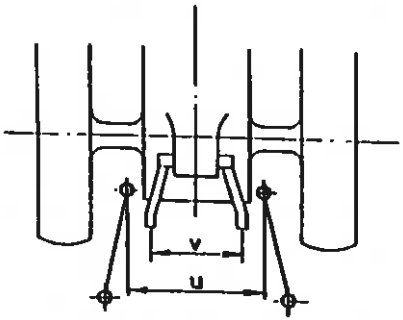
JOHN DEERE,
hydraulic power lift, unit construction, draft, position and mixed control, floating position, lowering throttle

Hydraulic system:

Closed centre system;
JOHN DEERE AR 97 872 variable-capacity radial-piston pump, directly driven by engine, max. delivery 92 l/min at rated engine speed; oil and oil filter in common with gearbox;
1 JOHN DEERE control valve,
relief valve pressure setting 16,0±0,3 MPa;
single acting cylinder with 96 mm bore and 162 mm stroke; 2 additional assister rams, 180 mm stroke, 55 mm dia;
safety valve set to 23,0 MPa;
2 double acting additional JOHN DEERE control valves, 4 oil couplings at rear of tractor;
maximum volume of oil available to external cylinders: 25 l stationary and 10 l during driving operation, 31 l resp. 16 l with increased oil level, hydraulic oil reservoir in common with gearbox with 45 l capacity (resp. 51 l with increased oil level)

Three point-linkage: Category 2 acc. to ISO 730/1-1990





Dimensions of rear implement linkage (projected lengths in mm, underlined dimensions are valid for power lift measurements p. 23)

Rear tyres 18.4 - 38 radius index +)		(r)	820
Front tyres 13.6 - 28 radius index +)		(r')	610
Length of lift arms		(A)	315
Length of lower links		(B)	975
Distance of lift arm pivot points from rear wheel centre	horizontal	(a)	-7
	vertical	(b)	336
Horizontal distance between lower link pivot points		(u)	456
Horizontal distance between lift arm end points		(v)	494
Length of upper link		(S)	530 to 710, <u>640</u>
Distance of upper link pivot point from rear wheel centre	horizontal	(c)	452, <u>461</u>, 470
	vertical	(d)	277, <u>227</u>, 176
Distance of lower link pivot point from rear wheel centre	horizontal	(e)	115
	vertical	(f)	251
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	563
Length of lift rods		(L)	670 to 750, <u>750</u>

Height of lower link hitch points relative to rear wheels' centre line (situated 820 mm above ground), these data are valid for unloaded power lift:

Length of lift rods	(L)	670	<u>750</u>
Linkage distance of lift rods	(D)	563	
Lowest position	(h)	417	615
Highest position	(H)	170	20
Transport position	(H')	170	20

+) Assuming r resp. r'= tyre dynamic radius index of ISO 4251/1-1984

Pull attachment

Swinging drawbar:

Reversible, height above ground	480 and 579 mm
distance of hitch point from rear wheel axis, horizontally	756, 797, 886, 927 mm
distance of hitch point from p.t.o. shaft end, vertically	256, 157 mm
horizontally	224, 265, 354, 395 mm
distance of pivot point rear wheel axis, horizontally	51 mm
lateral swing to both sides at 756 mm distance from pivot point	216 mm
hitch hole diameter	33 mm
max. permissible load at longest position	12 kN
shortest position	22 kN

Trailer hitch: Not fitted

Holed drawbar:

Short bar, length between joint balls	825 mm
9 holes, 33 mm dia with 80 mm distance each, thickness/width of the drawbar	25/80 mm
height above ground: minimum	218 mm
maximum	1003 mm
horizontal distance to p.t.o. shaft end (lower links in horizontal position)	558 mm

Towing hitch: At front, height above ground 835 mm

Steering

JOHN DEERE/CHAR-LYNN/1004
hydrostatic steering, connected to main hydraulic circuit; 1 integrated cylinder of symmetrical design; 114 mm stroke, 80 mm bore, 40 mm piston rod, acting on steering levers, working pressure 16,0 MPa

Brakes

Service brake:

JOHN DEERE
pedal operated muscle power brake with hydraulic transmission, using oil of gearbox, acting on rear wheels;
oil-immersed disc brake with 1 ring-piston on each differential half shaft;
disc diameter 304 mm

Parking brake:

Mechanical wet V-belt brake, acting on bevel gear of rear axle differential, 238 mm dia, 20 mm width, operated by lever with ratchet

Steering brake:	Divided pedal of service brake, for normal use locked together

Wheels

Front:	Steering and driving, 2 pneumatics
Rear:	Driving, 2 pneumatics
Wheelbase:	2582 mm
Track width:	At front 1600 mm to 2100 mm, adjustable in steps of 100 mm; at rear 1600 mm to 2400 mm, adjustable in steps of 100 mm; each by adjustable gauge bowl wheels and by turning the wheels

Possible combinations of tyres sizes front/rear

Tyres sizes at front	at rear
12.4 - 28	16.9 - 38
13.6 - 28 14.9 - 26 16.9 - 24	18.4 - 38

Safety cab

JOHN DEERE, cab model SGB;
OSHA/SAE-tested driver's platform with integrated safety cab,
not tiltable, antivibration mounted by silent-blocks on tractor;
1 door at front left side and 3 steps,
steps 450, 730 mm and 1040 mm,
driver's platform 1160 mm above ground;
rear window and side windows tiltable;
door can be locked in open position;
combined heating/ventilation system with 3-step blower and cooling-water heat exchanger incorporated in roof;
air intake at both sides of the roof,
dry air filter; air outlet jets and defroster nozzles in the roof at front;
air conditioner optionally available,
fitted to tested tractor

Noise reduction materials:

Roof, front part:	foam with perforated vinyl-coating	25 mm
middle part, air filter cover:	foam with perforated vinyl-coating	32 mm
ventilation cover:	foam	20 mm
all other parts of the roof:	foam with perforated vinyl-coating on self-supporting web plate of plastics	15 mm
mudguards:	foam with vinyl-coating	25 mm
uprights:	foam with vinyl-coating	19 mm
floor:	molded rubber mat	40 mm
seat support:	foam with vinyl-coating	25 mm
rear wall, lower part:	foam with vinyl-coating	25 mm
instrument and steering support, outside:	foam with vinyl-coating	6 mm
inside:	foam with lead-vinyl intermediate layer	30 mm
bulk head, outside:	foam (polyether) with rubber-coating	25 mm
control box, right-hand inside mudguard's side	foam	25 mm
inside floor	molded rubber	3 mm

Driver's seat: GRAMMER/SEARS DS 85H upholstered seat with back rest and arm rests, hydraulic shock absorber, adjustables spring suspension; height of unloaded seat above platform adjustable in 2 steps from 520 to 580 mm, longitudinal adjustment 150 mm

Running-time meter: Electronic, counts real operating hours when engine is running

Lighting: Electrical, 12 Volt, as per US legislation

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights 2 each	1720	100 dia	970 and 820
Auxiliary lights	1582	466x55	233
Rearlights, oval	1728	165x66	865
Reflectors (ring-shaped)	1728	195x85	880

additional SMV-sign

TEST CONDITIONS

Overall dimensions

	Length mm	Width mm	Height at top of safety cab mm	Height at top of exhaust silencer mm
without ballast	4370	2290	2835	2726
with ballast	4670	2290		

Ground clearance: 420 mm below swinging drawbar

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1st tyre set

Tractor mass

	unballasted		ballasted	
	without driver kg	with driver kg	without driver kg	with driver kg
Front	1950	1960	3190	3200
Rear	3370	3435	5035	5100
Total	5320	5395	8225	8300

Ballast

Front:	24 front end weights, total	1200 kg
Rear:	3 weights per wheel, total	390 kg
	1 weight in 3-point linkage	725 kg
	water in the tyres	590 kg

Tyres and track widths specifications

	Front	Rear
Tyres:	GOODYEAR	ARMSTRONG
dimensions	13.6 - 28	18.4 - 38
type	cross-ply	cross-ply
ply rating/load index	8/-	8/-
speed index	-	-
maximum load	1645 kg	2712 kg
inflation pressure	200 kPa	140 kPa
radius index	610 mm	820 mm
Chosen track width	1800 mm	1800 mm
Rims	W12x28	DW15x38
Technically permissible axle load	3200 kg	5100 kg
Technically permissible total weight	8300 kg	

2nd tyre set (used for additional drawbar tests only)

Tractor mass

	unballasted		ballasted	
	without driver kg	with driver kg	without driver kg	with driver kg
Front	1960	1970	3190	3200
Rear	3455	3520	5035	5100
Total	5415	5490	8225	8300

Ballast

Front:	24 front end weights, total	1200 kg
Rear:	3 weights per wheel, total	390 kg
	1 weight in 3-point linkage	725 kg
	water in the tyres	495 kg

Tyres and track widths specifications

	Front	Rear
Tyres:	PIRELLI TM 200	PIRELLI TM 300
dimensions	13.6 R 28	18.4 R 38
type	radial-ply	radial-ply
ply rating/load index	-/123	-/146
speed index	A8	A8
maximum load	1660 kg	3000 kg
inflation pressure	160 kPa	160 kPa
radius index	610 mm	820 mm
Chosen track width	1800 mm	1800 mm
Rims	W12x28	DW15x38
Technically permissible axle load	3200 kg	5100 kg
Technically permissible total weight	8300 kg	

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Oils and lubrication

Capacity and change interval:

	Capacity dm^3	Oil change h	Filter change h
Engine	11,5	200	200
Gearbox, hydraulic system, rear axle and final drives, steering and braking	45,0	1200	600
Front axle	7,0	1200	-
final drives, each	0,75	1200	-

Specifications:

	Recommended	Used during test
Engine oil: used in: Engine		
Type	Engine oil	FUCHS TITAN UNIVERSAL
Viscosity		SAE 15W/40
Winter	SAE 10W/20	
Summer	SAE 15W/40	
Tropics	SAE 20W/40	
Classification	API SF-CD or MIL-L 2104 C	API-CD
Transmission oil: used in: Gearbox with rear axle incl. final drives, hydraulic-, steering- and braking system		
Type	Transmission oil	FUCHS RENOGEAR
Viscosity	SAE 75	SAE 75
Classification	JD specif.- J20A	J20A
Front axle and final drives		
Type:	Transmission oil	FUCHS RENOGEAR
Viscosity:	SAE 90	SAE 90
Classification:	API GL-5	API GL-5

Grease: Multi purpose grease, number of lubrication points: 24

Fuel

Type:	ARAL Diesel-fuel in conformity with DIN 51601		
Density at 15°C:	At p.t.o. test	0,824	g/cm³
	at drawbar power test, with ballast	0,828	g/cm³
	without ballast	0,831	g/cm³

COMPULSORY TESTS

1. MAIN POWER TAKE OFF PERFORMANCE (1000 rev/min)

Date of tests: 27th May 1991
Location of tests: DLG-Testing Station Groß-Umstadt
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed Engine rev/min	Speed P.t.o. rev/min	Fuel consumption hourly l/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Maximum power						
1.1 At 2-hour test						
77,9	2198	913	22,53	18,56	238	3,46
1.2 At rated speed						
76,5	2400	997	23,04	18,99	248	3,32
1.3 At standard p.t.o. speed						
76,5	2400	997	23,06	19,00	248	3,32
1.4 Part loads, the governor hand lever in the position corresponding to maximum power at full load (curve a)						
1.4.1 the torque corresponding to maximum power at rated speed						
76,5	2400	997	23,04	18,99	248	3,32
1.4.2 85% of the torque obtained in 1.4.1						
66,9	2470	1026	21,17	17,44	261	3,16
1.4.3 75% of the torque defined in 1.4.2						
50,7	2497	1037	17,73	14,61	288	2,86
1.4.4 50% of the torque defined in 1.4.2						
34,1	2517	1046	14,26	11,75	345	2,39
1.4.5 25% of the torque defined in 1.4.2						
17,2	2540	1055	10,74	8,85	515	1,60
1.4.6 unloaded						
-	2561	1064	7,52	6,19	-	-

Power kW	Speed Engine rev/min	Speed P.t.o. rev/min	Fuel consumption hourly l/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
1.5 Part loads, the governor hand lever in the position corresponding to the standard p.t.o. speed at full load (curve b)						
1.5.1 the torque corresponding to maximum power						
76,5	2400	997	23,06	19,00	248	3,32
1.5.2 85% of the torque obtained in 1.5.1						
66,9	2470	1026	21,17	17,44	261	3,16
1.5.3 75% of the torque defined in 1.5.2						
50,7	2497	1037	17,73	14,61	288	2,86
1.5.4 50% of the torque defined in 1.5.2						
34,1	2517	1046	14,26	11,75	345	2,39
1.5.5 25% of the torque defined in 1.5.2						
17,2	2540	1055	10,74	8,85	515	1,60
1.5.6 unloaded						
-	2561	1064	7,52	6,19	-	-

No load maximum engine speed: 2561 rev/min
Equivalent flywheel torque at rated engine speed: 304 Nm
Equivalent flywheel torque at 2-hour test: 339 Nm
Maximum equivalent flywheel torque: 413 Nm at 1402 rev/min of the engine

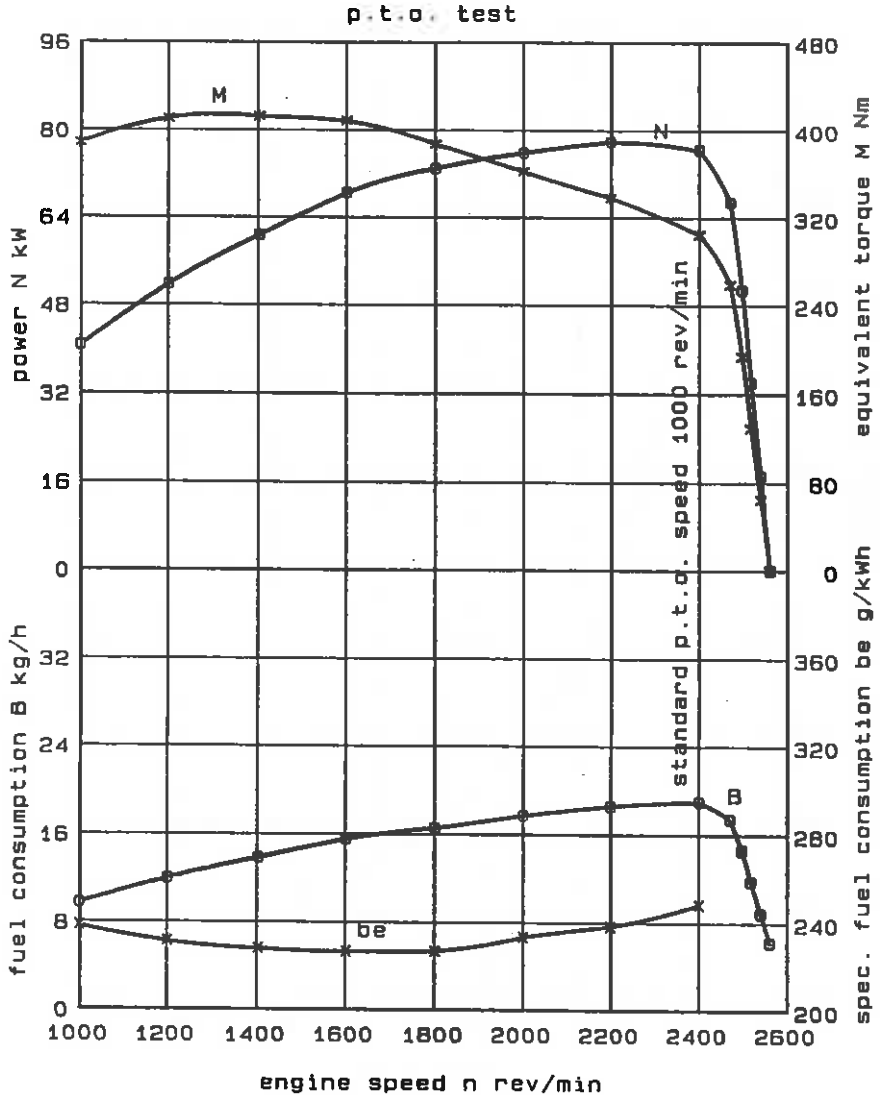
Mean atmospheric conditions

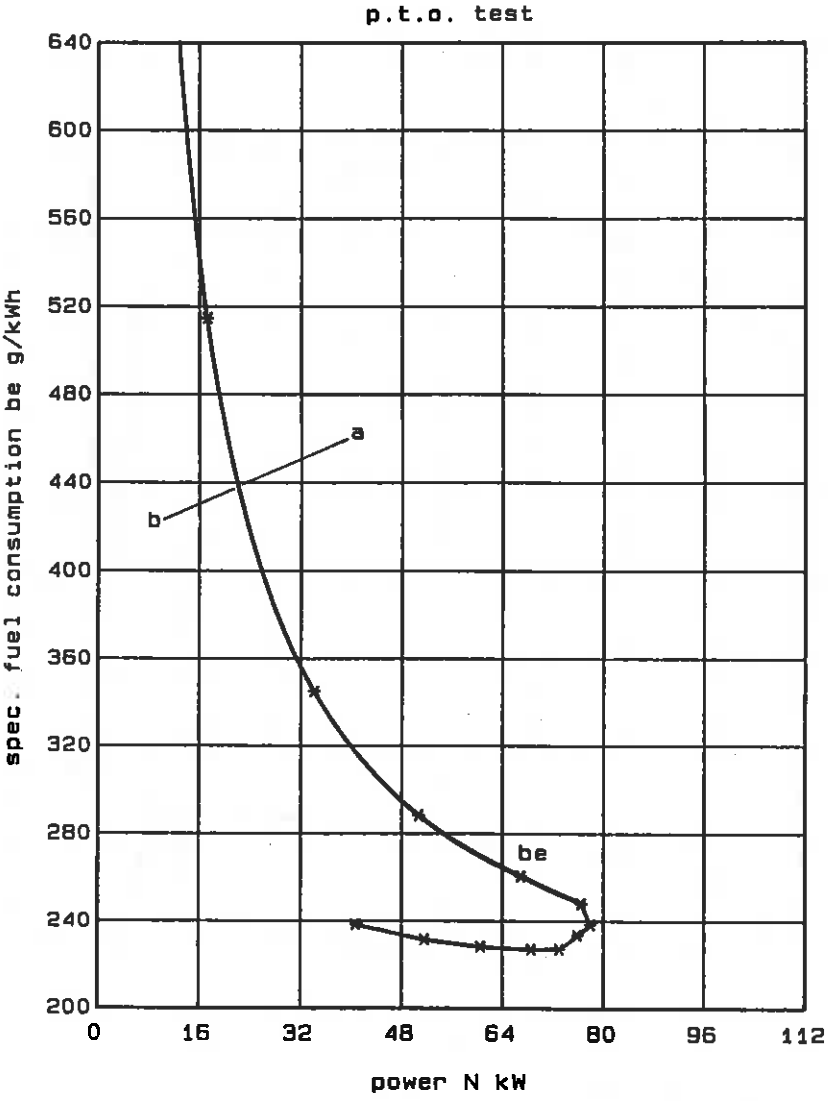
temperature	21 °C
pressure	101 kPa
rel. humidity	39 %

Maximum temperatures

coolant	87 °C
oil	110 °C
fuel	25 °C
air intake	30 °C

JOHN DEERE 3255 Test No. 91-144




p.t.o. test
spec. fuel consumption be g/kWh
640
600
560
520
480
440
400
360
320
280
240
200
0
16
32
48
64
80
96
112
power N kW
a
b
be

2 HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 20th June and 29th October 1991

2.1 Hydraulic power test

Sustained pressure with relief valve open 16,2 MPa
Pump delivery rate at minimum pressure 93,9 l/min

	Hydraulic power kW	Flow rate l/min	Pressure MPa	Oil temperature °C
At 90% of the actual relief valve setting	7,4	30,6	14,6	65
At max. power	12,9	77,5	10,0	65

Tapping point used for test: At rear of tractor

2.2 Power lift test

Main linkage dimensions see on pages 9 and 10

	At the hitch points	On the frame
Height of lower hitch points above ground in down position	205 mm +)	
Vertical movement without lifting forces with lifting forces	635 mm 615 mm	830 mm 799 mm
Max. corrected forces exerted through full range	36,2kN	28,6kN
Corresponding pressure	14,6 MPa	
Moment about rear axle	-	48,6 kNm
Max. tilt angle of mast from vertical	-	11°

+) 200 mm not available due to limitation of lift rods' length

Lifting heights relative to horizontal lower links

mm	-454	-364	-300	-200	-100	0	100	200	251	345

Lifting forces at hitch points, corrected to 14,6 MPa

kN	-	36,2	38,7	41,3	43,3	43,9	44,8	44,8	44,3	-

Lifting forces at standard frame, corrected to 14,6 MPa

kN	31,7	-	34,0	34,4	34,4	33,5	32,6	31,1	-	28,6

3 DRAWBAR PERFORMANCE (1st tyre set, see page 15)

Date of tests: 10th, 19th and 23rd September 1991
Type of track: Concrete

Gear and range	Speed km/h	Drawbar pull kN	Power kW	Engine speed rev/min	Slip of wheels %
3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)					
1 I Lo	2.47	51.51	35.3	2506	15.0
1 I Hi	3.03	51.82	43.7	2496	15.0
2 I Lo	3.38	51.42	48.3	2477	15.0
2 I Hi	4.07	51.07	57.7	2424	15.0
3 I Lo	4.38	49.42	60.1	2200	13.6
3 I Hi	5.62	40.19	62.7	2195	9.4
4 I Lo	6.22	38.49	66.5	2200	8.8
4 I Hi	7.80	30.88	66.9	2198	6.7
1 II Lo	8.18	29.76	67.3	2202	6.5
1 II Hi	10.17	23.58	66.6	2202	5.1
3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)					
1 I Lo	2.42	74.41	50.0	2460	14.9
1 I Hi	2.84	75.19	59.3	2362	15.0
2 I Lo	2.99	73.76	61.3	2198	14.6
2 I Hi	3.85	58.57	62.6	2198	10.2
3 I Lo	4.60	50.34	64.3	2198	8.2
3 I Hi	5.76	40.00	64.0	2195	6.3
4 I Lo	6.36	37.66	66.5	2198	5.8
4 I Hi	7.94	29.80	65.7	2202	4.3
1 II Lo	8.27	28.70	65.9	2200	4.0
1 II Hi	10.21	23.07	65.4	2198	3.2
3.3.1 FIVE-HOUR-TEST at 75% of pull at maximum power					
4 I Lo	7.24	28.24	56.8	2462	4.4
3.3.2 FIVE-HOUR-TEST at pull corresponding to 15% wheel slip					
1 I Hi	2.88	75.19	60.2	2400	-

Oil consumption during ten hours duration of tests 3.3.1
figures not quoted are irrelevant due to the additional ballast

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	Height of drawbar above ground	Tyre inflation pressure	
		Front	Rear
unballasted	500 mm	100 kPa	100 kPa
ballasted	500 mm	120 kPa	120 kPa

Specific fuel consumption g/kWh	Specific energy kWh/l	Temperatures Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions Temperature °C	Relative humidity %	Pressure kPa
387	2,14	42	83	96	25	62	100,4
356	2,36	47	80	93	28	50	100,4
341	2,43	45	80	93	28	49	100,4
323	2,56	45	80	93	28	49	100,4
307	2,68	40	80	90	28	49	100,4
293	2,83	34	80	90	22	60	100,4
280	2,94	32	80	93	15	80	100,4
277	2,97	35	82	93	16	80	100,4
274	3,01	34	80	95	21	76	100,4
280	2,95	34	80	95	21	76	100,4
337	2,46	36	83	97	27	65	100,1
316	2,61	37	83	94	24	75	100,1
303	2,73	37	83	97	24	75	100,1
295	2,81	37	83	97	24	75	100,1
289	2,87	37	83	97	21	75	100,1
288	2,87	33	80	90	21	79	100,1
277	2,98	35	85	83	16	91	100,1
281	2,95	34	79	95	16	90	100,1
282	2,94	34	83	93	15	80	100,1
282	2,93	35	84	94	20	76	100,1
310	2,67	35	85	103	14	92	99,8
-	-	35	85	105	15	91	99,6

and 3.3.2 : 9 g/h

DRAWBAR PERFORMANCE (2nd tyre set, see page 16)

Date of tests: 10th and 18th October 1991
Type of track: Concrete

Gear and range	Speed km/h	Drawbar pull kN	Power kW	Engine speed rev/min	Slip of wheels %
MAXIMUM POWER IN TESTED GEARS (unballasted tractor)					
2 I Lo	3.35	54.66	50.9	2470	15.0
2 I Hi	3.93	54.41	59.4	2366	15.0
3 I Lo	4.40	51.57	63.0	2202	12.6
3 I Hi	5.70	41.40	65.6	2195	7.6
4 I Lo	6.32	38.34	67.3	2200	6.8
4 I Hi	7.92	29.79	65.5	2207	5.0
1 II Lo	8.26	29.52	67.7	2200	5.1
1 II Hi	10.23	23.26	66.1	2202	3.7
3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)					
1 I Lo	2.43	73.75	49.7	2478	15.0
1 I Hi	2.86	73.51	58.4	2368	15.0
2 I Lo	3.00	73.65	61.4	2205	15.0
2 I Hi	3.90	59.48	64.4	2200	9.8
3 I Lo	4.66	51.90	66.4	2200	7.8
3 I Hi	5.88	39.20	64.0	2200	5.0
4 I Lo	6.46	36.98	66.3	2200	4.8
4 I Hi	7.98	29.37	64.9	2200	3.7
1 II Lo	8.37	28.55	66.4	2198	3.6
1 II Hi	10.33	22.50	64.4	2198	2.9

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Test No. 91-144

	Height of drawbar above ground	Tyre inflation pressure	
		Front	Rear
unballasted	500 mm	130 kPa	100 kPa
ballasted	500 mm	160 kPa	130 kPa

Specific fuel consumption g/kWh	Specific energy kWh/l	Temperatures Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions Temperature °C	Relative humidity %	Pressure kPa
335	2.48	40	80	89	10	84	98.8
313	2.65	40	79	90	10	86	98.8
292	2.85	36	82	90	10	86	98.8
282	2.95	35	80	88	10	86	98.8
276	3.01	34	80	93	10	95	98.8
283	2.94	34	81	93	10	83	98.8
275	3.03	34	80	93	10	82	98.8
282	2.94	45	90	90	10	82	98.8
314	2.64	34	80	93	18	91	99.6
296	2.80	34	80	90	18	90	99.6
283	2.92	36	82	95	18	80	99.6
289	2.86	35	83	95	16	98	99.8
281	2.94	50	80	100	15	100	99.6
287	2.88	50	80	95	17	100	99.6
278	2.97	25	84	98	15	100	99.6
284	2.89	34	80	96	18	90	99.6
278	2.97	35	80	90	18	90	99.6
286	2.89	35	80	94	18	90	99.6

4 TURNING AREA AND TURNING CIRCLE

Front wheel drive disengaged

Wheel equipment front: 13.6 - 28
rear: 18.4 - 38

Track of wheels front: 1800 mm
rear: 1800 mm

	With brakes		Without brakes	
	right-hand mm	left-hand mm	right-hand mm	left-hand mm
Radius of turning area	4,41	4,41	4,86	4,94
Radius of turning circle	4,10	4,10	4,54	4,63

5 LOCATION OF CENTRE OF GRAVITY

Height above ground	996 mm
Distance forward from rear axle centre	938 mm
Distance from tractor's median plane, to the right	7 mm

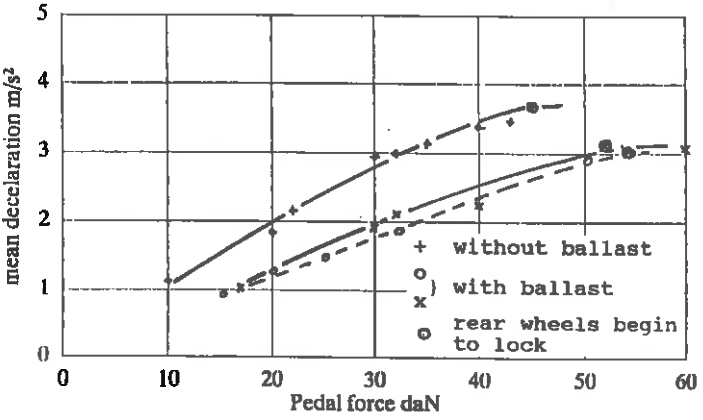
6 BRAKING

Date of tests: 12th, 16th and 18th September 1991

	Tractor mass (with driver) front kg	rear kg	total kg	Speed before application of brakes km/h
Without ballast	1960	3435	5395	32,8
With ballast	3200	5100	8300	32,6

6.1 Cold service braking device test ————

6.2 Fade test - - - - - - -



No significant deviation of tractor from original course and no abnormal vibrations

Brakes-heating: Actuating of brake for 1 km with pedal force corresponding to 1 m/s²

6.3 Parking braking device test

	Ballasted tractor on 18% - slope up	down
Braking device control force	200 N	250 N

7 MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test:	23rd July 1991
Type of track:	Concrete
Type of sound level meter:	BRÜEL & KJAER model 2209

Results of test

Gear number:	4 II Hi
Travelling speed before acceleration:	24,7 km/h
Sound level:	87,0 dB(A)

ADDITIONAL TESTS UNDER THE RESPONSIBILITY OF THE DLG-TESTING-STATION

8 MEASUREMENTS OF NOISE IN THE SAFETY CAB

Type of track: Concrete
Type of sound level meter: BRÜEL & KJAER model 2233
Date of tests: 12th September 1991

According to OECD CODE V

Front wheel drive disengaged

Gear number	Drawbar pull kN	Measured travelling speed km/h	Sound level dB(A)
Unloaded test in the gear giving the speed nearest to 7,5 km/h			
4 I Lo	-	7,85	78,0
Unloaded test in the gear giving the maximum speed			
4 II Hi	-	32,80	80,5
Tests with the drawbar pull for which the tractor gives the maximum sound level (combination of gear giving the nearest nominal speed to 7,5 km/h and also in any gear with a sound level increase of at least 1 dB(A)			
4 I Lo	36,16	6,61	80,5

According to NEBRASKA-TEST CODE

Front wheel drive disengaged

SOUND LEVEL	dB(A)
At maximum available power in 4 I Lo gear	80,0
At 75% of pull at max. power in 4 I Lo gear	80,0
At 50% of pull at max. power in 4 I Lo gear	79,5
At 50% of pull at reduced engine speed in 4 I Hi gear	78,5

According to OECD CODE V

with front wheel drive engaged

Gear number	Drawbar pull kN	Measured travelling speed km/h	Sound level dB(A)
Unloaded test in the gear giving the speed nearest to 7,5 km/h			
4 I Lo	-	7,91	77,5
Unloaded test in the gear giving the maximum speed			
4 II Hi	-	32,80	80,5 +)
Tests with the drawbar pull for which the tractor gives the maximum sound level (combination of gear giving the nearest nominal speed to 7,5 km/h and also in any gear with a sound level increase of at least 1 dB(A)			
4 I Lo	35,25	6,85	79,5

+) front wheel drive disengaged

According to NEBRASKA-TEST

with front wheel drive engaged

SOUND LEVEL	dB(A)
At maximum available power in 4 I Lo gear	80,0
At 75% of pull at max. power in 4 I Lo gear	80,5
At 50% of pull at max. power in 4 I Lo gear	80,5
At 50% of pull at reduced engine speed in 4 I Hi gear	79,5

JOHN DEERE 3255 Test No. 91-144

Lugging ability in 4 I Lo gear (ballasted tractor)

Engine speed rev/min	Speed km/h	Drawbar pull kN	Drawbar power kW	Slip of wheels %	Increase of pull %
2400	7,01	32,75	63,8	4,9	-
2200	6,38	36,64	64,9	5,5	11,9
2007	5,79	39,64	63,8	6,1	21,0
1800	5,16	42,29	60,6	6,4	29,1
1596	4,57	44,90	57,0	6,7	37,1
1406	4,02	45,31	50,6	6,9	38,4
1218	3,50	43,65	42,4	6,4	33,3
1009	2,91	41,29	33,4	6,0	26,1

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