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

Restricted Code **OECD No.** **1370**



Agricultural Tractor
JOHN DEERE 2250 (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 II).

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

Duration of tests: October till November 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: 8th July 1992

OECD No. 1370
Restricted 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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Printed in the Federal Republic of Germany
July 1992; DLG-No. 267

TABLE OF CONTENTS

	Page
SPECIFICATION OF TRACTOR	4 to 13
TEST CONDITIONS	13 to 15
COMPULSORY TESTS	
1 Main power take-off performance	16 to 19
2 Hydraulic power and lifting force	20
3 Drawbar power and fuel consumption	21 to 23
4 Repairs and Remarks	24
ADDITIONAL TEST UNDER THE RESPONSIBILITY OF THE DLG TESTING STATION	
5 Main power take-off performance (1000rev/min)	24 to 28

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:	Tractor 20 hours, engine 50 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	JOHN DEERE
Trade name:	2250
Type:	Wheel tractor, unit construction, four wheel driven
Serial no.:	739 379
1st Serial no.:	600 001

Engine

Make:	JOHN DEERE
Model:	4.239 DL 009
Type:	Watercooled 4 stroke Diesel-engine, direct injection, naturally aspirated
Serial no.:	930 078
Cylinders:	4, in line, bore 106,5 mm, stroke 110 mm, displacement 3920 cm^3 compression ratio 17,8:1
Valves:	Overhead
Fuel system:	SOFABEX fuel supply pump, LUCAS CAV distributor injection pump RE 36765, 3349 F 010 serial no.: 09574 EJG; manufacturer's production setting 46±2 mm^3/stroke at full load and rated speed; automatic injection timing device, injection timing: 13°+7° before TDC; STANDADYNE multihole injection nozzles 27333, injection pressure 21,0 MPa±0,5 MPa; dual filter with replaceable paper elements; capacity of fuel tank 84 dm^3
Governor:	LUCAS centrifugal variable speed governor, incorporated in injection pump, governed range of engine speed 800±50 to 2500 rev/min; rated engine speed 2300 rev/min

Air cleaner:	KNECHT, optional MANN dry paper element filter without precleaner, replaceable cartridge; electric warning indicator lamp; air intake below bonnet
Exhaust silencer:	EBERSPÄCHER, optional SILEN, AL 31492, multi-chamber expansion reflection type, 160 x 240 mm oval, 383 mm long, below bonnet, vertical pipe; mouth showing to the left upwards, 2485 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 ± 10 kPa; thermostat and by-pass circuit; V-belt driven fan with 5 blades with 481 mm dia; water capacity 13 dm3
Starting system:	Electrical BOSCH solenoid pre engaged-drive starter motor 2,7 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; 2 lead acid batteries, 55 Ah each at 20 hours rating

Transmission

Clutch:	F & S dry single plate, 320 mm dia, only for travel, mechanically actuated by pedal
Gear box:	JOHN DEERE-SYNCHRON synchromesh speed change gear with 4 speeds, range gear with 2 collar shifted forward ranges (I, II) and 1 collar shifted reverse range (R), totally 8 forward and 4 reverse speeds, 2 hand levers, pressurized lubrication; oil cooler in front of engine water cooler

Rear axle and final drives: JOHN DEERE, bevel gear drive, bevel gear differential lock operated by lever, self-disengaging; planetary final drives

Front axle: ZF, APL 325
driven by central cardan shaft and wet multi-plate clutch, electro-hydraulically operated by valve and switch, bevel gear drive, bevel gear differential with limited slip type lock; planetary final drives

Total ratios and speeds

Range	Gear	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed at rated engine speed 2300 rev/min km/h *)
Forward speeds			
I	1	273,91	2,36
	2	182,61	3,54
	3	118,52	5,45
	4	82,03	7,87
II	1	75,00	8,61
	2	50,00	12,92
	3	32,45	19,91
	4	22,46	28,76
Reverse speeds			
R	1	172,58	3,74
	2	115,05	5,61
	3	74,67	8,65
	4	51,68	12,50

*) calculated with the radius index (ISO 4251/1-1984) 745 mm

Number of revolutions of front wheels for one revolution of rear wheels: 1,4808

Main p.t.o.

Independent; driven by multi-plate clutch, 133 mm dia, hydraulically operated by lever and control valve;
1 shaft at tractor's rear,
2 p.t.o. speeds can be shifted by lever, 35 mm dia, 6 splines, ISO 500-1979 type 1, 670 mm above ground, 430 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	540 600	2071 2300	3,8351	-
1000	1000 1059	2172 2300	2,1724	-

Power lift

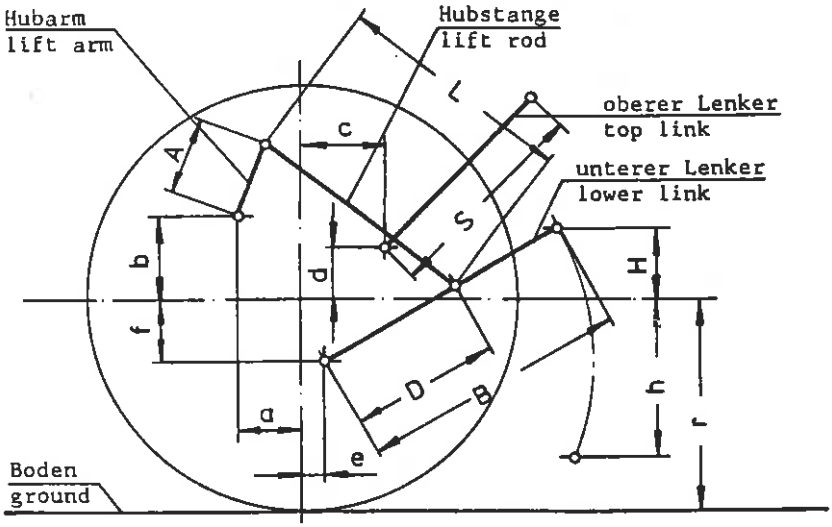
JOHN DEERE,
hydraulic power lift, unit construction, draft, position and mixed control, floating position, lowering throttle, lower link sensing

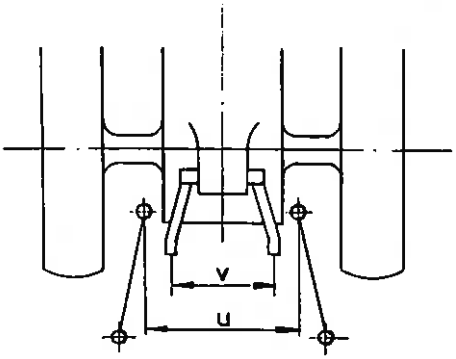
Hydraulic system:

Closed centre system;
JOHN DEERE AR 10 3036 variable-capacity radial-piston pump, directly driven by engine, max. delivery 52 dm^3/min at rated engine speed;
oil and oil filter in common with gearbox, oil filter in feed line;
1 JOHN DEERE control valve,
relief valve pressure setting 19,7±0,3 MPa;
single acting cylinder with 100 mm bore and 126 mm stroke,
safety valve set to 23,0 MPa;
1 double acting additional JOHN DEERE control valve with 2 oil couplings at rear of tractor;
maximum volume of oil available to external cylinders:
20 l stationary and 10 l during driving operation, 24 l resp. 14 l with increased oil level, hydraulic oil reservoir in common with gearbox with 49 l capacity (resp. 53 l with increased oil level)

JOHN DEERE 2250 Test No. 91-250

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. 20)

Rear tyres 16.9 R 34 radius index +)		(r)	745
Front tyres 13.6 R 24 radius index +)		(r')	560
Length of lift arms		(A)	254
Length of lower links		(B)	890
Distance of lift arm pivot points from rear wheel centre	horizontal	(a)	-7
	vertical	(b)	277
Horizontal distance between lower link pivot points		(u)	395
Horizontal distance between lift arm end points		(v)	495
Length of upper link		(S)	540 to 780, <u>690</u>
Distance of upper link pivot point from rear wheel centre	horizontal	(c)	301
	vertical	(d)	190, <u>215</u>
Distance of lower link pivot point from rear wheel centre	horizontal	(e)	115
	vertical	(f)	200
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	470
Length of lift rods		(L)	566 to 707

Height of lower link hitch points relative to rear wheels' centre line (situated 745 mm above ground), these data are valid for unloaded power lift:

Length of lift rods	(L)	566	<u>690</u>	707
inkage distance of lift rods	(D)		470	
Lowest position	(h)	287	545	622
Highest position	(H)	275	80	21
Transport position	(H')	275	80	21

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

Pull attachment

Swinging drawbar:	Reversible and shiftable,	
	height above ground	449 or 481 mm
	distance of hitch point from rear wheel axis,	
	horizontally	637, 785 or 826 mm
	distance of hitch point from p.t.o. shaft end,	
	vertically	221 or 183 mm
	horizontally	207, 355 or 396 mm
	distance of pivot point before rear wheel axis, horizontally	51 mm
	lateral swing to both sides at 836 mm distance from pivot point	230 mm
	hitch hole diameter	33 mm
	max. permissible load,	
	longest position	7 kN
	shortest position	12 kN
Trailer hitch:	JOHN DEERE AL 38874	
	diameter of hitch pin	32 mm
	height above ground	850 mm
	distance of hitch point from rear wheel centre line,	
	horizontal	447 mm
	from p.t.o. shaft end	
	vertical	180 mm
	horizontal	17 mm
	Vertical permissible load	12 kN
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	136 mm
	maximum	1033 mm
	horizontal distance to p.t.o. shaft end (lower links in horizontal position)	543 mm
Towing hitch	At front, height above ground	833 mm

Steering	JOHN DEERE/DANFOSS OSPC 125 hydrostatic steering, connected to main hydraulic circuit; 1 integrated cylinder of symmetrical design, 110 mm stroke, 60 mm bore and 32 mm dia of 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 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:	Driving and steering, 2 pneumatics
Rear:	Driving, 2 pneumatics
Wheelbase:	2287 mm
Track width:	At front: 1500 to 2000 mm; at rear: 1600 mm to 2000 mm; by adjustable gauge bowl rims and turning the wheels

Possible combinations of tyre sizes front/rear

Tyres sizes	
at front	at rear
12.5 - 20	480/70 - 38 16.9 - 30 13.6 - 36 480/70 - 34
14.5 - 20	16.9 - 30
11.2 - 24	16.9 - 30 13.6 - 36
12.4 - 24	16.9 - 30
13.6 - 24	13.6 - 38 15.5 - 38 16.9 - 34 480/70 - 34
11.2 - 28	13.6 - 38 16.9 - 34 480/70 - 34 14.9 - 38

Protective structure: FRITZMEIER
Safety frame SR 9601,
OECD approval no. CSD 0901/19

Driver's seat: GRAMMER DS 44/2H-4
upholstered seat with back rest,
adjustable spring suspension,
hydraulic shock absorber,
driver's platform 825 mm above ground,
height of unloaded seat above platform
adjustable from 570 to 630 mm,
longitudinal adjustment 150 mm

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

Lighting Electrical, 12 Volt

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights	1140	130 dia	345
Side lights	1610	70x20	927
Rearlights	1480	60x30	835
Reflectors	1425	140x30	895

TEST CONDITIONS

Overall dimensions

Length mm	Width mm	Height at top of	
		protective structure mm	exhaust pipe mm
3890	2037	2420	2485

Ground clearance: 400 mm below swinging drawbar

Tractor mass

	Without driver kg	With driver kg
Front	1305	1315
Rear	1915	1980
Total	3220	3295

Tyres and track widths specifications

	Front	Rear
Tyres:	PIRELLI TM 200	PIRELLI TM 300 S
dimensions	13.6 R 24	16.9 R 34
type	radial-ply	radial-ply
load index	121	139
speed index	A8	A8
maximum load	1550 kg	2600 kg
inflation pressure	160 kPa	160 kPa
radius index	560 mm	745 mm
Chosen track width	1600 mm	1600 mm
Rims	W12x24	DW15LAx34
Technical permissible axle load	2200 kg	3600 kg
Technical permissible total weight	4800 kg	

Oils and lubrication

Capacity and change interval:

	Capacity dm^3	Oil change h	Filter change h
Engine	10,0	200	200
Gearbox, hydraulic system, rear axle and final drives, steering and braking	49,0	1000	500
Front axle	5,3		-
final drives, each	0,75		-

Specifications:

	Recommended	Used during test
Engine oil: used in: Engine		
Type	Engine oil	FUCHS TITAN UNIV.
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: 16

Fuel

Type: ARAL Diesel-fuel in conformity with DIN 51601

Density at 15°C: At p.t.o. test 0,828 g/cm^3
at drawbar test 0,831 g/cm^3

COMPULSORY TESTS

1. MAIN POWER TAKE OFF PERFORMANCE (540 rev/min)

Date of tests: 17th October 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						
43,4	2150	561	12,56	10,44	241	3,45
1.2 At rated speed						
42,5	2300	600	12,62	10,49	247	3,36
1.3 At standard p.t.o. speed						
43,2	2071	540	12,43	10,33	239	3,48
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						
42,5	2300	600	12,62	10,49	247	3,36
1.4.2 85% of the torque obtained in 1.4.1						
37,5	2388	623	11,65	9,68	258	3,22
1.4.3 75% of the torque defined in 1.4.2						
28,5	2419	631	9,88	8,21	288	2,88
1.4.4 50% of the torque defined in 1.4.2						
19,2	2442	637	8,07	6,70	350	2,38
1.4.5 25% of the torque defined in 1.4.2						
9,7	2462	642	6,10	5,07	525	1,58
1.4.6 unloaded						
-	2501	652	4,37	3,64	-	-

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						
43,2	2071	540	12,43	10,33	239	3,48
1.5.2 85% of the torque obtained in 1.5.1						
38,3	2162	564	11,31	9,39	245	3,39
1.5.3 75% of the torque defined in 1.5.2						
29,1	2191	571	9,35	7,77	267	3,12
1.5.4 50% of the torque defined in 1.5.2						
19,7	2219	579	7,51	6,24	317	2,62
1.5.5 25% of the torque defined in 1.5.2						
10,	2253	587	5,69	4,72	473	1,76
1.5.6 unloaded						
-	2290	597	3,74	3,11	-	-

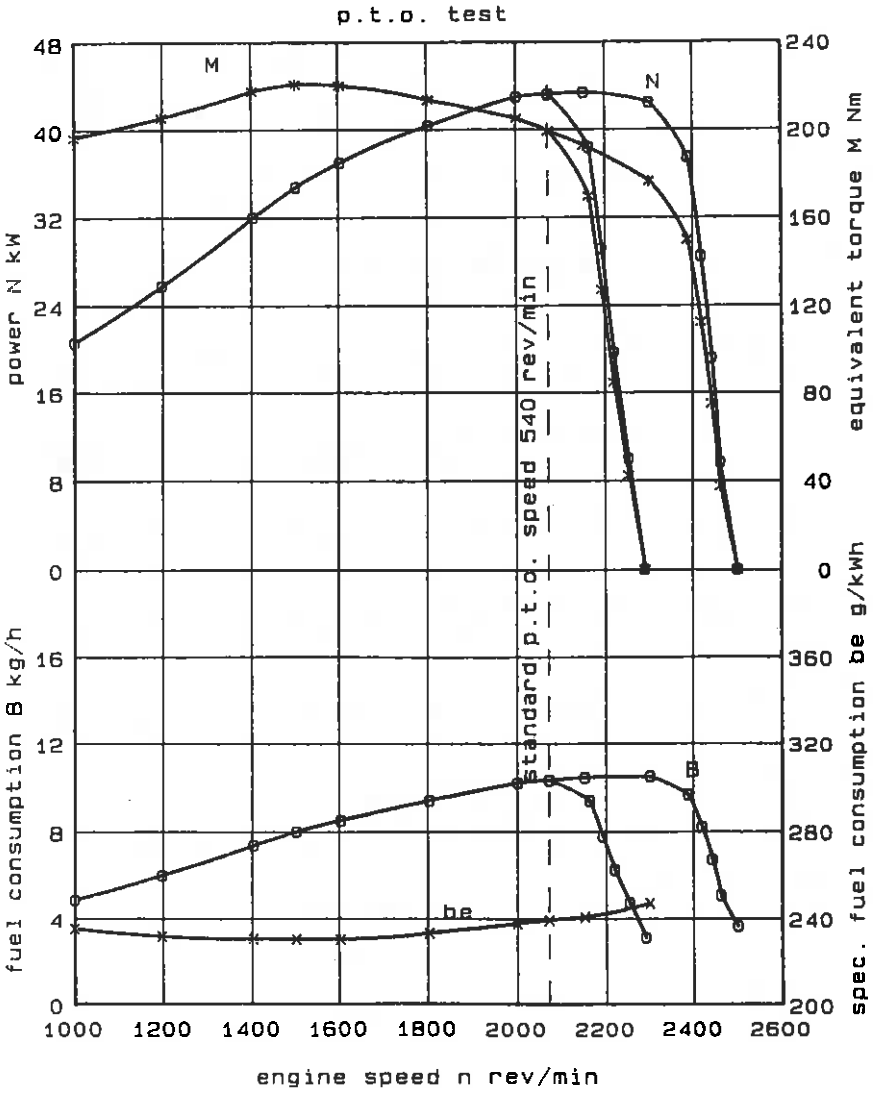
No load maximum engine speed: 2501 rev/min
Equivalent flywheel torque at rated engine speed: 176 Nm
Equivalent flywheel torque at 2-hour test: 193 Nm
Maximum equivalent flywheel torque: 221 Nm at 1501 rev/min of the engine

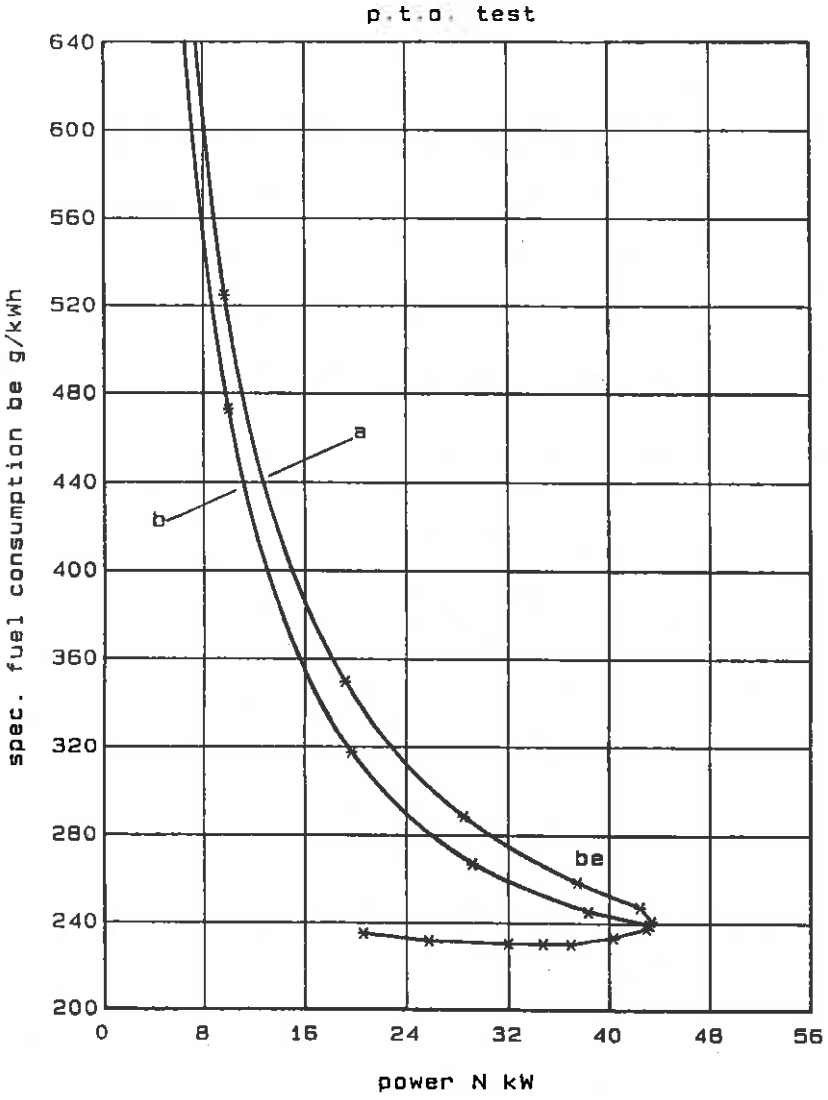
Mean atmospheric conditions

temperature	19 °C
pressure	100 kPa
rel. humidity	25 %

Maximum temperatures

coolant	80 °C
oil	95 °C
fuel	26 °C
air intake	23 °C


p.t.o. test
power N kW
equivalent torque M Nm
fuel consumption B kg/h
spec. fuel consumption be g/kWh
engine speed n rev/min
standard p.t.o. speed 540 rev/min
M
N
B
be
48
40
32
24
16
8
0
16
12
8
4
0
240
200
160
120
80
40
0
360
320
280
240
200
1000
1200
1400
1600
1800
2000
2200
2400
2600


p.t.o. test
spec. fuel consumption be g/kWh
640
600
560
520
480
440
400
360
320
280
240
200
0
8
16
24
32
40
48
56
power N kW
a
b
be

2 HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 5th and 7th November 1991

2.1 Hydraulic power test

Sustained pressure with relief valve open 19,6 MPa
Pump delivery rate at minimum pressure 52,7 l/min

	Hydraulic power kW	Flow rate l/min	Pressure MPa	Oil temperature °C
At 90% of the actual relief valve setting	8,8	30,1	17,6	65
At max. power	13,1	49,2	16,0	65

Tapping point used for test: At rear of tractor

2.2 Power lift test

Main linkage dimensions see on pages 8 and 9

	At the hitch points	On the frame
Height of lower hitch points above ground in down position	200 mm	
Vertical movement without lifting forces with lifting forces	625 mm 612 mm	810 mm 800 mm
Max. corrected forces exerted through full range	19,2 kN	16,6 kN
Corresponding pressure	17,6 MPa	
Moment about rear axle	-	26,3 kNm
Max. tilt angle of mast from vertical	-	10°

Lifting heights relative to horizontal lower links

mm	-440	-400	-345	-300	-200	-100	0	+100	+200	+267	+300	+360

Lifting forces at hitch points, corrected to 17,6 MPa

kN			19,2	20,3	23,7	25,9	27,5	28,6	29,7	30,6		

Lifting forces at standard frame, corrected to 17,6 MPa

kN	16,6	17,4		19,0	20,1	20,8	21,2	21,1	20,9		20,7	20,3

3 DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

Date of tests: 25th and 28th October 1991

Type of track: Concrete

	Tyre inflation pressure	
Height of drawbar above ground	Front	Rear
470 mm	80 kPa	80 kPa

JOHN DEERE 2250

Gear and range	Speed	Drawbar pull	Power	Engine speed	Slip of wheels
	km/h	kN	kW	rev/min	%
3.1	Maximum power in tested gears				
1 I	2,21	33,35	20,5	2437	15,0
2 I	3,27	33,06	30,0	2403	15,0
3 I	4,84	26,08	35,1	2153	8,6
4 I	7,22	17,72	35,5	2149	5,4
1 II	7,95	16,36	36,1	2155	5,0
2 II	12,13	10,37	34,9	2153	3,0
3.2	FUEL CONSUMPTION				
3.2.1	in selected gear nearest to 7,5 km/h, at rated speed				
4 I	7,76	16,13	34,9	2299	5,0
3.2.1.1	75% of pull at maximum power at rated speed				
4 I	8,25	12,12	27,8	2410	3,7
3.2.1.2	50% of pull at maximum power at rated speed				
4 I	8,46	8,08	19,0	2440	2,4
3.2.1.3	next higher gear at reduced engine speed; same pull and				
1 II	8,24	12,10	27,6	2202	3,7
3.2.1.4	next higher gear at reduced engine speed; same pull and				
1 II	8,42	8,10	18,9	2222	2,4
3.2.2	in selected gear, at maximum power, at rated speed				
1 II	8,53	14,93	35,4	2301	4,5
3.2.2.1	75% of pull at maximum power at rated speed				
1 II	9,06	11,19	28,2	2416	3,4
3.2.2.2	50% of pull at maximum power at rated speed				
1 II	9,27	7,51	19,3	2444	2,3
3.2.2.3	next higher gear at reduced engine speed; same pull and				
2 II	9,01	11,16	27,9	1601	3,2
3.2.2.4	next higher gear at reduced engine speed; same pull and				
2 II	9,35	7,43	19,3	1645	2,2

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
386	2,15	36	75	82	12	95	100,8
335	2,48	36	75	82	12	95	100,8
295	2,81	40	77	83	12	95	100,8
290	2,86	36	77	83	12	94	100,8
287	2,90	36	75	82	13	94	100,8
296	2,80	36	76	82	13	94	100,8
302	2,75	32	75	82	6	66	100,3
334	2,49	32	75	82	6	66	100,3
406	2,05	32	75	82	6	66	100,3
travelling speed as in 3.2.1.1							
306	2,71	32	75	82	6	68	100,3
travelling speed as in 3.2.1.2							
374	2,22	32	75	82	6	68	100,3
298	2,79	35	75	83	6	68	100,2
330	2,52	35	75	83	6	68	100,2
399	2,09	35	75	83	6	68	100,2
travelling speed as in 3.2.2.1							
278	2,99	35	73	81	6	70	100,2
travelling speed as in 3.2.2.2							
310	2,68	35	73	81	6	70	100,2

4 Remarks and Repairs: None

ADDITIONAL TEST UNDER THE RESPONSIBILITY OF THE DLG-TESTING STATION

5 MAIN POWER TAKE-OFF PERFORMANCE (1000rev/min)

Date of tests: 6th April 1992
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						
43,8	2068	952	12,43	10,33	236	3,52
1.2 At rated speed						
42,7	2300	1059	12,61	10,48	245	3,39
1.3 At standard p.t.o. speed						
43,6	2172	1000	12,55	10,43	239	3,47
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						
42,7	2300	1059	12,61	10,48	245	3,39
1.4.2 85% of the torque obtained in 1.4.1						
38,0	2411	1110	11,77	9,78	257	3,23
1.4.3 75% of the torque defined in 1.4.2						
28,8	2430	1118	9,95	8,26	287	2,89
1.4.4 50% of the torque defined in 1.4.2						
19,4	2453	1129	8,18	6,80	351	2,37
1.4.5 25% of the torque defined in 1.4.2						
9,8	2475	1139	6,21	5,16	528	1,57
1.4.6 unloaded						
-	2498	1150	4,40	3,66	-	-

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						
43,6	2172	1000	12,55	10,43	239	3,47
1.5.2 85% of the torque obtained in 1.5.1						
38,5	2259	1040	11,40	9,47	246	3,38
1.5.3 75% of the torque defined in 1.5.2						
29,5	2311	1064	9,58	7,96	269	3,09
1.5.4 50% of the torque defined in 1.5.2						
19,8	2317	1067	7,75	6,44	326	2,55
1.5.5 25% of the torque defined in 1.5.2						
10,	2344	1079	5,80	4,82	483	1,72
1.5.6 unloaded						
-	2372	1092	4,01	3,34	-	-

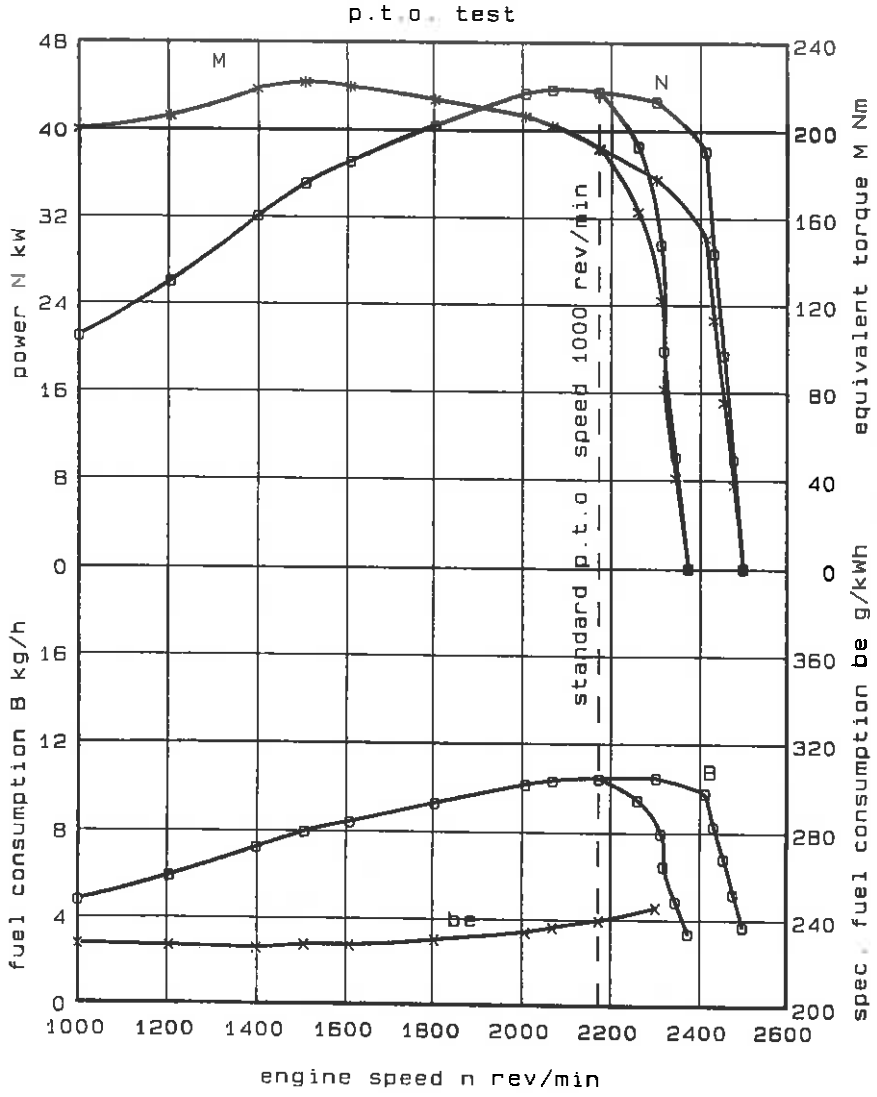
No load maximum engine speed: 2498 rev/min
Equivalent flywheel torque at rated engine speed: 177 Nm
Equivalent flywheel torque at 2-hour test: 202 Nm
Maximum equivalent flywheel torque: 222 Nm at 1505 rev/min of the engine

Mean atmospheric conditions

temperature	21 °C
pressure	99 kPa
rel. humidity	24 %

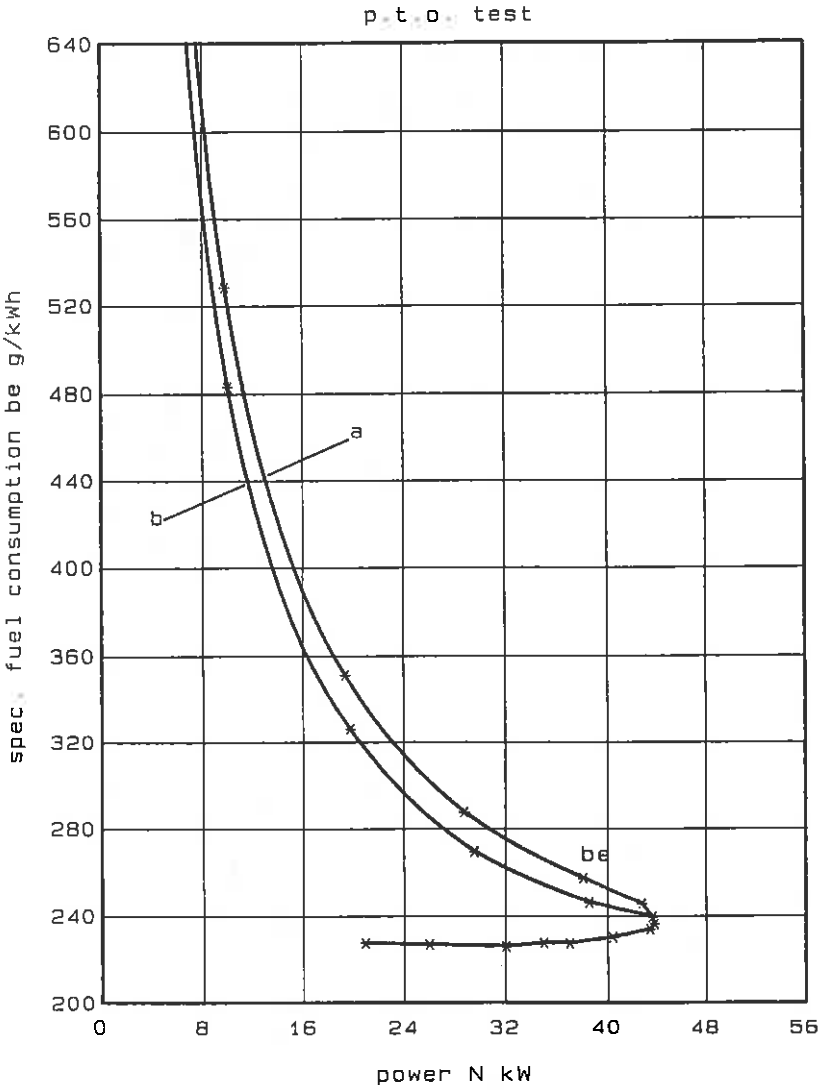
Maximum temperatures

coolant	81 °C
oil	101 °C
fuel	25 °C
air intake	25 °C


p.t.o. test
power N kW
equivalent torque M Nm
fuel consumption B kg/h
spec. fuel consumption be g/kWh
engine speed n rev/min
standard p.t.o. speed 1000 rev/min
M
N
B
be
48
40
32
24
16
8
0
240
200
160
120
80
40
0
16
12
8
4
0
360
320
280
240
200
1000
1200
1400
1600
1800
2000
2200
2400
2600

JOHN DEERE 2250 (4 WD)

Test No. 91-250



Published
with the support of the Federal Minister for Food, Agriculture and Forestry

Deutsche Landwirtschafts-Gesellschaft e.V. (DLG)
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