

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



Restricted Code

OECD No.

1597



**Agricultural Tractor
JOHN DEERE 6900 AS (FWD) (4WD)
POWRQUAD, 40 km/h-version**

Manufacturer

John Deere Werke Mannheim
D-68008 Mannheim

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) and amendments (C(90)79, C(92)52, C(93)52).

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

Duration of tests: July till September 1995

DLG-Testing Station for Agricultural Machinery, Max-Eyth-Weg 1,
D-64823 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: 6th February 1996

OECD No. 1597
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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/cm ²
	100 kPa	=	1000 mbar	=	750.10 mm Hg

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Printed in Germany, February 1996
DLG-No. 286

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JOHN DEERE 6900 AS (FWD)

Test No. 95-189

Tractor manufacturer:	JOHN DEERE D-68008 Mannheim
Location of tractor assembly:	D-68008 Mannheim, Germany
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 100 hours, tractor 20 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	JOHN DEERE
Trade name:	6900 AS (FWD), POWRQUAD, 40 km/h version
Type:	Wheel tractor in full frame design, four wheel driven
Serial no.:	143 665
1st serial no.:	100 001

Engine

Make:	JOHN DEERE
Model:	6068 TL 002
Type:	Watercooled 4-stroke Diesel-engine (antivibration mounted), direct injection, supercharged
Serial no.:	192 475
Cylinders:	6, in line, bore 106,5 mm, stroke 127 mm, displacement 6788 cm ³ ; compression ratio 17,2 : 1; replaceable, wet cylinder liners
Valves:	Overhead

Supercharging

Make:	GARRETT
Model:	T 350-01 exhaust turbo-supercharger
Max. pressure:	68 kPa

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Fuel system:	VDO electrical fuel supply pump; LUCAS-CAV distributor injection pump DP 201 JD.-No. Re 61860, serial no.: 12936 JMG; manufacturer's production setting 67,5 + 5 mm ³ /stroke at full load and rated speed; automatic injection timing device, injection timing 15 + 15 degrees before TDC; STANADYNE multihole injection nozzles 28485; injection pressure 24,5 MPa ± 0,5 MPa; replaceable fuel filter; capacity of fuel tank 250 dm ³
Governor:	LUCAS-CAV centrifugal variable speed governor, without supercharge pressure compensating device, governed range of engine speed 850 ± 50 to 2270 ± 25 rev/min, rated engine speed 2100 rev/min
Air cleaner:	MANN dry paper element filter with incorporated cyclone type precleaner, replaceable cartridge; electric warning indicator lamp; air intake below hood
Exhaust silencer:	ROTH, AL 80500 multi-chamber absorption reflection type, 247x297 mm oval, 312 mm long, on the left above the engine, below hood; vertical stack, near the right front post of cab, mouth showing upwards, forward to the right, centre 2785 mm above ground
Lubrication system:	Pressure lubricated by gear pump; oil filter in full flow with replaceable cartridge, engine oil/ cooling-water heat exchanger on the left hand side of engine crankcase
Cooling system:	Water cooling with impeller pump, overpressure relief valve set to 70 + 20 kPa; thermostat and by-pass circuit; EATON model 610 viscous drive fan, belt driven, variable fan speed controlled by air flow temperature; 7 blades with 550 mm dia; water capacity 15,5 dm ³
Starting system:	Electrical; BOSCH solenoid pre-engaged drive starter motor 3,0 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 K1-14V 2/120 A 1680 W; 1 lead acid battery, 154 Ah at 20 hours rating

Transmission

Universally-jointed propeller shaft between engine and gearbox

Clutch
(travel alone):

JOHN DEERE,
wet multi-plate, 225 mm dia,
mechanically actuated by pedal, additionally
assisted by low pressure hydraulic circuit

Gearbox:

JOHN DEERE, POWRQUAD (20/20) 40 km/h,
(on request POWRQUAD (16/16) 30 km/h);
power shifted speed change gear with 4 speeds,
synchronized range gear with 5 ranges (A, B, C, D, E),
power shifted reversing gear (for all ranges);

total 20 forward and 20 reverse speeds,
3 shifting levers;

force feed lubrication, oil cooler in front
of engine water cooler.

Rear axle and
final drives:

JOHN DEERE
bevel gear drive, bevel gear differential; multi-plate
differential lock; under load engageable by foot switch
and low pressure hydraulic circuit, disengagement by
actuating brake pedals; planetary final drives

Front axle and:
final drives:

ZF APL 2060 /12 G 442
driven by wet multi-plate clutch, propeller shaft (in tractor's
median plane) and bevel gear;
clutch electro-hydraulically operated by toggle switch
through low pressure hydraulic circuit;
bevel gear differential with automatic limited slip type lock;
planetary final drives
automatic connection and disconnection of front axle
drive and rear differential lock available on request

Number of revolutions of front wheels for one revolution of rear wheels: 1,3457

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Total ratios and speeds:

Range	Gear	Number of engine revolutions for one revolution of the driving wheels		Nominal travelling speed at rated engine speed 2100 rev/min *)			
		forward	reverse	forward		reverse	
				km/h	mph	km/h	mph
A	1	270,03	227,68	2,51	1,56	2,97	1,85
	2	224,10	188,96	3,02	1,88	3,58	2,23
	3	187,23	157,87	3,62	2,25	4,29	2,66
	4	152,84	128,87	4,43	2,75	5,25	3,26
B	1	127,40	107,42	5,31	3,30	6,30	3,92
	2	105,73	89,15	6,40	3,98	7,59	4,72
	3	88,34	74,48	7,66	4,76	9,09	5,65
	4	72,11	60,80	9,39	5,83	11,13	6,92
C	1	80,06	67,50	8,46	5,25	10,03	6,23
	2	66,44	56,02	10,19	6,33	12,08	7,51
	3	55,51	46,80	12,19	7,58	14,46	8,99
	4	45,31	38,21	14,94	9,28	17,72	1,01
D	1	43,24	36,46	15,65	9,73	18,57	11,54
	2	35,89	30,26	18,86	11,72	22,37	13,90
	3	29,98	25,28	22,58	14,03	26,78	16,64
	4	24,47	20,64	27,66	17,19	32,80	20,38
E	1	29,19	24,61	23,19	14,41	27,50	17,09
	2	24,22	20,42	27,94	17,36	33,14	20,59
	3	20,24	17,06	33,45	20,78	39,67	24,65
	4	16,52	13,93	40,97	25,46	48,59	30,20

*) calculated with the radius index (ISO 4251/1-1992) 855 mm

Main p.t.o.:

Independent;
driven by wet multi-plate clutch with 197 mm dia;
electro-hydraulically operated through control valve
by rotary switch in the cab or by push-button switch
at rear mud guard,
automatic disconnection available on request,
response of valve automatically controlled;

1 shaft at tractor's rear, reversible for two profiles;
2 p.t.o. speeds selectable by shifting lever;

35 mm dia, 6 splines, ISO 500-1991 type 1
and
35 mm dia, 21 splines, ISO 500-1991 type 2

775 mm above ground, 585 mm behind rear wheel centre,
in tractor's median plane;
direction of rotation clockwise (seen from 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 E*)	540 647	1753 2100	3.2471	-
1000	1000 1050	2000 2100	2.0000	-

*) 540E: Economic-type p.t.o. for reduced engine speed

Secondary p.t.o.:

Front p.t.o., available on request,
not fitted to tested tractor;

Power lift

JOHN DEERE;
electronic-hydraulic power lift, with external lift cylinders;
draft-, position- and mixed control, floating position, raise
limit, fast raising and lowering, rate of drop control,
electronic lower link sensing and hitch dampening;

Hydraulic system:

Load sensing, pressure and flow compensated system;
VICKERS variable displacement axial-piston pump,
driven by gear box, independent of travel clutch,
max. delivery 60 dm³/min at rated engine speed,
(optionally available pump with 96 dm³/min), oil filter
in feed line, cooler see page -6-, gear box;

JOHN DEERE control valve,
with linear control, lockable in transport position;
pressure limiting valve set to $20 \pm 0,5$ MPa;
2 single acting cylinders with 80 mm bore and
227 mm stroke, safety valve set to $21,5 \pm 0,7$ Mpa;

3 double acting additional HUSCO control valves series 200,
with adjustable flow control;
series 100 resp. series 300 available on request;

6 oil couplings at rear of tractor,
maximum volume of oil, available to external cylinders :
15 dm³ stationary or during driving operation;
if required 10 dm³ oil may be added,
then max. available volume increases correspondingly;

oil reservoir in common with gear box

the hydraulic system further delivers

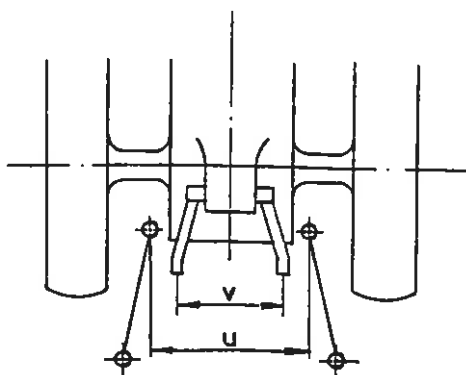
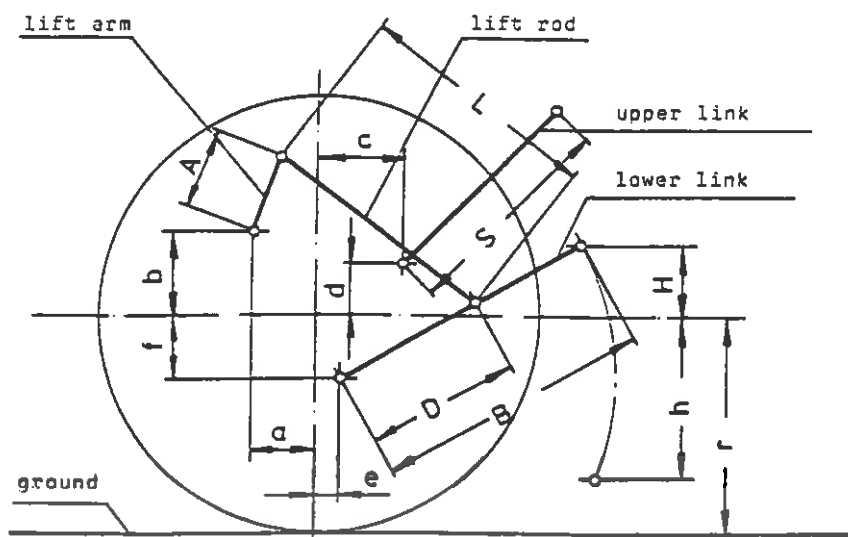
- a) a high pressure circuit to actuate steering
and
- b) by a separate pump a low pressure circuit for
transmission lubrication and for actuating of:
Drive clutch, p.t.o. clutch and p.t.o. brake, power shift,
rear differential lock, front wheel drive clutch and
service brake

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Three-point linkage:

Category 2 acc. to ISO 730/1-1990,
with WALTERSCHEID quick couplers



Dimensions of rear implement linkage			projected lengths in mm		
			dimensions (general)	dimensions used for tests on page	
				23	27
Rear tyres	20.8 R 38	(r) *)	855		
Front tyres	480/70 R 28	(r') *)	670		
Length of lift arms		(A)	400		
Length of lower links		(B)	975		
Distance of lift arm pivot points from rear axle centre	horizontal	(a)	-184		
		(b)	523		
Horizontal distance between lower link pivot points		(u)	494		
Horizontal distance between lift arm end points		(v)	644		
Length of upper link		(S)	587 to 782	685	675
Distance of upper link pivot point from rear wheel axis	horizontal	(c)	461	461	461
	vertical	(d)	218, 270, 336	218	336
Distance of lower link pivot points from rear wheel axis	horizontal	(e)	160		
	vertical	(f)	250		
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	560,663	560	663
Length of lift rods		(L)	850 to 1015	970	850
Heights (h, H, H') of lower link hitch points relative to rear wheel axis (situated 855 mm above ground), at different adjustments of L and D.					
These data are valid for unloaded power lift				data for tests on page	
				23	27
Length of lift rods	(L)	850	1015	970	850
Linkage distance of lift rods	(D)	560		560	663
Lowest position	(h)	440	733	655	375
Highest position	(H)	255	-5	65	195
Transport position	(H')	255	-5	65	195

*) Assuming r resp. r' = tyre dynamic radius index of ISO 4251/1-1992

Pull equipment

Swinging drawbar:

On request available, not fitted; according to the manufacturer:	
Longitudinally adjustable height above ground of centre of clevis	558 mm
distance of hitch point from rear wheel axis, horizontal:	835, 935, 985 mm
from p.t.o. shaft end vertical:	217 mm
horizontal:	250, 350, 400 mm
centre of clevis swingable to both sides, with drawbar fully retracted:	170 mm
with drawbar fully drawn out:	200 mm
distance of pivot point (situated in front of rear axle) from rear wheel axis, horizontal	62 mm
diameter of drawbar pin:	31,5 mm
maximum vertically permissible load (drawbar fully retracted):	
at road work	1800 kg
at field work	2250 kg

Holed drawbar:

On request available, not fitted; according to the manufacturer:	
Short bar:	
length between ball guides	825 mm
9 holes, 33 mm dia with 80 mm distance each,	
thickness/width of the drawbar	25/80 mm
height above ground: minimum	122 mm
maximum	1110 mm
horizontal distance to p.t.o. shaft end (lower links in horizontal position)	550 mm

Trailer hitch:

ROCKINGER 850 R, automatic, with remote control, one-hand quick adjustment,	
diameter of hitch pin	30 mm
height of coupling mouth above ground adjustable from	505 to 1000 mm
maximum vertically permissible load	1800 kg

Towing hitch:

At front, height above ground of mouth's centre	965 mm
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Steering

DANFOSS, 125-200 OSPQ
hydrostatic steering, connected by sequence
valve to the hydraulic circuit;
1 integrated ZF cylinder of symmetrical design;
118 mm stroke, 80 mm bore, 40 mm piston
rod, acting on steering levers, working
pressure 18,5 MPa

Brakes

- Service brake:** JOHN DEERE
self-adjusting power-assisted braking system
(power assistance by hydraulic circuit, see page 9),
hydraulic transmission, acting on rear wheels;
front axle drive is automatically engaged during braking;

oil-immersed disc brake with 1 ring-piston on each
differential half shaft, disc diameter 335 mm;
- Trailer brake:** Combined one line/two line air braking system on request,
not fitted
- Parking brake:** Mechanically operated oil-immersed band type brake,
acting on clutch case of front wheel drive (as brake drum);
1 brake drum, 230 mm dia and 52 mm width;
brake operated by lever with ratchet;

additional park lock, operated by range shift lever
- Steering brake:** Divided pedal of service brake,
for normal use locked together

Wheels

- Front:** Steering and driving, 2 pneumatics
- Rear:** Driving, 2 pneumatics
- Wheelbase:** 2650 mm
- Track width:** At front from 1712 up to 2112 mm adjustable in steps
of 100 mm by adjustable gauge bowl wheels and by
turning the wheels; with 60 mm spacers adjustable
from 1736 to 2232 mm;

at rear from 1712 up to 2016 mm adjustable in steps
of 100 mm by adjustable gauge bowl wheels and by
turning the wheels;
with 111 mm spacers adjustable from 1704 to 2238 mm

Possible combinations of tyres front/rear

front	rear
14.9 R 28 420/70 R 28	18.4 R 38
480/65 R 28	600/65 R 38
420/70 R 28	520/70 R 38
420/70 R 28 16.9 R 28 480/70 R 28	20.8 R 38
540/65 R 28	650/65 R 38
480/70 R 28	580/70 R 38

This is the list of the most popular tyres combinations.
More combinations are available.

Protective structure

JOHN DEERE, cab model SG 049;
OECD-tested safety cab, by separate device tiltable
to the side; mounted by antivibration silent-blocks on tractor;
OECD approval no. C55 0243/10

2 doors and 3 steps each,
steps 530, 780 and 1035 mm,
driver's platform 1300 mm above ground,
rear window and side windows to open, roof hatch;

combined heating/ventilation system with 4-step blower and
cooling-water heat exchanger below cab's floor;
air intake at left and right above side windows,
2 dry air filters;

air outlet jets and defroster louvers in the steering console,
2 recirculation louvers behind the seat

air conditioner optionally available, fitted to tested tractor

Noise reduction materials:

Roof,

head liner	foam with perforated vinyl-coating plus self-supporting foam substrate	23 mm
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hatch	foam with perforated vinyl-coating	50 mm
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Mudguards and uprights	foam with vinyl-coating plus substrate	6 mm
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Floor	molded rubber mat	30 mm
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Seat support	molded rubber mat	8 mm
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Rear wall (pump cover)	composite material and sound barrier	9 mm
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Driver's seat

GRAMMER MSG 95A/31
upholstered seat with back rest and arm rests, pneumatic
suspension with automatic weight adjustment, hydraulic
shock absorber, horizontal suspension, seat rotatable to
both sides up to 20°, additionally turnable to the left hand
side about 180°;

height of unloaded seat above platform steplessly adjustable
from 390 to 470 mm,
horizontal adjustment 180 mm

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Operating hours meter

Electronic, counts real operating hours when engine is running

Lighting

Electrical, 12 Volt, as per GERMAN legislation

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights	1375	162x101	223
Sidelights	1873	110x35	863
Rearlights	1879	210x48	885
Reflectors 1st pair 2nd pair	1879 890	210x48 72 dia	885 518

TEST CONDITIONS

Overall dimensions

	Length mm	Width mm	Height at top of	
			protective structure mm	exhaust silencer mm
Unballasted	4560	2320	2883	2850

Ground clearance

435 mm

Clearance-limiting part: Bracket of trailer hitch

Tractor mass

(with cab)

	without driver kg	with driver kg
front	2250	2260
rear	3550	3615
total	5800	5875

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Tyres and track widths specifications

	Front	Rear
Tyres:	KLEBER SUPER 8 L	KLEBER SUPER 9
dimensions	480/70 R 28	20.8 R 38
load index speed index	140 A8	153 A8
type	radial	radial
maximum load (tyre manufacturer's) 40 km/h	25,0 kN	36,5 kN
inflation pressure (tyre manufacturer's)	160 kPa	160 kPa
radius index	670 mm	855 mm
Chosen track width:	1812 mm	1832 mm
Rims:	W 15L x 28	DW 18L x 38
Technically permissible axle load	38,0 kN	72,0 kN
Technically permissible total weight:	90,0 kN	

Oils and lubrication

Capacity and change interval:

	Capacity dm ³	Oil change h	Filter- change h
Engine	17	250	
Gear box, rear axle and final drives, hydraulic system, steering, brake system	56	1500	750
Front axle final drives	6,7 2 x 2,2	1500	-

Specification:

	Recommended	Used during test
Engine oil: Type Viscosity Winter Summer Tropics Classification	Engine oil SAE 10W/40 SAE 15W/40 SAE 20W/40 API CD-SE or CCMC D4 - D5	FUCHS TITAN SAE 10W/40 API CD-SE MIL-L-2104 C
Transmission oil: Used in gearbox, rear axle and rear final drives, hydraulic system, steering, brake system Type Viscosity Classification used in front axle and front final drives Type Viscosity Classification	Transmission oil *) SAE 75 JD specific. J 20 C Transmission oil SAE 80W/90 API GL 5	JOHN DEERE HY-GARD SAE 75 JD specific. J 20 C FUCHS RENOGear SAE 80W/90 API GL-5

*) likewise recommended: JOHN DEERE BIO-HY-GARD,
transmission oil on rape-seed oil base

Grease: SAE EP-multi purpose grease

likewise recommended: JOHN DEERE BIO-GREASE-GARD,
grease on rape-seed oil base

number of lubrication points 19

Fuel

Used during test

Type: ARAL-Diesel-fuel, in conformity with DIN 51601

Density at 15°C: At p.t.o. performance tests 0,846 g/cm³
At drawbar power tests 0,851 g/cm³

Likewise permitted

Type: Rape-seed oil fuel (methyl ester RME)

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

Date of tests: 24th July 1995
 Location of tests: DLG-Testing Station Groß-Umstadt
 Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed		Fuel consumption			Specific energy kWh/dm³
	Engine rev/min	P.t.o. rev/min	hourly dm³/h	kg/h	specific g/kWh	

Maximum power**1.1 At 2-hour test**

91.5	1700	850	23.74	20.08	220	3.85
------	------	-----	-------	-------	-----	------

1.2 At rated speed

86.7	2100	1050	24.79	20.98	242	3.50
------	------	------	-------	-------	-----	------

1.3 At standard p.t.o. speed

89.4	2000	1000	24.83	21.01	235	3.60
------	------	------	-------	-------	-----	------

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**

86.7	2100	1050	24.79	20.98	242	3.50
------	------	------	-------	-------	-----	------

1.4.2 85% of the torque obtained in 1.4.1

76.8	2193	1096	23.74	20.08	261	3.24
------	------	------	-------	-------	-----	------

1.4.3 75% of the torque defined in 1.4.2

58.7	2228	1114	20.01	16.93	288	2.93
------	------	------	-------	-------	-----	------

1.4.4 50% of the torque defined in 1.4.2

39.4	2246	1123	16.03	13.56	344	2.46
------	------	------	-------	-------	-----	------

1.4.5 25% of the torque defined in 1.4.2

20.0	2263	1132	11.77	9.96	499	1.70
------	------	------	-------	------	-----	------

1.4.6 unloaded

-	2280	1140	7.62	6.44	-	-
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Power kW	Engine rev/min	Speed P.t.o. rev/min	Fuel consumption		specific g/kWh	Specific energy kWh/dm³
			hourly dm³/h	kg/h		

**1.5 Part loads, the governor hand lever in the position
corresponding to standard p.t.o. speed at full load (curve b)**

1.5.1 the torque corresponding to maximum power

89,4	2000	1000	24,83	21,01	235	3,60
------	------	------	-------	-------	-----	------

1.5.2 85% of the torque obtained in 1.5.1

79,4	2088	1044	23,06	19,51	246	3,44
------	------	------	-------	-------	-----	------

1.5.3 75% of the torque defined in 1.5.2

60,4	2122	1061	19,30	16,33	270	3,13
------	------	------	-------	-------	-----	------

1.5.4 50% of the torque defined in 1.5.2

40,7	2144	1072	15,31	12,95	318	2,66
------	------	------	-------	-------	-----	------

1.5.5 25% of the torque defined in 1.5.2

20,7	2169	1085	11,12	9,40	454	1,86
------	------	------	-------	------	-----	------

1.5.6 unloaded

-	2182	1091	8,94	5,87	-	-
---	------	------	------	------	---	---

No load maximum engine speed:	2280 rev/min
Equivalent flywheel torque at rated engine speed:	394 Nm
Equivalent flywheel torque at 2-hour test:	514 Nm
at engine speed:	1700 rev/min
Maximum equivalent flywheel torque:	577 Nm
at engine speed:	1204 rev/min

Mean atmospheric conditions

temperature:	25 °C
pressure:	1006 hPa
relative humidity:	45 %

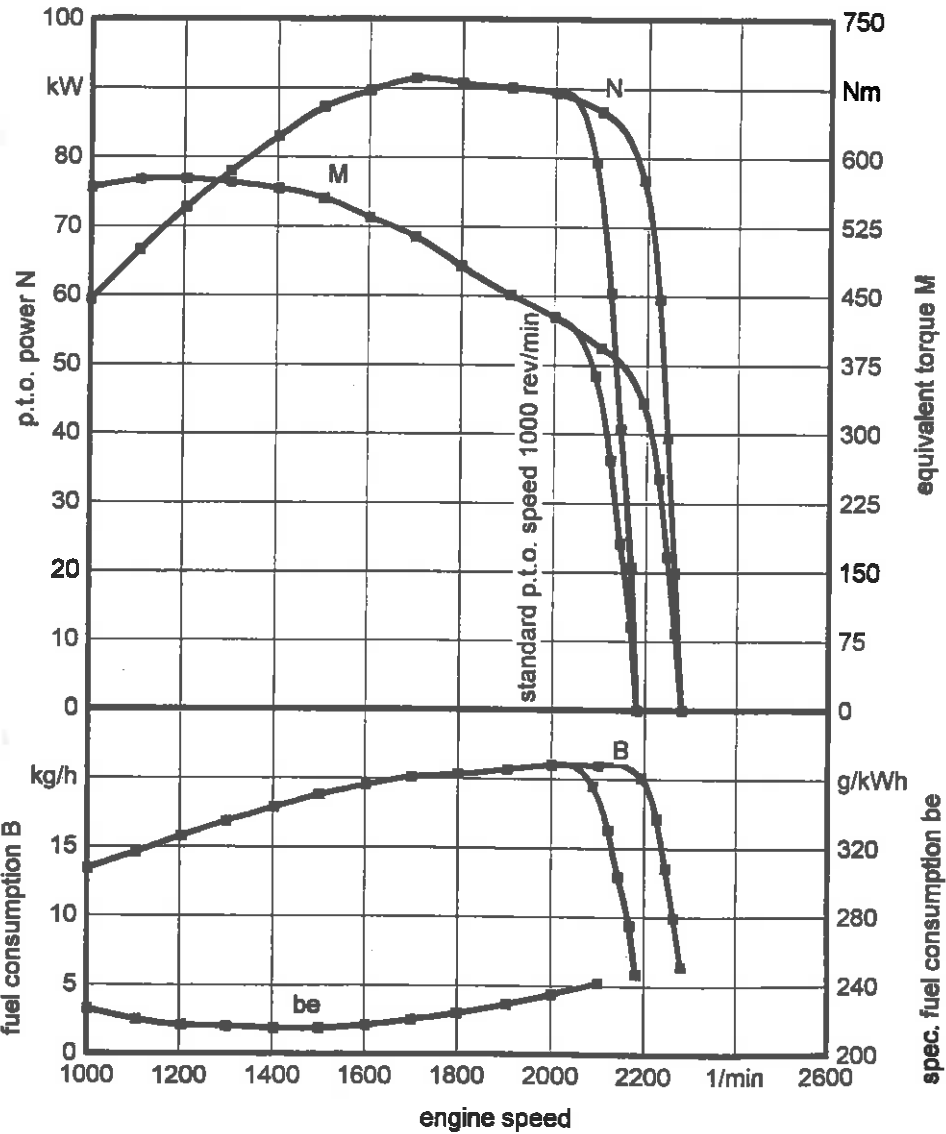
Maximum temperatures

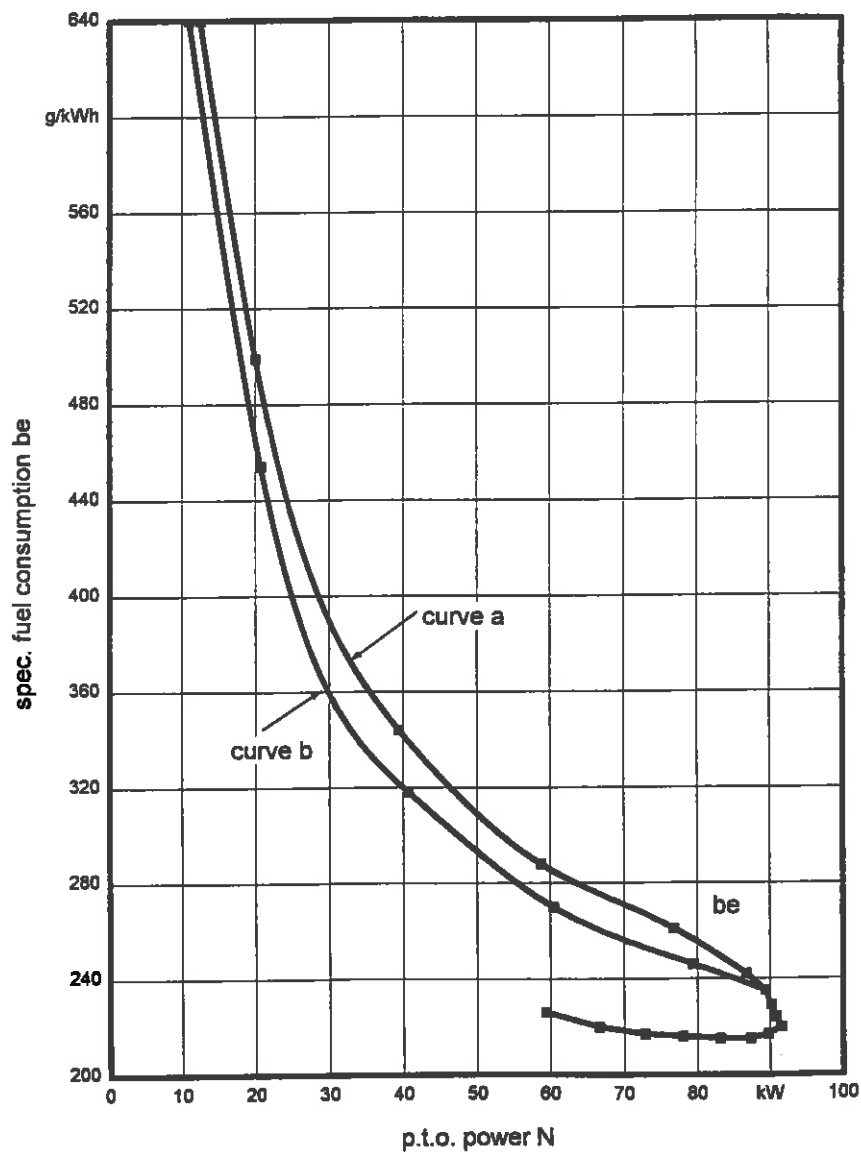
coolant:	92 °C
oil:	110 °C
fuel:	32 °C
air intake:	25 °C



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2 HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 21st August 1995

2.1 Hydraulic power test

Sustained pressure with relief valve open
Pump delivery rate at minimum pressure

20,5 Mpa
68,1 dm³/min

	Hydraulic power kW	Flow rate dm³/min	Pressure MPa	Oil temperature °C
At 90% of the actual relief valve setting	19,0	61,6	18,5	65
Maximum	19,0	62,3	18,3	65

Tapping point used for test: At rear of tractor, connected with additional control valve no.2

2.2 Power lift test

maximum pressure in the lift cylinders

21,0 MPa

	At the hitch points	On the frame
Height of lower hitch points above ground in down position	200 mm	
Vertical movement without lifting forces	720 mm	805 mm
with lifting forces	705 mm	777 mm
Max. corrected force exerted through full range	52,1 kN	41,1 kN
Corresponding pressure	18,9 MPa	
Moment about rear axle	-	71,8 kNm
Max. tilt angle of mast from vertical		10°

Lifting heights relative to horizontal lower links

mm	- 410	- 405	- 400	- 300	- 200	- 100	0	+ 100	+ 200	+ 300	+ 367
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Lifting forces at hitch points, corrected to 18,9 MPa

kN		52,1	52,3	53,5	54,6	56,0	57,5	58,9	60,4	61,9	
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Lifting forces at standard frame, corrected to 18,9 MPa

kN	49,5		49,4	48,7	48,2	47,7	46,9	46,0	44,6	42,6	41,1
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JOHN DEERE 6900 AS (FWD)

3 DRAWBAR POWER AND FUEL CONSUMPTION

Date of test: 10th August 1995
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					
A 4	3,78	64,00	67,2	2078	15,0
B 1	3,89	63,06	68,1	1794	15,1
B 2	4,72	57,35	75,2	1702	10,5
B 3	5,85	46,21	75,1	1699	7,1
C 1	6,55	41,48	75,5	1699	6,1
B 4	7,29	36,85	74,6	1698	5,1
C 2	7,97	34,37	76,1	1698	4,5
C 3	9,62	27,64	73,9	1701	3,5
3.2 FUEL CONSUMPTION					
3.2.1 gear with max. drawbar power (at rated speed)					
C 2	9,98	25,77	71,4	2101	3,3
3.2.1.1 75 % of pull at maximum power at rated speed					
C 2	10,55	19,33	56,6	2201	2,3
3.2.1.2 50 % of pull at maximum power at rated speed					
C 2	10,82	12,81	38,5	2238	1,6
3.2.1.3 next higher gear at reduced engine speed; same pull and travelling speed					
C 3	10,45	19,44	56,4	1822	2,5
3.2.1.4 next higher gear at reduced engine speed; same pull and travelling speed					
C 3	10,82	12,84	38,6	1863	1,5
3.2.2 in selected gear, nearest to 7,5 km/h (at rated speed)					
B 3	7,39	34,47	70,8	2101	4,7
3.2.2.1 75 % of pull at maximum power at rated speed					
B 3	7,86	25,75	56,2	2199	3,3
3.2.2.2 50 % of pull at maximum power at rated speed					
B 3	8,08	17,49	39,3	2237	2,1
3.2.2.3 next higher gear at reduced engine speed; same pull and travelling speed					
C 1	7,87	25,78	56,4	1996	3,3
3.2.2.4 next higher gear at reduced engine speed; same pull and travelling speed					
C 1	8,04	17,55	39,2	2014	2,2

Height of drawbar above ground	Tyre inflation pressure	
540mm	Front	Rear
	80 kPa	80 kPa

Specific fuel consumption g/kWh	Specific energy kWh/dm ³	Temperatures			Atmospheric conditions		
		Fuel °C	Coolant °C	Engine oil °C	Temperature °C	Relative humidity %	Pressure kPa
317	2,69	30	91	99	21	48	101,0
294	2,89	41	91	105	23	48	101,0
269	3,17	36	92	100	25	48	101,0
266	3,20	41	93	104	26	48	101,0
265	3,21	43	92	103	26	48	101,0
267	3,19	43	93	102	27	48	101,0
264	3,22	44	94	104	27	48	101,0
271	3,15	44	94	105	28	48	101,0
295	2,88	39	93	103	28	50	101,0
332	2,56	43	92	109	30	50	101,0
397	2,14	45	90	109	29	50	101,0
as in 3.2.1.1							
294	2,89	46	91	106	30	50	101,0
as in 3.2.1.2							
342	2,49	46	91	106	30	50	101,0
296	2,88	38	93	105	28	50	101,0
334	2,55	45	92	110	29	50	101,0
392	2,17	46	89	109	29	50	101,0
as in 3.2.2.1							
302	2,82	46	91	107	29	50	101,0
as in 3.2.2.2							
346	2,46	46	88	107	29	50	101,0

JOHN DEERE 6900 AS (FWD)

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Test No. 95-189

4 REPAIRS AND REMARKS None

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

5 MEASUREMENTS OF NOISE IN THE SAFETY CAB

Type of track: Concrete
Type of sound level meter: BRÜEL & KJÆR model 2233
Date of test: 11th and 12th September 1995

According to OECD CODE V

Gear number	Drawbar pull kN		Measured travelling speed km/h		Sound level dB(A)	
	1)	2)	1)	2)	1)	2)
Unloaded test in the gear giving the forward speed nearest to 7,5 km/h						
B 3	-	-	8,21	8,32	71,0	70,5
Unloaded test in the gear giving the maximum forward speed						
E 4	-	-	43,20	-	73,5	-
Tests with the drawbar pull for which the tractor gives the maximum sound level (combination of gear giving the nominal forward speed nearest to 7,5 km/h and also in any gear with a sound level increase of at least 1 dB(A))						
B 3	37,08	38,14	6,95	7,34	73,5	73,0
A 3		63,65		3,10		74,0
A 4		62,92		3,67		74,0
B 1	46,80	54,31	4,35	4,86	74,5	74,0
B 2		45,51		6,00		74,0
C 1	33,04	33,08	7,87	8,16	75,0	75,0
B 4		30,28		8,97		74,0
C 2		27,22		9,94		74,5
D 1	16,36	16,02	15,13	15,54	74,5	74,5

1) front axle drive disengaged

2) front axle drive engaged

JOHN DEERE 6900 AS (FWD)

Test No. 95-189

6 LIFTING FORCE

with modified 3-point linkage setting

Date of tests: 22nd August 1995

Length of lift rods	(L)	850 mm
Distance of lower link pivot points to lift rod pivot points on lower links	(D)	663 mm
Distance of upper link pivot point from rear wheel centre horizontal vertical	(c) (d)	461 mm 336 mm
Length of upper link	(S)	675 mm

see on pages 10 and 11 for more information

maximum pressure in the lift cylinders 21,0 MPa

	At the hitch point		On the frame							
Height of lower hitch points above ground in down position	480 mm									
without lifting forces	600 mm		700 mm							
with lifting forces	570 mm		630 mm							
Max. corrected force exerted through full range	64,1 kN		49,1 kN							
Corresponding pressure	18,9 MPa									
Moment about rear axle	-		85,7 kNm							
Max. tilt angle of mast from vertical	-		9°							
Lifting heights relative to horizontal lower links										
mm	- 135	- 125	- 100	0	+ 100	+ 200	+ 300	+ 400	+ 445	+ 495
Lifting forces at hitch points, corrected to 18,9 MPa										
kN		64,1	64,4	66,6	68,7	70,2	71,2	71,4	71,0	
Lifting forces at standard frame, corrected to 18,9 MPa										
kN	63,7		63,7	62,6	60,5	58,6	56,2	52,8		49,1

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

Deutsche Landwirtschafts-Gesellschaft e.V. (DLG)
Fachbereich Landtechnik – Prüfungsabteilung –
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