OECD APPROVAL No. 2/1769
Date of Approval: 24 August 1998

NEBRASKA TRACTOR TEST LABORATORY
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INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
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LINCOLN, NEBRASKA 68583-0832, USA

REPORT ON TEST IN ACCORDANCE WITH OECD RESTRICTED CODE (CODE II) FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS



JOHN DEERE 9400 POWRSYNC (4WD) ARTICULATED - 24 SPEED
JOHN DEERE 9400 SYNCRO (4WD) ARTICULATED - 12 SPEED

MANUFACTURED BY	John Deere Waterloo Tractor Works, Tractor Division P.O.Box 270, Waterloo, Iowa 50704-0270
NEBRASKA TEST NO.	1733
TEST DATES	May 2 through June 8, 1997

This test report provides the results of the tests conducted in accordance with the OECD Standard Test Code for the Official Testing of Agricultural Tractor Performance - C(87)53 Final - Annex II, Restricted Code.

This report has been approved by the OECD Coordinating Centre in Paris (CEMAGREF) on 24 August 1998 for the John Deere 9400 PowrSync (4WD) - Articulated, and the John Deere 9400 Syncro (4WD) - Articulated, with OECD No. 2/1769.

The transmissions on these two models are mechanically similar. They have the same 12 gear ratios in forward and the same 3 in reverse. The tests were not carried out on both models. The test was performed on the 24-speed model PowrSync, which had all the gear ratios present in the Syncro transmission)See pages 6 and 7. The test results are considered valid for the 12-speed model (Syncro).

An error was made when the tractors: **John Deere 9400 PowrSync (4WD)) Articulated - 24-Speed Transmission - 30 km/h Version** and **John Deere 9400 Syncro (4WD) Articulated - 12-Speed Transmission - 30 km/h Version** were tested. The Co-ordinating Centre was informed of the error when the draft test report was submitted for approval.

NOTES.

1. The John Deere 9400 PowrSync is equipped with an electronic engine performance control system which provides the following engine power levels in various gears:

1.a - Performance level a:
In gears A1-Lo, A1-Hi, A2-Lo, A2-Hi, A3-Lo, Stationary PTO and when the three point hitch rockshaft is lowered below the transport lock position. 268.5 kW

1.b. Performance level b:
In gears A3-Hi and B1-Lo 298.3kW

1.c. Performance level c:
Above gear B1-Lo 316.9 kW

2. The John Deere 9400 Syncro is equipped with an electronic engine performance control system which provides the following engine power levels in various gears:

2.a - Performance level a:
In gears A1, A2, A3, Stationnary PTO and when the three-point hitch rockshaft is lowered below the transport lock position. 268.5 kW

2.b. Performance level b:
In gear B1 298.3kW

2.c. Performance level c:
Above gear B1 316.9 kW

3. The tractor was tested on the PTO at full engine power by means of a bypassing circuit on the electronic power control unit. The PTO power and fuel characteristics thus obtained are not available to the user and were performed only to satisfy the OECD test code requirements.

No reproduction of this report or any part of it can be made without prior approval by the Nebraska Tractor Test Laboratory - University of Nebraska, Lincoln, Nebraska USA.

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Date: AUG 3 1 1998

LINCOLN, NEBRASKA 68583-0832, USA

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Manufacturers name/address	John Deere Tractor Works, 3500 East Donald Street, P.O. Box 270, Waterloo, Iowa, USA
Location of tractor assembly	Same
Submitted for test by	The manufacturer
Selected for test by	The manufacturer in agreement with the test station.
Place of running in	John Deere Product Eng. Ctr Waterloo, Iowa, USA
Duration of running in	225 hours
Location of Test	Nebraska Tractor Test Laboratory, Lincoln, Nebraska, USA

SPECIFICATIONS OF TRACTOR

Make	John Deere
Model	9400 PowrSync
Type	Articulated frame, four-wheel drive
Number of driving wheels	8
Serial Number	RW9400H001447
1st Serial number	RW9400H001001

ENGINE.

Make	John Deere
Model	6125HRW02
Type	Diesel; 4-stroke; turbocharged, air-to-air intercooled, direct injection
Serial Number	RG6125H001702

Cylinders

Number/Disposition	6, in-line, vertical
Bore/stroke	127 mm x 165 mm
Capacity	12535 cm^3
Compression Ratio	16.0 : 1
Arrangement of valves	Overhead
Cylinder liners	Wet; replaceable

Super charging

Make/Model/Type	Garrett/RE69677/Exhaust driven,
Pressure	150 ± 15 kPa at rated engine speed

Fuel System

Feed system	Engine driven transfer pump
Make/Type/Model of filters	
Primary filter	Parker Hannifin/ RE500186/Reinforced cellulose
Secondary filter	Fleetgard/RE61552/Reinforced cellulose
Fuel tank capacity	1026 l
Fuel Cooler	None

Make/Model/Type Injection Pump	Lucas/EUI200/ Unit injector-with Lucas 24CU 1441 (ECU)
Pump Serial number	
Production setting of pump	
Flow Rate (Rated Engine Speed & Full Load)	66.1 +/- 2.0 kg/h - performance level "c" 62.5 +/- 2.0 kg/h - performance level "b" 56.7 +/- 2.0 kg/h - performance level "a"
Fuel density	0.842 kg/l
Make/Model/Type Injectors	Lucas/RE63052/(EP2196) Electronic unit injector
Injection pressure	150 MPa
Timing	Variable - controlled by electronic system
Governor	
Make/Model/Type	Lucas/Electronic control
Governed engine speed range	From 900 to 2225 rev/min
Rated engine speed	2100 rev/min
High-idle speed range	2225 ± 50 rpm
Air Cleaner.	
Pre-cleaner	
Make/Model/type	Donaldson/R128190/Strato-tube precleaner with aspirator
Air intake location	Top of air stack, right front corner of cab
Main Cleaner	
Make/Model/Type	Donaldson/RE63931/pleated paper
Location	Below pre-cleaner, right front
Secondary cleaner	Donaldson/RE63932/pleated paper
Maintenance indicator	Dash mounted warning light and audio signal
Lubrication system.	
Type of feed pump	Full pressure; positive displacement
Type of filters	Full flow, with bypass
Number	One spin-on
Oil cooler	Heat exchanger with engine coolant
Cooling system.	
Type of coolant	Liquid
Type of pump	Centrifugal; gear driven
Fan specification	Belt driven; Suction type; variable speed
Number of fan blades	8
Fan diameter	787 mm
Coolant system capacity	60 l
Type of temperature control	Two thermostats and variable speed fan
System pressure	69 ± 5 kPa

Starting system.

Make/Model/Type of starter	Delco-Remy/RE61547/Solenoid engaged
Power Rating	6.9 kW
Cold starting aid	Ether spray in intake manifold
Safety device	Electrical lockout on gearshift

Electrical system.

Voltage & grounding.	12 Volt DC; negative ground
Generator	
Make/Model/Type	Nippondenso/RE46608/Belt driven
Power rating	140 Amp at rated engine speed and 25^0 C
Batteries	
Number & connection	Three; 12 Volt batteries in parallel.
Rating	925 cold cranking amps/battery, 175 Ah/battery at 20 h. rating

Exhaust system.

Muffler Make/Model/Type	Nelson/RE71295/Expansion chamber
Exhaust stack location	Vertical; right front corner of cab

TRANSMISSION. (tested version)

Clutch, (travel)

Make/Model/Type	John Deere/Multiple plate/oil cooled
Number of plates	7
Plate diameter	279 mm
Method of operation	Hydraulic; pedal actuated

Gear Box.

Make/Model/Type	John Deere/PowrSync/Mechanical
Arrangement	Countershaft and Planetary design consisting of one 3 speed gearbox with 4 synchronized ranges and one two-speed planetary gear set with multiplate wet disc and brake operated by three levers
Number of gears	24 forward, 6 reverse; operated by three levers
Available options (Syncro)	12 forward and 3 reverse operated by 2 levers(same arrangement without the two speed planetary gear set)
Oil cooler	Heat exchanger with air

Rear axle and final drives.

Make/Model/Type	John Deere/Team Mate II 1600 series/Spiral bevel gear, differential and inboard planetary reduction
Differential Lock (optional)	
Type	Electro-hydraulic
Method of engagement	Pedal operated switch
Method of disengagement	Self-disengaging with brake pedal operation

Front Axle and final drives.

Make/Model/Type	John Deere/Team Mate II 1600 series/Spiral bevel gear, differential and inboard planetary reduction
Differential Lock (optional)	
Type	Electro-hydraulic
Method of engagement	Pedal operated switch
Method of disengagement	Self-disengaging with brake pedal operation

NOTE

1. The John Deere 9400 PowrSync is equipped with an electronic engine performance control system which provides the following engine power levels in various gears:

1.a - Performance level a:
In gears A1-Lo, A1-Hi, A2-Lo, A2-Hi, A3-Lo, Stationary PTO and when the three point hitch rockshaft is lowered below the transport lock position. 268.5 kW

1.b. Performance level b:
In gears A3-Hi and B1-Lo 298.3kW

1.c. Performance level c:
Above gear B1-Lo 316.9 kW

2. The John Deere 9400 Syncro is equipped with an electronic engine performance control system which provides the following engine power levels in various gears:

2.a - Performance level a:
In gears A1, A2, A3, Stationary PTO and when the three point hitch rockshaft is lowered below the transport lock position. 268.5 kW

2.b. Performance level b:
In gear B1 298.3kW

2.c. Performance level c:
Above gear B1 316.9 kW

3. The tractor was tested on the PTO at full engine power by means of a bypassing circuit on the electronic performance control unit. The PTO power and fuel characteristics thus obtained are not available to the user and were performed only to satisfy the OECD test code requirements.

GEAR RATIOS AND TRAVEL SPEEDS - PowrSync transmission.
(Tire dynamic radius of 905 mm ISO 4251/1-1992)

Gear Number		Number of engine revolutions for one revolution of the driving wheels	Nominal travel speed at rated engine speed of 2100 rev/min [km/h]
Forward			
1	A1 Lo	213.09	3.36
2	A1 Hi	177.76	4.03
3	A2 Lo	165.53	4.33
4	A2 Hi	138.08	5.19
5	A3 Lo	120.95	5.92
6	A3 Hi	100.89	7.10
7	B1 Lo	99.99	7.17
8	C1 Lo	90.70	7.90
9	B1 Hi	83.41	8.59
10	B2 Lo	77.67	9.22
11	C1 Hi	75.66	9.47
12	C2 Lo	70.46	10.17
13	B2 Hi	64.79	11.06
14	C2 Hi	58.77	12.19
15	B3 Lo	56.75	12.63
16	C3 Lo	51.48	13.92
17	B3 Hi	47.34	15.13
18	C3 Hi	42.94	16.69
19	D1 Lo	42.56	16.84
20	D1 Hi	35.50	20.18
21	D2 Lo	33.06	21.67
22	D2 Hi	27.58	25.98
23	D3 Lo	24.16	29.66
24	D3 Hi	20.15	35.56
Reverse			
1	A Lo	177.72	4.03
2	A Hi	148.24	4.83
3	B Lo	83.39	8.59
4	C Lo	75.65	9.47
5	B Hi	69.56	10.30
6	C Hi	63.10	11.36

Number of front wheel revolutions for one rear wheel revolution: 1.000

GEAR RATIOS AND TRAVEL SPEEDS - Syncro transmission.
(Tire dynamic radius of 905 mm ISO 4251/1-1992)

Gear Number		Number of engine revolutions for one revolution of the driving wheels	Nominal travel speed at rated engine speed of 2100 rev/min [km/h]
Forward			
1	A1	213.09	3.36
2	A2	165.53	4.33
3	A3	120.95	5.92
4	B1	99.99	7.17
5	C1	90.70	7.90
6	B2	77.67	9.22
7	C2	70.46	10.17
8	B3	56.75	12.63
9	C3	51.48	13.92
10	D1	42.56	16.69
11	D2	33.06	21.67
12	D3	24.15	29.66
Reverse			
1	A1	177.72	4.03
2	B1	83.39	8.59
3	C1	75.65	9.47

Number of front wheel revolutions for one rear wheel revolution: 1.000

POWER - TAKE - OFF. (Optional)

Main Power-Take-Off.

Type	Independent
Method of engagement	Hydraulically actuated multi-plate wet clutch operated by hand control lever
Number of shafts	One
Method of changing speeds	None

PTO Proportional to engine speed

Standard PTO-1000 rev/min.

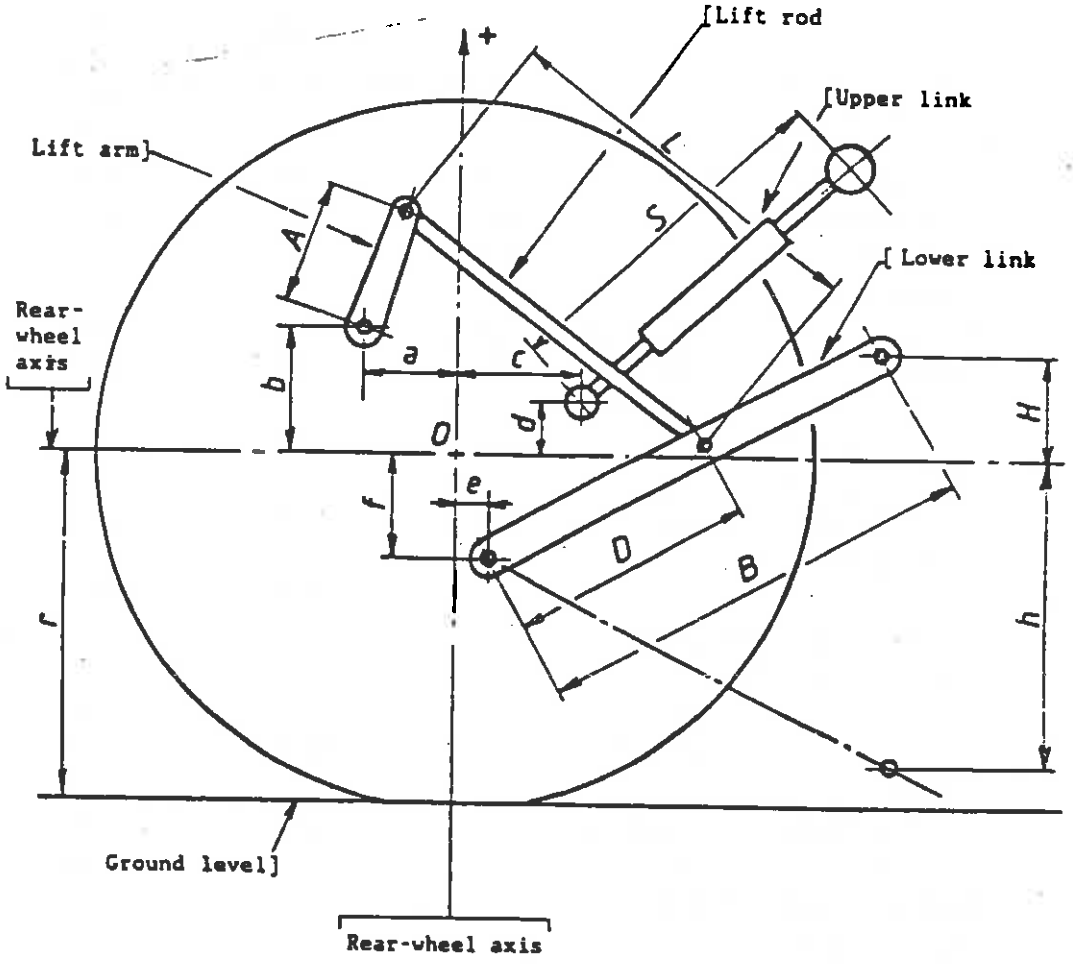
Location	Rear of tractor;center plane
Diameter of shaft	44.5 mm
Number of splines	20; conforms to ISO 500/1991
Height above ground	799 mm
Distance from median plane of tractor	0 mm
Distance behind rear axle	760 mm
PTO Speed at rated engine spd	1108 rev/min
Engine speed at Std. PTO spd	1895 rev/min
Engine speed/PTO speed ratio	1.895:1
Engine power restriction (Stationary)	268.6 kW
Direction of rotation when viewed from shaft end	Clockwise.

POWER LIFT - Optional.

Make/Model/Type	John Deere/Electro-Hydraulic lower link sensing; variable mix of draft and position control; adjustable rate of drop
Type of hydraulic system	Closed center; pressure and flow compensated
Number/Type of cylinders	Two external, single acting
Bore x Stroke	Category III: Two; 90x276 Category IV: One 90x276 mm and one 100x276 mm
Type of linkage lock for transport	Electro-hydraulic
Relief valve pressure setting (pump diagnostic port)	20.20 ± 0.40 MPa
Opening pressure of cylinder safety valve	23.25 ± 0.50 bar
Lift pump type	Axial piston, variable pressure and flow; Pressure and flow compensated
Power transmission to pump	Direct drive from transmission
Type/Number of filters	Spin-on canister/one
Location of oil reservoir	Under hood; engine compartment
Number/Type/Location of tapping points.	3 pairs of ISO standard couplings at rear of tractor; 4th and 5th coupler optional. Additional inlet/outlet pair for externally controlled implements
Max. oil volume available for external cylinders.	31.8 l

THREE POINT LINKAGE.

- Category 3 in conformity with ISO 730/1-1990
- Category adaptor -Quick attaching coupler



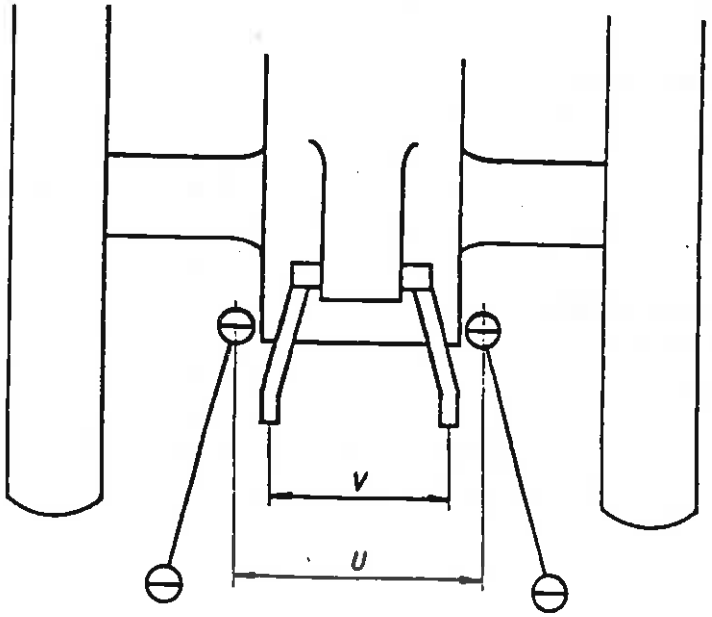


Table 1.1 - LINKAGE GEOMETRY DIMENSIONS *.

ISO Category III

			Dimension or range [mm]	Settings used [mm]
Lift category			III	III
Rear Tire - Radius Index		(r)	905	same
Front Tire - Radius Index		(r')	905	same
Length of lift arms		(A)	472	same
Length of lower links		(B)	1117	same
Distance of lift				
arm pivot from:	horizontal	(a)	244	same
rear wheel axis:	vertical	(b)	620	same
Horizontal distance between the 2 lower link points		(U)	640	same
Horizontal distance between the 2 lift arm end points		(V)	750	same
Length of upper link		(S)	705	
		to	825	781
Distance of upper link pivot point from rear wheel axis				
	horizontal	(c)	577	same
	vertical	(d)	288	same
Distance of lower				
link pivot from:	horizontal	(e)	288	same
rear wheel axis:	vertical	(f)	350	same
Distance of lower link pivot points to lift rod pivot pts on lower links.		(D)	731	same
Length of lift rods		(L)	1030	
		to	1150	1121
Height of lower hitch points relative to rear wheel axis				
	In low position	(h)	521	
		to	724	676
	In high position	(H)	89	
		to	284	118
Height above ground of lower hitch points when locked in transport position.			1005	
		to	1201	1022

* Tire dynamic index of 905 mm - ISO 4251/1-1992

SWINGING DRAWBAR.

Type		Oscillating
Height above ground to top		
	Maximum	489 mm
	Minimum	464 mm
Adjustments		Invert drawbar; removable clevis
Distances of hitch point from		
rear wheel axis-	Horizontal	1118 and 1268 mm
Distance of hitch point from		
PTO shaft end:	Vertical	300 mm
	Horizontal	358 and 508 mm
Lateral adjustment-	Right side	200 mm
	Left side	200 mm
Distance of pivot point from		
rear wheel axis-horizontal		435 and 585 mm
Diameter of drawbar pin hole		52.5 mm
Maximum vertical static		
permissible load		20 kN - both positions

STEERING.

Make/Model/Type	Eaton/RE61112/Hydrostatic
Method of operation	Steering wheel
Pump(s)	Same as main hydraulic pump
Ram(s)	Two external; double acting
Working pressure	18.4 ± 0.4 MPa

BRAKE SYSTEM.

Service brake.

Make/Model/Type	Vickers-John Deere/RE61215/load sensing power with manual backup
Method of operation	Hydraulic oil immersed disc operated by one pedal

Parking brake.

Type	Transmission lock
Method of operation	Gear selector lever

Trailer Brake — None

WHEELS.

Number.	
Front	Four; Driving and steering
Rear	Four; Driving and steering
Wheel base	3500 mm

TRACK WIDTH ADJUSTMENT

	Minimum [mm]	Maximum [mm]	Adjustment method
Inner wheels	1689	2062	Rack axle, reversing wheels and offset rims
Outer wheels	3241	3615	Same as inner wheels

PROTECTIVE STRUCTURE.

Make/Model/Type	John Deere/SG-055/Sound-Gard body
Manufacturer's name/address	John Deere Tractor Works Waterloo, Iowa, USA
Protective device	Cab; not tiltable
OECD approval number	
John Deere 9400 24 speed PowrSync	CSS 0415/2 - 18 February 1997
John Deere 9400 12 speed Syncro	CSS 0415/3 - 18 February 1997

DRIVER'S SEAT.

Make/Model/Type	Sears/RE62264/Air suspension; Personal Posture Cushioning
Seat and steering wheel reversible	No
Type of suspension	Air
Type of damping	Three position viscous damper
Range of adjustment	
Longitudinal	167 mm
Vertical	140 mm
Rotation	20 degrees to the right and 14 degrees to the left
Safety belt	Yes

LIGHTING.

		Height above ground of center [mm]	Size [mm]	Distance from outside edge to median plane of tractor. [mm]
Head lights	**Outside**	2240	100 x 150	470
	Inside	2240	100 x 150	280
	Center	2240	100 x 150	75
Side lights	**Front**	3475	100 dia	907
	Rear	3475	100 dia	896
Rear lights	**Outside**	2065	80 x 140	975
	Inside	2065	80 x 140	773
Reflectors				
Front		1900	81 x 225	776
Rear	**Upper**	3480	81 x 225	776
	Lower	2000	95 x 210	905
	Road transport	2440	110 dia	2000

TEST CONDITIONS.

Overall dimenensions

Length		7315 mm
Width		
minimum		3891 mm
maximum		4265 mm
Height	Top of protective structure	3530 mm
	Top of exhaust	3896 mm
Ground clearance		360 mm
Clearance-limiting part		Drawbar rear support

Tractor Mass (with cab,full fuel tank).

		Without driver [kg]	With driver [kg]
Unballasted	Front	9254	9299
	Rear	7640	7670
	Total	16894	16969
Ballasted	Front	10261	10306
	Rear	8468	8498
	Total	18729	18804

Ballast	Front Wheel	4 weights - 229 kg each
	Rear Wheel	4 weights - 229 kg each

TIRE SPECIFICATIONS.

		Front Wheels	Rear Wheels
Make		Goodyear	Goodyear
Dimensions		620/70R42	620/70R42
Number/Ply rating		2 star	2 star
Type		Radial DT-820	Radial DT-820
Maximum load (tire mfg)		4500 kg/tire	4500 kg/tire
Inflation pressure(tire mfr)	max	160 kPa	160 kPa
Dynamic Radius Index		905 mm	905 mm
Chosen track width	inner	1805 mm	1805 mm
	outer	3390 mm	3390 mm

OILS AND LUBRICATION.

Capacity and change interval:

	Capacity liter	Oil change hours	Filter change hours
Engine (w/o filter)	42.0	250	250
Transmission with rear axle and front axle	131.0	1500	750
Hydraulic system combined and Steering system	80.0	1500	750

Oil and Lubricant specifications:

	Recommended	Used during test
Engine oil		
Type	John Deere, TORQ-GARD Supreme Plus 50; SAE 15W-40	same
Viscosity	12.8 cSt at 100°C	
Classification	API CE or CD; CCMD specification D5 or D4	
Transmission		
Type	John Deere HY-GARD; J20C SAE 10W-30	same
Viscosity	58 cSt at 40°C	
Classification	NA	
Hydraulic fluid	Same as transmission	same
Steering system	Same as transmission	same
Grease	John Deere Moly High Temperature EP Grease	same
Number of lube points	20	

FUEL

Type/grade	Premier; Grade 2-D, in conformity with the National Standard
Density (Pto test)	0.842 kg/l at 15° C
(Drawbar test)	same as PTO test.
Cetane number	50.6
Viscosity	2.51 cSt at 37.8° C

COMPULSORY TESTS

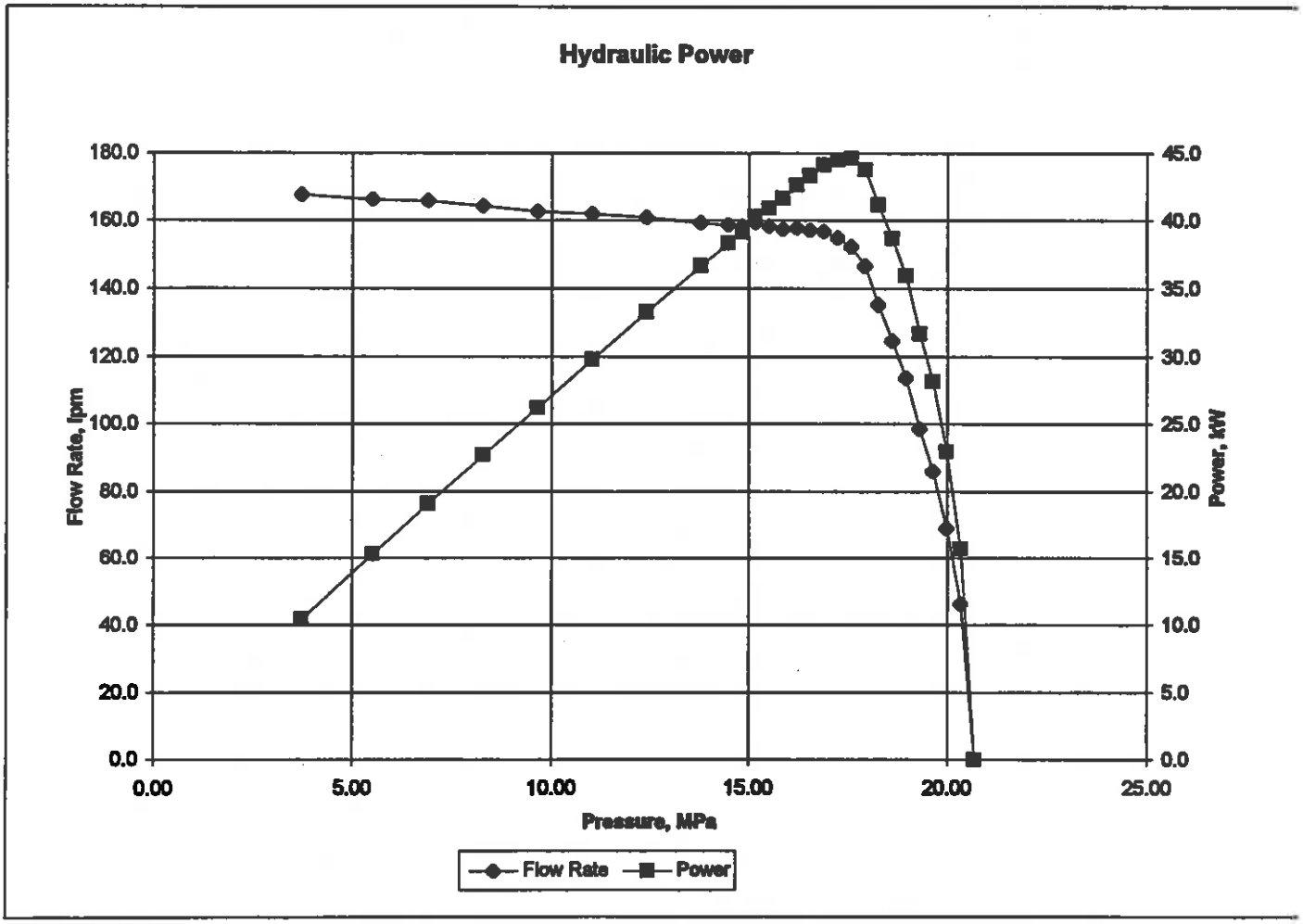
1. MAIN POWER TAKE OFF

Date: 5-May-97 Location: UNL Tractor Test Lab, Lincoln, NE, USA
Type of dynamometer: Eddy current, Eaton
Fuel Density 0.842 kg/l

Power kW *hp*	Engine rev/min	PTO rev/min	l/h *gal/h*	kg/h *lb/hr*	kg/kW-h *lb/hp-h*	kW-h/l *hp-h/gal*
1.1 Maximum Power - 2 Hours						
256.11	1900	1003	68.23	57.42	0.224	3.75
343.44			*18.03*	*126.59*	*0.369*	*19.05*
1.2 Power at Rated Engine Speed - 1 hour						
232.85	2100	1108	65.11	54.79	0.235	3.58
312.25			*17.20*	*120.79*	*0.387*	*18.15*
1.3 Power at Standard Power Take Off Speed - 1 hour						
256.11	1900	1003	68.23	57.42	0.224	3.75
343.44			*18.03*	*126.59*	*0.369*	*19.05*
1.4 Part Loads						
1.4.1 Torque at maximum power at rated engine speed						
232.85	2100	1108	65.11	54.79	0.235	3.58
312.25			*17.20*	*120.79*	*0.387*	*18.15*
1.4.2 85% of torque obtained in 1.4.1						
201.79	2146	1132	57.40	48.31	0.239	3.52
270.60			*15.16*	*106.50*	*0.394*	*17.84*
1.4.3 75% of torque defined in 1.4.2						
152.84	2163	1141	46.25	38.92	0.255	3.30
204.70			*12.22*	*85.80*	*0.419*	*16.76*
1.4.4 50% of torque defined in 1.4.2						
102.87	2179	1150	36.06	30.35	0.295	2.85
137.94			*9.53*	*66.90*	*0.485*	*14.48*
1.4.5 25% of torque defined in 1.4.2						
51.67	2195	1158	25.71	21.64	0.419	2.01
69.29			*6.79*	*47.70*	*0.688*	*10.20*
1.4.6 unloaded						
0.83	2210	1166	14.39	12.11	14.631	0.06
1.11			*3.80*	*26.70*	*24.053*	*0.29*
1.5 Part Loads at Standard Power Take Off Speed						
1.5.1 Torque at maximum power						
256.11	1900	1003	68.23	57.42	0.224	3.75
343.44			*18.03*	*126.59*	*0.369*	*19.05*
1.5.2 85% of torque obtained in 1.5.1						
213.58	1865	984	56.76	47.76	0.224	3.76
286.42			*14.99*	*105.30*	*0.368*	*19.10*
1.5.3 75% of torque defined in 1.5.2						
163.01	1897	1001	45.44	38.24	0.235	3.59
218.61			*12.00*	*84.30*	*0.386*	*18.21*
1.5.4 50% of torque defined in 1.5.2						
111.00	1937	1022	34.77	29.26	0.264	3.19
148.86			*9.18*	*64.50*	*0.433*	*16.21*
1.5.5 25% of torque defined in 1.5.2						
58.55	1975	1042	23.45	19.73	0.349	2.41
75.84			*6.19*	*43.50*	*0.574*	*12.24*
1.5.6 unloaded						
0.75	2012	1062	12.45	10.48	13.898	0.06
1.01			*3.29*	*23.10*	*22.848*	*0.31*

No load maximum engine speed:	2210	rev/min		
Equivalent torque at rated speed:	1059	N.m	*781*	*lb-ft*
Equivalent torque at maximum power:	1287	N.m	*949*	*lb-ft*
(engine speed:	1900	rev/min)		
Maximum equivalent crankshaft torque:	1575	N.m	*1162*	*lb-ft*
(engine speed:	1101	rev/min)		
Mean Dry bulb:	26	deg C	*78*	*deg F*
Wet bulb:	17	deg C	*63*	*deg F*
Relative Humidity	40	%		
Pressure:	98.1	kPa	*28.97*	*in Hg*
Maximum Coolant:	96	deg C	*204*	*deg F*
Engine Oil:	117	deg C	*242*	*deg F*
Fuel:	66	deg C	*152*	*deg F*
Air Intake:	38	deg C	*100*	*deg F*
Hydraulic oil:	75	deg C	*167*	*deg F*
Transmission oil:	60	deg C	*140*	*deg F*
Intake manifold pressure at rated speed:	124	kPa	*18.0*	*psig*
Intake manifold pressure at maximum power:	137	kPa	*19.8*	*psig*

Date of Test: 17-Jun-97	John Deere 9400	
Location of Test-City-State:	Tractor Test Lab, Lincoln, NE, USA	
Tapping point used for test:	Remote hydraulic outlets	
I. Sustained pressure with pump stalled:		
20.68 MPa		
3000 psig		
II. Pump delivery rate at minumum pressure and rated engine speed:		
167.7 l/min		
44.3 gpm		
III. Flow rate, pressure, power:		
90% of relief valve setting		
124.5 l/min	18.62 MPa	38.6 kW
32.9 gpm	*2700 psig*	*51.8 hp*
Maximum hydraulic power:		
152.2 l/min	17.58 MPa	44.6 kW
40.2 gpm	*2550 psig*	*59.8 hp*
IV. Hydraulic fluid temperature at flow meter:		
63.1 °C		
146 °F		
This hydraulic system does not use an accumulator. Opening and closing pressures of the unloading valve could not be measured.		



2.2 POWER LIFT TEST. Cat III, quick attach, 90 mm cylinders

Date of test: 23 June 1997

		Hitch points	Frame
Lower hitch points above ground - down position:	[mm/in]	229/9.0	231/9.1
Vertical movement:			
without load:	[mm/in]	793/31.3	861/33.9
with load:	[mm/in]	774/30.4	841/33.1
Maximum corrected force through full range:	[kN/lb]	62.2/13973	58.3/13104
Corresponding pressure:	[MPa/psi]	18.3/2655	
Moment about rear axle:	[kN.m/lb.ft]	97.6/71958	127.0/93694
Maximum mast tilt angle:	[deg]	--	6.7

Lifting height relative to horizontal position of lower links.

	[mm]	-318	-300	-201	-99	0
	[in]	-12.5	-11.8	-7.9	-3.9	0
Corrected lift forces						
Hitch point.	[kN]	63.6	62.2	64.6	66.6	68.6
	[lb]	14297	13973	14513	14981	14513
at frame	[kN]	63.8	63.0	63.3	63.9	63.9
	[lb]	14333	14153	14238	14364	14373

Lifting height relative to horizontal position of lower links.

	[mm]	99	201	300	401	455	526
	[in]	3.9	7.9	11.8	15.8	17.9	20.7
Corrected lift forces							
Hitch point	[kN]	70.2	71.5	72.6	73.6	73.7	--
	[lb]	15773	16079	16331	16538	16574	--
at frame	[kN]	63.6	62.9	61.6	--	59.8	58.3
	[lb]	14301	14130	13856	--	13437	13104

OECD Drawbar Data (SI)

Date of tests 14-15MAY97					Fuel density:	0.842 kg/l									
Type of trac Concrete					Test number	1733									
Gear	Gear Designation	Power kW	Pull kN	Speed km/h	Engine speed rev/min	Slip	SFC kg/kW.h	SFE kW.h/l	Temperature, deg C Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Barom. Press kPa
I. Maximum Power (unballasted, 4wd at 1900 rev/min)							Tire pressure:		55 kPa, rear		83 kPa, front		Drawbar height:	457 mm	
*2	A1 HI	175.22	169.39	3.72	2143	9%	0.284	2.96	61	81	108	11	5	38%	98.34
*3	A2 LO	189.63	170.60	4.00	2138	9%	0.278	3.02	61	82	109	9	4	45%	98.31
4	A2 HI	206.91	158.91	4.69	2043	7%	0.266	3.16	62	83	111	12	5	34%	98.34
5	A3 LO	218.98	152.64	5.16	1953	6%	0.256	3.28	62	83	111	12	5	30%	98.37
6	A3 HI	234.10	136.90	6.16	1905	5%	0.256	3.29	62	84	113	13	8	56%	97.70
7	B1 LO	238.01	137.82	6.22	1905	4%	0.252	3.34	62	84	114	12	8	61%	97.66
8	C1 LO	270.48	142.66	6.83	1904	5%	0.250	3.36	62	82	115	13	8	52%	97.73
9	B1 HI	271.44	130.72	7.48	1904	4%	0.249	3.38	62	84	115	14	9	49%	97.77
10	B2 LO	274.04	122.41	8.06	1905	3%	0.242	3.47	62	83	114	13	6	28%	98.41
11	C1 HI	273.95	119.16	8.28	1903	3%	0.245	3.43	62	85	115	13	6	28%	98.41
12	C2 LO	276.43	112.10	8.88	1894	3%	0.243	3.47	61	85	114	13	6	31%	98.41
13	B2 HI	271.71	100.50	9.73	1903	3%	0.245	3.43	63	86	116	14	6	26%	98.44
14	C2 HI	270.72	90.24	10.80	1908	3%	0.249	3.38	63	87	117	17	9	35%	97.80
15	B3 LO	270.90	87.37	11.16	1903	2%	0.249	3.38	63	88	118	17	9	33%	97.80
16	C3 LO	270.38	78.92	12.33	1902	2%	0.249	3.38	63	87	117	17	9	33%	97.80
17	B3 HI	271.07	72.79	13.41	1898	2%	0.251	3.35	63	91	116	17	9	33%	97.80
* Note: Slip limited to prevent excessive bouncing.															
II. Part loads (unballasted, 4wd)															
II.1 in selected gear at maximum power at rated engine speed.															
12	C2 LO	257.27	93.45	9.91	2101	2%	0.251	3.35	62	84	114	16	9	39%	97.80
II.1.1 75% of pull at maximum power at rated engine speed															
12	C2 LO	198.00	70.28	10.14	2137	2%	0.265	3.18	58	84	113	15	6	23%	98.44
II.1.2 50% of pull at maximum power at rated engine speed															
12	C2 LO	134.10	46.73	10.33	2164	1%	0.291	2.89	58	82	108	16	7	26%	98.48
II.1.3 higher gear at reduced engine speed, same pull and travel speed as II.1.1															
13	B2 HI	198.07	70.13	10.17	1970	2%	0.257	3.28	58	86	112	16	7	25%	98.44
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2															
13	B2 HI	134.10	46.65	10.35	1994	1%	0.284	2.97	58	82	108	16	7	26%	98.48
II.1.5 higher gear at reduced engine speed, same pull and travel speed as II.1.3															
16	C3 LO	198.05	70.08	10.17	1566	2%	0.245	3.43	56	84	109	16	7	25%	98.44
II.1.6 higher gear at reduced engine speed, same pull and travel speed as II.1.4															
16	C3 LO	134.09	46.66	10.35	1583	1%	0.268	3.15	56	80	103	16	7	26%	98.48
II.2 in selected gear nearest to 7.5 km/h at rated engine speed.															
7	B1 LO	238.99	124.20	6.93	2104	3%	0.254	3.31	63	87	114	12	8	61%	97.63
II.2.1 75% of pull at maximum power at rated engine speed															
7	B1 LO	183.74	92.77	7.13	2145	2%	0.266	3.17	60	85	111	18	9	30%	97.77
II.2.2 50% of pull at maximum power at rated engine speed															
7	B1 LO	124.84	61.81	7.27	2169	2%	0.292	2.88	60	83	108	19	10	32%	97.80
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1															
8	C1 LO	183.50	92.77	7.12	1943	2%	0.255	3.30	59	83	108	19	10	32%	97.80
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2															
8	C1 LO	125.06	61.67	7.30	1975	2%	0.280	3.01	59	82	108	19	10	32%	97.80
II.2.5 higher gear at reduced engine speed, same pull and travel speed as II.2.3															
12	C2 LO	183.75	92.77	7.13	1512	2%	0.247	3.41	58	83	106	19	10	32%	97.80

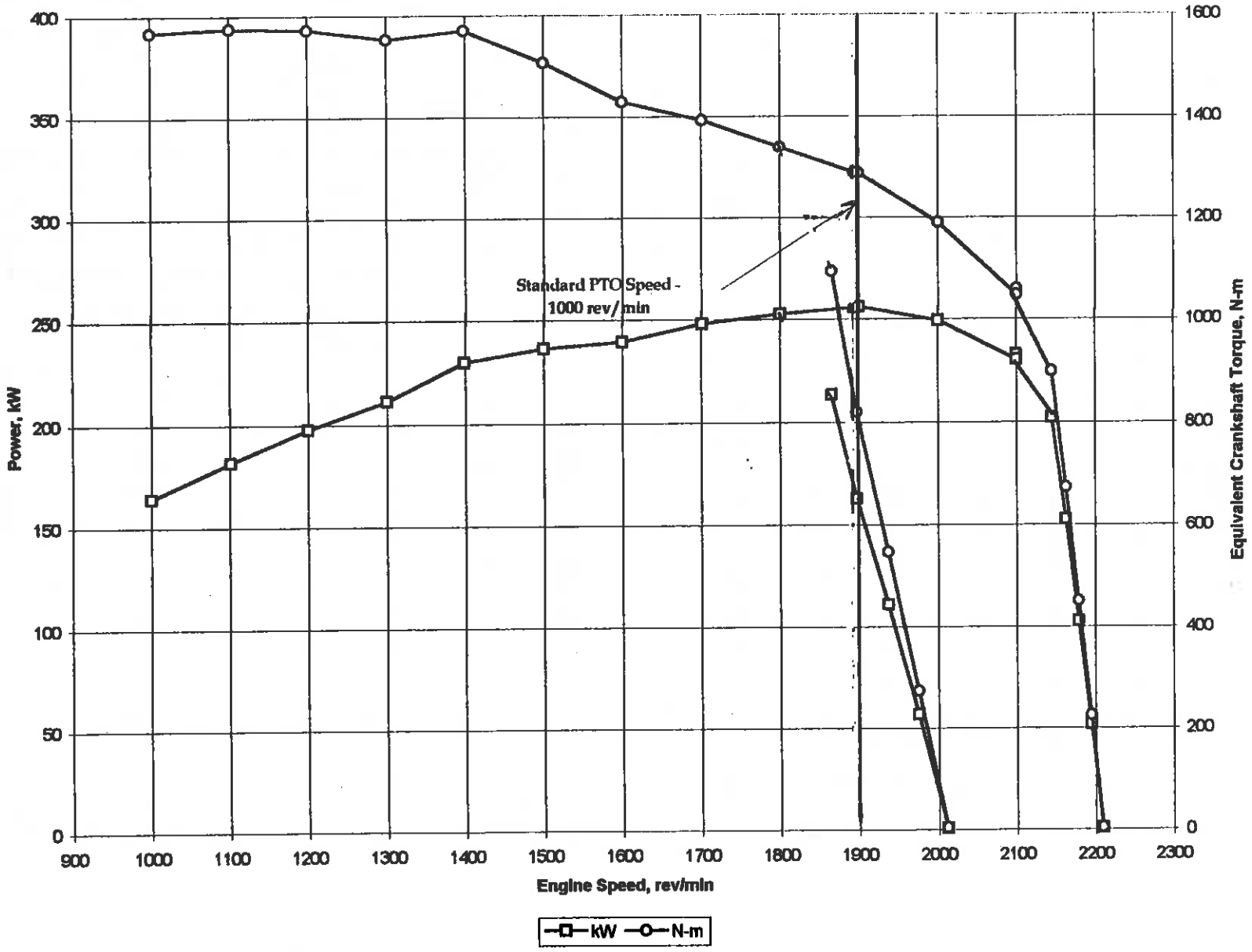
OECD Drawbar Data (US)

Date of tests 14-15MAY97 | Fuel density: 7.023 lb/gal
Type of trac Concrete | Test number: 1733

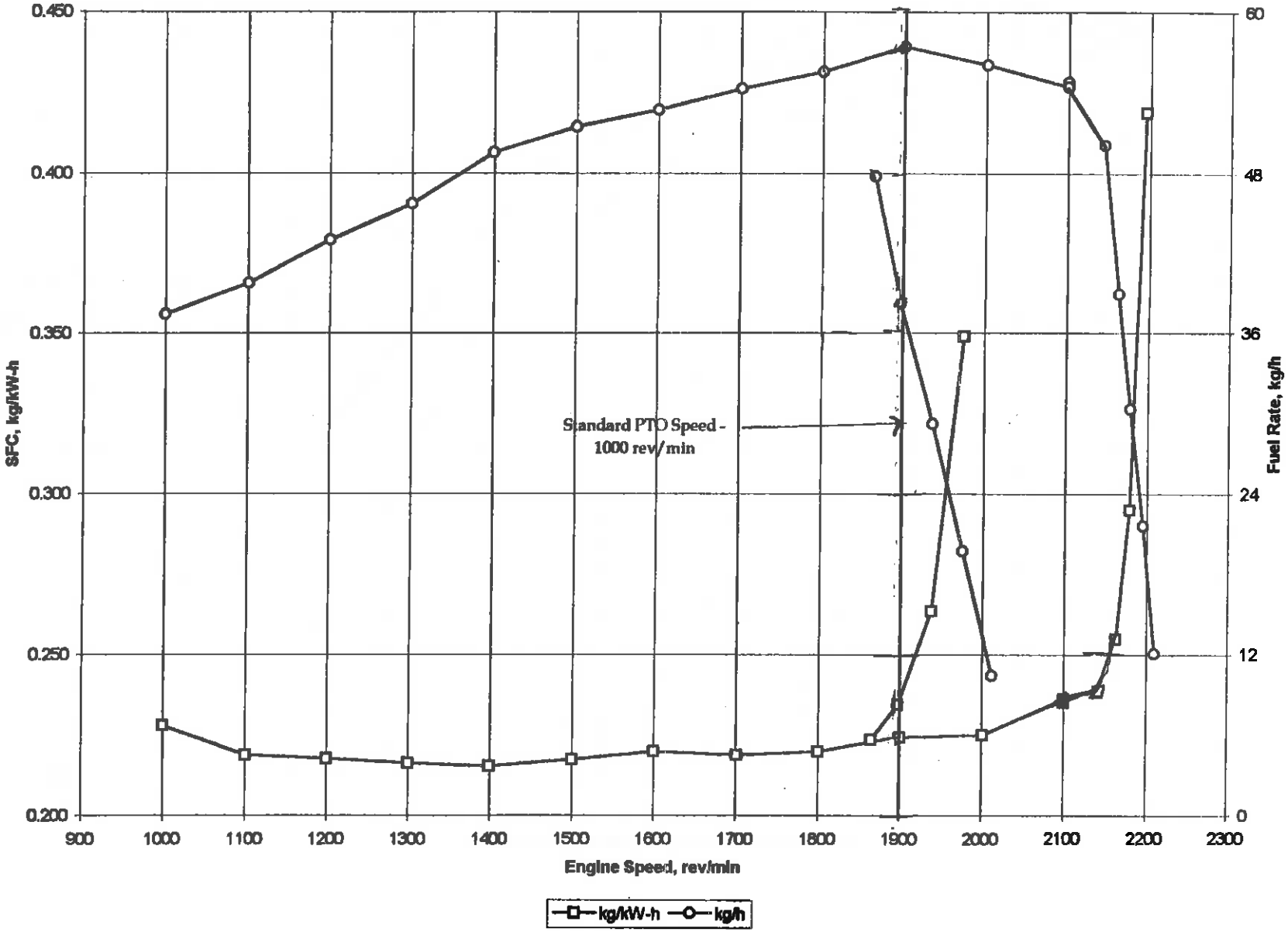
Gear	Gear Designation	Power hp	Pull lb	Speed mph	Engine speed rev/min	Slip	SFC lb/hp.h	SFE hp.h/gal	Temperature, deg F Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Barom. Pres in Hg
I. Maximum Power (unballasted, 4wd at 1900 rev/min)							Tire pressure:		8 psig, rear		12 psig, front		Drawbar height:	18.0 in	
*2	A1 HI	234.97	38080	2.31	2143	9%	0.467	15.04	143	178	227	52	41	38%	29.04
*3	A2 LO	254.30	38353	2.49	2138	9%	0.457	15.35	142	179	228	49	40	45%	29.03
4	A2 HI	277.47	35725	2.91	2043	7%	0.437	16.06	143	182	233	53	41	34%	29.04
5	A3 LO	293.66	34315	3.21	1953	6%	0.421	16.67	143	181	232	54	41	30%	29.05
6	A3 HI	313.94	30776	3.83	1905	5%	0.421	16.69	144	184	236	55	47	56%	28.85
7	B1 LO	319.18	30983	3.86	1905	4%	0.415	16.93	143	184	237	54	47	61%	28.84
8	C1 LO	362.71	32072	4.24	1904	5%	0.411	17.08	143	180	239	56	47	52%	28.86
9	B1 HI	364.00	29387	4.64	1904	4%	0.409	17.17	144	184	239	58	48	49%	28.87
10	B2 LO	367.50	27519	5.01	1905	3%	0.399	17.62	143	182	238	56	42	28%	29.06
11	C1 HI	367.37	26789	5.14	1903	3%	0.404	17.40	143	185	240	56	42	28%	29.06
12	C2 LO	370.70	25202	5.52	1894	3%	0.399	17.60	142	185	238	55	42	31%	29.06
13	B2 HI	364.36	22593	6.05	1903	3%	0.403	17.42	145	188	241	58	43	26%	29.07
14	C2 HI	363.05	20288	6.71	1908	3%	0.409	17.17	145	189	243	62	48	35%	28.88
15	B3 LO	363.29	19642	6.94	1903	2%	0.409	17.16	145	191	244	63	48	33%	28.88
16	C3 LO	362.58	17743	7.66	1902	2%	0.410	17.14	145	189	242	63	48	33%	28.88
17	B3 HI	363.52	16363	8.33	1898	2%	0.413	17.02	146	196	240	63	48	33%	28.88
* Note: Slip limited to prevent excessive bouncing.															
II. Part loads (unballasted, 4wd)															
II.1 in selected gear at maximum power at rated engine speed.															
12	C2 LO	345.00	21010	6.16	2101	2%	0.413	17.01	144	184	238	61	48	39%	28.88
II.1.1 75% of pull at maximum power at rated engine speed															
12	C2 LO	265.52	15800	6.30	2137	2%	0.435	16.15	137	183	235	59	43	23%	29.07
II.1.2 50% of pull at maximum power at rated engine speed															
12	C2 LO	179.83	10505	6.42	2164	1%	0.479	14.67	137	180	226	61	45	26%	29.08
II.1.3higher gear at reduced engine speed, same pull and travel speed as II.1.1															
13	B2 HI	265.61	15767	6.32	1970	2%	0.422	16.64	137	188	233	60	44	25%	29.07
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2															
13	B2 HI	179.84	10487	6.43	1994	1%	0.466	15.06	136	179	226	61	45	26%	29.08
II.1.5 higher gear at reduced engine speed, same pull and travel speed as II.1.3															
16	C3 LO	265.59	15755	6.32	1566	2%	0.403	17.41	134	183	228	60	44	25%	29.07
II.1.6 higher gear at reduced engine speed, same pull and travel speed as II.1.4															
16	C3 LO	179.82	10490	6.43	1583	1%	0.440	15.97	133	176	217	61	45	26%	29.08
II.2 in selected gear nearest to 4.6 mph at rated engine speed.															
7	B1 LO	320.49	27922	4.30	2104	3%	0.418	16.79	145	189	238	54	47	61%	28.83
II.2.1 75% of pull at maximum power at rated engine speed															
7	B1 LO	246.39	20856	4.43	2145	2%	0.437	16.08	140	185	231	64	48	30%	28.87
II.2.2 50% of pull at maximum power at rated engine speed															
7	B1 LO	167.41	13896	4.52	2169	2%	0.480	14.63	140	182	227	66	50	32%	28.88
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1															
8	C1 LO	246.08	20856	4.42	1943	2%	0.419	16.77	138	182	227	66	50	32%	28.88
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2															
8	C1 LO	167.71	13863	4.54	1975	2%	0.460	15.27	139	180	226	66	50	32%	28.88
II.2.5 higher gear at reduced engine speed, same pull and travel speed as II.2.3															
12	C2 LO	246.41	20855	4.43	1512	2%	0.405	17.32	136	182	223	66	50	32%	28.88
II.2.6 higher gear at reduced engine speed, same pull and travel speed as II.2.4															
12	C2 LO	167.69	13899	4.52	1531	2%	0.432	16.27	134	178	218	66	50	32%	28.88

John Deere 9400

Power and Equivalent Crankshaft Torque

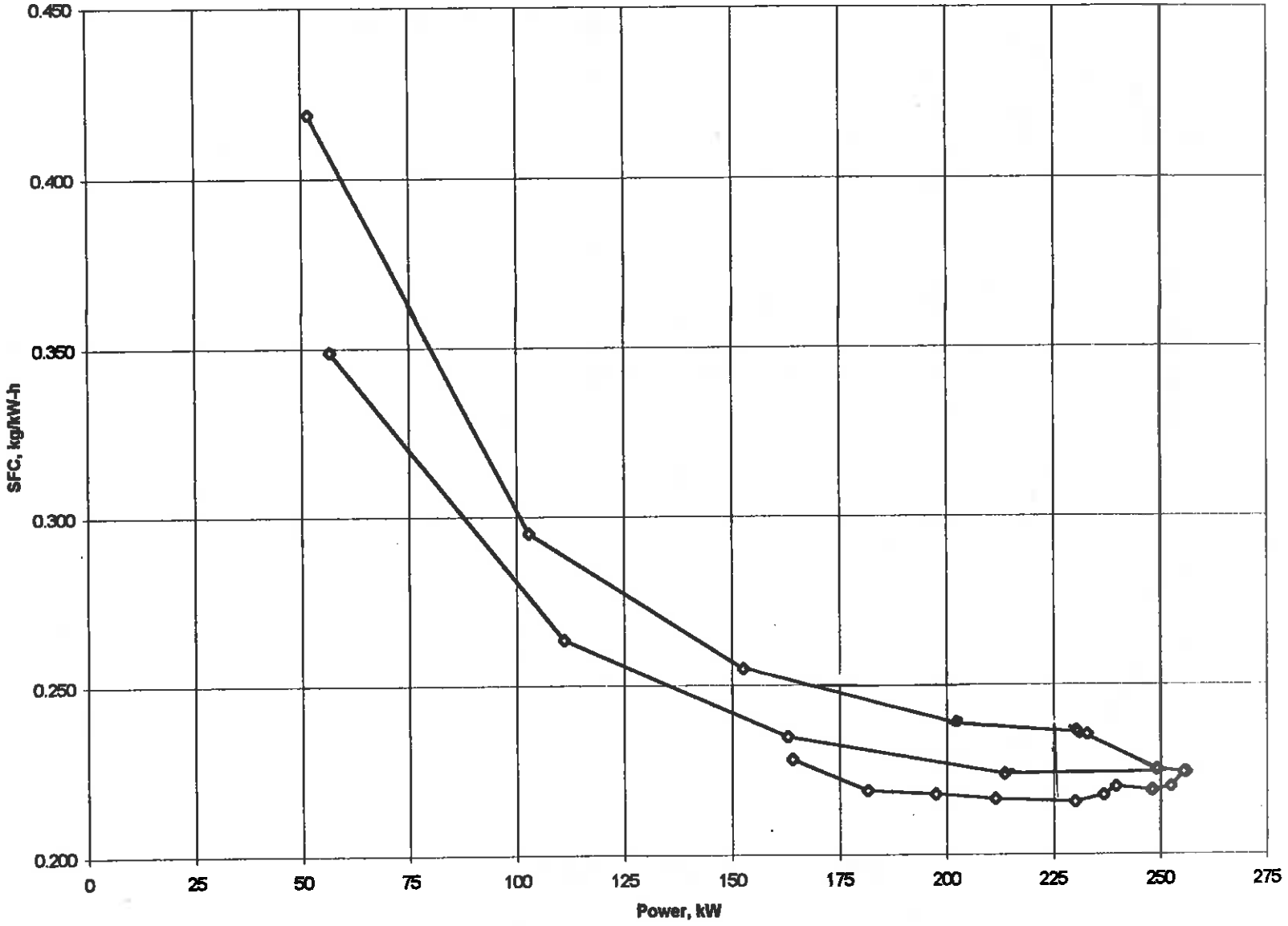


Specific Fuel Consumption and Fuel Rate



John Deere 9400

Power and Specific Fuel Consumption



COMPULSORY TESTS

1. MAIN POWER TAKE OFF

Date: 20-May-97 Location: UNL Tractor Test Lab, Lincoln, NE, USA

Type of dynamometer: Eddy current, Eaton

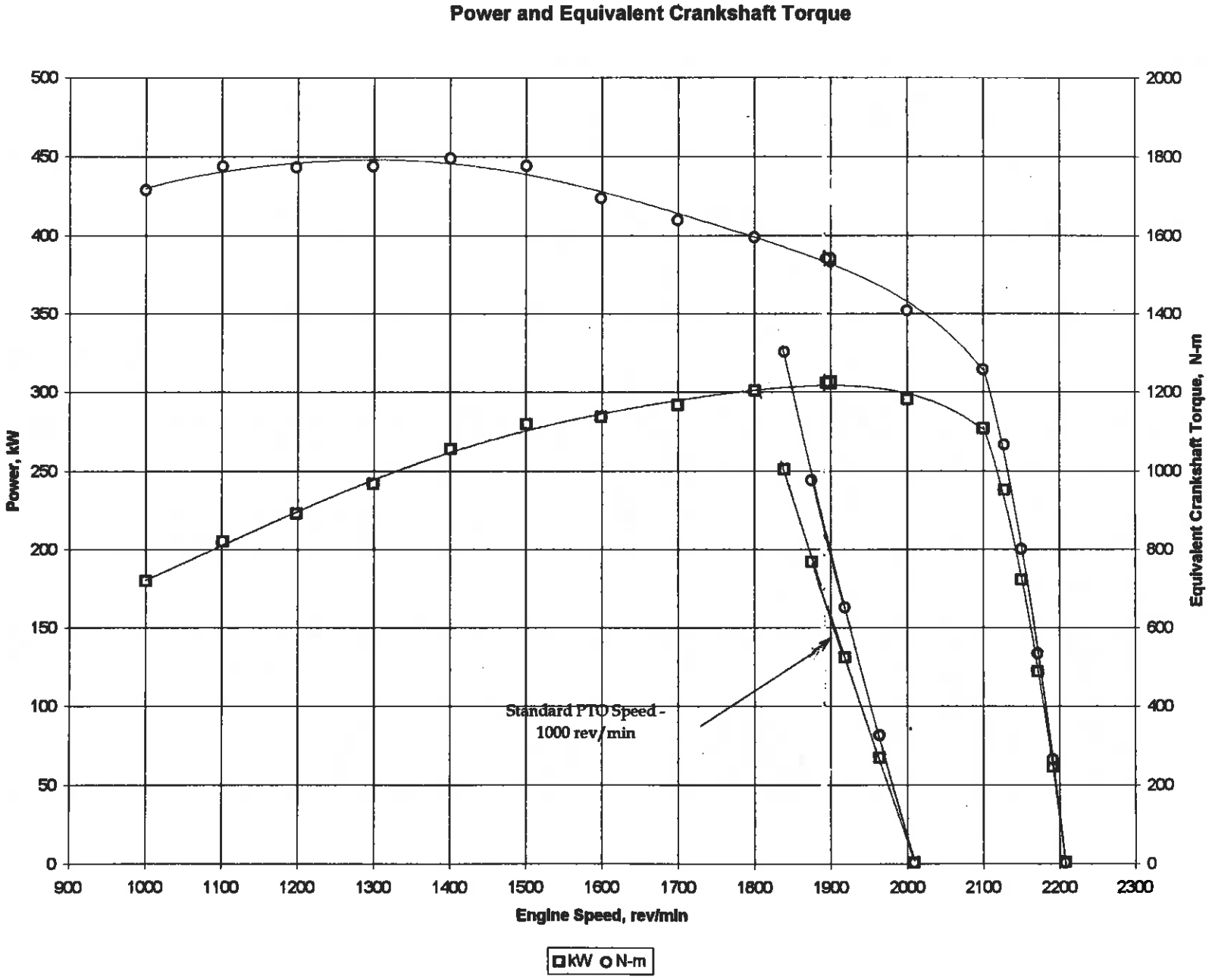
Fuel Density 0.842 kg/l

Power kW / *hp*	Engine rev/min	PTO rev/min	l/h / *gal/h*	kg/h / *lb/hr*	kg/kW-h / *lb/hp-h*	kW-h/l / *hp-h/gal*
1.1 Maximum Power - 2 Hours						
305.07	1900	1003	81.03	68.19	0.224	3.76
409.10			*21.41*	*150.34*	*0.367*	*19.11*
1.2 Power at Rated Engine Speed - 1 hour						
276.51	2100	1109	76.62	64.48	0.233	3.61
370.81			*20.24*	*142.15*	*0.383*	*18.32*
1.3 Power at Standard Power Take Off Speed - 1 hour						
305.07	1900	1003	81.03	68.19	0.224	3.76
409.10			*21.41*	*150.34*	*0.367*	*19.11*
1.4 Part Loads						
1.4.1 Torque at maximum power at rated engine speed						
276.51	2100	1109	76.62	64.48	0.233	3.61
370.81			*20.24*	*142.15*	*0.383*	*18.32*
1.4.2 85% of torque obtained in 1.4.1						
237.61	2128	1123	67.43	56.74	0.239	3.52
318.64			*17.81*	*125.10*	*0.393*	*17.89*
1.4.3 75% of torque defined in 1.4.2						
180.33	2150	1135	53.36	44.91	0.249	3.38
241.82			*14.10*	*99.00*	*0.409*	*17.15*
1.4.4 50% of torque defined in 1.4.2						
121.83	2171	1146	40.75	34.29	0.281	2.99
163.38			*10.76*	*75.60*	*0.463*	*15.18*
1.4.5 25% of torque defined in 1.4.2						
60.99	2191	1157	27.97	23.54	0.386	2.18
81.78			*7.39*	*51.90*	*0.635*	*11.07*
1.4.6 unloaded						
0.83	2208	1166	16.01	13.47	16.275	0.05
1.11			*4.23*	*29.70*	*26.755*	*0.26*
1.5 Part Loads at Standard Power Take Off Speed						
1.5.1 Torque at maximum power						
305.07	1900	1003	81.03	68.19	0.224	3.76
409.10			*21.41*	*150.34*	*0.367*	*19.11*
1.5.2 85% of torque obtained in 1.5.1						
250.74	1839	971	66.14	55.66	0.222	3.79
336.25			*17.47*	*122.70*	*0.365*	*19.25*
1.5.3 75% of torque defined in 1.5.2						
191.94	1875	990	52.55	44.23	0.230	3.85
257.39			*13.88*	*97.50*	*0.379*	*18.54*
1.5.4 50% of torque defined in 1.5.2						
131.10	1918	1013	39.45	33.20	0.253	3.32
175.81			*10.42*	*73.20*	*0.416*	*16.87*
1.5.5 25% of torque defined in 1.5.2						
67.18	1964	1037	26.03	21.91	0.326	2.58
90.08			*6.88*	*48.30*	*0.536*	*13.10*
1.5.6 unloaded						
0.75	2009	1061	13.26	11.16	14.814	0.06
1.01			*3.50*	*24.60*	*24.355*	*0.29*

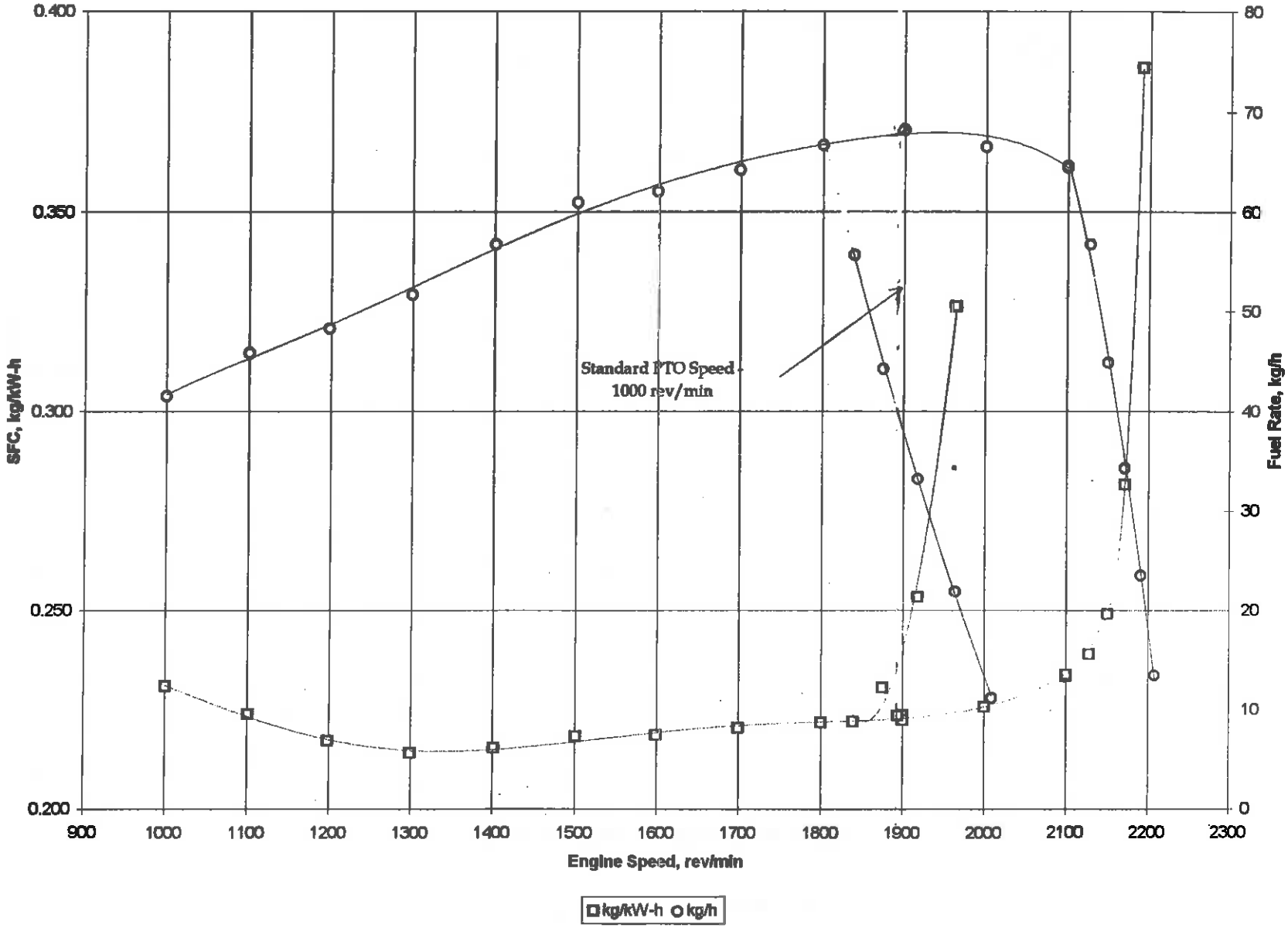
No load maximum engine speed:	2208	rev/min	
Equivalent torque at rated speed:	1257	N.m	*927* *lb-ft*
Equivalent torque at maximum power:	1533	N.m	*1131* *lb-ft*
(engine speed:	1900	rev/min)	
Maximum equivalent crankshaft torque:	1796	N.m	*1325* *lb-ft*
(engine speed:	1401	rev/min)	
Mean Dry bulb:	25	deg C	*76* *deg F*
Wet bulb:	18	deg C	*65* *deg F*
Relative Humidity	50	%	
Pressure:	98.6	kPa	*29.12* *in Hg*
Maximum Coolant:	98	deg C	*208* *deg F*
Engine Oil:	119	deg C	*246* *deg F*
Fuel:	65	deg C	*149* *deg F*
Air Intake:	42	deg C	*108* *deg F*
Transmission/hydraulic oil:	78	deg C	*172* *deg F*
Intake manifold pressure at rated speed:	296	kPa	*43.0* *psig*
Intake manifold pressure at maximum power:	175	kPa	*25.4* *psig*

425 hp PTO Test

John Deere 9400 Non-Standard Power



Specific Fuel Consumption and Fuel Rate



John Deere 9400 Non-Standard Power

Power and Specific Fuel Consumption

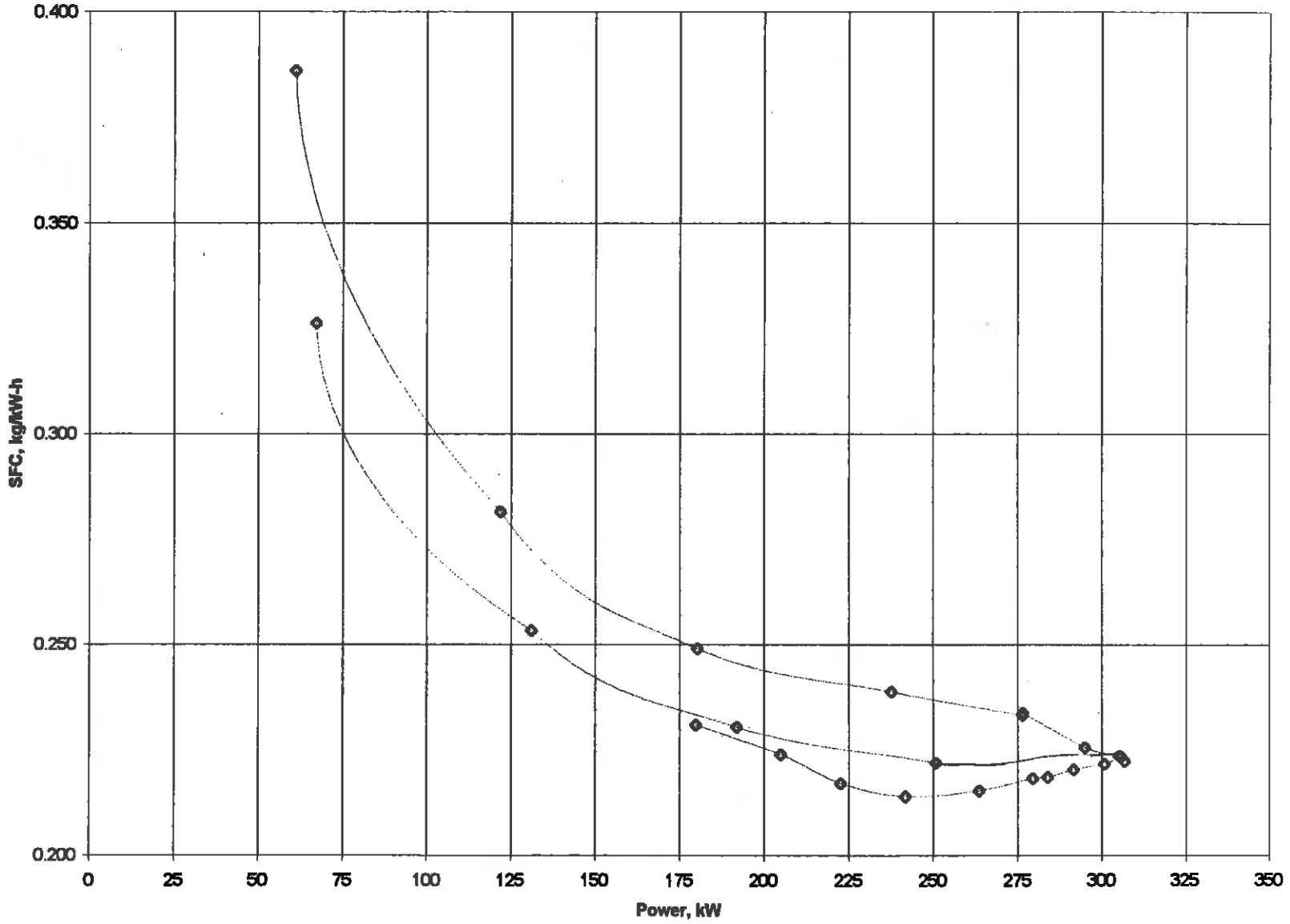


Table 1.2 - LINKAGE GEOMETRY DIMENSIONS *.

ISO Category IV

				Dimension or range [mm]	Settings used [mm]
Lift category				IV	IV
Rear Tire - Radius Index		(r)		905	same
Front Tire - Radius Index		(r')		905	same
Length of lift arms		(A)		472	same
Length of lower links		(B)		1097	same
Distance of lift					
arm pivot from:	horizontal	(a)		244	same
rear wheel axis:	vertical	(b)		620	same
Horizontal distance between the					
2 lower link points		(U)		640	same
Horizontal distance between the					
2 lift arm end points		(V)		750	same
Length of upper link		(S)		705	
			to	825	770
Distance of upper link pivot					
point from rear wheel axis					
	horizontal	(c)		577	same
	vertical	(d)		288	same
Distance of lower					
link pivot from:	horizontal	(e)		288	same
rear wheel axis:	vertical	(f)		350	same
Distance of lower link pivot					
points to lift rod pivot pts					
on lower links.		(D)		718	same
Length of lift rods		(L)		1030	
			to	1150	1124
Height of lower hitch points					
relative to rear wheel axis					
	In low position	(h)		521	
			to	724	669
	In high position	(H)		89	
			to	284	118
Height above ground of lower					
hitch points when locked in					
transport position.				1005	
			to	1201	1023

* Tire dynamic index of 905 mm - ISO 4251/1-1992

2.2 POWER LIFT TEST. Cat IV, quick attach, 90/100 mm cylinders

Date of test: 22 June 1997

		Hitch points	Frame
Lower hitch points above ground - down position:	[mm/in]	236/9.3	216/8.5
Vertical movement:			
without load:	[mm/in]	787/31.0	861/33.9
with load:	[mm/in]	765/30.1	833/32.8
Maximum corrected force through full range:	[kN/lb]	68.6/15431	64.0/14382
Corresponding pressure:	[MPa/psi]	18.3/2655	
Moment about rear axle:	[kN.m/lb.ft]	105.4/77795	137.3/101273
Maximum mast tilt angle:	[deg]	--	5.3

Lifting height relative to horizontal position of lower links.

[mm]	-330	-310	-300	-201	-99	0
[in]	-13.0	-11.8	-11.8	-7.9	-3.9	0

Corrected lift forces

Hitch point. [kN]	69.5	68.6	70.8	73.6	77.6	79.0
[lb]	15620	15431	15926	16538	17456	17623
at frame [kN]	70.1	69.0	--	69.4	70.3	70.4
[lb]	15759	15512	--	15602	14364	15818

Lifting height relative to horizontal position of lower links.

[mm]	99	201	300	401	455	511
[in]	3.9	7.9	11.8	15.8	17.9	20.1

Corrected lift forces

Hitch point [kN]	77.6	79.0	80.3	81.2	81.4	--
[lb]	17456	17762	18050	18266	18293	--
at frame [kN]	70.0	69.2	67.8	--	65.7	64.0
[lb]	15732	15561	15237	--	14778	14382

Optional Tests - Ballasted Tractor

Tests conducted under the responsibility of the Nebraska Tractor Test Laboratory

OECD Drawbar Data (SI)

Date of test 14-15MAY97 — Fuel density: 0.842 kg/l
Type of trac Concrete — Test number 1733

Gear	Gear Designation	Power kW	Pull kN	Speed km/h	Engine speed rev/min	Slip	SFC kg/kW.h	SFE kW.h/l	Temperature, deg C Fuel	Coolant	Oil	Dry	Wet	Rel hum-idity	Baro. Pres kPa
I. Maximum Power (unballasted, 4wd at 2100 rev/min)							Tire pressure:		55 kPa, rear		83 kPa, front		Drawbar height:	457 mm	
*3	A2 LO	189.73	170.85	4.00	2138	9%	0.278	3.02	62	82	109	9	4	45%	98.31
4	A2 HI	207.11	152.36	4.89	2099	5%	0.264	3.19	62	84	110	11	5	38%	98.34
5	A3 LO	213.03	135.15	5.67	2102	4%	0.257	3.28	60	82	107	12	5	34%	98.37
6	A3 HI	235.15	123.56	6.85	2101	4%	0.258	3.26	62	86	113	13	8	56%	97.70
7	B1 LO	238.99	124.20	6.93	2104	3%	0.254	3.31	63	87	114	12	8	61%	97.63
8	C1 LO	256.84	121.27	7.62	2099	3%	0.252	3.34	63	87	112	13	8	56%	97.73
9	B1 HI	257.04	111.31	8.31	2097	3%	0.252	3.34	63	86	114	14	9	53%	97.73
10	B2 LO	258.23	103.91	8.95	2097	3%	0.250	3.37	63	84	115	15	9	50%	97.77
11	C1 HI	256.59	100.45	9.20	2097	3%	0.250	3.36	61	87	109	15	9	45%	97.73
12	C2 LO	257.27	93.45	9.91	2101	2%	0.251	3.35	62	84	114	16	9	39%	97.80
13	B2 HI	254.12	84.63	10.81	2102	2%	0.254	3.31	63	88	115	17	9	36%	97.80
14	C2 HI	252.08	75.99	11.94	2101	2%	0.252	3.34	62	88	113	17	9	35%	97.80
15	B3 LO	247.91	72.32	12.34	2095	2%	0.255	3.30	63	91	116	17	9	35%	97.80
16	C3 LO	248.82	65.66	13.64	2096	2%	0.262	3.21	63	87	117	17	9	33%	97.80

* Note: Slip limited to prevent excessive bouncing.

OECD Drawbar Data (US)

Date of test 14-15MAY97 — Fuel density: 7.023 lb/gal
Type of trac Concrete — Test number 1733

Gear	Gear Designation	Power hp	Pull lb	Speed mph	Engine speed rev/min	Slip	SFC lb/hp.h	SFE hp.h/gal	Temperature, deg F Fuel	Coolant	Oil	Dry	Wet	Rel hum-idity	Baro. Pres in Hg
I. Maximum Power (unballasted, 4wd at 2100 rev/min)							Tire pressure:		8 psig, rear		12 psig, front		Drawbar height:	18.0 in	
*3	A2 LO	254.44	38409	2.48	2138	9%	0.458	15.34	143	179	229	49	40	45%	29.03
4	A2 HI	277.74	34253	3.04	2099	5%	0.434	16.20	143	183	231	52	41	38%	29.04
5	A3 LO	285.68	30384	3.53	2102	4%	0.422	16.63	141	180	225	53	41	34%	29.05
6	A3 HI	315.34	27778	4.26	2101	4%	0.425	16.53	144	188	235	55	47	56%	28.85
7	B1 LO	320.49	27922	4.30	2104	3%	0.418	16.79	145	189	238	54	47	61%	28.83
8	C1 LO	344.42	27262	4.74	2099	3%	0.414	16.96	145	189	234	55	47	56%	28.86
9	B1 HI	344.70	25023	5.17	2097	3%	0.415	16.94	146	188	238	57	48	53%	28.86
10	B2 LO	346.29	23360	5.56	2097	3%	0.411	17.08	145	184	240	59	49	50%	28.87
11	C1 HI	344.10	22583	5.71	2097	3%	0.411	17.08	142	189	228	59	48	45%	28.86
12	C2 LO	345.00	21010	6.16	2101	2%	0.413	17.01	144	184	238	61	48	39%	28.88
13	B2 HI	340.78	19025	6.72	2102	2%	0.418	16.79	146	190	240	63	49	36%	28.88
14	C2 HI	338.05	17083	7.42	2101	2%	0.414	16.97	144	191	235	62	48	35%	28.88
15	B3 LO	332.45	16259	7.67	2095	2%	0.419	16.76	146	195	242	62	48	35%	28.88
16	C3 LO	333.67	14760	8.48	2096	2%	0.431	16.31	146	189	243	63	48	33%	28.88

* Note: Slip limited to prevent excessive bouncing.

OPTIONAL TESTS - BALLASTED TRACTOR

Tests conducted under the responsibility of the Nebraska Tractor Test Laboratory

OECD Drawbar Data (SI)

Date of test 14-15MAY97 — Fuel density: 0.842 kg/l
Type of trac Concrete — Test number 1733

Gear	Gear designation	Power kW	Pull kN	Speed km/h	Engine speed rev/min	Slip	SFC kg/kW.h	SFE kW.h/l	Temperature, deg C Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Baro. Pres kPa
I. Maximum Power (ballasted, 4wd at 1900 rev/min)							Tire pressure:	62 kPa, rear		83 kPa, front			Drawbar height:	457 mm	
3	A2 LO	200.14	181.30	3.97	2115	9%	0.274	3.07	62	83	108	12	8	55%	99.15
4	A2 HI	215.83	169.47	4.58	1983	6%	0.260	3.23	63	85	111	13	8	52%	99.15
5	A3 LO	220.53	157.34	5.05	1907	6%	0.259	3.24	63	87	114	21	11	31%	98.31
6	A3 HI	235.18	137.23	6.17	1905	4%	0.256	3.29	63	86	116	21	11	28%	98.27
7	B1 LO	238.31	137.92	6.22	1903	4%	0.253	3.33	63	89	116	21	11	28%	98.24
8	C1 LO	272.03	142.35	6.88	1914	4%	0.250	3.37	64	85	117	20	11	33%	98.34
9	B1 HI	274.92	132.02	7.50	1901	4%	0.248	3.40	63	89	113	14	8	44%	99.15
10	B2 LO	279.04	124.36	8.08	1902	3%	0.243	3.46	64	90	115	15	9	45%	99.19
11	C1 HI	275.71	119.55	8.30	1901	3%	0.245	3.43	63	91	116	15	9	45%	99.19
12	C2 LO	277.62	111.55	8.96	1905	3%	0.245	3.44	64	88	116	16	8	37%	99.19
13	B2 HI	276.20	101.83	9.76	1904	3%	0.245	3.43	61	89	108	16	8	34%	99.15
14	C2 HI	272.78	90.67	10.83	1910	2%	0.248	3.39	62	88	112	17	8	31%	99.15
15	B3 LO	274.20	88.50	11.15	1898	2%	0.247	3.41	64	91	117	17	9	32%	99.15
16	C3 LO	273.89	79.84	12.35	1902	2%	0.247	3.41	63	93	114	18	9	29%	99.19
17	B3 HI	271.25	72.57	13.46	1894	2%	0.251	3.35	64	89	118	19	10	31%	99.15

* Note: Slip limited to prevent excessive bouncing.

OECD Drawbar Data (US)

Date of test 14-15MAY97 — Fuel density: 7.023 lb/gal
Type of trac Concrete — Test number 1733

Gear	Gear designation	Power hp	Pull lb	Speed mph	Engine speed rev/min	Slip	SFC lb/hp.h	SFE hp.h/gal	Temperature, deg F Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Baro. Pres in Hg
I. Maximum Power (ballasted, 4wd at 1900 rev/min)							Tire pressure:	9 psig, rear		12 psig, front			Drawbar height:	18.0 in	
3	A2 LO	268.40	40758	2.47	2115	9%	0.451	15.58	143	181	226	54	46	55%	29.28
4	A2 HI	289.44	38099	2.85	1983	6%	0.428	16.42	145	185	232	56	47	52%	29.28
5	A3 LO	295.74	35372	3.14	1907	6%	0.427	16.46	146	189	237	69	52	31%	29.03
6	A3 HI	315.38	30851	3.83	1905	4%	0.420	16.71	146	187	240	70	52	28%	29.02
7	B1 LO	319.57	31005	3.87	1903	4%	0.416	16.89	146	192	241	70	52	28%	29.01
8	C1 LO	364.80	32002	4.27	1914	4%	0.411	17.09	147	185	243	68	52	33%	29.04
9	B1 HI	368.67	29679	4.66	1901	4%	0.407	17.26	145	192	236	58	47	44%	29.28
10	B2 LO	374.20	27957	5.02	1902	3%	0.400	17.55	147	194	239	59	48	45%	29.29
11	C1 HI	369.74	26876	5.16	1901	3%	0.403	17.43	146	196	241	59	48	45%	29.29
12	C2 LO	372.29	25077	5.57	1905	3%	0.403	17.44	147	191	242	60	47	37%	29.29
13	B2 HI	370.39	22893	6.07	1904	3%	0.403	17.42	141	193	227	61	47	34%	29.28
14	C2 HI	365.81	20385	6.73	1910	2%	0.408	17.22	143	190	233	62	47	31%	29.28
15	B3 LO	367.70	19897	6.93	1898	2%	0.406	17.30	147	197	243	63	48	32%	29.28
16	C3 LO	367.29	17949	7.67	1902	2%	0.406	17.30	146	199	237	64	48	29%	29.29
17	B3 HI	363.76	16316	8.36	1894	2%	0.413	17.02	148	192	244	66	50	31%	29.28

* Note: Slip limited to prevent excessive bouncing.

MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of Test	May 15, 1997
Sound Level Meter Make/Model/Type	Bruel and Kjaer 2236
Type of track	Concrete oval
Gear number	24th (D-3-HI)
Travel speed before acceleration	28.1 km/h
Sound Level	90.2 dB(A)

Repairs:	A hydraulic supply hose was replaced during the hydraulic power test. The test was repeated.
Remarks:	An error was made when the hand throttle was set back to perform the varying load tests. The hand throttle was set at a position that produced PTO speeds less than 1,000 rev/min. The tractor is not available for a retest.