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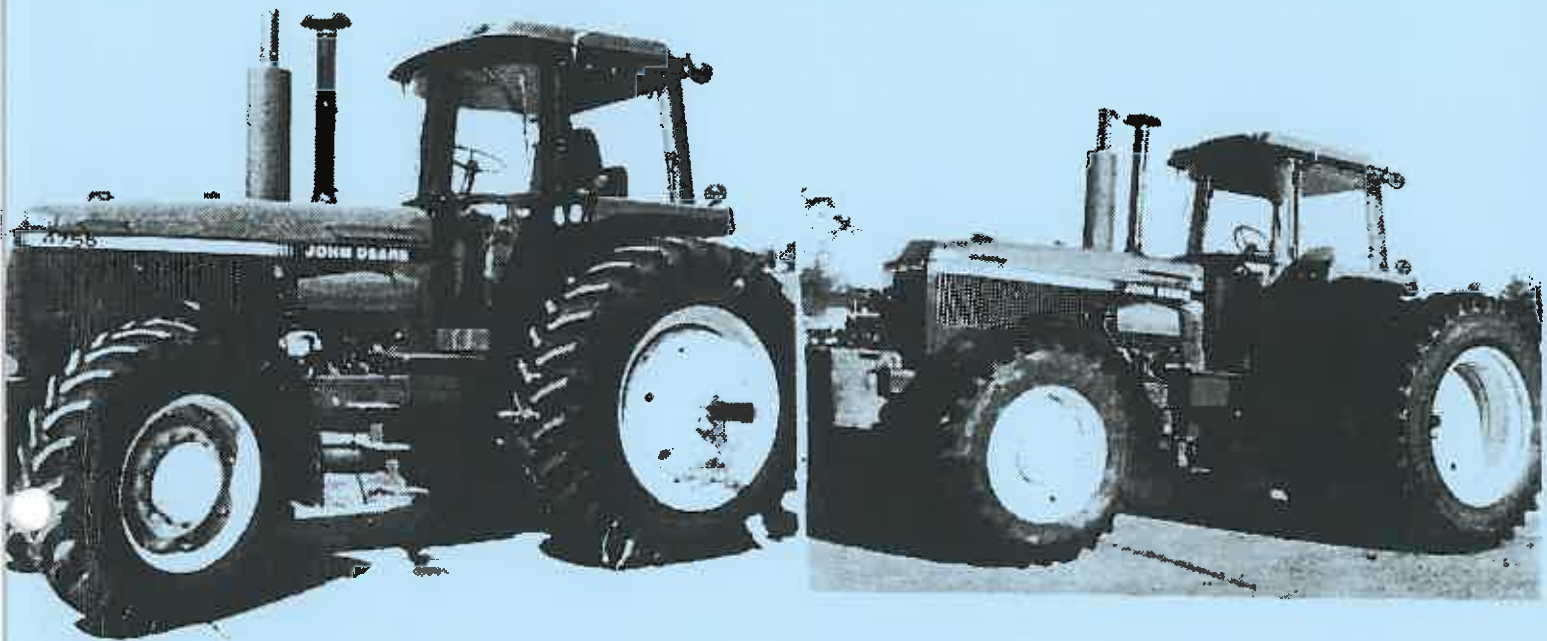
CENTER FOR AGRICULTURAL EQUIPMENT
DEPARTMENT OF AGRICULTURAL ENGINEERING
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA - EAST CAMPUS
LINCOLN, NEBRASKA 68583-0832, USA

REPORT ON TEST IN ACCORDANCE WITH OECD STANDARD CODE FOR THE
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OFFICIAL TESTING OF AGRICULTURAL TRACTOR PERFORMANCE
=====

RESTRICTED TEST-CODE II
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JOHN DEERE 4755 POWERSHIFT WITH MECHANICAL
FRONT WHEEL DRIVE (4 WD)



MANUFACTURED BY: John Deere Waterloo Works
P.O.Box 3500
Waterloo, Iowa 50706, USA

NEBRASKA TEST NO.1621

Test date: April-May 1989

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 February 15, 1990

John Deere 4755 Powershift with MFWD

OECD # 1236

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Associate Director of the Center



Dr. Louis I. Leviticus

Senior Test Engineer

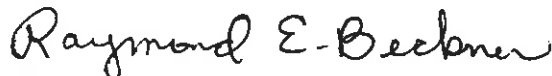


David L. Morgan

Test Engineers



Brent T. Sampson



Raymond E. Beckner

Date: 27 Apr. 1990

Chairman, Tractor Test Board

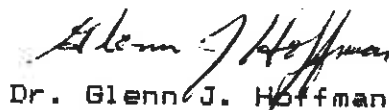


Dr. Kenneth von Barga

Members, Tractor Test Board



Dr. Robert D. Grisso



Dr. Glenn J. Hoffman

LINCOLN, NEBRASKA 68583-0832, USA

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SPECIFICATIONS OF TRACTOR.

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Manufacturers name/address	:	John Deere Tractor Works P.O. Box 3500 Waterloo, Iowa
Submitted for test by	:	The manufacturer
Selected for test by	:	The manufacturer in agreement with the test station.
Place of running in	:	John Deere P.E.C. Waterloo, Iowa
Duration of running in	:	47 hours
Location of test	:	Center for Agricultural Equip- ment, Lincoln, Nebraska, USA.

TRACTOR.

Make	John Deere
Model	4755
Type	Unit construction, mechanical front wheel drive (4WD)
Number of driving wheels	4
Serial Number	*RW4755P001033*
1st Serial number	*RW4755P001001*

ENGINE.

Make	John Deere
Model	6076ARW06
Type	Diesel, turbocharged and intercooled
Serial Number	*RG6076A102454*

Cylinders

Number & Disposition	6, in-line, vertical
Bore x stroke	115.8 mm x 120.7 mm (4.56 in x 4.75 in)
Cubic capacity	7634 ml (466 cu in)
Compression Ratio	16.0 - 1
Arrangement of valves	Overhead
Cylinder liners	Wet, replacable

Super charging

Make/Model/Type	Air Research/RE29308/ exhaust gas driven
Pressure	110-131 kPa (16-19 psi) at rated speed and load.

Fuel System

Feed system	Transfer pump integral with injection pump
Make/Type/Model of filters	Stanadyne/RE27091/ paper element
Fuel Tank capacity	386 liter (102 US gallons)

Make/Model/Type Injection Pump	Nippondenso/RE36653/in line 11H0010
Pump Serial number	
Production setting of pump	
Flow Rate (Rated Eng.Spd & Full Load)	31.6 +/- 1.4 kg/hr 69.7 +/- 3.1 lb/hr
Make/Model/Type of injectors	Nippondenso/RE30083/21 mm
Injection pressure	29.0 MPa(4200 psi)
Timing	27 degrees before TDC
<u>Governor</u>	
Make/Model/Type	Nippondenso/RSV200/mechanical
Governed engine speed range	From 800 to 2400 rev/min
Rated engine speed	2200 rev/min
High-idle speed range	2375 +/- 25 rev/min
<u>Air Cleaner.</u>	
Pre-cleaner	
Make/Model/Type	Donaldson/plastic mesh chaff screen top of air stack
Air intake location	
Main Cleaner	
Make/Model/Type	Donaldson/AR80652/pleated paper
Secondary element	
Make/model/Type	Donaldson/AR80653/pleated paper
Maintenance indicator	Dash mounted light and horn
<u>Lubrication system.</u>	
Type of feed pump	Full pressure, positive displacement.
Type of filters	Full flow with bypass
Number	one
Oil cooler	Heat exchanger with engine coolant
<u>Cooling system.</u>	
Type of coolant	Liquid
Type of pump	Centrifugal
Fan specification	Belt driven, variable speed
Number of fan blades	8
Fan diameter	660 mm (26.0 in)
Coolant system capacity	30.3.1 (32 qt)
Type of temperature control	2 thermostats and variable speed fan
Superpressure system	69 kPa (10 psi)
<u>Starting system.</u>	
Make/Model/Type of starter	Nippondenso/RE38336/electric
Power Rating	4.75 kW (6.4 hp)
Cold starting aid	Ether spray in intake manifold.
Safety device	Electrical lockout on gearshift

Electrical system.

Voltage & grounding.

Generator

Make/Model/Type

Power rating

Batteries

Number & connection

Rating

12 Volt DC; negative ground

Nippondenso/RE37201/belt driven
120 Ampere at 2200 engine rpm.

2-12 V batteries in parallel
175 Ampere-hours per battery
at 20 hour rating
925 cold crank amps per battery

Exhaust system.

Make/Model/Type

Location

Donaldson/RE35449/
expansion chamber
vertical above hood,
left of centerline

TRANSMISSION.

=====

Clutch. (travel)

Make/Type

Number of plates

Plate diameter

Method of operation

John Deere/multiple plate/
oil cooled
3,4,or 7(depending on gear)
279.4 mm (11.0 in)
Hydraulically actuated
by foot pedal

Gear Box.

Make/Type

Arrangement

John Deere/full powershift

planetary design consisting of:
one input planetary gearset,
one 2 speed planetary gearset,
two compound planetary gearsets,
all with multiple wet disc
clutches and brakes

Number of gears

15 forward and 4 reverse
controlled by single
hand lever

Oil cooler

Available options

Heat exchanger with air
None

Rear axle and final drives.

Make/Type

John Deere/crown wheel and
pinion, differential and
inboard planetary reduction

Differential Lock

Type

Method of engagement

Method of disengagement

Hydraulic
Foot pedal
self disengaging with
foot pedal

Front Axle and final drives.

Make/Model/Type

John Deere/crown wheel and
pinion, differential and
outboard planetary reduction

Differential lock

Type

limited slip

Method of engagement

self engaging

Method of disengagement

self disengaging

Gear ratios and travel speeds.

(Tire dynamic radius of 918 mm (36.1 in) ISO 4251/1-1984)

Gear Number	Number of engine revolutions for one revolution of the driving wheels	Nominal travel speed at rated engine speed of 2200 rev/min	
		[km/h]	[mph]
1 fwd	333.84	2.28	1.42
2 fwd	233.05	3.27	2.03
3 fwd	192.81	3.95	2.45
4 fwd	153.52	4.96	3.08
5 fwd	133.25	5.71	3.55
6 fwd	117.40	6.49	4.03
7 fwd	101.95	7.47	4.64
8 fwd	88.71	8.58	5.33
9 fwd	77.00	9.89	6.14
10 fwd	67.84	11.22	6.97
11 fwd	58.89	12.93	8.03
12 fwd	52.64	14.46	8.99
13 fwd	42.54	17.90	11.12
14 fwd	30.41	25.04	15.56
15 fwd	24.58	30.98	19.25
1 rev	240.96	3.16	1.96
2 rev	168.32	4.52	2.81
3 rev	110.89	6.87	4.27
4 rev	73.60	10.34	6.43

Number of front wheel revolutions
for one rear wheel revolution. 1.3115

POWER - TAKE - OFF.

=====

Main Power-Take-Off.

Type

Method of engagement

Number of shafts

Independent

Hydraulically actuated multi-plate wet clutch operated by hand lever, independent of main drive clutch.
one

Standard PTO. 1000 rev/min.

Location

Diameter of shaft

Number of splines

Height above ground

Distance from median plane

of tractor

Distance behind rear axle

PTO Speed @ rated engine speed

Engine speed @ Std. PTO Speed

Ratio of Engine rpm to PTO rpm

Direction of rotation when

facing shaft end

Rear of tractor, vertical center plane.

44.5 mm (1.75 in)

20; conforms to ISO 500/1979

739 mm (29.1 in)

0 mm

559 mm (22.0 in)

998 rev/min

2205 rev/min

2.2045

Clockwise

POWER LIFT.

=====

Make	John Deere
Type of hydraulic system	Hydraulic lift with variable mix of draft and position control; Lower link sensing with adjustable speed of drop Closed center
Number/Type of cylinders	One internal with one or two optional external, all single acting
Type of linkage lock for transport	Hydraulic
Relief valve setting	17.5 +/- 0.3 MPa (2535 +/- 45 psi)
Opening pressure of cylinder safety valve	20.7 MPa (3000 psi)
Lift pump type	Radial piston, variable delivery, constant pressure
Power transmission to pump	direct drive
Type/Number of filters	paper element/one
Location of oil reservoir	Transmission housing
Number/Type/Location of tapping points.	3 pairs of ISO standard couplings at rear of tractor. (a 4th set is optional)
Max. oil volume available for external cylinders.	6.0 l (6.3 qt) 13.0 l (13.7 qt) with 7.0 l (7.4 qt) allowable overfill

THREE POINT LINKAGE.

=====

- Category 3 or 3N in conformity with ISO 730/1-1977
- Category adaptor - Quick coupler

THREE POINT LINKAGE.

=====

Figure 1.1

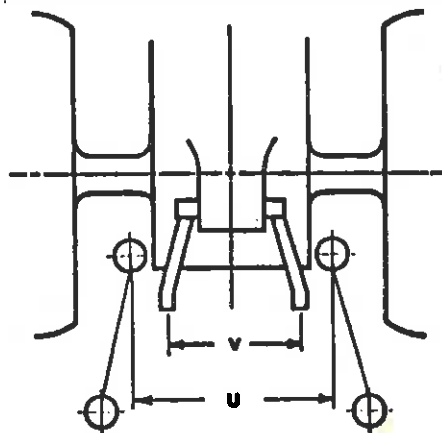
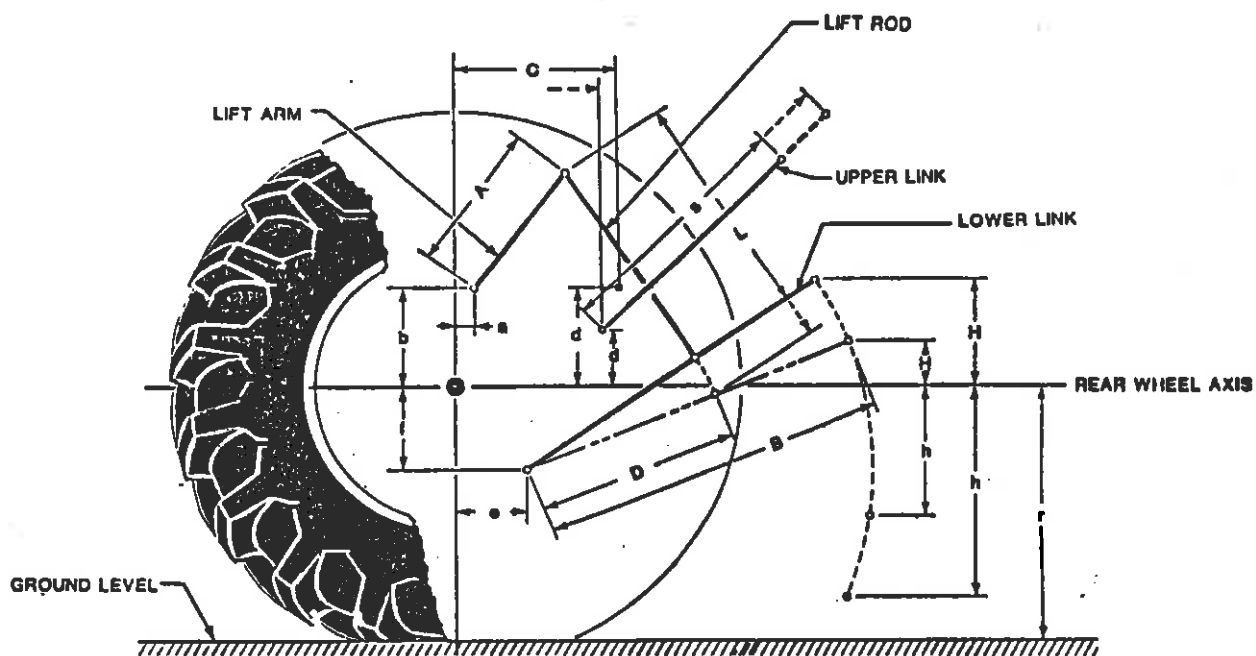


Figure 1.2

Table 1.1 - *Linkage geometry dimensions.

		Dimension or range		Settings used on test	
		[mm]	[in]	[mm]	[in]
Lift category		III			
Rear Tire - Radius Index	(r)	918	36.1		
Front Tire - Radius Index	(r')	716	28.2		
Length of lift arms	(A)	468	18.4	same	
Length of lower links	(B)	968	38.1	same	
Distance of lift					
arm pivot from: horizontal	(a)	0	0	same	
rear wheel axis: vertical	(b)	327	12.9	same	
Horizontal distance between the					
2 lower link points	(u)	582	22.9	same	
Horizontal distance between the					
2 lift arm end points	(v)	746	29.4	same	
Length of upper link	(S)	705	27.8		
	to	825	32.5	714	28.1
Distance of upper					
link pivot from: horizontal	(c)	384	15.1	same	
rear wheel axis: vertical	(d)	172	6.8	same	
Distance of lower					
link pivot from: horizontal	(e)	156	6.1	same	
rear wheel axis: vertical	(f)	330	13.0	same	
Distance of lower link pivot					
points to lift rod pivot pts					
on lower links.	(D)	716	28.2	same	
Length of lift rods	(L)	860	33.8		
	to	947	37.3	947	37.3
Height of lower hitch points					
relative to rear wheel axis					
In low position	(h)	554	21.8		
	to	678	26.7	660	26.0
In high position	(H)	147	5.8		
	to	249	9.8	162	6.4
Height above ground of lower					
hitch points when locked in					
transport position.		1064	41.9		
	to	1166	45.9	1079	42.5

*Assuming (r) with a tire dynamic index of 918 mm (36.1 in)
ISO 4251/1-1984

SWINGING DRAWBAR.

=====

Type	Oscillating
Height above ground	Minimum: 478 mm (18.8 in) Maximum: 625 mm (24.6 in)
Adjustments	Inverting drawbar and repositioning clevis.
Distance of hitch point from rear wheel axis, horizontal	1003 mm (39.5 in), 1067 mm (42.0 in)
Distance of hitch point from PTO shaft end	
Vertical	127 mm (5.0 in), 222 mm (8.7 in)
Horizontal	444 mm (17.5 in), 508 mm (20.0 in)
Lateral adjustment; Right side	229 mm (9.0 in)
Left side	229 mm (9.0 in)
Distance of pivot point from rear wheel axis; horizontal	511 mm (20.1 in) forward.
Diameter of drawbar pin hole	37 mm (1.5 in)
Maximum vertical static permissible load	16.4 kN (3650 lb)

STEERING

=====

Make/Model/Type	John Deere/Hydrostatic
Method of operation	Steering wheel
Pump(s)	Same as main hydraulic pump
Ram(s)	Two internal
Working pressure	Same as main hydraulic pressure

BRAKE SYSTEM.

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Service brake.

Make/Model/Type	John Deere/oil immersed disc
Method of operation	Hydraulically actuated from main system; operated by two pedals which can be locked together.

Parking brake.

Type	Transmission lock
Method of operation	Gear selector lever.

Trailer Brake (optional)

Type	Hydraulic
------	-----------

WHEELS.

=====

Number.	
Front	Two; Driving and steering
Rear	Two or four; Driving
Wheelbase	2974 mm (117.1 in)

Track width adjustment

	Minimum		Maximum		Adjustment method
	[mm]	[in]	[mm]	[in]	
Front	1691	66.6	2230	87.8	Reversing wheels and offset lug rims
Rear	1642	64.6	2938	115.7	Rack and pinion axle, reversing wheels and offset lug rims

PROTECTIVE STRUCTURE.

=====

Make/Model/Type	John Deere/SG0025/ Sound-Gard Body
Manufacturer's name/address	John Deere Tractor Works Waterloo, Iowa
Protective device	Cab, not tiltable.
OECD approval number	CSS 001/8

DRIVER'S SEAT.

=====

Make/Model/Type	John Deere/HydraCushioned
Type of damping and suspension	Gas charged accumulator and spring loaded attenuator
Range of adjustment	
Longitudinal	150 mm (5.9 in)
Vertical	64 mm (2.5 in)
Rotation	25 degrees each way

LIGHTING.

=====

	Height above ground of center		Size	Distance from out - side edge to median plane of tractor.	
	[mm]	[in]	[mm]	[mm]	[in]
Headlights	1847	72.7	50 x 125	317	12.5
	1961	77.2	100 dia.	978	38.5
Rearlights	2840	111.8	100 dia.	813	32.0
	2121	83.5	100 dia.	813	32.0
Rear reflectors	2977	117.2	50 x 197	554	21.8
	1974	77.7	50 x 190	870	34.3

TEST CONDITIONS.

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Overall dimensions.

Length		5461 mm (215.0 in)
Width	Minimum	2758 mm (109.0 in)
	Maximum	2997 mm (118.0 in)
Height - Top of cab		3122 mm (122.9 in)
- Top of exhaust		3259 mm (128.3 in)
Ground clearance (unballasted)		422 mm (16.6 in)
Clearance-limiting part		Hitch sway blocks

Tractor Mass (with Cab, full fuel tank)

		without driver		with driver	
		[kg]	[lb]	[kg]	[lb]
Unballasted	Front	2982	6575	2982	6575
	Rear	5257	11590	5332	11755
	Total	8239	18165	8314	18330
Ballasted	Front	3901	8600	3901	8600
	Rear	6461	14245	6536	14410
	Total	10362	22845	10437	23010

Ballast.

		Mass (total)		Water	
		Number of weights	[kg]	[lb]	[kg]
Front	none		none	none	none
Rear	2		454	1000	none
Duals (rear)	2		884	1950	none
Additional					
front frame	1		45	100	
+ weights	14		635	1400	
test equipment			104	230	

Tire Specifications.

	Front wheels	Rear wheels
Make	Goodyear	Goodyear
Dimensions	16.9R30	20.8R42
Ply rating	3 star (10 ply)	2 star (10 ply)
Type	Radial	Radial
Max.load (tire manufacturer)	2470 kg/tire (5440 lb/tire)	4130 kg/tire (9100 lb/tire)
Max.load (tractor manufacturer)	same	same
Inflation pressure (tire mfr)	165 kPa (24 psi)	165 kPa (24 psi)
Dynamic Radius Index	716 mm (28.2 in)	918 mm (36.1 in)
Chosen track width - singles	1692 mm (66.6 in)	1684 mm (66.3 in)
- duals		3404 mm (134.0 in)

Oils and Lubrication.

	Capacity and change interval:		Oil change hrs	Filter change hrs
	liter	quart		
Engine (w/o filter)	21	22	250	250
Gear Box (includes rear axle and rear final drive)	75	80	1500	annually
Front axle housing	9	9.5	1500	NA
Final drive, front	4.5	4.8	1500	NA
Hydraulic system	common with gearbox			

Oil and Lubricant specifications:

	Recommended	Used during test
Engine oil		
Type	John Deere Torq-Gard Supreme	same
Viscosity	102 cSt	
Classification	API - CD MIL-L-2104D	
Transmission		
Type	John Deere Hy-gard	same
Viscosity	58 cSt	
Classification	NA	
Hydraulic fluid	same as transmission oil	same
Steering oil	same as transmission oil	same
Front axle and hubs		
Type	Gear Lubricant	
Viscosity	85W-140	same
Classification	GL-5	
Grease		
Number of lubrication points	23	

Fuel

Type/grade	Diesel Fuel "Premier"; grade 2-D
Density (Pto test)	0.828 g/cubic-cm (6.912 lb/gallon) at 15 °C (59 °F)
(Drawbar test)	Same as Pto test.
Cetane number	51.1
Viscosity	2.31 cSt at 38 °C (100 °F)

Remarks: This tractor is equipped with a variable speed cooling fan. Since engine power is influenced by fan speed, all power tests were conducted at approximately the same ambient air temperatures.

COMPULSORY TESTS.

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

Date of tests : April 21, 1989
 Location of tests : Center for Agricultural Equipment,
 University of Nebraska, Lincoln, Nebraska.
 Type of Dynamometer: Eaton Dynamic 2025 D.G.

Power kW (hp)	Speeds		Fuel Consumption			Specific energy kW.h/l (hp.h/gal)
	engine rev/min	PTD rev/min	hourly l/h (gal/h)	hourly kg/h (lb/h)	specific kg/kW.h (lb/hp.h)	
1.1 Maximum Power- 2 hour test.						
133.45 (178.96)	2050	930	36.39 (9.61)	30.14 (66.44)	0.226 (0.371)	3.67 (18.62)
1.2 Power at rated engine speed. (1 hour)						
132.04 (177.06)	2200	998	36.82 (9.73)	30.50 (67.23)	0.231 (0.380)	3.59 (18.20)
1.3 Maximum power at standard PTD speed. (1000 rev/min)						
132.04 (177.06)	2200	998	36.82 (9.73)	30.50 (67.23)	0.231 (0.380)	3.59 (18.20)

1.4 Part Loads - governor hand lever set for maximum power at rated engine speed

Power kW (hp)	Speeds		Fuel Consumption			Specific energy kW.h/l (hp.h/gal)
	engine rev/min	PTO rev/min	hourly l/h (gal/h)	specific kg/h (lb/h)	specific kg/kW.h (lb/hp.h)	
(i) Torque obtained at maximum power at rated engine speed.						
132.04 (177.06)	2200	998	36.82 (9.73)	30.50 (67.23)	0.231 (0.380)	3.59 (18.20)
(ii) 85% of the torque obtained in (i)						
115.69 (155.14)	2263	1027	33.52 (8.85)	27.76 (61.20)	0.240 (0.394)	3.45 (17.52)
(iii) 75% of the torque defined in (ii)						
87.77 (117.70)	2292	1040	27.11 (7.16)	22.45 (49.50)	0.256 (0.421)	3.24 (16.44)
(iv) 50% of the torque defined in (ii)						
59.29 (79.51)	2323	1054	20.87 (5.51)	17.28 (38.10)	0.291 (0.479)	2.84 (14.42)
(v) 25% of the torque defined in (ii)						
29.95 (40.16)	2353	1067	14.62 (3.86)	26.70 (12.11)	0.404 (0.665)	2.05 (10.40)
(vi) Unloaded						
1.55 (2.08)	2375	1078	8.71 (2.30)	15.90 (7.21)	4.654 (7.651)	0.18 (0.90)

1.5 Part Loads - governor hand lever set for maximum power at standard pto speed.

Power kW (hp)	Speeds		Fuel Consumption			Specific energy kW.h/l (hp.h/gal)
	engine	PTD	hourly	specific		
	rev/min	rev/min	l/h (gal/h)	kg/h (lb/h)	kg/kW.h (lb/hp.h)	
(i) Torque obtained at standard PTD speed.						
132.04 (177.06)	2200	998	36.82 (9.73)	30.50 (67.23)	0.231 (0.380)	3.59 (18.20)
(ii) 85% of the torque obtained in (i)						
115.69 (155.14)	2263	1027	33.52 (8.85)	27.76 (61.20)	0.240 (0.394)	3.45 (17.52)
(iii) 75% of the torque defined in (ii)						
87.77 (117.70)	2292	1040	27.11 (7.16)	22.45 (49.50)	0.256 (0.421)	3.24 (16.44)
(iv) 50% of the torque defined in (ii)						
59.29 (79.51)	2323	1054	20.87 (5.51)	17.28 (38.10)	0.291 (0.479)	2.84 (14.42)
(v) 25% of the torque defined in (ii)						
29.95 (40.16)	2353	1067	14.62 (3.86)	12.11 (26.70)	0.404 (0.665)	2.05 (10.40)
(vi) Unloaded						
1.55 (2.08)	2375	1078	8.71 (2.30)	7.21 (15.90)	4.654 (7.651)	0.18 (0.90)

No-load maximum engine speed 2375 rev/min
 Equivalent engine torque:
 at rated engine speed 573 Nm (2200 rev/min)
 at maximum power 622 Nm (2050 rev/min)
 at maximum torque 771 Nm (1450 rev/min)
 Mean atmospheric conditions:
 Temperature-dry bulb 25 °C (78 °F)
 Relative Humidity 39 %
 Barometer 97.33 kPa (28.74 in Hg)

Maximum Temperatures	:	
Thermostat housing	90 °C	(194 °F)
Engine oil pan	105 °C	(220 °F)
Fuel at injection pump	48 °C	(118 °F)
Engine air intake	30 °C	(87 °F)
Trans./Hydr. Oil	58 °C	(137 °F)

Turbocharger boost pressure	
at rated engine speed	114 kPa (16.5 psi)
at maximum power	114 kPa (16.5 psi)

=====

2. HYDRAULIC POWER AND LIFT FORCE

Date of test: 2 May 1989
Location: CAE/UNL, Lincoln, Nebr.

2.1 HYDRAULIC POWER TEST - Hydraulic pump performance

i. Sustained pressure with pump stalled	17.44 MPa (2530 psi)
ii. Pump delivery rate @ minimum pressure & rated engine speed	119.6 l/m (31.6 gpm)
iii.	Flow Rate Pressure Power
	l/min MPa kW
	(gal/min) (psi) (hp)
At 90% of relief valve setting.	27.6 15.72 7.2
	(7.3) (2280) (9.7)
At maximum hydraulic power.	115.8 12.07 23.3
	(30.6) (1750) (31.2)
Tapping point(s)	Two hydraulic outlets combined
Hydraulic fluid temperature in oil reservoir	76 °C (169 °F)
at flow meter	71 °C (159 °F)

2.2 POWER LIFT TEST.

				Hitch Points		Frame
Lower hitch points above ground - down position.						
		[mm/in]		283/11.1		276/10.9
Vertical movement						
	without load	[mm/in]		822/32.4		940/37.0
	with load	[mm/in]		787/31.0		897/35.3
Maximum corrected force through full range						
		[kN/lbf]		27.3/6129		25.9/5821
Corresponding pressure				[kPa/psi] 12066/1750		
Moment about rear axle				[kN.m/ft.lb] 34.1/25127 48.1/35511		
Maximum mast tilt angle				[degrees] --- 9.6		
Lifting height relative to the horizontal position of lower links						
	[mm]	-312	-305	-226	-127	0 102
	[in]	-12.3	-12.0	-8.9	-5.0	0 4.0
Corrected lift forces.						
hitch	[kN]	---	27.3	29.2	30.9	33.0 33.9
points	[lb]	---	6129	6557	6936	7414 7621
at	[kN]	27.2	---	28.1	28.8	29.5 29.5
frame-	[lb]	6114	---	6307	6486	6643 6629
Lifting height relative to the horizontal position of lower links						
	[mm]	203	305	406	483	584
	[in]	8.0	12.0	16.0	19.0	23.0
Corrected lifting forces.						
hitch	[kN]	34.9	35.7	36.3	37.7	---
points	[lb]	7850	8029	8164	8480	---
at	[kN]	29.0	28.0	---	26.9	25.9
frame	[lb]	6521	6286	---	6057	5821

THREE POINT LIFT PERFORMANCE
(with 44 mm. lift assist cylinder)
(For settings used see p.8)

		Hitch Points	Frame
Lower Hitch points above ground - down position.	[mm/in]	283/11.1	270/10.6
Vertical movement without load	[mm/in]	822/32.4	940/37.0
with load	[mm/in]	787/31.0	899/35.4
Maximum corrected force through full range	[kN/lbf]	30.9/6957	29.4/6614
Corresponding pressure	[kPa/psi]	12066/1750	
Moment about rear axle	[kN.m/ft.lb]	38.7/28524	54.7/40347
Maximum mast tilt angle	[degrees]	--	9.4

Lifting height relative to the horizontal position of lower links

[mm]	-318	-305	-229	-127	0	102
[in]	-12.5	-12.0	-9.0	-5.0	0	4.0

Corrected lift forces.

hitch [kN]	--	30.9	32.8	35.4	37.8	39.1
points [lb]	--	6957	7379	7950	8500	8800
at [kN]	30.8	--	32.2	33.0	33.9	33.9
frame [lb]	6930	--	7236	7429	7629	7629

Lifting height relative to the horizontal position of lower links

[mm]	203	305	406	483	582
[in]	8.0	12.0	16.0	19.0	22.9

Corrected lifting forces.

hitch [kN]	39.9	40.4	41.3	42.5	--
points [lb]	8971	9079	9293	9559	--
at [kN]	33.3	32.0	--	30.8	29.4
frame [lb]	7486	7186	--	6914	6614

THREE POINT LIFT PERFORMANCE
(with 55 mm. lift assist cylinder)
(For settings used see p.8)

		Hitch Points		Frame		
Lower hitch points above ground - down position.		[mm/in]	283/11.1	276/10.9		
Vertical movement						
without load	[mm/in]	822/32.4	740/37.0			
with load	[mm/in]	787/31.0	894/35.2			
Maximum corrected force through full range		[kN/lbf]	33.3/7479	31.4/7057		
Corresponding pressure		[kPa/psi]	12066/1750			
Moment about rear axle		[kN.m/ft.lb]	41.6/30662	58.4/43049		
Maximum mast tilt angle		[degrees]	9.4			
=====						
Lifting height relative to the horizontal position of lower links						
[mm]	-312	-305	-229	-127	0	102
[in]	-12.3	-12.0	-9.0	-5.0	0	4.0
=====						
Corrected lift forces.						
hitch [kN]	--	33.3	35.5	38.2	40.7	41.7
points [lb]	--	7479	7979	8586	9150	9386
at [kN]	32.9	--	33.8	35.7	36.2	36.2
frame [lb]	7392	--	7602	8036	8129	8136
=====						
Lifting height relative to the horizontal position of lower links						
[mm]	203	305	406	478	582	
[in]	8.0	12.0	16.0	18.8	22.9	
=====						
Corrected lifting forces.						
hitch [kN]	42.9	43.4	44.1	45.7	--	
points [lb]	9636	9764	9921	10274	--	
at [kN]	34.8	33.6	--	32.2	31.4	
frame [lb]	7826	7546	--	7231	7057	
=====						

3. DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

OECD Drawbar Data (SI)

Date of tests: 01-May-89 01-May-89 Fuel density: 0.828 kg/l														
Type of track: Concrete Test # 1621														
Gear	Power	Pull	Speed	Engine	Slip	SFC		Temperature, deg C					Rel	Pressure
	kW	kN	km/h	Speed rev/min	%	kg/kW.h	kW.h/l	Fuel	Coolant	Oil	Dry	Wet	hum %	kPa
I. Maximum Power (unballasted, fwa @ 2050 rev/min)						Tire pressure:		110 kPa, rear					165 kPa. front	
Drawbar height: 483 mm														
4th	88.85	72.46	4.41	2265	14.22%	0.313	2.65	45	84	101	13	8	50%	98.61
5th	99.42	73.18	4.89	2192	14.78%	0.305	2.71	45	84	100	13	8	50%	98.65
6th	108.64	66.06	5.92	2175	8.23%	0.281	2.95	45	84	100	13	8	50%	98.58
7th	111.34	61.24	6.55	2051	6.59%	0.270	3.06	44	84	101	13	8	50%	98.54
8th	109.99	51.66	7.67	2050	4.82%	0.273	3.04	44	86	101	14	8	42%	98.51
9th	110.52	44.58	8.93	2052	4.04%	0.272	3.05	44	86	101	14	8	42%	98.48
10th	112.28	39.72	10.18	2053	3.42%	0.270	3.07	44	86	101	14	8	42%	98.48
11th	110.76	33.79	11.80	2053	2.88%	0.271	3.06	45	86	100	14	8	42%	98.44
12th	112.89	30.70	13.24	2053	2.61%	0.265	3.12	44	86	101	16	9	38%	98.41
13th	109.48	23.96	16.45	2053	2.07%	0.273	3.04	44	86	100	16	9	38%	98.37

OECD Drawbar Data (US)

Date of tests: 01-May-89 01-May-89 Fuel density: 6.912 lb/gal														
Type of track: Concrete Test # 1621														
Gear	Power	Pull	Speed	Engine	Slip	SFC		Temperature, deg F					Rel	Pressure
	hp	lb	mph	Speed	%	lb/hp-hr	hp-hr/gal	Fuel	Coolant	Oil	Dry	Wet	hum	in Hg
				rpm									%	
I. Maximum Power (unballasted, fwa @ 2050 rev/min)						Tire pressure:		16 psi, rear			24 psi, front			
Drawbar height: 19 in														
4th	119.15	16290	2.74	2265	14.22%	0.514	13.44	113	183	213	55	46	50%	29.12
5th	133.33	16452	3.04	2192	14.78%	0.502	13.77	113	184	213	55	46	50%	29.13
6th	145.68	14852	3.68	2175	8.23%	0.461	14.98	113	184	213	56	46	50%	29.11
7th	149.31	13767	4.07	2051	6.59%	0.444	15.55	111	184	213	56	46	50%	29.10
8th	147.50	11613	4.76	2050	4.82%	0.448	15.41	111	187	214	57	47	42%	29.09
9th	148.21	10021	5.55	2052	4.04%	0.447	15.48	111	187	215	58	47	42%	29.08
10th	150.57	8929	6.32	2053	3.42%	0.444	15.58	111	186	214	58	47	42%	29.08
11th	148.54	7597	7.33	2053	2.88%	0.446	15.51	112	186	213	58	47	42%	29.07
12th	151.39	6901	8.23	2053	2.61%	0.436	15.85	112	186	213	60	48	38%	29.06
13th	146.82	5386	10.22	2053	2.07%	0.449	15.41	112	186	213	61	48	38%	29.05

OECD Drawbar Data (SI)

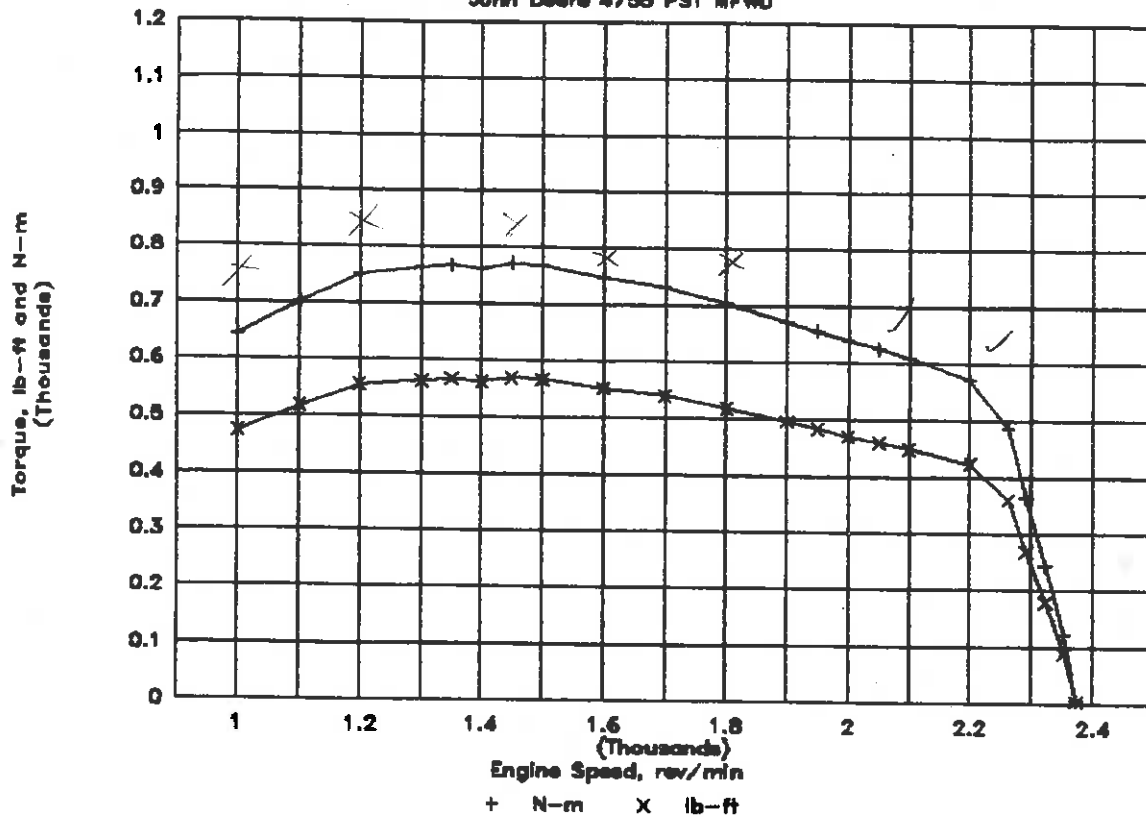
Date of tests: 01-May-89 01-May-89 Fuel density: 0.828 kg/l														
Type of track: Concrete Test # 1621														
Gear	Power	Pull	Speed	Engine	Slip	SFC		Temperature, deg C					Rel	Pressure
	kW	kN	km/h	Speed rev/min	%	kg/kW.h	kW.h/l	Fuel	Coolant	Oil	Dry	Wet	hum %	kPa
II. Part Loads (unballasted, fwa)														
Tire pressure: 110 kPa, rear 165 kPa, front														
Drawbar height: 483 mm														
II.1 in selected gear at maximum power														
12th	112.89	30.70	13.24	2053	2.61%	0.265	3.12	44	86	101	16	9	38%	98.41
II.1.1 75% of pull at maximum power at rated speed														
12th 75%	85.95	20.89	14.81	2282	1.89%	0.297	2.78	35	84	98	16	9	38%	98.34
II.1.2 50% of pull at maximum power at rated speed														
12th 50%	58.20	13.93	15.04	2305	1.52%	0.346	2.39	36	83	98	14	8	42%	98.34
II.1.3 next higher gear at reduced engine speed, same pull and travel speed as II.1.1														
13th 75%	86.12	20.94	14.81	1842	1.98%	0.279	2.97	36	84	99	15	8	36%	98.34
II.1.4 next higher gear at reduced engine speed, same pull and travel speed as II.1.2														
13th 50%	58.25	13.93	15.06	1865	1.61%	0.315	2.63	35	83	98	14	8	42%	98.34
II.2 in selected gear nearest to 7.5 km/h														
7th	111.34	61.24	6.55	2051	6.59%	0.270	3.06	44	84	101	13	8	50%	98.54
II.2.1 75% of pull at maximum power at rated speed														
7th 75%	86.97	41.54	7.54	2283	3.42%	0.289	2.87	35	85	100	16	9	38%	98.37
II.2.2 50% of pull at maximum power at rated speed														
7th 50%	59.86	27.97	7.70	2309	2.43%	0.328	2.53	35	83	99	16	9	38%	98.37
II.2.3 next higher gear at reduced engine speed, same pull and travel speed as II.2.1														
9th 75% @	86.78	41.53	7.52	1723	3.51%	0.274	3.03	36	84	99	16	9	38%	98.37
II.2.4 next higher gear at reduced engine speed, same pull and travel speed as II.2.2														
9th 50% @	59.86	28.00	7.69	1743	2.52%	0.297	2.79	36	83	99	16	9	38%	98.37

OECD Drawbar Data (US)

Date of tests: 01-May-89 01-May-89 Fuel density: 6.912 lb/gal														
Type of track: Concrete Test # 1621														
Gear	Power	Pull	Speed	Engine	Slip	SFC		Temperature, deg F					Rel	Pressure
	hp	lb	mph	Speed rpm	%	lb/hp-hr	hp-hr/gal	Fuel	Coolant	Oil	Dry	Wet	hum %	in Hg
II. Part Loads (unballasted, fwd)								Tire pressure:		16 psi, rear		24 psi, front		
Drawbar height: 18.5 in														
II.1 in selected gear at maximum power														
12th	151.39	6901	8.23	2053	2.61%	0.436	15.85	112	186	213	60	48	38%	29.06
II.1.1 75% of pull at maximum power at rated speed														
12th 75%	115.26	4697	9.20	2282	1.89%	0.489	14.14	94	184	209	61	48	38%	29.04
II.1.2 50% of pull at maximum power at rated speed														
12th 50%	78.04	3132	9.34	2305	1.52%	0.569	12.15	97	181	209	58	47	42%	29.04
II.1.3 next higher gear at reduced engine speed, same pull and travel speed as II.1.1														
13th 75%	115.49	4707	9.20	1842	1.98%	0.459	15.07	97	183	210	59	47	36%	29.04
II.1.4 next higher gear at reduced engine speed, same pull and travel speed as II.1.2														
13th 50%	78.12	3131	9.36	1865	1.61%	0.519	13.33	95	181	209	58	47	42%	29.04
II.2 in selected gear nearest to 4.6 mph														
7th	149.31	13767	4.07	2051	6.59%	0.444	15.55	111	184	213	56	46	50%	29.10
II.2.1 75% of pull at maximum power at rated speed														
7th 75%	116.63	9338	4.68	2283	3.42%	0.475	14.55	95	185	212	61	48	38%	29.05
II.2.2 50% of pull at maximum power at rated speed														
7th 50%	80.27	6288	4.79	2309	2.43%	0.538	12.84	95	182	211	61	48	38%	29.05
II.2.3 next higher gear at reduced engine speed, same pull and travel speed as II.2.1														
9th 75% @	116.37	9336	4.67	1723	3.51%	0.450	15.37	97	184	211	61	48	38%	29.05
II.2.4 next higher gear at reduced engine speed, same pull and travel speed as II.2.2														
9th 50% @	80.27	6296	4.78	1743	2.52%	0.487	14.18	96	181	210	61	48	38%	29.05

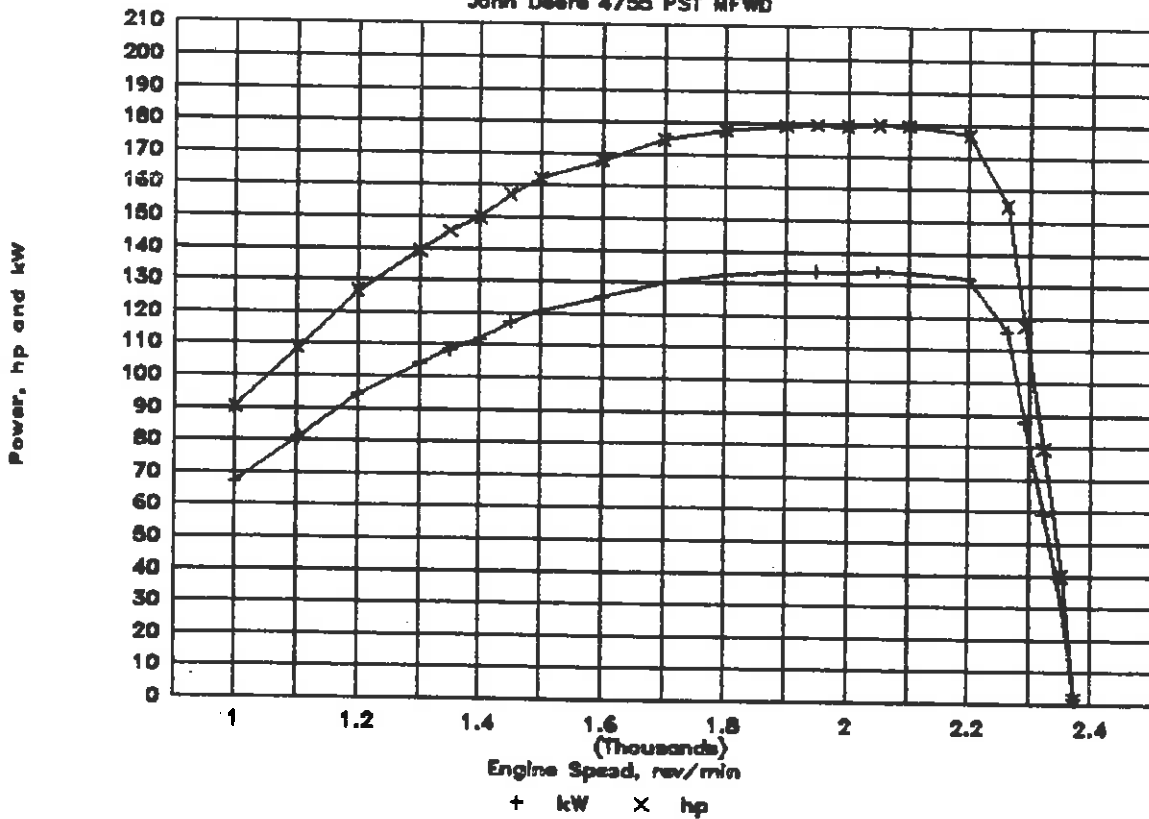
Equivalent Crankshaft Torque

John Deere 4755 PST MFWD



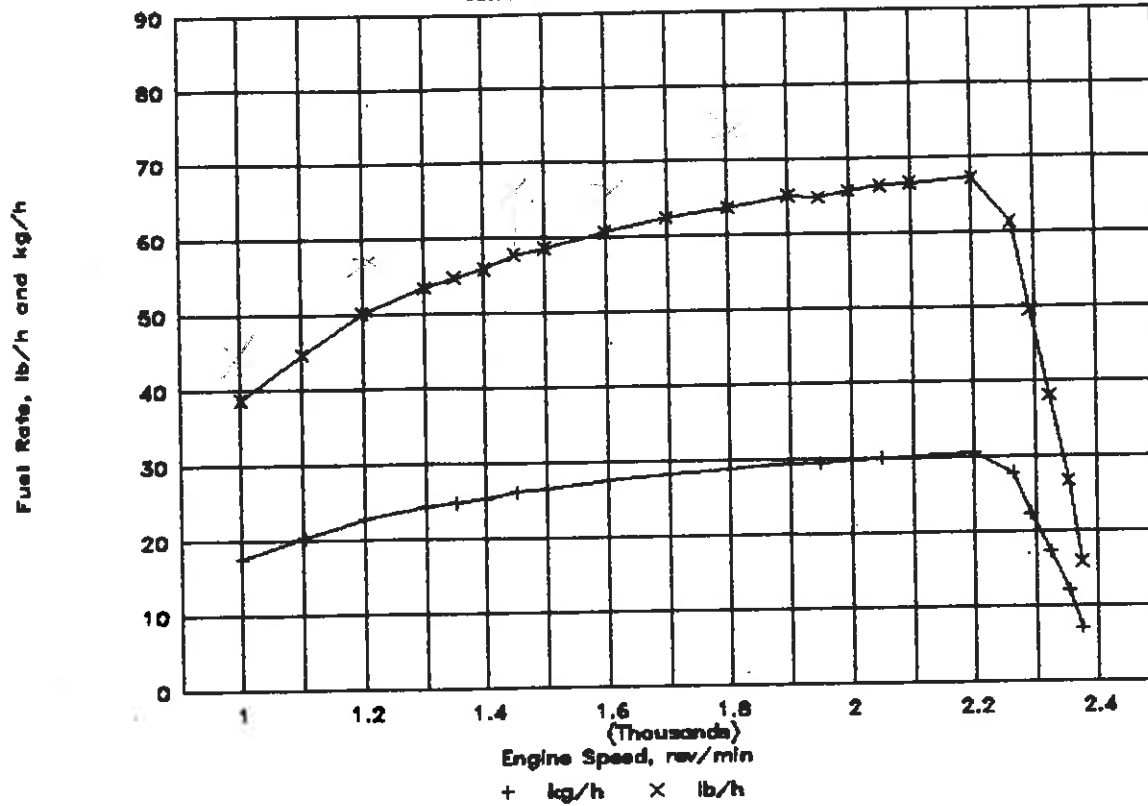
PTO Power

John Deere 4755 PST MFWD



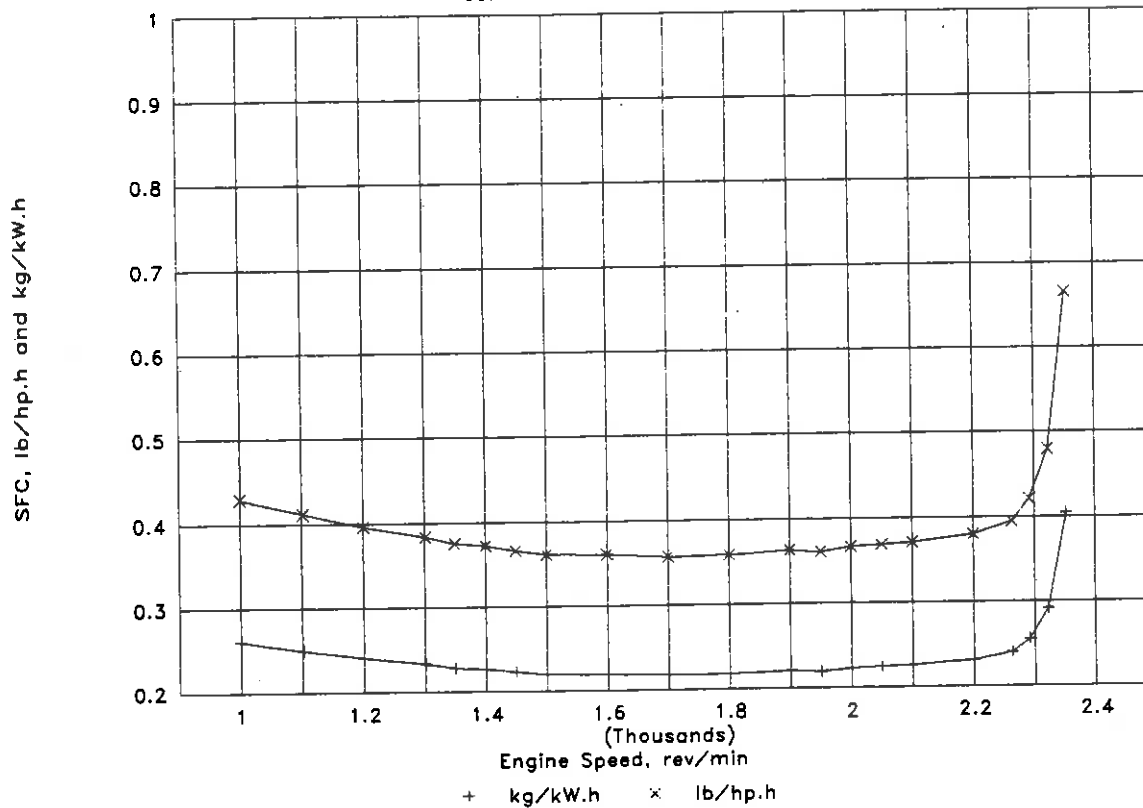
PTO Fuel Consumption

John Deere 4755 PST MFWD



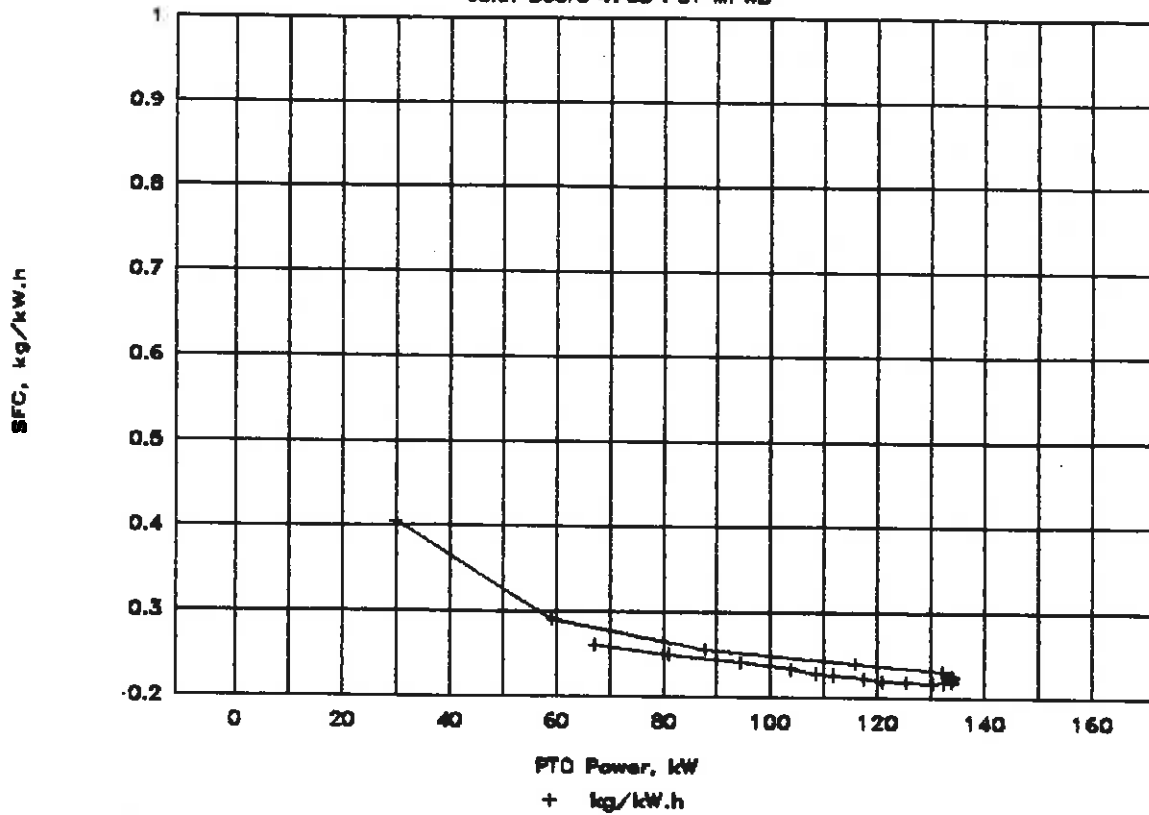
PTO Specific Fuel Consumption

John Deere 4755 PST MFWD



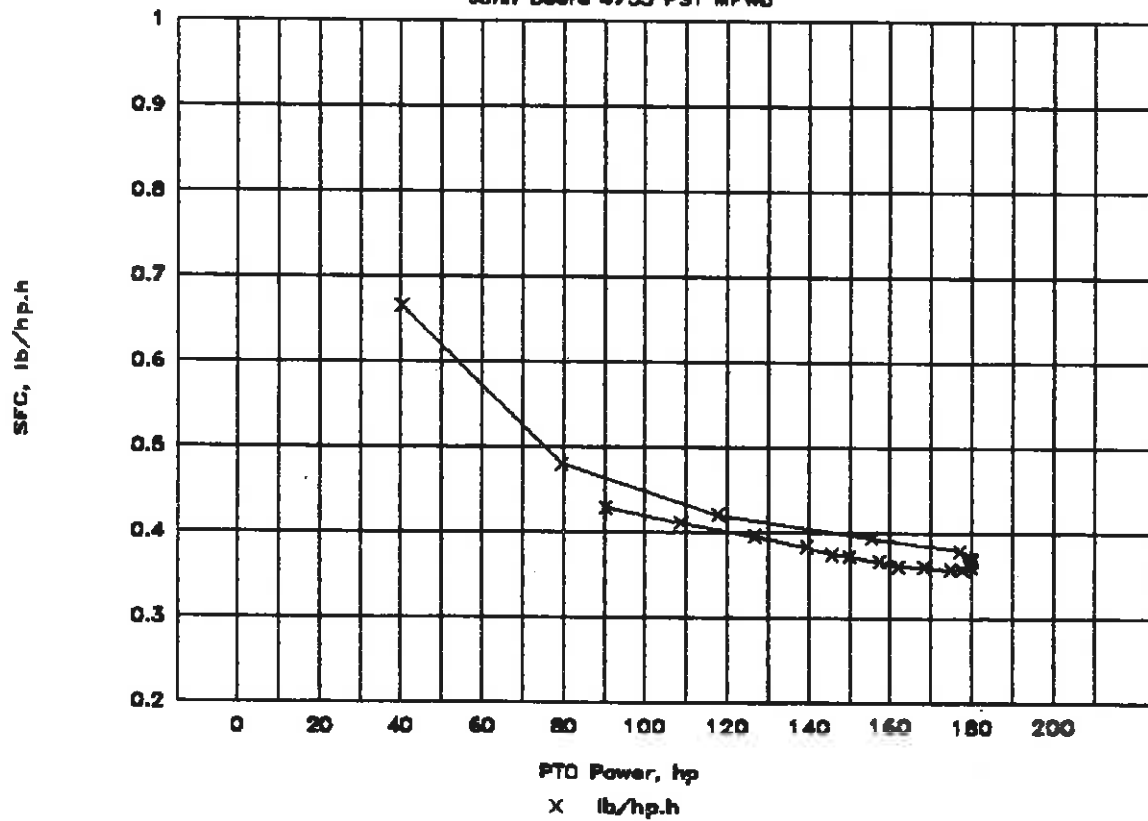
SFC vs PTO Power

John Deere 4755 PST MFWD



SFC vs PTO Power

John Deere 4755 PST MFWD



5. OPTIONAL TESTS.

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5.1 MEASUREMENT OF EXTERNAL NOISE LEVEL.

Date of test : April 28, 1989
Location of test : CAE/UNL, Lincoln, Nebr.
Sound level meter : B & K 2203
Type of track : Concrete oval
Gear number : 15th
Speed prior to acceleration : 24.7 km/h (15.4 mph)
Sound level : 85.5 dB(A)

5.2 MAXIMUM POWER AT 2050 REV/MIN (BALLASTED TRACTOR)

OECD Drawbar Data (SI)

Date of tests: 03-May-89 03-May-89		Fuel density: 0.828 kg/l												
Type of track: Concrete		Test # 1621												
Gear	Power kW	Pull kN	Speed km/h	Engine Speed rev/min	Slip %	SFC		Fuel	Temperature, deg C				Rel Pressure hum %	
						kg/kW.h	kW.h/l		Coolant	Oil	Dry	Wet	in	kPa
1b. Maximum Power (ballasted, FWA @ 2050 rev/min)				Tire pressure:					83 kPa, rear (inner)		165 kPa, front			
Drawbar height: 521 mm									83 kPa, rear (outer)					
2nd*	80.06	95.34	3.02	2282	11.29%	0.312	2.66	43	84	100	13	10	69%	98.24
3rd*	98.25	95.55	3.70	2262	9.38%	0.299	2.77	44	85	99	13	10	69%	98.27
4th	106.70	83.99	4.57	2164	6.81%	0.284	2.92	44	86	101	14	11	70%	98.21
5th	108.45	74.14	5.27	2125	5.13%	0.280	2.95	44	85	101	16	11	54%	98.17
6th	113.06	69.96	5.82	2051	4.26%	0.266	3.12	44	86	101	17	12	55%	98.04
7th	111.56	59.50	6.75	2051	3.65%	0.269	3.08	44	86	101	17	12	55%	97.97
8th	108.50	50.02	7.81	2050	2.94%	0.276	3.00	44	86	101	17	12	55%	98.10
9th	109.33	43.49	9.05	2053	2.49%	0.276	3.00	44	86	101	16	11	54%	98.14
10th	109.59	38.29	10.30	2053	2.22%	0.274	3.02	44	86	101	17	12	55%	97.90
11th	108.45	32.82	11.90	2051	1.94%	0.279	2.97	43	86	101	18	12	49%	97.80
12th	112.37	30.32	13.34	2053	1.67%	0.267	3.10	43	86	101	18	12	49%	97.77
13th	108.59	23.60	16.57	2054	1.39%	0.277	2.99	43	87	100	18	12	49%	97.77
Note: *Pull limited due to tractor bouncing.														

OECD Drawbar Data (US)

Date of tests: 03-May-89 03-May-89		Fuel density: 6.912 lb/gal												
Type of track: Concrete		Test # 1621												
Gear	Power hp	Pull lb	Speed mph	Engine Speed rpm	Slip %	SFC		Fuel	Temperature, deg F				Rel Pressure hum %	
						lb/hp-hr	hp-hr/gal		Coolant	Oil	Dry	Wet	in	Hg
1b. Maximum Power (ballasted, FWA @ 2050 rev/min)				Tire pressure:					12 psi, rear (inner)		24 psi, front			
Drawbar height: 20.5 in									12 psi, rear (outer)					
2nd*	107.36	21434	1.88	2282	11.29%	0.513	13.48	110	184	212	55	50	69%	29.01
3rd*	131.75	21481	2.30	2262	9.38%	0.491	14.07	111	185	211	55	50	69%	29.02
4th	143.08	18882	2.84	2164	6.81%	0.467	14.81	112	187	214	57	51	70%	29.00
5th	145.44	16667	3.27	2125	5.13%	0.461	15.00	111	186	213	60	52	54%	28.99
6th	151.62	15727	3.62	2051	4.26%	0.437	15.82	111	187	214	62	53	55%	28.95
7th	149.61	13376	4.19	2051	3.65%	0.443	15.62	112	187	214	63	53	55%	28.93
8th	145.51	11246	4.85	2050	2.94%	0.454	15.22	112	186	214	62	53	55%	28.97
9th	146.62	9776	5.62	2053	2.49%	0.454	15.24	111	187	213	61	52	54%	28.98
10th	146.96	8607	6.40	2053	2.22%	0.451	15.33	111	186	213	63	53	55%	28.91
11th	145.44	7379	7.39	2051	1.94%	0.459	15.06	110	187	213	65	53	49%	28.88
12th	150.69	6817	8.29	2053	1.67%	0.439	15.76	110	186	213	65	53	49%	28.87
13th	145.63	5305	10.30	2054	1.39%	0.455	15.18	110	189	212	65	53	49%	28.87
Note: *Pull limited due to tractor bouncing.														

MAXIMUM POWER AT 2200 REV/MIN BALLASTED TRACTOR

OECD Drawbar Data (SI)

Date of tests: 03-May-89 03-May-89		Fuel density: 0.828 kg/l												
Type of track: Concrete		Test # 1621												
Gear	Power kW	Pull kN	Speed km/h	Engine Speed rev/min	Slip %	SFC kg/kW.h kW.h/l		Temperature, deg C				Rel Pressure hum kPa		
						Fuel	Coolant	Oil	Dry	Wet				
Ic. Maximum Power (ballasted, FWA @ 2200 rev/min)						Tire pressure:		83 kPa, rear (inner)		165 kPa, front				
Drawbar height: 521 mm								83 kPa, rear (outer)						
3rd*	95.98	94.27	3.67	2261	10.23%	0.303	2.73	45	85	100	13	10	69%	98.24
4th	107.40	82.57	4.68	2202	6.23%	0.284	2.91	45	85	100	13	10	69%	98.21
5th	107.36	70.58	5.48	2200	4.70%	0.285	2.91	45	86	101	14	11	60%	98.17
6th	111.65	64.02	6.28	2202	3.91%	0.273	3.04	45	86	101	17	12	55%	98.07
7th	109.98	54.56	7.26	2196	3.39%	0.276	3.00	45	85	101	17	12	55%	98.00
8th	107.23	45.95	8.40	2199	2.58%	0.283	2.92	44	85	101	17	12	55%	98.10
9th	107.19	39.66	9.73	2203	2.31%	0.285	2.91	45	86	101	16	11	54%	98.14
10th	107.27	34.97	11.04	2196	1.94%	0.283	2.92	45	85	101	17	12	55%	97.90
11th	105.87	29.80	12.79	2201	1.85%	0.286	2.90	45	85	100	18	12	50%	97.83
12th	108.54	27.29	14.32	2199	1.58%	0.281	2.95	45	85	101	18	12	50%	97.83
Note: *Pull limited due to tractor bouncing.														

OECD Drawbar Data (US)

Date of tests: 03-May-89 03-May-89		Fuel density: 6.912 lb/gal														
Type of track: Concrete		Test # 1621														
Gear	Power hp	Pull lb	Speed mph	Engine Speed rpm	Slip %	SFC lb/hp-hr hp-hr/gal		Fuel	Temperature, deg F Coolant Oil Dry Wet				Rel Pressure hum % in Hg			
Ic. Maximum Power (ballasted, FWA @ 2200 rev/min)						Tire pressure:		12 psi, rear (inner)		24 psi, front						
Drawbar height: 20.5 in								12 psi, rear (outer)								
3rd*	128.71	21192	2.28	2261	10.23%	0.499	13.85	113	186	213	55	50	69%	29.01		
4th	144.03	18563	2.91	2202	6.23%	0.467	14.79	113	186	213	55	50	69%	29.00		
5th	143.97	15867	3.40	2200	4.70%	0.468	14.77	112	186	214	58	51	60%	28.99		
6th	149.72	14393	3.90	2202	3.91%	0.448	15.41	113	186	213	62	53	55%	28.96		
7th	147.48	12265	4.51	2196	3.39%	0.454	15.24	114	186	213	62	53	55%	28.94		
8th	143.79	10330	5.22	2199	2.58%	0.466	14.84	112	186	213	62	53	55%	28.97		
9th	143.75	8917	6.05	2203	2.31%	0.469	14.75	113	186	213	60	52	54%	28.98		
10th	143.85	7861	6.86	2196	1.94%	0.466	14.83	113	186	213	63	53	55%	28.91		
11th	141.98	6700	7.95	2201	1.85%	0.470	14.71	113	185	213	65	53	50%	28.89		
12th	145.55	6136	8.90	2199	1.58%	0.461	14.98	114	186	213	65	53	50%	28.89		

Note: *Pull limited due to tractor bouncing.

5.3 POWER LIFT TEST

*Linkage geometry dimensions.
(with Walterscheid lower link ends)

		Dimension or range		Settings used on test	
		[mm]	[in]	[mm]	[in]
Lift category		III			
Rear Tire - Radius Index	(r)	918	36.1		
Front Tire - Radius Index	(r')	716	28.2		
Length of lift arms	(A)	468	18.4	same	
Length of lower links	(B)	1060	41.7	same	
Distance of lift					
arm pivot from: horizontal	(a)	0	0	same	
rear wheel axis: vertical	(b)	327	12.9	same	
Horizontal distance between the					
2 lower link points	(u)	582	22.9	same	
Horizontal distance between the					
2 lift arm end points	(v)	746	29.4	same	
Length of upper link	(S)	635	25.0	673	26.5
		to 790	31.0		
Distance of upper					
link pivot from: horizontal	(c)	516	20.3	same	
rear wheel axis: vertical upper	(d)	326	12.8		
lower		201	7.9		
Distance of lower					
link pivot from: horizontal	(e)	156	6.1	same	
rear wheel axis: vertical	(f)	330	13.0	same	
Distance of lower link pivot					
points to lift rod pivot pts					
on lower links.	(D)	716	28.2	same	
Length of lift rods	(L)	860	33.8		
		to 947	37.3	947	37.3
Height of lower hitch points					
relative to rear wheel axis					
In low position	(h)	533	21.0		
		to 686	27.0	660	26.0
In high position	(H)	140	5.5		
		to 312	12.3	211	8.3
Height above ground of lower					
hitch points when locked in					
transport position.		1054	41.5		
		to 1242	48.9	1130	44.5

*Assuming (r) with a tire dynamic index of 918 mm (36.1 in)
ISO 4251/1-1984

THREE POINT LIFT PERFORMANCE
(Upper link in bottom hole on tractor)
(with 2-44 mm. lift assist cylinders)

		Hitch Points	Frame			
Lower hitch points above ground - down position.	[mm/in]	284/11.2	294/11.6			
Vertical movement without load	[mm/in]	871/34.3	1019/40.1			
with load	[mm/in]	787/31.0	904/35.6			
Maximum corrected force through full range	[kN/lbf]	31.5/7077	29.5/6636			
Corresponding pressure	[kPa/psi]	12066/1750				
Moment about rear axle	[kN.m/ft.lb]	38.2/28190	53.8/39705			
Maximum mast tilt angle [degrees]		--	12.0			
=====						
Lifting height relative to the horizontal position of lower links						
[mm]	-304	-294	-228	-126	0	102
[in]	-12.0	-11.6	-9.0	-5.0	0	4.0
Corrected lift forces.						
hitch [kN]	31.5	--	33.5	36.2	38.5	40.2
points [lb]	7077	--	7532	8141	8652	9037
at [kN]	--	36.5	36.2	36.7	36.6	35.8
frame [lb]	--	8197	8141	8246	8232	8050
Lifting height relative to the horizontal position of lower links						
[mm]	204	305	407	483	610	
[in]	8.0	12.0	16.0	19.0	24.0	
Corrected lifting forces.						
hitch [kN]	41.7	42.8	44.1	45.3	--	
points [lb]	9366	9618	9919	10192	--	
at [kN]	35.0	33.4	--	31.3	29.5	
frame [lb]	7861	7504	--	7028	6636	
=====						

THREE POINT LIFT PERFORMANCE
(Upper link in bottom hole on tractor)
(with 2-55 mm. lift assist cylinders)
(for settings used see p.29)

		Hitch Points	Frame			
Lower hitch points above ground - down position.		[mm/in]	289/11.4	294/11.6		
Vertical movement						
without load	[mm/in]	871/34.3	1019/40.1			
with load	[mm/in]	782/30.8	904/35.6			
Maximum corrected force through full range		[kN/lbf]	36.0/8099	32.6/7336		
Corresponding pressure		[kPa/psi]	12066/1750			
Moment about rear axle		[kN.m/ft.lb]	43.7/32261	59.5/43894		
Maximum mast tilt angle [degrees]				12.0		
=====						
Lifting height relative to the horizontal position of lower links						
[mm]	-299	-294	-228	-126	0	102
[in]	-12.0	-11.6	-9.0	-5.0	0	4.0
=====						
Corrected lift forces.						
hitch [kN]	36.0	--	37.6	40.2	43.2	45.0
points [lb]	8099	--	8463	9037	9702	10122
at [kN]	--	41.0	40.7	40.5	40.4	40.1
frame [lb]	--	9226	9156	9107	9093	9016
=====						
Lifting height relative to the horizontal position of lower links						
[mm]	204	305	407	483	610	
[in]	8.0	12.0	16.0	19.0	24.0	
=====						
Corrected lifting forces.						
hitch [kN]	46.7	48.0	49.4	50.5	--	
points [lb]	10507	10787	11102	11347	--	
at [kN]	39.0	37.1	--	34.7	32.6	
frame [lb]	8771	8330	--	7791	7336	
=====						

THREE POINT LIFT PERFORMANCE
(Upper link in top hole on tractor)
(with 2-44 mm. lift assist cylinders)
(for settings used see p.29)

		Hitch Points	Frame
Lower hitch points above ground - down position.	[mm/in]	284/11.2	378/14.9
Vertical movement			
without load	[mm/in]	871/34.3	889/35.0
with load	[mm/in]	787/31.0	701/27.6
Maximum corrected force through full range	[kN/lbf]	31.5/7077	37.3/8386
Corresponding pressure	[kPa/psi]	12066/1750	
Moment about rear axle	[kN.m/ft.lb]	38.2/28190	68.0/50176
Maximum mast tilt angle	[degrees]	5.7*	
=====			
Tilt angle of mast from vertical position to uppermost position - 0.7'			

Lifting height relative to the horizontal position of lower links

[mm]	-304	-210	-126	1	102
[in]	-12.0	-8.3	-5.0	0	4.0

Corrected lift forces.

hitch [kN]	31.5	33.5	36.2	38.5	40.2
points [lb]	7077	7532	8141	8652	9037
at [kN]	--	54.2	46.3	44.5	43.3
frame [lb]	--	12194	10416	9996	9723

Lifting height relative to the horizontal position of lower links

[mm]	204	305	407	483	491
[in]	8.0	12.0	16.0	19.0	19.3

Corrected lifting forces.

hitch [kN]	41.7	42.8	44.1	45.3	--
points [lb]	9366	9618	9919	10192	--
at [kN]	42.4	41.0	39.2	--	37.3
frame [lb]	9541	9226	8806	--	8386
=====					

THREE POINT LIFT PERFORMANCE
 (Upper link in top hole on tractor)
 (with 2-55 mm.lift assist cylinders)
 (for settings used see p.29)

		Hitch Points	Frame		
Lower hitch points above ground - down position.					
	[mm/in]	289/11.4	380/15.0		
Vertical movement					
without load	[mm/in]	871/34.3	889/35.0		
with load	[mm/in]	782/30.8	701/27.6		
Maximum corrected force through full range					
	[kN/lbf]	36.0/8099	41.7/9366		
Corresponding pressure		12066/1750			
Moment about rear axle					
	[kN.m/ft.lb]	43.7/32261	76.0/56040		
Maximum mast tilt angle [degrees]		---	6.5*		
=====					
Tilt angle of mast from vertical position to uppermost position - 1.0°					
Lifting height relative to the horizontal position of lower links					
[mm]	-299	-208	-126	0	102
[in]	-12.0	-8.2	-5.0	0	4.0
Corrected lift forces.					
hitch [kN]	36.0	37.6	40.2	43.2	45.0
points [lb]	8099	8463	9037	9702	10122
at [kN]	--	60.4	51.5	49.5	48.8
frame [lb]	--	13573	11517	11130	10969
Lifting height relative to the horizontal position of lower links					
[mm]	204	305	407	483	493
[in]	8.0	12.0	16.0	19.0	19.4
Corrected lifting forces.					
hitch [kN]	46.7	48.0	49.4	50.5	--
points [lb]	10507	10787	11102	11347	--
at [kN]	47.4	45.6	43.8	--	41.7
frame [lb]	10661	10241	9856	--	9366
=====					

Repairs: None
 Remarks: None

