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(Restricted code)
Date of approval: 16 November 1994

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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 7200 POWRQUAD MFWD



MANUFACTURED BY: John Deere Waterloo Tractor Works Tractor Division
P.O. Box 270
Waterloo, Iowa 50704-0270

NEBRASKA TEST NO. 1679

Test Dates: 11 May through 2 June, 1994

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 16 November, 1994

John Deere 7200 PowrQuad MFWD OECD # 1536

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## SPECIFICATIONS OF TRACTOR.

| | |
|---|---|
| Manufacturers name/address | John Deere Tractor Works<br>P.O. Box 270<br>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<br>Waterloo, Iowa, USA |
| Duration of running in | 130 hours |
| Location of Test | Nebraska Power laboratory<br>Tractor Testing Laboratory<br>Lincoln, Nebraska,USA. |

**TRACTOR SPECIFICATIONS.**

| | |
|---|---|
| Make | John Deere |
| Model | 7200 PowrQuad MFWD |
| Type | Unit construction, mechanical front wheel drive (MFWD) |
| Number of driving wheels | 2 or 4 |
| Serial Number | *RW7200H001519* |
| 1st Serial number | *RW7200H001000* |

**ENGINE.**

| | |
|---|---|
| Make | John Deere |
| Model | 6059TRW01 |
| Type | Diesel; 4-stroke; turbocharged direct injection |
| Serial Number | *TO6059T431870* |

Cylinders

| | |
|---|---|
| Number/Disposition | 6, in-line, vertical |
| Bore/stroke | 106.5 mm x 110.0 mm |
| Capacity | 5880 $cm^3$ |
| Compression Ratio | 17.8 - 1 |
| Arrangement of valves | Overhead |
| Cylinder liners | Wet; replaceable |

Super charging

| | |
|---|---|
| Make/Model/Type | Garret/T350(RE53398)/ Exhaust gas driven |
| Pressure | 70 kPa at rated speed and load |

Fuel System

| | |
|---|---|
| Feed system | Mechanical transfer pump |
| Make/Type/Model of filters | Fuel-Gard/RE52987/paper element |
| Fuel tank capacity | 204 l |

| | |
|---|---|
| Fuel Cooler | Heat exchanger with air |
| Make/Model/Type Injection Pump | Lucas/(RE57894)/rotary; electric shutoff |
| Pump Serial number | 23810JLG |
| Production setting of pump Flow Rate (Rated Eng.Spd & Full Load) | 17.6 +/- 0.7 kg/hour |
| Make/Model/Type Injectors | Stanadyne/RE36939/9.5 mm Pencil |
| Injection pressure | 25.86 MPa |
| Timing | 26.2 degrees BTDC |
| **Governor** | |
| Make/Model/Type | Lucas/RE57893/mechanical |
| Governed engine speed range | From 850 to 2275 rev/min |
| Rated engine speed | 2100 rev/min |
| High-idle speed range | 2275 +/- 50 rpm |
| **Air Cleaner.** | |
| Pre-cleaner Make/Model/type | Mann & Hummel/Centrifugal, integral with AL78030 air cleaner assembly |
| Air intake location | Under hood, front of tractor |
| Main Cleaner Make/Model/Type | Mann & Hummel/AL78223/ integrated; pleated paper |
| Location | Under hood, front of tractor |
| Secondary element | Mann & Hummel/AL78224/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 |
| Number | One spin-on. |
| Oil cooler | Heat exchanger with engine coolant |
| **Cooling system.** | |
| Type of coolant | Liquid |
| Type of pump | Centrifugal, belt driven |
| Fan specification | Belt driven; Suction type; Variable speed |
| Number of fan blades | 7 |
| Fan diameter | 531 mm |
| Coolant system capacity | 19 l. |
| Type of temperature control | Two thermostats and variable speed fan |
| System pressure | 69 kPa |

| | |
|---|---|
| **Starting system.** | |
| Make/Model/Type of starter | Nippondenso/R42670/Solenoid Engaged |
| Power Rating | 4.0 kW |
| Cold starting aid | Electrical resistance preheater in air intake |
| Safety device | Electrical lockout on gearshift |
| **Electrical system.** | |
| Voltage & grounding. | 12 Volt DC;negative ground |
| Alternator | |
| Make/Model/Type | Nippondenso/RE34890/Belt driven |
| Power rating | 120 Amp at rated engine speed and 25°C ambient |
| Batteries | |
| Number & connection | Two; 12 Volt batteries in parallel; SAE tapered post |
| Rating | 925 cold cranking amps/battery 175 Ah/battery at 20 h rating |
| **Exhaust system.** | |
| Muffler Make/Model/Type | Nelson/RE49158/Expansion chamber |
| Location | Horizontal muffler; under hood |
| Exhaust stack location | Vertical; right front of cab |

**TRANSMISSION.**

| | |
|---|---|
| **Clutch. (travel)** | |
| Make/Model/Type | John Deere/Multiple plate/oil cooled |
| Number of plates | 3 |
| Plate diameter | 225 mm |
| Method of operation | Hydraulic; pedal actuated |
| **Gear Box.** | |
| Make/Model/Type | John Deere/PowrQuad/Mechanical |
| Arrangement (tested version) | Countershaft and planetary design consisting of one 4-speed gear box with 4 synchronized speeds and a 4-planetary gear set with multiple wet disc clutch and brake units |
| Number of gears | 16 forward and 12 reverse operated by two levers |
| Oil cooler | Heat exchanger with air |
| Other Available options | Creeper gear |

| | |
|---|---|
| **Rear axle and final drives.** | |
| Make/Model/Type | John Deere/Crown wheel and pinion, differential and inboard planetary reduction |
| Differential Lock | |
| Type | 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/900/Crown wheel and pinion, differential and inboard planetary reduction |
| Differential Lock | |
| Type | Limited slip |
| Method of engagement | Self-engaging |
| Method of disengagement | Self-disengaging |

Gear ratios and travel speeds. (US version)
(Tire dynamic radius of 820 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 | | |
| A1 | 270.03 | 2.40 |
| A2 | 223.45 | 2.91 |
| A3 | 187.30 | 3.47 |
| A4 | 152.84 | 4.25 |
| B1 | 127.40 | 5.10 |
| B2 | 105.43 | 6.16 |
| B3 | 88.37 | 7.35 |
| C1 | 80.06 | 8.11 |
| B4 | 72.11 | 9.00 |
| C2 | 66.25 | 9.80 |
| C3 | 55.53 | 11.69 |
| C4 | 45.31 | 14.33 |
| D1 | 38.61 | 16.81 |
| D2 | 31.95 | 20.32 |
| D3 | 26,78 | 24.24 |
| D4 | 21.85 | 29.71 |
| Reverse | | |
| A1 | 228.45 | 2.84 |
| A2 | 189.04 | 3.43 |
| A3 | 158.46 | 4.10 |
| A4 | 129.30 | 5.02 |
| B1 | 107.79 | 6.02 |
| B2 | 89.19 | 7.28 |
| B3 | 74.76 | 8.68 |
| C1 | 67.73 | 9.58 |
| B4 | 61.01 | 10.64 |
| C2 | 56.05 | 11.58 |
| C3 | 46.98 | 13.82 |
| C4 | 38.34 | 16.93 |

Number of front wheel revolutions
for one rear wheel revolution: 1.345

## CREEPER GEAR

(Tire dynamic radius of 820 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 | | |
| A1 | 4578.17 | 0.14 |
| A2 | 3788.37 | 0.17 |
| A3 | 3175.55 | 0.20 |
| A4 | 2591.25 | 0.25 |
| B1 | 1554.93 | 0.42 |
| B2 | 1286.68 | 0.50 |
| B3 | 1078.54 | 0.60 |
| B4 | 880.09 | 0.74 |
| C1 | 773.51 | 0.84 |
| C2 | 640.07 | 1.01 |
| C3 | 536.53 | 1.21 |
| C4 | 437.80 | 1.48 |
| Reverse | | |
| A1 | 3873.24 | 0.17 |
| A2 | 3205.05 | 0.20 |
| A3 | 2686.59 | 0.24 |
| A4 | 2192.25 | 0.30 |
| B1 | 1315.51 | 0.49 |
| B2 | 1088.56 | 0.60 |
| B3 | 912.47 | 0.71 |
| B4 | 744.58 | 0.87 |
| C1 | 654.40 | 0.99 |
| C2 | 541.51 | 1.20 |
| C3 | 453.91 | 1.43 |
| C4 | 370.39 | 1.75 |

Number of front wheel revolutions
for one rear wheel revolution: 1.345

## POWER - TAKE - OFF.

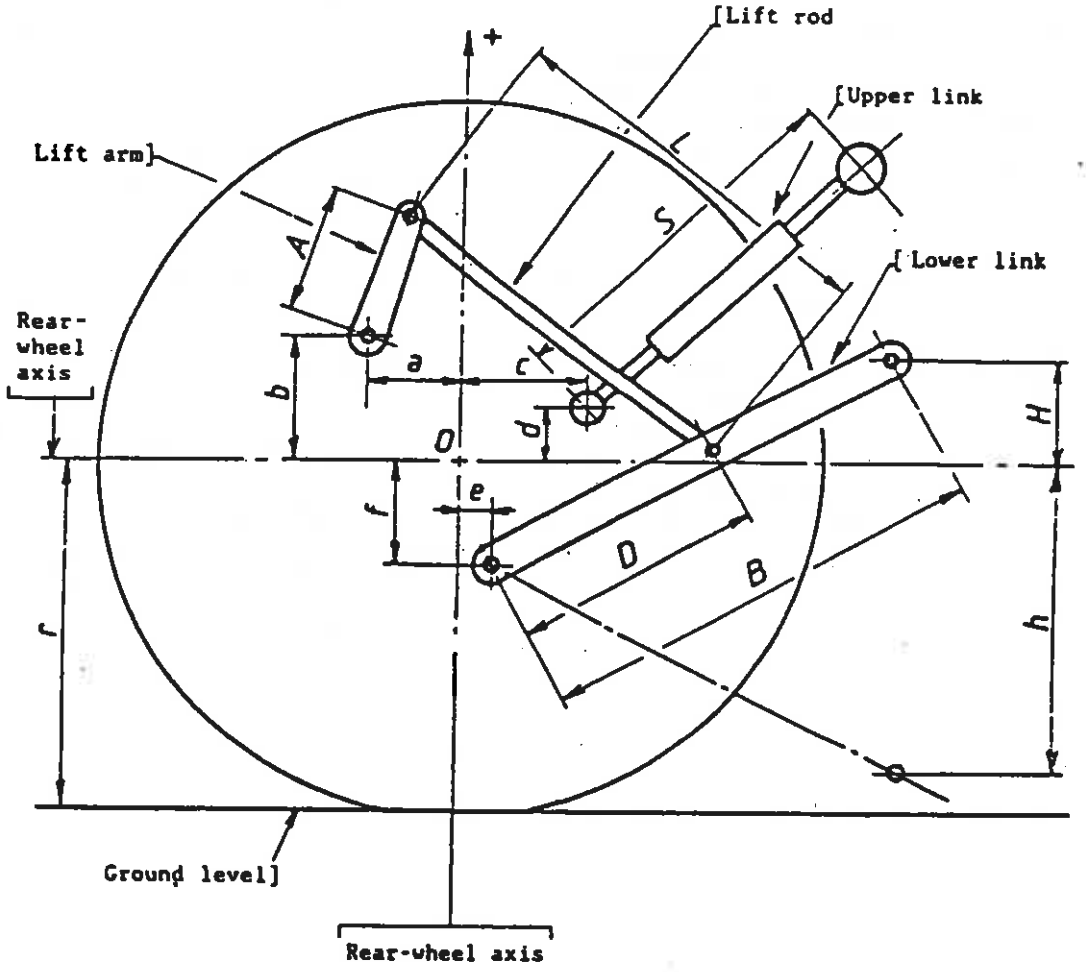
| | |
|---|---|
| **Main Power-Take-Off.** | |
| Type | Independent |
| Method of engagement | Hydraulically actuated multi-plate wet clutch operated by hand control knob |
| Number of shafts | One |
| Method of changing speeds | Reversible shaft |
| **Standard PTO - 540 rev/min.** | |
| Location | Rear of tractor; center plane |
| Diameter of shaft | 35 mm |
| Number of splines | 6; conforms to ISO 500/1991. |
| Height above ground | 740 mm |
| Distance from median plane of tractor | 0 mm |
| Distance behind rear axle | 620 mm |
| PTO Speed at rated engine spd | 545 rev/min |
| Engine speed at Std. PTO spd | 2080 rev/min |
| Engine speed/PTO speed ratio | 3.851:1 |
| Power restriction | 56 kW |
| Direction of rotation when viewed from shaft end | Clockwise. |
| **Standard PTO-1000 rev/min.** | |
| Location | Rear of tractor; center plane |
| Diameter of shaft | 35 mm |
| Number of splines | 21; conforms to ISO 500/1991 . |
| Height above ground | 740 mm |
| Distance from median plane of tractor | 0 mm |
| Distance behind rear axle | 620 mm |
| PTO Speed at rated engine spd | 1003 rev/min |
| Engine speed at Std. PTO spd | 2093 rev/min |
| Engine speed/PTO speed ratio | 2.093:1 |
| Power restriction | None |
| Direction of rotation when viewed from shaft end | Clockwise. |

## POWER LIFT.

| | |
|---|---|
| Make/Model/Type | John Deere/Electronic 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 |
| Type of linkage lock for transport | |
| Relief valve pressure setting | 197-207 bar |
| Opening pressure of cylinder safety valve | 240 +/- 10 bar |
| Lift pump type | Axial piston, variable delivery and flow, pressure and flow compensated |
| Power transmission to pump | Spiral bevel gear drive |
| Type/Number of filters | Synthetic media ,screw-on canister/one |
| Location of oil reservoir | Differential case housing |
| Number/Type/Location of tapping points. | Up to 4 pairs of ISO standard couplings at rear of tractor. |
| Max. oil volume available for external cylinders. | 19 liters<br>additional 11 liters allowable overfill for total of 30 liters |

## THREE POINT LINKAGE.

- Category 2 in conformity with ISO 730/1-1990
- Category adaptor - None



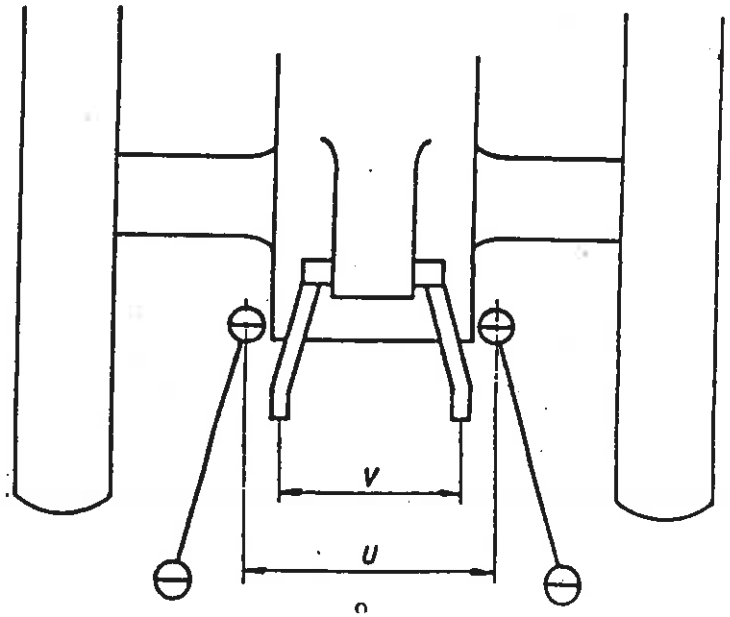



Table 1.1 - Linkage geometry dimensions.

| | | Dimension or range [mm] | Settings used on test [mm] |
|---|---|---|---|
| Lift category | | II | II |
| Rear Tire - Radius Index | (r) | 820 | same |
| Front Tire - Radius Index | (r') | 610 | same |
| Length of lift arms | (A) | 400 | same |
| Length of lower links | (B) | 962 | same |
| Distance of lift arm pivot from: horizontal | (a) | 184 | same |
| rear wheel axis: vertical | (b) | 523 | same |
| Horizontal distance between the 2 lower link points | (U) | 495 | same |
| Horizontal distance between the 2 lift arm end points | (V) | 647 | same |
| Length of upper link | (S) | 596 to 743 | 705 |
| Distance of upper link pivot point from rear wheel axis - horizontal | (c) | 456 | same |
| - vertical | (d) | 125 | same |
| Distance of lower link pivot from: horizontal | (e) | 160 | same |
| rear wheel axis: vertical | (f) | 250 | same |
| Distance of lower link pivot points to lift rod pivot pts on lower links. | (D) | 537 | same |
| Length of lift rods | (L) | 778 to 940 | 889 |
| Height of lower hitch points below rear wheel axis In low position | (h) | 0 to 693 | 632 |
| In high position | (H) | -275 to 405 | 76 |
| Height above ground of lower hitch points when locked in transport position -778 mm lift rod | | 1093 | 911 |
| -940 mm lift rod | | to 818 | |

* Tire dynamic index of 820 mm ISO 4251/1-1992

## SWINGING DRAWBAR.

| | |
|---|---|
| Type | Oscillating |
| Height above ground - maximum | 473 mm |
| - minimum | 352 mm |
| Adjustments | Invert drawbar; reposition clevis |
| Distance of hitch point from rear wheel axis-horizontal | 836, 936, 986 mm |
| Distance of hitch point from PTO shaft end: Vertical | 285 mm |
| Horizontal | 251-351-401 mm |
| Lateral adjustment-Right side | 190 mm |
| Left side | 190 mm |
| Distance of pivot point from rear wheel axis-horizontal | 27 mm |
| Diameter of drawbar pin hole | 33 mm |
| Maximum vertical static permissible load | 28 kN -short position<br>21 kN -intermediate<br>14 kN -extended |

## STEERING.

| | |
|---|---|
| Make/Model/Type | Eaton/RE34138/Hydrostatic |
| Method of operation | Steering wheel |
| Pump(s) | Same as main pump |
| Ram(s) | Two external; double acting |
| Working pressure | 170 +/- 5 bar |

## BRAKE SYSTEM.

Service brake.

| | |
|---|---|
| Make/Model/Type | Vickers/RE29826/John Deere oil immersed disc |
| Method of operation | Hydraulic; operated by two pedals which can be locked together. |

Parking brake.

| | |
|---|---|
| Type | Transmission lock. |
| Method of operation | Gear selector lever |

Trailer Brake — None

**WHEELS.**

| | |
|---|---|
| Number - Front | Two; Driving and steering |
| Rear | Two; Driving |
| Wheel base | 2625 mm |

Track width adjustment

| | Minimum [mm] | Maximum [mm] | Adjustment method |
|---|---|---|---|
| Front | 1524 | 2235 | Reversing wheels and offset lug rims |
| Rear | 1525 | 2178 | Rack and Pinion axle Reversing wheels and offset lug rims |

**PROTECTIVE STRUCTURE.**

| | |
|---|---|
| Make/Model/Type | John Deere/SG-050/ComfortGard |
| Manufacturer's name/address | John Deere Tractor Works Waterloo, Iowa, USA |
| Protective device | Cab; not tiltable |
| OECD approval number | CSS 0217/55 |

**DRIVER'S SEAT.**

| | |
|---|---|
| Make/Model/Type | Sears/FS92-01/Air suspension; Personal posture cushioning |
| Type of suspension | Air |
| Type of damping | Air |
| Range of adjustment | |
| Longitudinal | 167 mm |
| Vertical | 80 mm |
| Rotation | 20 degrees left and right |

**LIGHTING.**

| | Height above ground of center [mm] | Size [mmxmm] | Distance from outside edge to median plane of tractor. [mm] |
|---|---|---|---|
| Head lights | 1305 | 160x102 | 225 |
| Side lights | 1305 | 110x102 | 275 |
| Rear lights | 1820 | 225x90 | 930 |
| Reflectors-rear | Integral with rear light lenses | | |

**TEST CONDITIONS.**

Overall dimensions.

| | |
|---|---|
| Length-Overall | 4435 mm |
| Width -Minimum | 2438 mm |
| -Maximum | 2686 mm |
| Height - Top protective structure | 2880 mm |
| - Top of exhaust | 2880 mm |
| Ground clearance | 360 mm |
| Clearance-limiting part | Sway Blocks |

Tractor Mass (with cab,full fuel tank).

| | | without driver [kg] | with driver [kg] |
|---|---|---|---|
| Unballasted | Front | 1991 | 2006 |
| | Rear | 3760 | 3820 |
| | Total | 5751 | 5826 |

| | |
|---|---|
| Max. permissible load-front | 3300 kg |
| -rear | 6580 kg |

| Tire Specifications. | Front Wheels | Rear Wheels |
|---|---|---|
| Make | Goodyear | Goodyear |
| Dimensions | 13.6R28 | 18.4R38 |
| Number/Ply rating | 3 star | 1 star |
| Type | Radial | Radial |
| Max.load | 1700 kg/tire | 2760 kg/tire |
| Inflation pressure(tire mfr)-max | 210 kPa | 120 kPa |
| -min | 40 kPa | 60 kPa |
| as tested | 165 kPa | 110 kPa |
| Dynamic Radius Index | 610 mm | 820 mm |
| Chosen track width | 1626 mm | 1670 mm |

Oils and Lubrication.

Capacity and change interval:

| | Capacity liter | Oil change hours | Filter change hours |
|---|---|---|---|
| Engine (with filter) | 18.0 | 250 | 250 |
| Front axle | 8.5 | 1500 | 750 |
| Transmission, final drive, rear axle and hydraulics | 64 | 1500 | As required or 750 |
| Final drive, front | 1.9 | 1500 | |

Oil and Lubricant specifications:

| | Recommended | Used during test |
|---|---|---|
| Engine oil | | |
| Type | John Deere, Torq-Gard Supreme SAE 15W40 | same |
| Viscosity | 12.8 cSt at 100°C | |
| Classification | API CE or CD; CCMC 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 |
| Front axle and hubs | | |
| Type | John Deere EXTREME-GARD SAE 80W-90 | same |
| Viscosity | 13.5 cSt at 100°C | |
| Classification | API GL-5 | |
| Steering system | Same as transmission | same |
| Grease | John Deere MOLY HIGH TEMPERATURE EP GREASE | same |
| Number of lube points | 25 | |

Fuel

| | |
|---|---|
| Type/grade | Premier; Grade 2-D, in conformity with the national standard |
| Density (Pto test) | 0.838 kg/l at 15° C |
| (Drawbar test) | same as Pto test. |
| Cetane number | 53.9 |
| Viscosity | 2.31 cSt at 38° C |

## COMPULSORY TESTS

### 1. MAIN POWER TAKE-OFF

Date: 12-May-94 Location: UNL Tractor Test Lab, Lincoln, NE, U.S.A.

Type of dynamometer: Eddy current, Eaton Fuel density: 0.838 kg/l 6.994 lb/gal

| Power kW / hp | Eng rev/min | PTO rev/min | l/h / gal/h | kg/h / lb/h | kg/kW.h / lb/hp.h | kW.h/l / hp.h/gal |
|---|---|---|---|---|---|---|
| **1.1 Maximum Power - 2 hours** | | | | | | |
| 72.99 | 1900 | 908 | 20.58 | 17.25 | 0.236 | 3.55 |
| *97.88* | | | *5.44* | *38.02* | *0.388* | *18.00* |
| **1.2 Power at Rated Engine Speed - 1 hour** | | | | | | |
| 70.31 | 2100 | 1003 | 20.81 | 17.44 | 0.248 | 3.38 |
| *94.29* | | | *5.50* | *38.44* | *0.408* | *17.16* |
| **1.3 Power at Standard Power Take-Off Speed - 1 hour** | | | | | | |
| 70.31 | 2100 | 1003 | 20.81 | 17.44 | 0.248 | 3.38 |
| *94.29* | | | *5.50* | *38.44* | *0.408* | *17.16* |
| **1.4 Part Loads** | | | | | | |
| **1.4.1 Torque at maximum power at rated engine speed** | | | | | | |
| 70.31 | 2100 | 1003 | 20.81 | 17.44 | 0.248 | 3.38 |
| 94.29 | | | 5.50 | 38.44 | 0.408 | 17.16 |
| **1.4.2 85% of torque obtained in 1.4.1** | | | | | | |
| 62.78 | 2203 | 1053 | 19.81 | 16.60 | 0.264 | 3.17 |
| *84.19* | | | *5.23* | *36.60* | *0.435* | *16.09* |
| **1.4.3 75% of torque defined in 1.4.2** | | | | | | |
| 47.65 | 2229 | 1065 | 16.89 | 14.15 | 0.297 | 2.82 |
| *63.90* | | | *4.46* | *31.20* | *0.488* | *14.33* |
| **1.4.4 50% of torque defined in 1.4.2** | | | | | | |
| 32.05 | 2250 | 1075 | 13.48 | 11.29 | 0.352 | 2.38 |
| *42.98* | | | *3.56* | *24.90* | *0.579* | *12.07* |
| **1.4.5 25% of torque defined in 1.4.2** | | | | | | |
| 16.31 | 2268 | 1084 | 10.23 | 8.57 | 0.526 | 1.59 |
| *21.87* | | | *2.70* | *18.90* | *0.864* | *8.09* |
| **1.4.6 unloaded** | | | | | | |
| 0.62 | 2282 | 1090 | 7.14 | 5.99 | 9.669 | 0.09 |
| *0.83* | | | *1.89* | *13.20* | *15.896* | *0.44* |
| **1.5 Part Loads at Standard Power Take-off Speed** | | | | | | |
| **1.5.1 Torque at maximum power** | | | | | | |
| 70.31 | 2100 | 1003 | 20.81 | 17.44 | 0.248 | 3.38 |
| *94.29* | | | *5.50* | *38.44* | *0.408* | *17.16* |
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| *21.87* | | | *2.70* | *18.90* | *0.864* | *8.09* |
| **1.5.6 unloaded** | | | | | | |
| 0.62 | 2282 | 1090 | 7.14 | 5.99 | 9.669 | 0.09 |
| *0.83* | | | *1.89* | *13.20* | *15.896* | *0.44* |

| | | |
|---|---|---|
| No load maximum engine speed: | 2282 rev/min | |
| Equivalent torque at rated speed: | 320 N m | *236 lb-ft* |
| Equivalent torque at maximum power: | 367 N m | *271 lb-ft* |
| (engine speed: | 1900 rev/min) | |
| Maximum equivalent crankshaft torque: | 421 N m | *311 lb-ft* |
| (engine speed: | 1300 rev/min) | |
| Mean Dry bulb: | 26 deg C | *78 deg F* |
| Wet bulb: | 21 deg C | *69 deg F* |
| Relative humidity: | 64 % | |
| Pressure: | 98.29 kPa | *29.03 in Hg* |
| Maximum Coolant: | 101 deg C | *213 deg F* |
| Engine oil: | 116 deg C | *241 deg F* |
| Fuel: | 60 deg C | *141 deg F* |
| Air intake: | 26 deg C | *78 deg F* |
| Transmission/hydraulic oil: | 58 deg C | *136 deg F* |
| Intake manifold pressure at rated speed: | 62 kPa | *9.0 psig* |
| Intake manifold pressure at maximum power: | 59 kPa | *8.5 psig* |

## Hydraulic Power Test

Date of test: 16–May–94
Location of test–City–State: Tractor Test Lab, Lincoln, NE, USA
Tapping point used for test: Remote hydraulic outlets

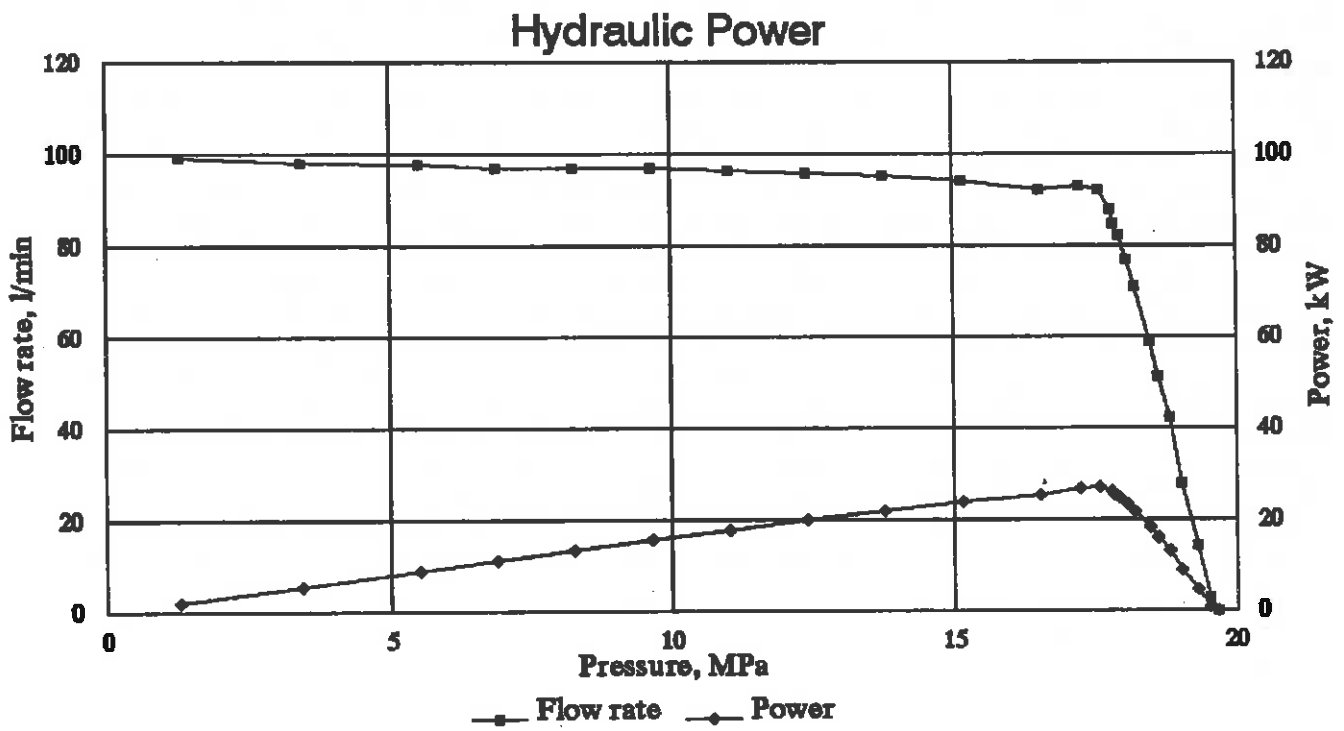
I. Sustained pressure with pump stalled:
19.65 MPa
*2850 psi*

II. Pump delivery rate at minimum pressure and rated engine speed:
99.2 l/min
*26.2 gpm*

III. Flow rate, pressure, power:

| | | | | | |
|---|---|---|---|---|---|
| 90% of relief valve setting: | | | | | |
| 87.8 | l/min | 17.79 | MPa | 26.04 | kW |
| *23.2* | *gpm* | *2580* | *psi* | *34.92* | *hp* |
| Maximum hydraulic power: | | | | | |
| 92.0 | l/min | 17.58 | MPa | 26.96 | kW |
| *24.3* | *gpm* | *2550* | *psi* | *36.15* | *hp* |

IV. Hydraulic fluid temperature at flow meter:
65 C
*150 F*



2.2 POWER LIFT TEST. Cat II,with lift cylinders 1x70 mm & 1x80 mm
(for settings see p.10)
Date of test: 1 June 1994

| | | Hitch points | Frame |
|---|---|---|---|
| Lower hitch points above ground - down position: | [mm] | 188 | 81 |
| Vertical movement: | | | |
| without load: | [mm] | 708 | 956 |
| with load: | [mm] | 696 | 945 |
| Maximum corrected force through full range: | [kN] | 46.5 | 30.5 |
| Corresponding pressure: | [kPa] | 18306 | |
| Moment about rear axle: | [kN.m] | 52.2 | 52.8 |
| Maximum mast tilt angle: | [deg] | -- | 13.5 |

Lifting height relative to horizontal position of lower links.

| [mm] | | 470 | -363 | -300 | -201 | -99 | 0 |
|---|---|---|---|---|---|---|---|
| Corrected lift forces | | | | | | | |
| Hitch point | [kN] | -- | 48.5 | 46.5 | 46.7 | 47.2 | 47.4 |
| at frame | [kN] | 40.4 | 37.2 | 36.5 | 35.9 | -- | 35.0 |

Lifting height relative to horizontal position of lower links.

| [mm] | | 99 | 201 | 300 | 333 | 419 | 475 |
|---|---|---|---|---|---|---|---|
| Corrected lift forces | | | | | | | |
| Hitch point | [kN] | 48.2 | 49.1 | 50.1 | 50.2 | -- | -- |
| at frame | [kN] | 33.8 | -- | 32.5 | 31.9 | 31.1 | 30.5 |

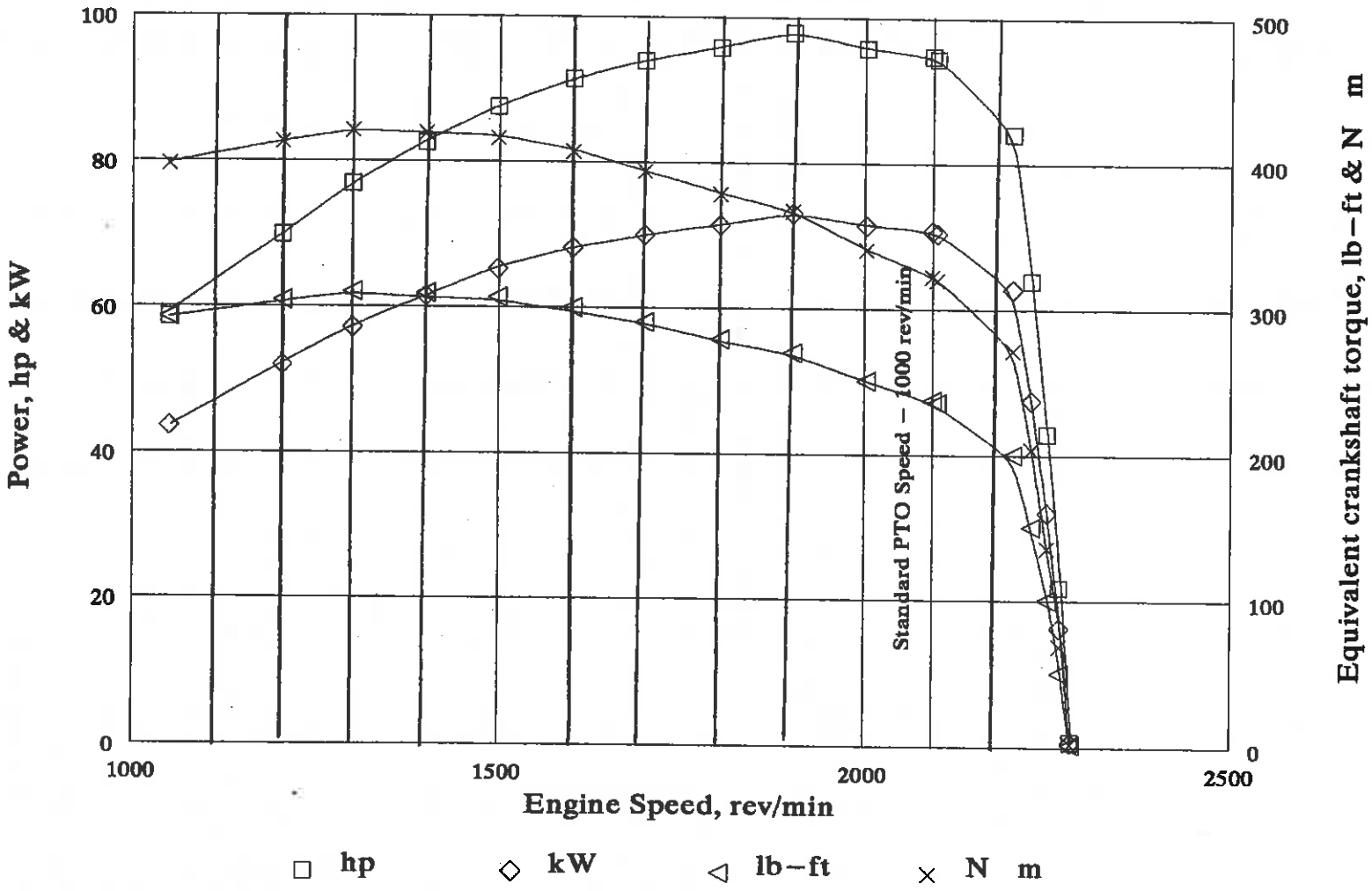
## OECD Drawbar Data (SI)

| of tests: | | 17-May-94 | | Fuel density: | | 0.838 kg/l | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| of track: | | Concrete | | Test number: | | 1679 | | | | | | | | |
| ear | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg C | | | | | Rel humidity | Baro. Pres |
| | kW | kN | km/h | rev/min | | kg/kW.h | kW.h/l | Fuel | Coolant | Oil | Dry | Wet | | kPa |
| aximum Power (unballasted, 4wd at 2100 rev/min) | | | | | | Tire pressure: | | 110 kPa, rear | | 165 kPa, front | | Drawbar height: | 546 mm | |
| 3 | 49.37 | 55.02 | 3.23 | 2215 | 14.65% | 0.329 | 2.55 | 58 | 88 | 110 | 20 | 17 | 74% | 98.21 |
| 4 | 57.59 | 50.88 | 4.08 | 2187 | 10.99% | 0.306 | 2.74 | 59 | 89 | 113 | 23 | 18 | 62% | 98.21 |
| 1 | 63.50 | 46.89 | 4.88 | 2099 | 7.47% | 0.280 | 2.99 | 59 | 92 | 114 | 23 | 18 | 62% | 98.21 |
| 2 | 63.51 | 38.15 | 5.99 | 2100 | 5.80% | 0.278 | 3.01 | 61 | 93 | 116 | 25 | 21 | 70% | 98.21 |
| 3 | 64.03 | 31.71 | 7.27 | 2101 | 4.62% | 0.277 | 3.03 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| 1 | 63.90 | 28.53 | 8.06 | 2100 | 3.98% | 0.278 | 3.01 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| 4 | 63.19 | 25.27 | 9.00 | 2102 | 3.49% | 0.282 | 2.98 | 60 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| 2 | 63.45 | 23.34 | 9.78 | 2101 | 3.33% | 0.280 | 3.00 | 61 | 94 | 115 | 28 | 22 | 59% | 98.27 |
| 3 | 62.20 | 19.00 | 11.79 | 2101 | 2.84% | 0.285 | 2.94 | 61 | 94 | 117 | 28 | 22 | 59% | 98.27 |
| 4 | 60.01 | 14.87 | 14.53 | 2102 | 2.17% | 0.297 | 2.83 | 61 | 95 | 117 | 28 | 22 | 59% | 98.27 |
| rt loads (unballasted, 4wd) | | | | | | | | | | | | | | |
| n selected gear at maximum power | | | | | | | | | | | | | | |
| 3 | 64.03 | 31.71 | 7.27 | 2101 | 4.62% | 0.277 | 3.03 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 51.14 | 23.82 | 7.73 | 2206 | 3.33% | 0.304 | 2.76 | 57 | 90 | 107 | 29 | 22 | 54% | 98.27 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 34.80 | 15.87 | 7.89 | 2229 | 2.34% | 0.361 | 2.32 | 58 | 88 | 109 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.1 | | | | | | | | | | | | | | |
| 2 | 51.03 | 23.86 | 7.70 | 1654 | 3.33% | 0.271 | 3.09 | 59 | 93 | 110 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.2 | | | | | | | | | | | | | | |
| 2 | 34.75 | 15.91 | 7.86 | 1672 | 2.42% | 0.301 | 2.78 | 57 | 87 | 105 | 29 | 22 | 54% | 98.27 |
| selected gear nearest to 7.5 km/h | | | | | | | | | | | | | | |
| | 64.03 | 31.71 | 7.27 | 2101 | 4.62% | 0.277 | 3.03 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 51.14 | 23.82 | 7.73 | 2206 | 3.33% | 0.304 | 2.76 | 57 | 90 | 107 | 29 | 22 | 54% | 98.27 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 34.80 | 15.87 | 7.89 | 2229 | 2.34% | 0.361 | 2.32 | 58 | 88 | 109 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.1 | | | | | | | | | | | | | | |
| 2 | 51.03 | 23.86 | 7.70 | 1654 | 3.33% | 0.271 | 3.09 | 59 | 93 | 110 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.2 | | | | | | | | | | | | | | |
| 2 | 34.75 | 15.91 | 7.86 | 1672 | 2.42% | 0.301 | 2.78 | 57 | 87 | 105 | 29 | 22 | 54% | 98.27 |

## OECD Drawbar Data (US)

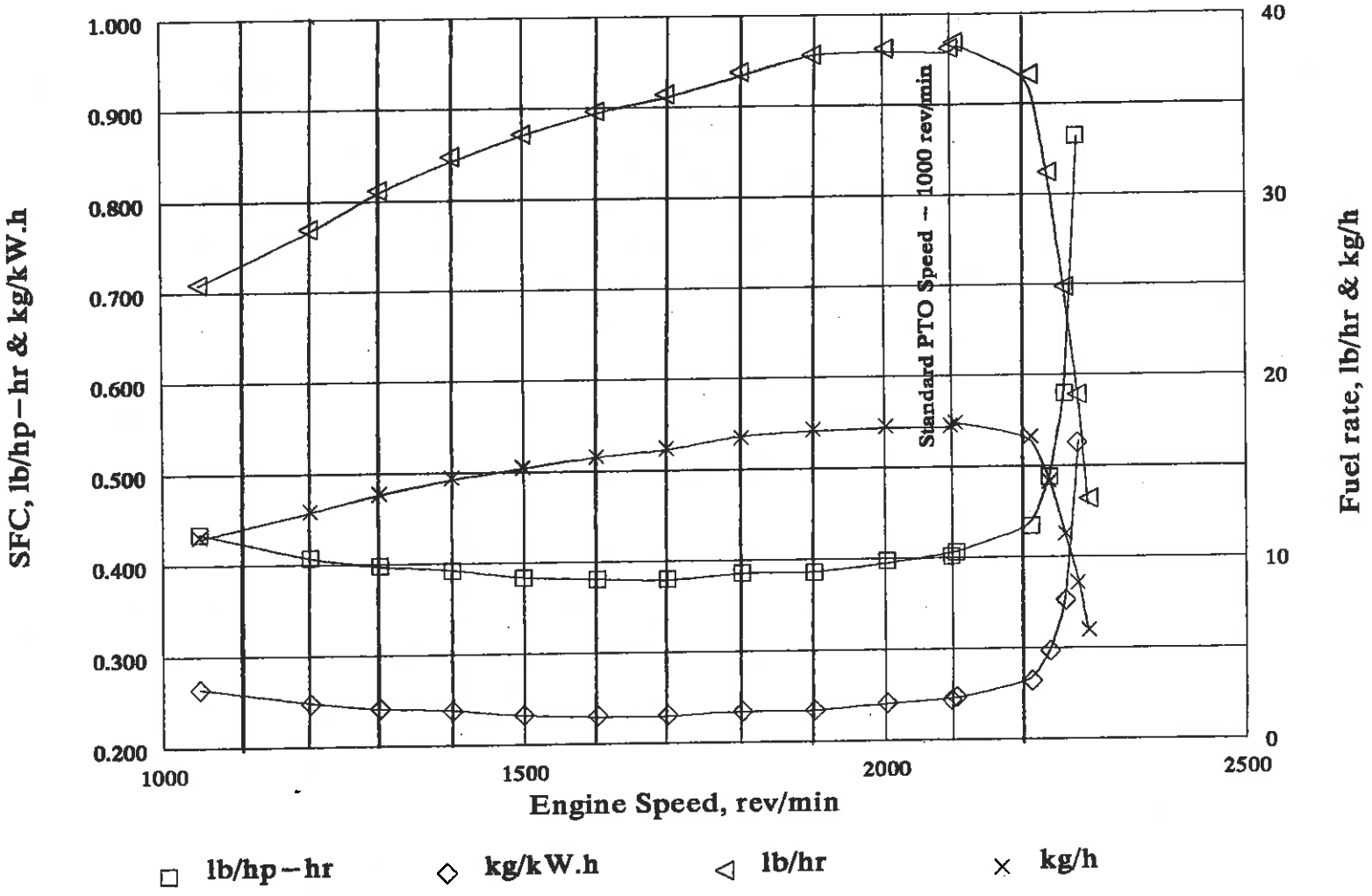
| of tests: | | 17-May-94 | | Fuel density: | | 6.994 lb/gal | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| of track: | | Concrete | | Test number: | | 1679 | | | | | | | | |
| ar | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg F | | | | | Rel humidity | Baro. Pres |
| | hp | lb | mph | rev/min | | lb/hp.h | hp.h/gal | Fuel | Coolant | Oil | Dry | Wet | | in Hg |
| ximum Power (unballasted, 4wd at 2100 rev/min) | | | | | | Tire pressure: | | 16 psig, rear | | 24 psig, front | | Drawbar height: | 21.5 in | |
| 3 | 66.20 | 12368 | 2.01 | 2215 | 14.65% | 0.541 | 12.94 | 136 | 190 | 230 | 68 | 62 | 74% | 29.00 |
| 4 | 77.23 | 11439 | 2.53 | 2187 | 10.99% | 0.503 | 13.90 | 139 | 192 | 235 | 73 | 65 | 62% | 29.00 |
| 1 | 85.15 | 10541 | 3.03 | 2099 | 7.47% | 0.460 | 15.20 | 139 | 198 | 238 | 73 | 65 | 62% | 29.00 |
| 2 | 85.17 | 8578 | 3.72 | 2100 | 5.80% | 0.458 | 15.29 | 142 | 199 | 240 | 77 | 69 | 70% | 29.00 |
| 3 | 85.86 | 7130 | 4.52 | 2101 | 4.62% | 0.455 | 15.38 | 141 | 201 | 242 | 80 | 70 | 58% | 29.02 |
| 1 | 85.69 | 6413 | 5.01 | 2100 | 3.98% | 0.457 | 15.30 | 141 | 201 | 242 | 80 | 70 | 58% | 29.02 |
| 4 | 84.74 | 5681 | 5.59 | 2102 | 3.49% | 0.463 | 15.11 | 140 | 201 | 242 | 80 | 70 | 58% | 29.02 |
| 2 | 85.09 | 5248 | 6.08 | 2101 | 3.33% | 0.460 | 15.22 | 141 | 201 | 240 | 82 | 71 | 59% | 29.02 |
| 3 | 83.41 | 4271 | 7.32 | 2101 | 2.84% | 0.468 | 14.94 | 142 | 202 | 243 | 82 | 71 | 59% | 29.02 |
| 4 | 80.48 | 3343 | 9.03 | 2102 | 2.17% | 0.488 | 14.35 | 142 | 203 | 242 | 82 | 71 | 59% | 29.02 |
| rt loads (unballasted, 4wd) | | | | | | | | | | | | | | |
| selected gear at maximum power | | | | | | | | | | | | | | |
| 3 | 85.86 | 7130 | 4.52 | 2101 | 4.62% | 0.455 | 15.38 | 141 | 201 | 242 | 80 | 70 | 58% | 29.02 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 68.58 | 5354 | 4.80 | 2206 | 3.33% | 0.500 | 14.00 | 135 | 195 | 224 | 84 | 71 | 54% | 29.02 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 46.67 | 3569 | 4.90 | 2229 | 2.34% | 0.594 | 11.77 | 137 | 191 | 229 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.1 | | | | | | | | | | | | | | |
| 2 | 68.43 | 5364 | 4.78 | 1654 | 3.33% | 0.446 | 15.70 | 138 | 199 | 230 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.2 | | | | | | | | | | | | | | |
| 2 | 46.60 | 3578 | 4.88 | 1672 | 2.42% | 0.495 | 14.14 | 134 | 188 | 221 | 84 | 71 | 54% | 29.02 |
| selected gear nearest to 4.6 mph | | | | | | | | | | | | | | |
| 3 | 85.86 | 7130 | 4.52 | 2101 | 4.62% | 0.455 | 15.38 | 141 | 201 | 242 | 80 | 70 | 58% | 29.02 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 68.58 | 5354 | 4.80 | 2206 | 3.33% | 0.500 | 14.00 | 135 | 195 | 224 | 84 | 71 | 54% | 29.02 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 3 | 46.67 | 3569 | 4.90 | 2229 | 2.34% | 0.594 | 11.77 | 137 | 191 | 229 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.1 | | | | | | | | | | | | | | |
| 2 | 68.43 | 5364 | 4.78 | 1654 | 3.33% | 0.446 | 15.70 | 138 | 199 | 230 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.2 | | | | | | | | | | | | | | |
| 2 | 46.60 | 3578 | 4.88 | 1672 | 2.42% | 0.495 | 14.14 | 134 | 188 | 221 | 84 | 71 | 54% | 29.02 |

## Power and Equivalent Crankshaft Torque
## John Deere 7200 PowrQuad



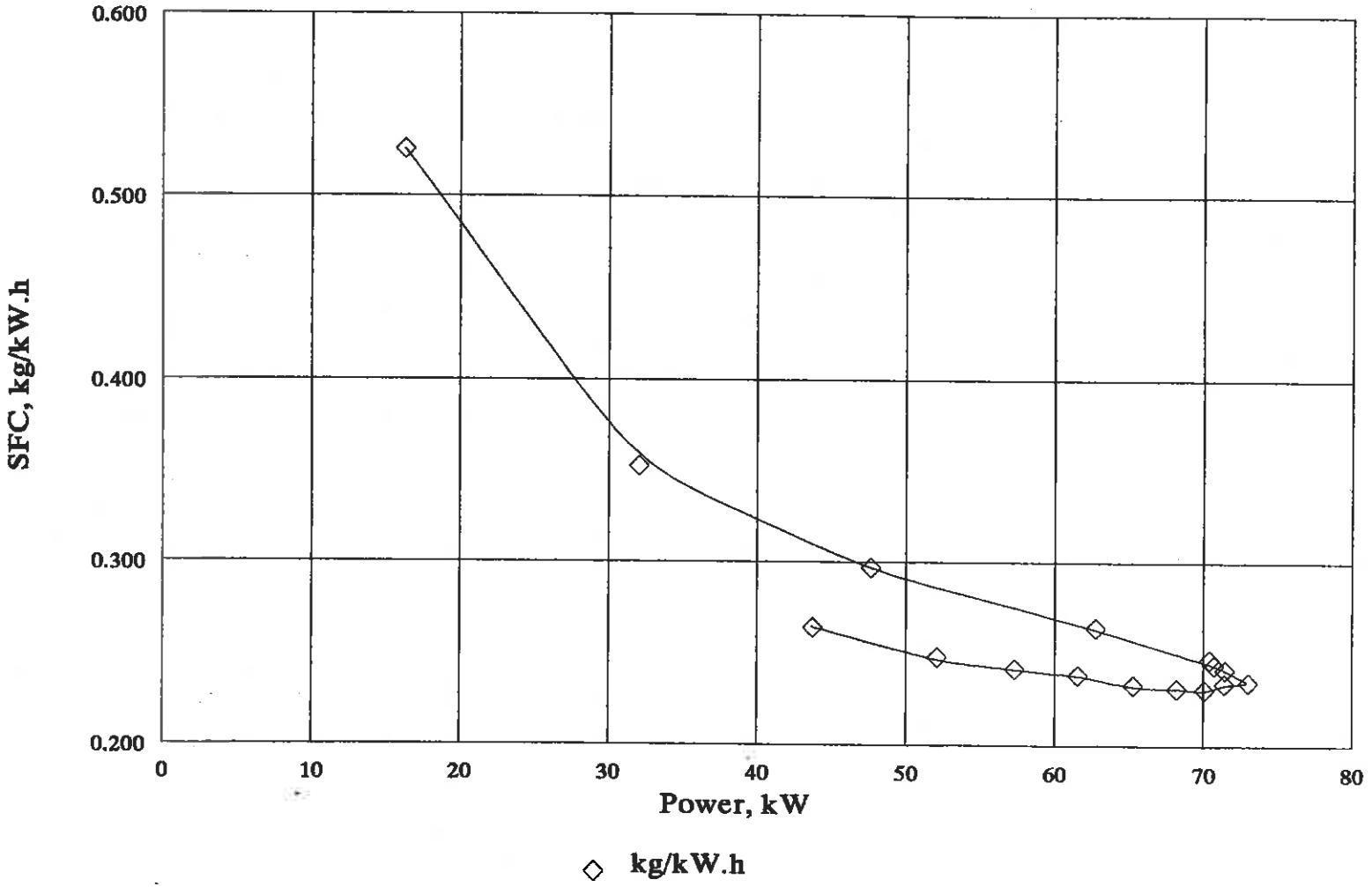

Nebraska Tractor Test #1679

## Specific Fuel Consumption and Fuel Rate
## John Deere 7200 PowrQuad



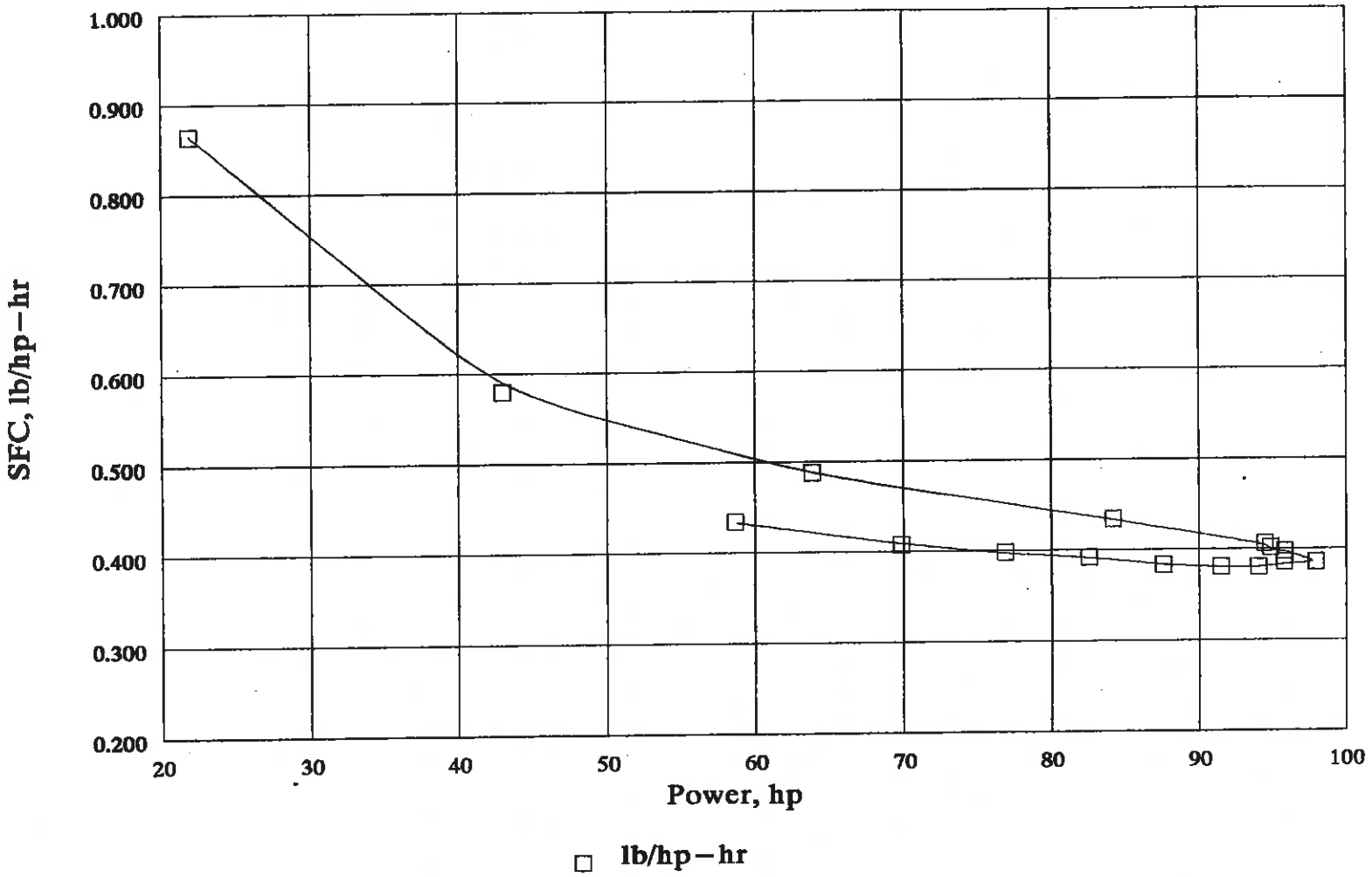

Nebraska Tractor Test #1679

## Power and Specific Fuel Consumption
## John Deere 7200 PowrQuad




Nebraska Tractor Test #1679

## Power and Specific Fuel Consumption
## John Deere 7200 PowrQuad




Nebraska Tractor Test #1679

2.2 POWER LIFT TEST. Cat II,with lift cylinders 2 x 80 mm
(for settings see p. 10)
Date of test: 1 June 1994

| | | Hitch points | Frame |
|---|---|---|---|
| Lower hitch points above ground - down position: | [mm] | 188 | 79 |
| Vertical movement: without load: | [mm] | 708 | 956 |
| Vertical movement: with load: | [mm] | 696 | 947 |
| Maximum corrected force through full range: | [kN] | 53.4 | 34.6 |
| Corresponding pressure: | [kPa] | 18306 | |
| Moment about rear axle: | [kN.m] | 59.9 | 60.0 |
| Maximum mast tilt angle: | [deg] | -- | 13.5 |

Lifting height relative to horizontal position of lower links.

| | [mm] | 472 | -363 | -300 | -201 | -99 | 0 |
|---|---|---|---|---|---|---|---|
| Corrected lift forces | | | | | | | |
| Hitch point | [kN] | -- | 54.0 | 53.4 | 53.5 | 54.2 | 54.7 |
| at frame | [kN] | 45.2 | 42.4 | 41.6 | -- | 40.9 | 39.8 |

Lifting height relative to horizontal position of lower links.

| | [mm] | 99 | 201 | 300 | 333 | 427 | 475 |
|---|---|---|---|---|---|---|---|
| Corrected lift forces | | | | | | | |
| Hitch point | [kN] | 55.5 | 56.6 | 57.8 | 57.8 | -- | -- |
| at frame | [kN] | 38.6 | -- | 37.1 | 36.3 | 35.4 | 34.6 |

## OECD Drawbar Data (SI)

| of tests: | 17-May-94 | Fuel density: | 0.838 kg/l |
|---|---|---|---|
| of track: | Concrete | Test number: | 1679 |

| ar | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg C | | | | | Rel hum-idity | Baro. Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | kW | kN | km/h | rev/min | | kg/kW.h | kW.h/l | Fuel | Coolant | Oil | Dry | Wet | | kPa |
| ximum Power (unballasted, 2wd at 2100 rev/min) | | | | | | Tire pressure: | | 110 kPa, rear | | 165 kPa, front | | Drawbar height: | | 546 mm |
| 1 | 56.62 | 43.91 | 4.64 | 2188 | 14.21% | 0.313 | 2.68 | 58 | 89 | 111 | 20 | 17 | 74% | 98.21 |
| 2 | 62.79 | 39.36 | 5.74 | 2098 | 8.18% | 0.282 | 2.97 | 58 | 91 | 110 | 25 | 21 | 70% | 98.21 |
| 3 | 64.04 | 32.36 | 7.12 | 2102 | 5.18% | 0.277 | 3.03 | 60 | 93 | 117 | 27 | 21 | 58% | 98.27 |
| 1 | 64.49 | 29.34 | 7.91 | 2100 | 4.40% | 0.276 | 3.04 | 60 | 94 | 115 | 27 | 21 | 58% | 98.27 |
| 4 | 64.21 | 26.13 | 8.85 | 2100 | 3.76% | 0.278 | 3.02 | 60 | 94 | 115 | 27 | 21 | 58% | 98.27 |
| 2 | 64.08 | 23.96 | 9.63 | 2100 | 3.36% | 0.276 | 3.04 | 61 | 94 | 117 | 28 | 22 | 59% | 98.27 |
| 3 | 63.58 | 19.71 | 11.61 | 2101 | 2.80% | 0.279 | 3.01 | 61 | 94 | 117 | 28 | 22 | 59% | 98.27 |
| 4 | 62.19 | 15.64 | 14.31 | 2102 | 2.22% | 0.286 | 2.93 | 61 | 94 | 115 | 28 | 22 | 59% | 98.27 |
| rt loads (unballasted, 2wd) | | | | | | | | | | | | | | |
| h selected gear at maximum power | | | | | | | | | | | | | | |
| 1 | 64.49 | 29.34 | 7.91 | 2100 | 4.40% | 0.276 | 3.04 | 60 | 94 | 115 | 27 | 21 | 58% | 98.27 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 1 | 51.61 | 22.02 | 8.44 | 2209 | 3.20% | 0.304 | 2.76 | 60 | 91 | 112 | 29 | 22 | 54% | 98.27 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 1 | 35.22 | 14.68 | 8.63 | 2237 | 2.06% | 0.359 | 2.34 | 59 | 88 | 109 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.1 | | | | | | | | | | | | | | |
| 3 | 51.61 | 22.02 | 8.44 | 1532 | 3.20% | 0.266 | 3.15 | 60 | 93 | 111 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.2 | | | | | | | | | | | | | | |
| | 35.27 | 14.71 | 8.63 | 1550 | 2.06% | 0.287 | 2.92 | 57 | 87 | 105 | 29 | 22 | 54% | 98.27 |
| selected gear nearest to 7.5 km/h | | | | | | | | | | | | | | |
| 1 | 64.49 | 29.34 | 7.91 | 2100 | 4.40% | 0.276 | 3.04 | 60 | 94 | 115 | 27 | 21 | 58% | 98.27 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 1 | 51.61 | 22.02 | 8.44 | 2209 | 3.20% | 0.304 | 2.76 | 60 | 91 | 112 | 29 | 22 | 54% | 98.27 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| 1 | 35.22 | 14.68 | 8.63 | 2237 | 2.06% | 0.359 | 2.34 | 59 | 88 | 109 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.1 | | | | | | | | | | | | | | |
| 3 | 51.61 | 22.02 | 8.44 | 1532 | 3.20% | 0.266 | 3.15 | 60 | 93 | 111 | 29 | 22 | 54% | 98.27 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.2 | | | | | | | | | | | | | | |
| 3 | 35.27 | 14.71 | 8.63 | 1550 | 2.06% | 0.287 | 2.92 | 57 | 87 | 105 | 29 | 22 | 54% | 98.27 |

## OECD Drawbar Data (US)

| of tests: | 17-May-94 | Fuel density: | 6.994 lb/gal |
|---|---|---|---|
| of track: | Concrete | Test number: | 1679 |

| ar | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg F | | | | | Rel hum-idity | Baro. Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | hp | lb | mph | rev/min | | lb/hp.h | hp.h/gal | Fuel | Coolant | Oil | Dry | Wet | | in Hg |
| ximum Power (unballasted, 2wd at 2100 rev/min) | | | | | | Tire pressure: | | 16 psig, rear | | 24 psig, front | | Drawbar height: | | 21.5 in |
| 1 | 75.93 | 9871 | 2.88 | 2188 | 14.21% | 0.514 | 13.60 | 136 | 193 | 231 | 68 | 62 | 74% | 29.00 |
| 2 | 84.20 | 8849 | 3.57 | 2098 | 8.18% | 0.464 | 15.07 | 137 | 197 | 230 | 77 | 69 | 70% | 29.00 |
| 3 | 85.88 | 7276 | 4.43 | 2102 | 5.18% | 0.455 | 15.38 | 140 | 200 | 242 | 80 | 70 | 58% | 29.02 |
| 1 | 86.49 | 6597 | 4.92 | 2100 | 4.40% | 0.454 | 15.41 | 141 | 202 | 239 | 80 | 70 | 58% | 29.02 |
| 3 | 86.11 | 5875 | 5.50 | 2100 | 3.76% | 0.457 | 15.31 | 140 | 202 | 239 | 80 | 70 | 58% | 29.02 |
| 2 | 85.93 | 5387 | 5.98 | 2100 | 3.36% | 0.454 | 15.42 | 142 | 202 | 243 | 82 | 71 | 59% | 29.02 |
| 3 | 85.26 | 4431 | 7.22 | 2101 | 2.80% | 0.458 | 15.26 | 143 | 202 | 243 | 82 | 71 | 59% | 29.02 |
| 1 | 83.39 | 3516 | 8.89 | 2102 | 2.22% | 0.470 | 14.87 | 141 | 201 | 239 | 82 | 71 | 59% | 29.02 |
| loads (unballasted, 2wd) | | | | | | | | | | | | | | |
| selected gear at maximum power | | | | | | | | | | | | | | |
| | 86.49 | 6597 | 4.92 | 2100 | 4.40% | 0.454 | 15.41 | 141 | 202 | 239 | 80 | 70 | 58% | 29.02 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| | 69.21 | 4951 | 5.24 | 2209 | 3.20% | 0.500 | 13.99 | 139 | 196 | 234 | 84 | 71 | 54% | 29.02 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| | 47.23 | 3301 | 5.36 | 2237 | 2.06% | 0.590 | 11.86 | 138 | 190 | 228 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.1 | | | | | | | | | | | | | | |
| | 69.21 | 4950 | 5.24 | 1532 | 3.20% | 0.438 | 15.98 | 141 | 200 | 233 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.1.2 | | | | | | | | | | | | | | |
| | 47.30 | 3308 | 5.36 | 1550 | 2.06% | 0.472 | 14.83 | 135 | 188 | 222 | 84 | 71 | 54% | 29.02 |
| selected gear nearest to 4.6 mph | | | | | | | | | | | | | | |
| | 86.49 | 6597 | 4.92 | 2100 | 4.40% | 0.454 | 15.41 | 141 | 202 | 239 | 80 | 70 | 58% | 29.02 |
| 75% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| | 69.21 | 4951 | 5.24 | 2209 | 3.20% | 0.500 | 13.99 | 139 | 196 | 234 | 84 | 71 | 54% | 29.02 |
| 50% of pull at maximum power at rated speed | | | | | | | | | | | | | | |
| | 47.23 | 3301 | 5.36 | 2237 | 2.06% | 0.590 | 11.86 | 138 | 190 | 228 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.1 | | | | | | | | | | | | | | |
| | 69.21 | 4950 | 5.24 | 1532 | 3.20% | 0.438 | 15.98 | 141 | 200 | 233 | 84 | 71 | 54% | 29.02 |
| next higher gear at reduced engine speed, same pull and travel speed as II.2.2 | | | | | | | | | | | | | | |
| | 47.30 | 3308 | 5.36 | 1550 | 2.06% | 0.472 | 14.83 | 135 | 188 | 222 | 84 | 71 | 54% | 29.02 |

## OECD Drawbar Data (SI)

| Date of tests: | 17-May-94 | Fuel density: | 0.838 kg/l |
|---|---|---|---|
| Type of track: | Concrete | Test number: | 1679 |

| Gear | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg C | | | | | Rel humidity | Baro Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | kW | kN | km/h | rev/min | | kg/kW.h | kW.h/l | Fuel | Coolant | Oil | Dry | Wet | | kPa |
| I. Maximum Power (unballasted, fwa at 1900 rev/min) | | | | | | Tire pressure: | | 110 kPa, rear | | 165 kPa, front | | Drawbar height: | | 546 mm |
| A2 | 39.21 | 51.70 | 2.73 | 2231 | 14.20% | 0.355 | 2.36 | 58 | 87 | 108 | 23 | 18 | 62% | 98.21 |
| A3 | 49.79 | 55.34 | 3.24 | 2214 | 14.39% | 0.327 | 2.56 | 58 | 88 | 110 | 20 | 17 | 74% | 98.21 |
| A4 | 58.04 | 51.17 | 4.08 | 2180 | 10.79% | 0.304 | 2.76 | 59 | 90 | 112 | 23 | 18 | 62% | 98.21 |
| B1 | 63.08 | 47.49 | 4.78 | 2065 | 7.70% | 0.279 | 3.01 | 60 | 92 | 115 | 20 | 17 | 74% | 98.21 |
| B2 | 63.57 | 42.02 | 5.45 | 1930 | 6.64% | 0.270 | 3.11 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| B3 | 64.46 | 35.49 | 6.54 | 1902 | 5.09% | 0.266 | 3.15 | 60 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| C1 | 64.40 | 31.88 | 7.27 | 1904 | 4.46% | 0.268 | 3.13 | 60 | 95 | 116 | 27 | 21 | 58% | 98.27 |
| B4 | 63.37 | 28.14 | 8.11 | 1901 | 3.98% | 0.269 | 3.11 | 61 | 94 | 116 | 27 | 21 | 58% | 98.27 |
| C2 | 63.65 | 25.94 | 8.83 | 1904 | 3.66% | 0.269 | 3.12 | 61 | 94 | 117 | 28 | 22 | 59% | 98.27 |
| C3 | 62.81 | 21.28 | 10.63 | 1901 | 3.09% | 0.272 | 3.08 | 62 | 95 | 116 | 28 | 22 | 59% | 98.27 |
| C4 | 60.71 | 16.70 | 13.09 | 1898 | 2.42% | 0.281 | 2.99 | 61 | 94 | 117 | 28 | 22 | 59% | 98.27 |
| Note: | NA | | | | | | | | | | | | | |

## OECD Drawbar Data (US)

| Date of tests: | 17-May-94 | Fuel density: | 6.994 lb/gal |
|---|---|---|---|
| Type of track: | Concrete | Test number: | 1679 |

| Gear | Power | Pull | Speed | Engine speed | Slip | SFC | SFE | Temperature, deg F | | | | | Rel humidity | Baro Pres |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | hp | lb | mph | rev/min | | lb/hp.h | hp.h/gal | Fuel | Coolant | Oil | Dry | Wet | | in Hg |
| I. Maximum Power (unballasted, fwa at 1900 rev/min) | | | | | | Tire pressure: | 16 | psig, rear | 24 | psig, front | | Drawbar height: | 21.5 | in |
| A2 | 52.58 | 11623 | 1.70 | 2231 | 14.20% | 0.584 | 11.97 | 137 | 188 | 226 | 73 | 65 | 62% | 29.00 |
| A3 | 66.76 | 12440 | 2.01 | 2214 | 14.39% | 0.538 | 13.00 | 136 | 190 | 230 | 68 | 62 | 74% | 29.00 |
| A4 | 77.83 | 11503 | 2.54 | 2180 | 10.79% | 0.500 | 14.00 | 138 | 194 | 233 | 73 | 65 | 62% | 29.00 |
| B1 | 84.60 | 10677 | 2.97 | 2065 | 7.70% | 0.458 | 15.27 | 139 | 198 | 239 | 68 | 62 | 74% | 29.0 |
| B2 | 85.25 | 9447 | 3.38 | 1930 | 6.64% | 0.443 | 15.78 | 142 | 201 | 241 | 80 | 70 | 58% | 29.0 |
| B3 | 86.45 | 7979 | 4.06 | 1902 | 5.09% | 0.437 | 16.00 | 141 | 202 | 242 | 80 | 70 | 58% | 29.02 |
| C1 | 86.36 | 7166 | 4.52 | 1904 | 4.46% | 0.440 | 15.89 | 140 | 204 | 242 | 80 | 70 | 58% | 29.02 |
| B4 | 84.98 | 6327 | 5.04 | 1901 | 3.98% | 0.443 | 15.81 | 141 | 202 | 242 | 80 | 70 | 58% | 29.02 |
| C2 | 85.35 | 5831 | 5.49 | 1904 | 3.66% | 0.442 | 15.83 | 142 | 202 | 242 | 82 | 71 | 59% | 29.02 |
| C3 | 84.24 | 4783 | 6.60 | 1901 | 3.09% | 0.448 | 15.61 | 143 | 203 | 242 | 82 | 71 | 59% | 29.02 |
| C4 | 81.42 | 3755 | 8.13 | 1898 | 2.42% | 0.461 | 15.16 | 142 | 202 | 243 | 82 | 71 | 59% | 29.02 |
| Note: | NA | | | | | | | | | | | | | |

Remarks : None
Repairs : None