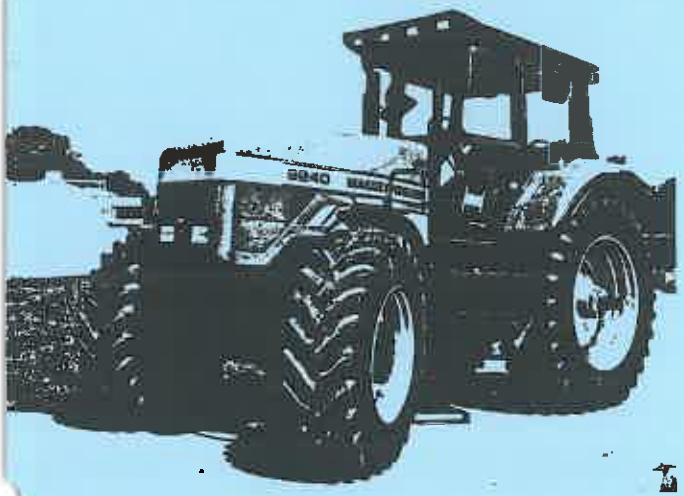
OECD APPROVAL # 1574/1 through 3
(Restricted code)
Date of approval: 26 October, 1995

NEBRASKA TRACTOR TESTING LABORATORY
DEPARTMENT OF BIOLOGICAL SYSTEMS ENGINEERING
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA - EAST CAMPUS
LINCOLN, NEBRASKA 68583-0832, USA

REPORT ON TEST IN ACCORDANCE WITH OECD RESTRICTED CODE (CODE II)

FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS





LAMBORGHINI TRACTION 265-18 speed-40 km/h (4WD)
MASSEY FERGUSON 9240-18 speed-40 km/h (4WD)
SAME 265-18 speed-40 km/h (4WD)

MANUFACTURED BY: AGCO Corporation
Duluth, Georgia 30136
USA

NEBRASKA TEST NO. 1696
Test dates: June 8 through June 16, 1995

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.

The report has been approved by the OECD Coordinating Centre in Paris (CEMAGREF) on 26 October, 1995 for tractor models:

TRACTOR MODEL	NUMBER OF GEARS	VERSION	OECD NUMBER
LAMBORGHINI TRACTION 265	18	40 km/h (4WD)	1574/1
MASSEY FERGUSON 9240	18	40 km/h (4WD)	1574/2
SAME 265	18	40 km/h (4WD)	1574/3

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LINCOLN, NEBRASKA 68583-0832, USA

Date: 28 NOV 1995

GENERAL REMARKS

The tractor models listed below are identical in every respect except for the name designation and body paint. The test was performed on the Massey Ferguson 9240 MFWD without the optional creeper gears and with an 18 speed powershift (PS) transmission.

An optional 16-speed transmission is derived from the standard 18-speed transmission by blocking the two top gears (17th and 18th) in the 18 speed transmission. All the other ratios are identical.

All models can also be optionnally outfitted with a 18-speed (for 18-speed powershift) or 16-speed (for 16-speed powershift) creeper gear transmission.

TRACTOR MODELS

LAMBORGHINI TRACTION 265, 40 km/h (4WD)
MASSEY FERGUSON 9240, 40 km/h (4WD)
SAME 265, 40 km/h (4WD)

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SPECIFICATIONS OF TRACTOR.

Manufacturers name/address	AGCO Corporation 4830 River green Parkway Duluth, Georgia 30136, USA
Submitted for test by	The manufacturer
Selected for test by	The manufacturer in agreement with the test station.
Place of running in	AGCO Corporation, Coldwater, Ohio, USA
Duration of running in	70 hours
Location of Test	Tractor Testing Laboratory Lincoln, Nebraska,USA.

TRACTOR CHASSIS SPECIFICATIONS.

Make	MASSEY FERGUSON
Model	9240-18 speed-40 km/h (4WD)
Type	Unit construction;Mechanical Front Wheel Drive (MFWD)
Number of driving wheels	2 front, 2 or 4 rear
Serial Number	9240/0019
1st Serial number	9240/0011

ENGINE.

Make	Cummins
Model	6CTA 8.3A
Type	Diesel; 4-stroke; turbocharged; intercooled; direct injection
Serial Number	45121811
Cylinders	
Number/Disposition	6, in line vertical
Bore/stroke	114 mm x 135 mm
Capacity	8270 cm^3
Compression Ratio	16.5:1
Arrangement of valves	In head, 2 per cylinder
Cylinder liners	Yes
Super charging	
Make/Model/Type	Holset/3531721/HIE Exhaust gas driven
Pressure	138 kPa
Fuel System	
Feed system	Two tanks with engine mounted transfer pump
Make/Type/Model of filters	Metal screen in tank; Spin-on WIX 33439 primary filter;

	Fleetgard FF50380J primary water separator; spin on DAVCO paper element secondary
Fuel tank capacity	367 l
Make/Model/Type Injection Pump	Bosch/PES-6MW1000/120RS1137-2
Pump Serial number	0 403 466 143
Production setting of pump Flow Rate (Rated Eng.Spd & Full Load)	37.1 to 41.0 kg/h
Fuel density	0.8355 kg/l at 15° C.
Make/Model/Type Injectors	Bosch/DLLA/multi-hole
Injection pressure	20.5 MPa
Timing	20 +/- 2° before TDC
Governor	
Make/Model/Type	Bosch/RSV-550/Mechanical
Governed engine speed range	800-2480 rpm
Rated engine speed	2200 rpm
High-idle speed range	2380 - 2480 rpm
Air Cleaner.	
Pre-cleaner	Integral with main cleaner
Location of intake	Above and in front of engine
Main Cleaner	
Make/Model/Type	Donaldson/STB-11-0084/Paper main and secondary elements; exhaust aspirated
Location	Under hood, above engine
Secondary cleaner	Donaldson/P526655
Maintenance indicator	Restriction warning light on dash panel
Lubrication system.	
Type of feed pump	Gear pump
Type of filters	Full flow spin-on
Number	One
Oil cooler	Water-to-oil heat exchanger
Cooling system.	
Type of coolant	Water + Ethylene Glycol, 1:1
Type of pump	Centrifugal
Fan specification	Steel; 68.6 mm pitch
Number of fan blades	8
Fan diameter	635 mm
Coolant system capacity	25 liter
Type of temperature control	2 thermostats
Superpressure system	48 kPa radiator cap

Starting system.	
Make/Model/Type of starter	DELCO/37MT/Type 300/Solenoid engaged
Power Rating	4.48 kW
Cold starting aid	KBI; ether injection into intake manifold
Safety device	Clutch pedal interlock and PTO switch interlock
Electrical system.	
Voltage & grounding.	12 Volt, Negative ground
Alternator	
Make/Model/Type	DELCO/15SI/Belt driven
Power rating	105 Amp
Batteries	
Number & connection	Two 12-Volt in parallel
Rating	600 CCA each at 0°C, 115 minute reserve rating
Exhaust system.	
Muffler Make/Model/Type	Nelson/24524A/Reactive
Location	Under hood; behind engine
Exhaust stack location	Right side of Cab along post
TRANSMISSION.	
Clutch. (travel)	
Make/Model/Type	Funk/9400/wet plate type
Number of plates	14 (master clutch)
Plate diameter	148.8 mm
Method of operation	Hydraulic
Gear Box - 40 km/h version-tested.	
Make/Model/Type	Funk/YZ15021A/9400EB Powershift Mechanical
Arrangement	Countershaft type with 9 clutch packs and 8 shafts; two forward and one reverse master clutch.
Number of gears	18 forward and 9 reverse With single lever control
Oil cooler	Air to oil heat exchanger
Available options	Creeper gears with 18 forward and 9 reverse speeds with a 10.60898:1 planetary reduction
Gear Box - 30 km/h version	This system is identical to the 40 km/h version except that the top two gears of the 40 km/h version cannot be utilized.

Rear axle and final drives.	
Make/Model/Type	AGCO-David Brown/72507114/ Crown wheel and pinion/ differential and in-board planetary reduction
Differential Lock-Type	Multi-Disc wet clutch, electrically activated
Method of engagement	Rocker switch on right arm rest
Method of disengagement	Service brake pedal
Front Axle and final drives.	
Make/Model/Type	ZF/5052C/Central drive input
Differential lock	Limited slip

Gear ratios and travel speeds- 18 speed transmission Tested version.

Tire Dynamic radius of 920 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 2200 rev/min [km/h]
Forward		
1	291.7	2.615
2	246.8	3.091
3	210.9	3.616
4	184.1	4.142
5	155.8	4.894
6	133.2	5.728
7	113.1	6.743
8	95.7	7.969
9	81.8	9.327
10	70.4	10.833
11	59.6	12.797
12	50.9	14.978
13	44.5	17.157
14	37.6	20.276
15	32.1	23.726
16	27.3	26.578
17	23.1	33.010
18	19.7	38.629
Reverse		
1 (R4)	240.5	3.171
2 (R5)	203.5	3.747
3 (R6)	173.9	4.385
4 (R7)	151.8	5.023
5 (R8)	128.5	5.937
6 (R9)	109.8	6.947
7 (R10)	93.3	8.178
8 (R11)	78.9	9.665
9 (R12)	67.4	11.315

Number of front wheel revolutions
for one rear wheel revolution: 1.2953

Gear ratios and travel speeds- optional 16 speed transmission

Tire Dynamic radius of 920 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 2200 rev/min [km/h]
Forward		
1	291.7	2.615
2	246.8	3.091
3	210.9	3.616
4	184.1	4.142
5	155.8	4.894
6	133.2	5.728
7	113.1	6.743
8	95.7	7.969
9	81.8	9.327
10	70.4	10.833
11	59.6	12.797
12	50.9	14.978
13	44.5	17.157
14	37.6	20.276
15	32.1	23.726
16	27.3	26.578
Reverse		
1 (R4)	240.5	3.171
2 (R5)	203.5	3.747
3 (R6)	173.9	4.385
4 (R7)	151.8	5.023
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6 (R9)	109.8	6.947
7 (R10)	93.3	8.178
8 (R11)	78.9	9.665
9 (R12)	67.4	11.315

Number of front wheel revolutions
for one rear wheel revolution: 1.2953

Optional Creeper gears-18 speed

(For 18 speed powershift transmission)
Tire Dynamic Radius of 920 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 2200 rev/min [km/h]
Forward		
1	3094.6	0.246
2	2618.3	0.291
3	2237.4	0.341
4	1953.1	0.390
5	1652.9	0.461
6	1413.1	0.540
7	1199.9	0.636
8	1015.3	0.751
9	867.8	0.879
10	746.9	1.021
11	632.3	1.206
12	540.0	1.412
13	472.1	1.617
14	398.9	1.911
15	340.5	2.236
16	289.6	2.505
17	245.1	3.112
18	209.0	3.641
Reverse		
1 (R4)	2551.5	0.299
2 (R5)	2158.9	0.353
3 (R6)	1844.9	0.413
4 (R7)	1599.8	0.473
5 (R8)	1363.3	0.563
6 (R9)	1164.9	0.655
7 (R10)	989.8	0.771
8 (R11)	837.0	0.911
9 (R12)	715.0	1.067

Number of front wheel revolutions
for one rear wheel revolution: 1.2953

Optional Creeper gears-16 speed

(For 16 speed powershift transmission)
Tire Dynamic Radius of 920 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 2200 rev/min [km/h]
Forward		
1	3094.6	0.246
2	2618.3	0.291
3	2237.4	0.341
4	1953.1	0.390
5	1652.9	0.461
6	1413.1	0.540
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8 (R11)	837.0	0.911
9 (R12)	715.0	1.067

Number of front wheel revolutions
for one rear wheel revolution: 1.2953

POWER - TAKE - OFF.

Main Power-Take-Off.

Type	Independent
Method of engagement	Hydraulically activated multiplate wet clutch operated by lever
Number of shafts	One
Method of changing speeds	Not applicable

Standard PTO. 1000 rev/min.

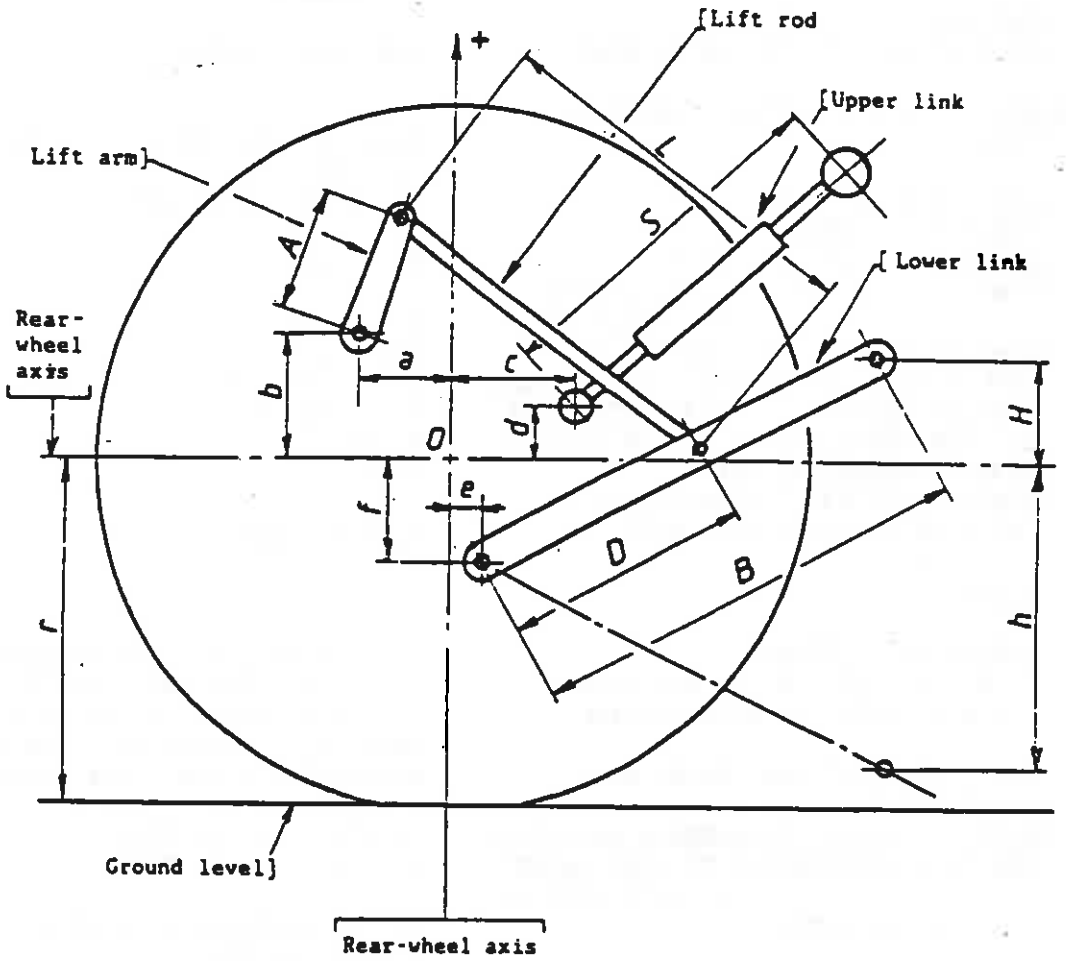
Location	Rear of tractor; vertical center plane
Diameter of shaft	44.5 mm (ISO 500/1991)
Number of splines	20
Height above ground	831 mm
Distance from median plane of tractor	0 mm
Distance behind rear axle	546 mm
PTO Speed at rated engine spd	1056 rev/min
Engine speed at Std. PTO spd	2083 rev/min
Engine speed/PTO speed ratio	2.083:1
Power restriction	None
Direction of rotation when viewed from shaft end	Clockwise

POWER LIFT.

Make/Model/Type	AGCO/Heavy Duty/3-point hitch
Type of hydraulic system	Charged, closed center
Number/Type of cylinders	Two external; 127x155.6 mm bore x stroke; single acting
Type of linkage lock for transport	Hydraulic; on lift lever
Relief valve pressure setting	18.96 ± 0.34 MPa
Opening pressure of cylinder safety valve	21.72 ± 0.17 MPa
Lift pump type	Axial piston;Variable displacement
Power transmission to pump	Internal mechanical drive
Number and type of filters	One/500 micron inlet screen; One/5 micron cartridge
Location of oil reservoir	Rear main frame
Number/Type/Location of tapping points.	Three ISO couplers at left rear;
Max. oil volume available for external cylinders.	30 l.

THREE POINT LINKAGE.

- Category 3 in conformity with ISO 730/1-1990
- Category adaptor Walterscheid lower links



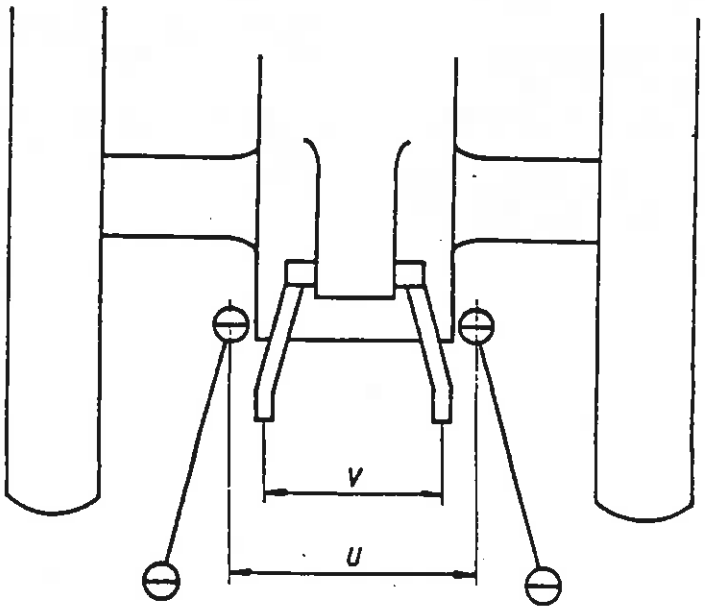


Table 1.1 -*Linkage geometry dimensions.

		Dimension or range [mm]	Settings used on test [mm]
Lift category		III	III
Rear Tire - Radius Index	(r)	920	same
Front Tire - Radius Index	(r')	695	same
Length of lift arms	(A)	603	same
Length of lower links	(B)	891	same
Distance of lift arm pivot from: horizontal	(a)	263	same
rear wheel axis: vertical	(b)	-263	same
Horizontal distance between the 2 lower link points	(U)	857	same
Horizontal distance between the 2 lift arm end points	(V)	851	same
Length of upper link	(S)	570	654
	to	761	
Distance of upper link pivot point from rear wheel axis			
Top hole - horizontal	(c)	528	528
- vertical	(d)	290	290
Center hole - horizontal	(c)	550	not used
- vertical	(d)	221	not used
Bottom hole - horizontal	(c)	576	not used
- vertical	(d)	151	not used
Distance of lower link pivot from: horizontal	(e)	263	same
rear wheel axis: vertical	(f)	-263	same
Distance of lower link pivot points to lift rod pivot pts on lower links.	(D)	645	same
Length of lift rods	(L)	973	1045
	to	1080	
Height of lower hitch points relative to rear wheel axis			
In low position	(h)	580	
	to	742	682
In high position	(H)	110	
	to	226	148
Height above ground of lower hitch points when locked in transport position.		1008	1058
	to	1192	

*Assuming (r) with a tire dynamic index of 920 mm

SWINGING DRAWBAR.

Type	Oscillating; 76.2 mm wide; 41.3 mm thick;
Height above ground	476 mm
Adjustments	5 fixed positions side to side; 3 fore/aft positions
Distance of hitch point from rear wheel axis-horizontal	1054 mm; 1003 mm; 927 mm
Distance of hitch point from PTO shaft end: Vertical	368 mm
Horizontal	524 mm; 473 mm; 397 mm
Lateral adjustment-Right side	225 mm
Left side	225 mm
Distance of pivot point from rear wheel axis-horizontal	32 mm ahead of axle centerline
Diameter of drawbar pin hole	44 mm
Maximum vertical static permissible load(s)	Foremost position- 70.8 kN Center position - 80.3 kN Rearmost position- 91.0 kN

STEERING.

Make/Model/Type	Eaton/212-1065-001/Hydrostatic
Method of operation	Hydrostatic
Pump	Supplied from main hydraulics
Ram(s)	Two double acting
Working pressure	18.97 ± 0.34 MPa

BRAKES.

Service brake.

Make/Model/Type	AGCO Raybestos/30-3145768/Wet disk
Method of operation	Hydraulic; pedal activated

Parking brake.

Type	Friction disk assembly on pinion shaft
Method of operation	Mechanical; lever on left side

Trailer Brake — None

WHEELS.

Number	
Front	2 - Steering and driving
Rear	2 or 4 - Driving
Wheel base	2921 mm

Track width adjustment

	Minimum [mm]	Maximum [mm]	Adjustment method
Front	1539	2230	Reversing Centers + rim mounting lugs
Rear-singles	1560	2946	Sliding wheel hub on axle,
-duals	2970	2970	or reversing hub on axle, reversing ramped rim and moving rim to other side.

PROTECTIVE STRUCTURE.

Make/Model/Type	AGCO/72506822/Safety Cab
Manufacturer's name/address	AGCO Corporation, 4830 River Green Parkway, Duluth, Georgia 30136,USA

OECD approval numbers

S+L+H Lamborghini Traction 265-4WD	CSS 0285/11
Massey Ferguson MF 9240 MFWD-4WD	CSS 0285/19
S+L+H SAME 265-4WD	CSS 0285/11

OPERATOR'S SEAT.

Make/Model/Type	Grammer/MSG 95A
Type of suspension	Air
Type of damping	Adjustable shock absorber
Range of adjustment	
Longitudinal	0-150 mm
Vertical	0-80 mm

LIGHTING.

	Height above ground of light center [mm]	Size [mm] x [mm]	Distance from outside edge to median plane of tractor. [mm]
Head lights	1392	102x162	257
Rear lights	2878	76x133	629
Rear reflectors	822	44x 94	660

TEST CONDITIONS.

Overall dimensions.

Length		4928 mm
Width	Singles	2440 mm
	Duals	3505 mm
Height - Top protective structure		3145 mm
- Top of exhaust		3107 mm
Ground clearance. (unballasted)		376 mm
Clearance-limiting part		Three-point shoe brackets

Tractor Mass (with cab,full fuel tank).

		Without driver [kg]	With driver [kg]
Unballasted	Front	3084	3104
	Rear	5930	5985
	Total	9014	9089
Ballasted	Front	3125	3145
	Rear	7042	7097
	Total	10167	10242

Ballast.

	Number of weights	Mass (total) [kg]	Water [kg]
Front	1	41	--
Rear	--	--	--
Duals	yes	1061	--
Additional test equipment	--	51	-

Tire Specifications.

	Front Wheels	Rear Wheels
Make	Armstrong	Armstrong
Dimensions	16.9R30	20.8R42
Ply/star rating	2 star	2 star
Type	Radial	Radial
Max.load (tire manufacturer)	2280 kg	4150 kg
Max.load(tractor manufacturer)	2280 kg	4150 kg
Inflation pressure (tire mfr)-max	165 kPa	165 kPa
-min	83 kPa	83 kPa
Dynamic Radius Index	695 mm	920 mm
Chosen track width	1930 mm	Inner 1630 mm
		Outer 2946 mm

Oils and Lubrication.

Capacity and change interval:

	Capacity litre	Oil change hours	Filter change hours
Engine (w/o filter)	23.2	250	250
Gear Box, final drive, rear axle and hydraulics	83.3	1000	1000
Front axle	10.0	1000	----
Final drive, front	4.0	1000	----

Oil and Lubricant specifications:

	Recommended	Used during test
Engine oil	AGCO Power Fluid	same
Type	15W40	
Viscosity	68.9 cS at 40°C 10.6 cS at 100°C	
Classification	CF-4/CE/CD-II/SG Spec; MIL-L-46152E	
Transmission	AGCO Power Fluid 821XL	same
Type	Multipurpose hydraulic & transmission fluid	
Viscosity	60 cS at 40°C 8.8 cS at 100° C (ASTM D445)	
Classification	ASTM D445	
Hydraulic fluid	AGCO Power Fluid 821XL	same
Type	Multipurpose hydraulic & transmission fluid	
Viscosity	60 cS at 40°C 8.8 CS at 100° C (ASTM D445)	
Classification	API GL-5; Mil-L-21050	
Front axle and hubs	AGCO Gear Lube 715	same
Type	Multi-gear Lube EP SAE 80W90	
Viscosity	132 cS at 40°C 14 cS at 100°C	
Classification	API GL-5, MIL-L-21050	
Steering System	Same as Hydraulic system	same
Grease		
Type	AGCO Super Lithium No.2	same
Number of lube points	26	

Fuel

Type/grade	Premier; Grade 2-D, in conformity with the national standard
Density (Pto test)	0.8355 kg/l at 15° C
(Drawbar test)	0.8355 kg/l at 15° C
Cetane number	50.6
Viscosity	2.51 cSt at 38 ° C

COMPULSORY TESTS

1. MAIN POWER TAKE OFF

Date: 8-Jun-95 Location: UNL Tractor Test Lab, Lincoln, NE, USA

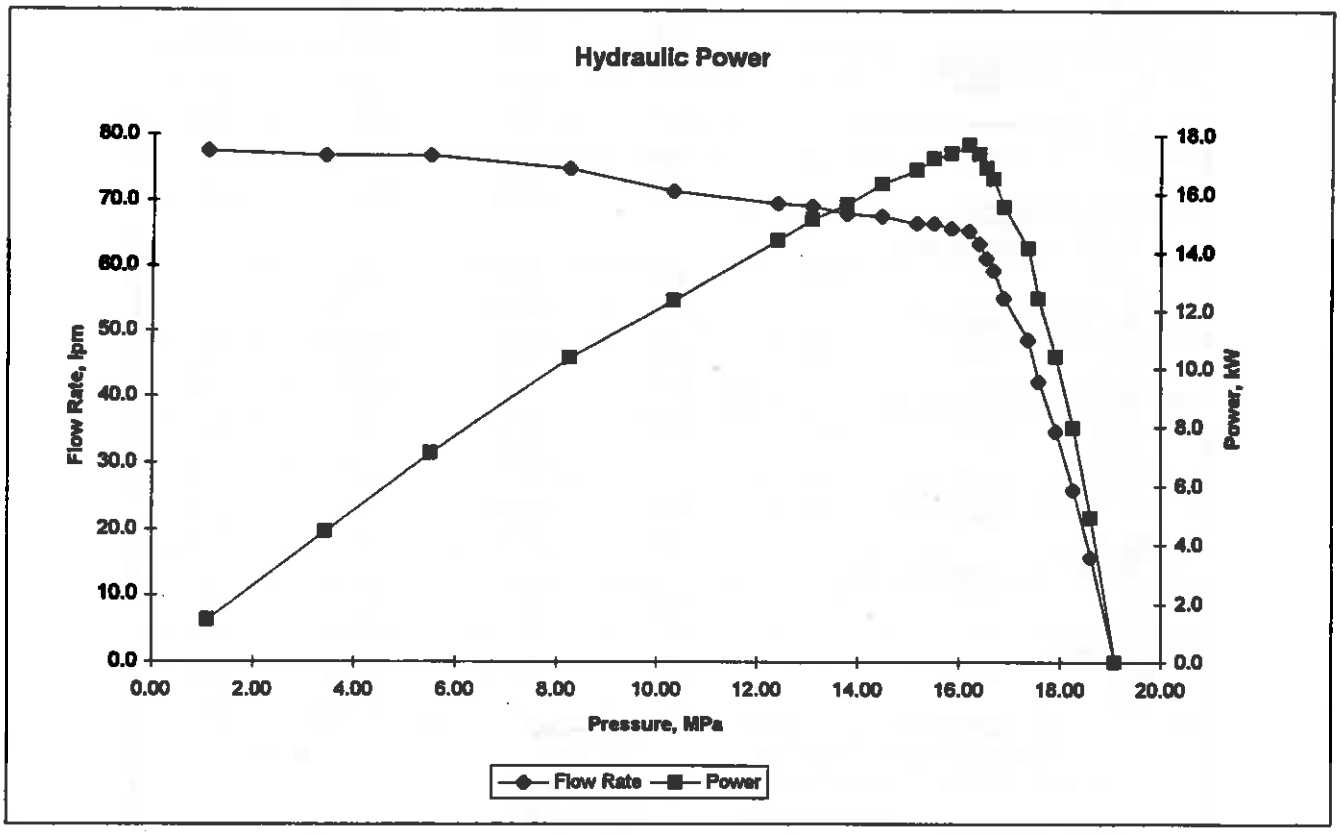
Type of dynamometer: Eddy current, Eaton

Fuel Density: 0.835 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						
168.76	2000	960	47.2	39.41	0.234	3.58
226.31			*12.5*	*86.89*	*0.384*	*18.16*
1.2 Power at Rated Engine Speed - 1 hour						
156.26	2200	1056	46.0	38.43	0.246	3.40
209.55			*12.2*	*84.72*	*0.404*	*17.24*
1.3 Power at Standard Power Take Off Speed - 1 hour						
163.42	2083	1000	46.7	39.02	0.239	3.50
219.14			*12.3*	*86.03*	*0.393*	*17.76*
1.4 Part Loads						
1.4.1 Torque at maximum power at rated engine speed						
156.26	2200	1056	46.0	38.43	0.246	3.40
209.55			*12.2*	*84.72*	*0.404*	*17.24*
1.4.2 85% of torque obtained in 1.4.1						
139.47	2312	1110	43.3	36.20	0.260	3.22
187.04			*11.4*	*79.80*	*0.427*	*16.34*
1.4.3 75% of torque defined in 1.4.2						
106.03	2339	1123	35.8	29.94	0.282	2.96
142.19			*9.5*	*66.00*	*0.464*	*15.02*
1.4.4 50% of torque defined in 1.4.2						
71.33	2365	1135	27.9	23.27	0.326	2.56
95.65			*7.4*	*51.30*	*0.536*	*13.00*
1.4.5 25% of torque defined in 1.4.2						
36.23	2389	1147	20.7	17.28	0.477	1.75
48.58			*5.5*	*38.10*	*0.784*	*8.89*
1.4.6 unloaded						
0.82	2417	1160	13.5	11.29	13.713	0.06
1.10			*3.6*	*24.90*	*22.544*	*0.31*
1.5 Part Loads at Standard Power Take Off Speed						
1.5.1 Torque at maximum power						
163.42	2083	1000	46.7	39.02	0.239	3.50
219.14			*12.3*	*86.03*	*0.393*	*17.76*
1.5.2 85% of torque obtained in 1.5.1						
151.53	2274	1092	45.4	37.97	0.251	3.33
203.20			*12.0*	*83.70*	*0.412*	*16.93*
1.5.3 75% of torque defined in 1.5.2						
116.09	2325	1116	38.0	31.71	0.273	3.06
155.67			*10.0*	*69.90*	*0.449*	*15.53*
1.5.4 50% of torque defined in 1.5.2						
78.56	2352	1129	29.6	24.77	0.315	2.65
105.35			*7.8*	*54.60*	*0.518*	*13.45*
1.5.5 25% of torque defined in 1.5.2						
39.67	2376	1141	21.2	17.69	0.446	1.87
53.20			*5.6*	*39.00*	*0.733*	*9.51*
1.5.6 unloaded						
0.82	2402	1153	13.0	10.89	13.298	0.06
1.10			*3.4*	*24.00*	*21.861*	*0.32*

No load maximum engine speed:	2417 rev/min	
Equivalent torque at rated speed:	678 N.m	500 lb-ft
Equivalent torque at maximum power:	806 N.m	594 lb-ft
(engine speed:	2000 rev/min)	
Maximum equivalent crankshaft torque:	895 N.m	660 lb-ft
(engine speed:	1601 rev/min)	
Mean Dry bulb:	24 deg C	75 deg F
Wet bulb:	18 deg C	64 deg F
Relative Humidity	56 %	
Pressure:	97.92 kPa	28.92 in Hg
Maximum Coolant:	87 deg C	188 deg F
Engine Oil:	111 deg C	231 deg F
Fuel:	57 deg C	135 deg F
Air Intake:	26 deg C	78 deg F
Transmission/hydraulic oil:	54 deg C	129 deg F
Intake manifold pressure at rated speed:	124 kPa	18.1 psig
Intake manifold pressure at maximum power:	130 kPa	18.9 psig

Date of Test	9-Jun-95		
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:			
	19.10 Mpa		
	2770 psig		
II. Pump delivery rate at minumum pressure and rated engine speed:			
	77.6 l/min		
	20.5 gpm		
III. Flow rate, pressure, power:			
90% of relief valve setting			
	48.8 l/min	17.37 MPa	14.1 kW
	12.9 gpm	*2520 psig*	*19.0 hp*
Maximum hydraulic power:			
	65.5 l/min	16.20 MPa	17.7 kW
	17.3 gpm	*2350 psig*	23.7 *hp*
IV. Hydraulic fluid temperature at flow meter			
	64.3 °C		
	148 °F		



2.2 POWER LIFT TEST, Cat III

Date of test: 5 July 1995

		Hitch points	Frame
Lower hitch points above ground - down position:	[mm/in]	238/9.4	208/8.2
Vertical movement:			
without load:	[mm/in]	830/32.7	995/39.2
with load:	[mm/in]	805/31.7	960/37.8
Maximum corrected force through full range:	[kN/lb]	61.0/13721	62.4/14031
Corresponding pressure:	[kPa/psi]	17100/2484	
Moment about rear axle:	[kN.m/lb.ft]	70.4/51909	110.0/81146
Maximum mast tilt angle:	[deg]	—	11.8

Lifting height relative to horizontal position of lower links.

	[mm]	-442	-412	-300	-201	-102
	[in]	-17.4	-16.2	-11.8	-7.9	-4.0
Corrected lift forces						
Hitch point.	[kN]	—	61.0	66.6	71.5	74.5
	[lb]	—	13721	14963	16079	16745
at frame	[kN]	62.4	—	63.9	64.7	71.4
	[lb]	14031	—	14373	14553	16047

Lifting height relative to horizontal position of lower links.

	[mm]	-3	96	195	294	393	518
	[in]	-0.1	3.8	7.7	11.6	15.5	20.4
Corrected lift forces							
Hitch point	[kN]	78.6	80.2	85.1	94.6	100.9	—
	[lb]	17681	18041	19139	21263	22685	—
at frame	[kN]	71.9	72.2	—	68.9	69.7	69.0
	[lb]	16173	16227	—	15489	15669	15507

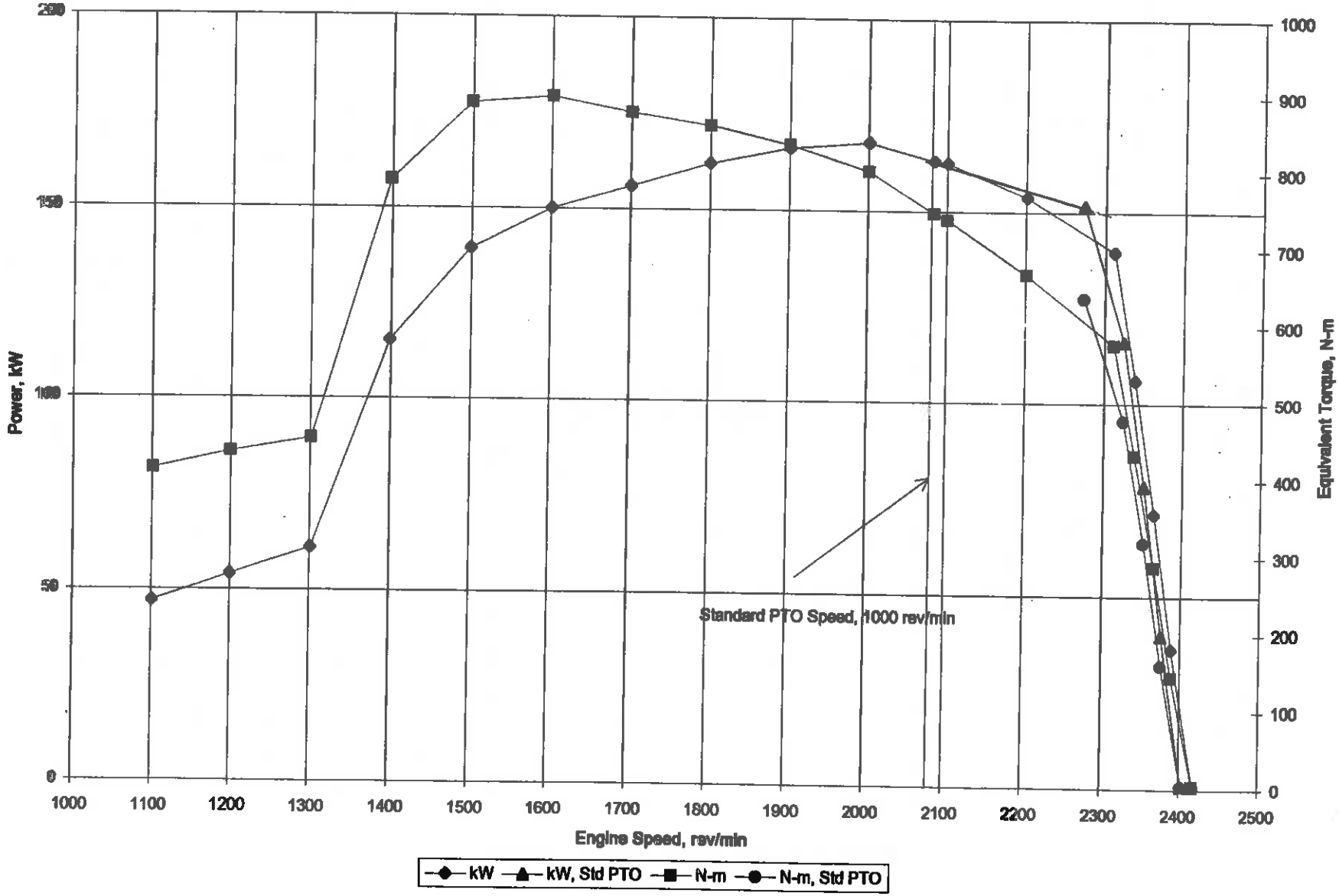
OECD Drawbar Data (SI)

Date of tests:		14-June-95		Fuel density:		0.835 kg/l								
Type of track:		Concrete		Test number:		1696								
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, 4wd at 2000 rev/min)						Tire pressure:		138 kPa, rear		165 kPa, front		Drawbar height:	559 mm	
*5	101.42	81.27	4.49	2317	14%	0.346	2.41	55	85	108	21	17	69%	97.60
*6	116.43	82.46	5.08	2239	14%	0.327	2.55	55	86	109	19	16	72%	97.60
7	131.03	76.26	6.19	2164	8%	0.294	2.84	55	86	111	20	17	72%	97.60
8	137.89	72.48	6.85	**2010**	8%	0.282	2.96	54	86	110	21	17	69%	97.60
9	139.68	61.29	8.21	2007	5%	0.278	**3.01**	54	86	**110**	22	**18**	69%	97.60
10	142.06	53.29	9.60	2000	4%	0.273	3.06	53	87	111	22	18	66%	97.60
11	142.65	44.85	11.45	2001	3%	0.271	3.08	54	87	112	23	18	63%	97.60
12	139.61	37.18	13.52	2002	3%	0.277	3.02	54	87	112	23	18	63%	97.63
* Note: Slip within operation conditions of test station.														
II. Part loads (unballasted, 4wd)														
II.1 in selected gear at maximum power at rated engine speed														
11	132.10	37.63	12.64	2195	3%	0.289	2.89	55	87	111	24	18	59%	97.63
II.1.1 75% of pull at maximum power at rated engine speed														
11	105.50	28.18	13.48	2322	2%	0.319	2.62	55	86	109	24	19	63%	97.66
II.1.2 50% of pull at maximum power at rated engine speed														
11	71.72	18.81	13.72	2350	1%	0.376	2.22	55	85	109	24	19	63%	97.66
II.1.3 higher gear at reduced engine speed, same pull and travel speed as II.1.1														
13	105.48	28.18	13.48	1736	2%	0.281	2.97	54	86	109	24	19	63%	97.66
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2														
13	71.70	18.79	13.74	1756	1%	0.314	2.66	53	84	108	24	19	63%	97.66
II.2 in selected gear nearest to 7.5 km/h at rated engine speed														
8	130.89	61.48	7.66	2199	6%	0.292	2.86	54	86	111	21	17	69%	97.60
II.2.1 75% of pull at maximum power at rated engine speed														
8	105.56	45.91	8.28	2323	3%	0.315	2.65	57	86	108	26	19	54%	97.70
II.2.2 50% of pull at maximum power at rated engine speed														
8	72.18	30.61	8.49	2353	2%	0.364	2.29	57	85	108	26	20	58%	97.70
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1														
10	105.50	45.91	8.27	1712	3%	0.275	3.03	57	86	109	26	20	58%	97.70
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2														
10	72.26	30.58	8.51	1735	2%	0.298	2.81	55	84	107	26	20	58%	97.70

OECD Drawbar Data (US)

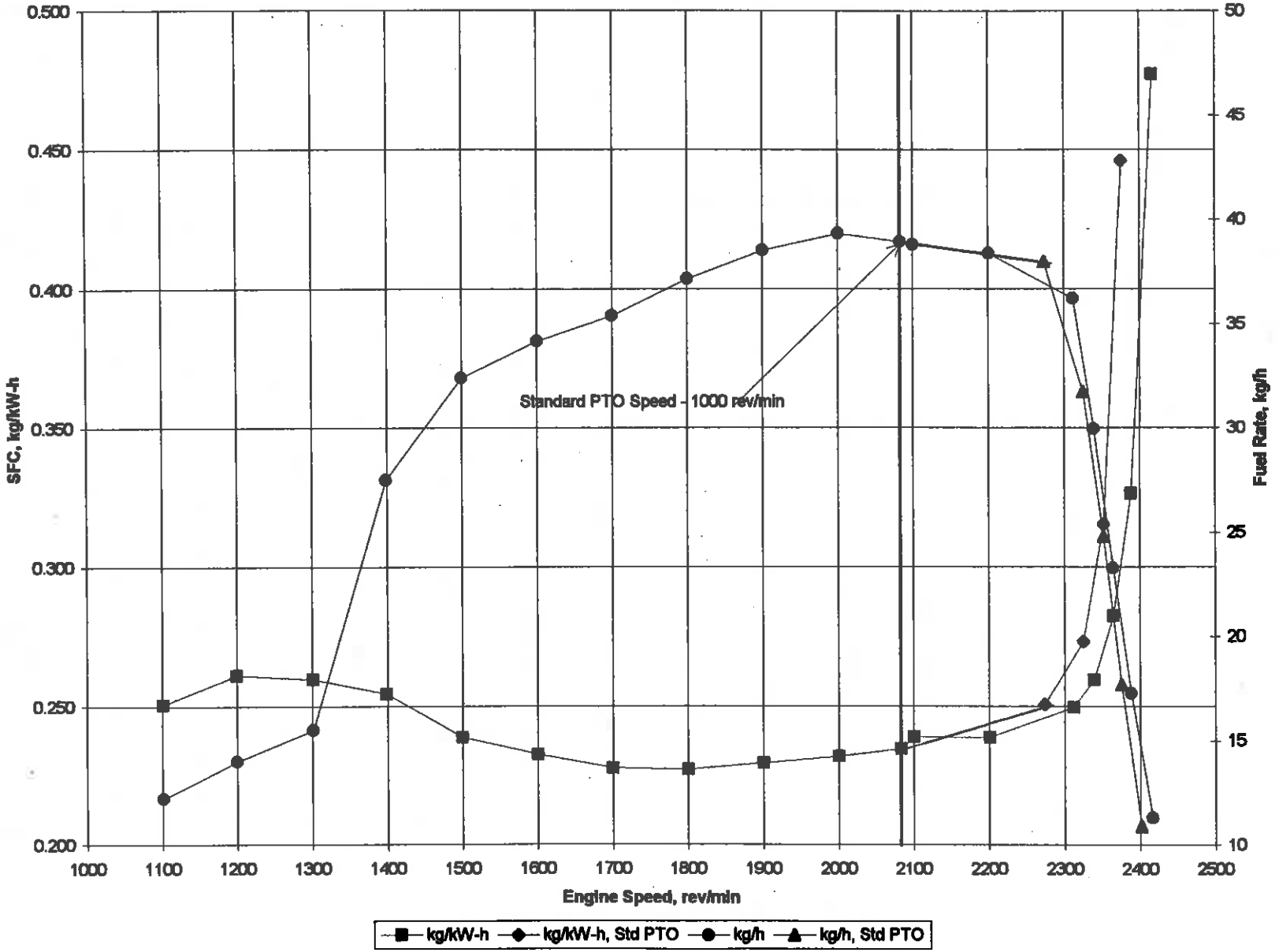
Date of tests:		14-June-95		Fuel density:		6.972 lb/gal								
Type of track:		Concrete		Test number:		1696								
Gear	Power	Pull	Speed	Engine speed	Slip	SFC	SFE	Temperature, deg F					Rel humidity	Baro. Pres
	hp	lb	mph	rev/min		lb/hp.h	hp.h/gal	Fuel	Coolant	Oil	Dry	Wet		in Hg
I. Maximum Power (unballasted, 4wd at 2000 rev/min)						Tire pressure:		20 psig, rear		24 psig, front		Drawbar height:	22.0 in	
*5	136.01	18271	2.79	2317	14%	0.569	12.26	131	185	227	69	62	69%	28.82
*6	156.14	**18539**	3.16	2239	14%	**0.538**	**12.95**	131	186	229	67	61	72%	28.82
7	175.71	**17144**	3.84	2164	8%	0.483	**14.44**	**132**	**186**	232	68	62	72%	28.82
8	184.92	**16295**	4.26	2010	8%	0.464	15.02	**130**	**187**	**230**	**70**	**63**	69%	28.82
9	187.32	**13778**	5.10	2007	5%	0.457	15.26	129	188	**231**	**71**	**64**	69%	28.82
10	190.51	**11980**	5.96	2000	4%	0.450	15.51	128	188	232	72	**64**	66%	28.82
11	191.29	**10084**	7.11	2001	3%	0.446	15.64	130	189	234	73	65	63%	28.82
12	187.22	8358	8.40	2002	3%	0.455	15.33	130	189	234	74	65	63%	28.83
* Note: Slip within operation conditions of test station.														
II. Part loads (unballasted, 4wd)														
II.1 in selected gear at maximum power at rated engine speed														
11	177.15	8459	7.85	2195	3%	0.475	14.67	131	188	233	75	65	59%	28.83
II.1.1 75% of pull at maximum power at rated engine speed														
11	141.48	6335	8.37	2322	2%	0.525	13.28	132	187	229	75	66	63%	28.84
II.1.2 50% of pull at maximum power at rated engine speed														
11	96.17	4229	8.53	2350	1%	0.618	11.28	132	185	228	75	66	63%	28.84
II.1.3 higher gear at reduced engine speed, same pull and travel speed as II.1.1														
13	141.45	6334	8.37	1736	2%	0.463	15.07	130	186	229	75	66	63%	28.84
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2														
13	96.15	4224	8.54	1756	1%	0.516	13.52	128	184	226	75	66	63%	28.84
II.2 in selected gear nearest to 7.5 km/h at rated engine speed														
8	175.52	13822	4.76	2199	6%	0.480	14.53	130	187	232	70	63	69%	28.82
II.2.1 75% of pull at maximum power at rated engine speed														
8	141.56	10322	5.14	2323	3%	0.518	13.46	134	187	227	79	67	54%	28.85
II.2.2 50% of pull at maximum power at rated engine speed														
8	96.80	6881	5.28	2353	2%	0.599	11.65	135	185	227	79	68	58%	28.85
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1														
10	141.48	10321	5.14	1712	3%	0.453	15.40	134	186	229	79	68	58%	28.85
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2														
10	96.90	6875	5.29	1735	2%	0.490	14.24	131	184	224	79	68	58%	28.85

Power and Equivalent Crankshaft Torque

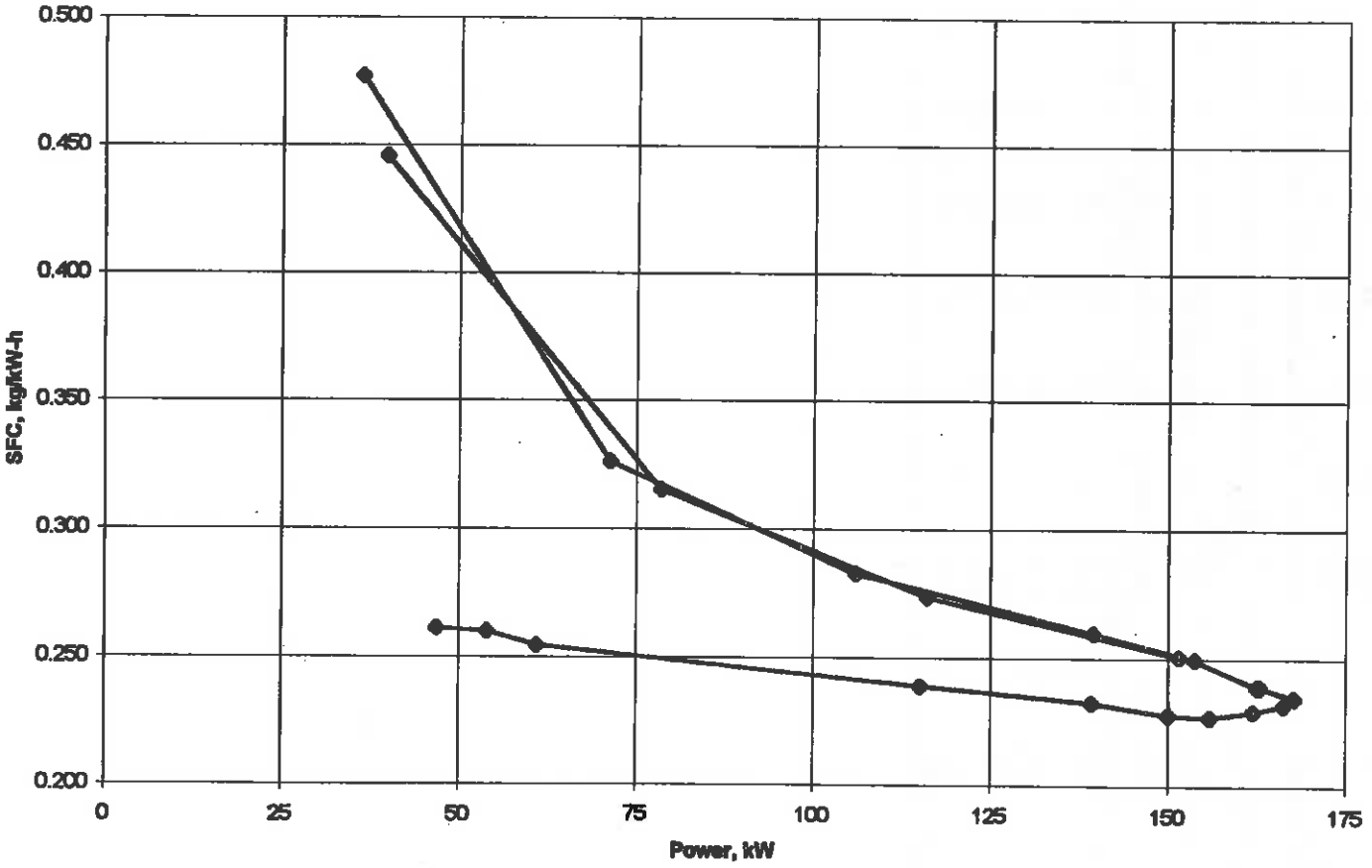


Massey Ferguson 9240

Specific Fuel Consumption and Fuel Rate



Power and Specific Fuel Consumption



OPTIONAL TESTS - Ballasted - Front Drive Engaged

(Tests conducted under the supervision of the Nebraska Tractor Testing Laboratory)

OECD Drawbar Data (SI)

Date of tests:	12,13-June-95	Fuel density:	0.835 kg/l
Type of track:	Concrete	Test number:	1696

Gear	Power	Pull	Speed	Engine speed	Slip	SFC	SFE	Temperature, deg C					Rel humidity	Barom. Press
	kW	kN	km/h	rev/min		kg/kW.h	kW.h/l	Fuel	Coolant	Oil	Dry	Wet		kPa
I. Maximum Power (ballasted, 4wd at 2000 rev/min)						Tire pressure:		138 kPa, rear		165 kPa, front		Drawbar height:		597 mm
* 5	123.53	97.63	4.56	2233	10%	0.309	2.70	55	85	109	16	12	65%	98.07
6	127.16	88.52	5.17	2158	10%	0.303	2.76	56	86	111	22	14	43%	98.48
7	137.98	86.04	5.77	2004	8%	0.283	2.96	55	86	110	21	14	46%	98.48
8	140.71	72.60	6.98	2001	6%	0.275	3.04	56	87	111	24	14	36%	98.44
9	141.68	61.47	8.30	2001	5%	0.275	3.04	55	87	111	23	14	41%	98.48
10	143.49	53.24	9.70	1995	3%	0.272	3.07	54	86	111	19	13	51%	98.41
11	143.22	44.56	11.57	2001	3%	0.273	3.06	54	86	111	20	13	48%	98.44
12	139.53	36.98	13.59	1996	2%	0.277	3.02	55	86	111	21	13	45%	98.44

* Note: Pull limited to avoid excessive tractor bouncing

OECD Drawbar Data (US)

Date of tests:	12,13-June-95	Fuel density:	6.972 lb/gal
Type of track:	Concrete	Test number:	1696

Gear	Power	Pull	Speed	Engine speed	Slip	SFC	SFE	Temperature, deg F					Rel humidity	Barom. Press
	hp	lb	mph	rev/min		lb/hp.h	hp.h/gal	Fuel	Coolant	Oil	Dry	Wet		in Hg
I. Maximum Power (ballasted, 4wd at 2000 rev/min)						Tire pressure:		20 psig, rear		24 psig, front		Drawbar height:		23.5 in
* 5	165.66	21948	2.83	2233	10%	0.508	13.73	132	185	228	60	53	65%	28.96
6	170.53	19900	3.21	2158	10%	0.497	14.01	132	187	232	71	57	43%	29.08
7	185.03	19344	3.59	2004	8%	0.465	15.00	131	187	231	70	57	46%	29.08
8	188.69	16321	4.34	2001	6%	0.453	15.41	133	188	233	75	58	36%	29.07
9	189.99	13820	5.16	2001	5%	0.451	15.45	131	188	231	73	58	41%	29.08
10	192.42	11969	6.03	1995	3%	0.447	15.61	130	187	232	66	55	51%	29.06
11	192.06	10017	7.19	2001	3%	0.449	15.54	130	187	232	68	56	48%	29.07
12	187.12	8313	8.44	1996	2%	0.455	15.32	131	187	233	69	56	45%	29.07

* Note: Pull limited to avoid excessive tractor bouncing

MEASUREMENT OF EXTERNAL NOISE LEVEL (see note)

1. Massey Ferguson 9240 MFWD - 18 speed version

Date of test	June 15, 1995
Location of test	Nebraska Power Lab, Lincoln, NE USA
Sound level meter	Bruel and Kjär 2203
Type of track	Concrete oval
Gear number	18th
Speed prior to acceleration	31.3 km/h
Noise level	86.5 dB(A)

2. Massey Ferguson 9240 MFWD - 16 speed version

Date of test	June 15, 1995
Location of test	Nebraska Power Lab, Lincoln, NE USA
Sound level meter	Bruel and Kjär 2203
Type of track	Concrete oval
Gear number	16th
Speed prior to acceleration	23.2 km/h
Noise level	87.5 dB(A)

NOTE:
The two transmissions have identical gear ratios except thet in the 16-speed version the two top gears from the 18-speed version have been blocked off.

REPAIRS : None
REMARKS : None