OECD APPROVAL NO. 2/1 974
CODE 2
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NEBRASKA TRACTOR TEST LABORATORY
DEPARTMENT OF BIOLOGICAL SYSTEMS ENGINEERING
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
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LINCOLN, NEBRASKA 68583-0832, USA

REPORT ON TEST IN ACCORDANCE WITH OECD STANDARD CODE 2 FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS



CASE IH STX 325



NEW HOLLAND TJ 325

Articulated 4 Wheel Drive with Dual Wheels

MANUFACTURED BY:	**Case Corporation** **700 State Street** **Racine, WI 53404**
NEBRASKA TEST NO.	**1797**
TEST DATES:	**October 4 - 12, 2001**

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, Code 2.

This report has been approved by the OECD Coordinating Centre in Paris on 22 February 2002 for the Case IH STX 325, and New Holland TJ 325 (manufactured for New Holland by Case Corporation), Four-Wheel Drive Tractors with OECD Numbers 2/1 974.

The New Holland TJ 325 varies from the Case IH STX 325 in model designation, color, and cab trim features. The performance results on this report are from a test sequence done on the Case IH STX 325.

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

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Date: MAR 1 5 2002

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SPECIMEN TEST REPORT

Note: Units shown below, which appear in ISO 1000:1992, shall be stated and followed by national units in parentheses, if necessary.

- Tractor manufacturer's name and address:	Case Corporation, 700 State St. Racine, WI 53404
- Location of tractor assembly:	Case Corporation, 3401 1st Ave N., Fargo, ND 58102
- Submitted for test by:	The Manufacturer
- Selected for test by:	The Manufacturer
- Place of running-in:	Case Corporation, 3101 1st Ave N., Fargo, ND 58102
- Duration of running-in:	78.7 hours
- Location of test:	Nebraska Tractor Test Laboratory, Lincoln Nebraska, USA

1. SPECIFICATIONS OF TRACTOR

1.1 Identification

1.1.1 Make of the tractor:	Case IH
- Model (trade name):	STX 325
- Type:	Articulated 4 wheel drive with dual wheels

1.1.2 *Numbers*

- 1st Serial No:	JEE0097501
- Serial No:	JEE0098579

1.1.3 *Other specifications:*

- Equivalent model:	New Holland TJ 325 diesel; manufactured for New Holland by Case Corporation

1.2 Engine

- Make/Model/Type:	Case/6TAA-9304/Diesel; 4 cycle; Turbo charged; Charge air cooled
- Serial Nº:	46065275

1.2.1 *Cylinders*

- Number/disposition:	6 in-line, vertical
- Bore/stroke:	114 mm/144.5 mm
- Capacity:	8849 cm^3
- Compression ratio:	16.6:1
- Arrangement of valves:	4V Overhead
- Cylinder liners (wet or dry):	Wet, replaceable

1.2.2 *Supercharging*

- - Make/Model/Type:	Holset/HX40/Exhaust gas driven with waste gate control
- - Pressure:	163 ± 10 kPa

1.2.3 *Fuel system*

- - Fuel feed system:	Engine driven gear pump
- - Make/Model/Type of fuel filter(s):	Fleetguard/F51022/Spin-on cartridge-fuel water separator
- - Capacity of fuel tank:	757 L
- - Make/Model/Type of injection pump:	Cummins/CAPS/Accumulator, rotary system
- - Serial N°:	
- - Manufacturer's production setting of injection pump	
. Flow rate (rated engine speed and full load):	59.7 dm^3/hr –1.5%/+4.5%
. Timing:	Variable
- - Make/Model/Type of injectors:	Bosch, pencil type injectors
- - Injection pressure:	120.7 MPa (17.5 ksi)
- - Make/Model/Type of carburetor:	N/A

1.2.4 *Governor*

- -Make/Model/Type:	Cummins/CAPS1/Electronic; variable timing
- - Governed range of engine speed from... to ...	850 ± 50 rpm to 2145 ± 20, 1-16; 2350 ± 30 rpm, 16-high
- - Rated engine speed:	2000 rpm

1.2.5 *Air cleaner*

- - Pre-cleaner	
. Make/Model/Type:	Nelson/363786A1/Aspirated
. Location of air intake:	Under hood
- - Main cleaner	
. Make/Model/Type:	Nelson/363786A1/Dry; two stage pleated element
. Location of air intake (in case of no pre-cleaner):	N/A
- - Maintenance indicator:	Service indicator on digital instrument cluster

1.2.6 *Lubrication system*

- - Type of feed pump:	Full pressure positive displacement gear pump
- - Type of filter(s):	Combination full-flow and bypass filter Fleetgaurd LF9009 spin-on type
- - Number of filters:	1

1.2.7 *Cooling system*

- - Type of coolant:	50/50 Ethylene glycol – water
- - Type of pump:	Centrifugal; belt driven
- - Specification of fan or blower	Viscous drive fan
. Number of fan blades:	8
. Fan diameter:	775 mm rotating
- - Coolant capacity:	43 L
- - Type of temperature control:	1 thermostat
- - Superpressure system:	136 kPa

1.2.8 *Starting system*

- - Make/Model/Type:	Nippondenso 228000-5600
- - Starter motor power rating:	4.8 kW/12V @ 20°C
- - Cold starting aid:	Ether; Engine block heater; Phillips Temro 6cc metered shot
- - Safety device:	Solenoid cover per SAE J1493

1.2.9 *Electrical system*

- - Voltage:	12V
- - Generator	
. Make/Model/type:	Bosch/N1/Alternator, belt-driven
. Power:	135A/14V @ 25°C air inlet temp
- - Battery of accumulators	
. Number:	Two 12-volt batteries in parallel
. Rating	1000 cold cranking amp/battery, (30 sec rating @ -18°C)

1.2.10 *Exhaust system*

- - Make/Model/Type:	Nelson/359633A2/Verticle
- - Location:	Mounted to right front frame

1.3 Transmission

1.3.1 *Clutch (travel and power take-off/travel alone)*

- Make/Model/Type: Fuji – Univance
- Number of plates: 13
- Diameter of plates: 229 mm
- Method of operation: Electric/hydraulic by foot pedal or transmission control lever

1.3.2 *Gear box*

- Make/Model/Type: Fuji – Univance/PS3/Full 16 speed Powershift
- Description: 16 Forward and 2 reverse speeds

	Forward	Reverse
Number of gears	16	2
Number of ranges/groups	1	1
Total of arrangements	16	2

- Available options: N/A

1.3.3 *Rear axle and final drives*

- Make/Model/Type: Case IH/310 RW/Inboard planetary
- Differential lock
  - .Type: Electro/ hydraulic
  - .Method of engagement: Electrical switch on console
  - .Method of disengagement: Actuation of Brake pedal, or travel speed above 18 km/h will automatically disengage diff. locks

1.3.4 *Front axle and final drives*

- Make/Model/Type: Case IH/310 FW/Inboard planetary
- Differential lock
  - .Type: Electro/hydraulic
  - .Method of engagement: Electric switch on console
  - .Method of disengagement: Actuation of brake pedal, or travel speed above 18 km/h will automatically disengage diff. locks

1.3.5 *Total ratios and traveling speeds*

Gear No.	Number of engine revolutions for one revolution of the driving wheels	Nominal traveling speed (*) at rated engine speed of 2000 min^{-1} (rev/min) km/h
1	173.748	3.93
2	144.251	4.73
3	119.452	5.71
4	99.171	6.88
5	86.361	7.90
6	78.608	8.68
7	71.702	9.52
8	65.258	10.46
9	59.379	11.49
10	54.040	12.63
11	49.290	13.84
12	44.849	15.21
13	39.073	17.46
14	32.449	21.03
15	26.853	25.41
16LO	22.309	30.59
16HI[a]	22.309	33.65
1R	114.677	5.95
2R	51.883	13.15
(*) Calculated with a tyre dynamic radius index of 905mm (pneumatic tyred tractors only). [a]Engine high idle increases 200 rev/min in 16HI.		

-- Number of revolutions of front wheels for one revolution of rear-wheels (For 4WD tractors only): 1:1

1.4 Power take-off

1.4.1 *Main power take-off*

- Type (independent, semi-independent or not independent):	Independent
- Method of engagement (if necessary describe the type of clutch):	Electro/hydraulic
- Number of shafts:	One
- Method of changing power take-off shaft ends and speeds:	Single speed

1.4.1.1 Power take-off proportional to engine speed

Power take-off at 540 min^{-1} (rev/min)

- Diameter of power take-off shaft end:	N/A
- Number of splines: ..... , in conformity with ISO 500:1991	N/A
- Height above ground:	N/A
- Distance from the median plane of the tractor:	N/A
- Distance behind rear-wheel axis:	N/A
- PTO speed at rated engine speed (.... rev/min):	N/A
- Engine speed at standard power take-off speed:	N/A
- Ratio of rotation speeds (engine speed/p.t.o. speed):	N/A
- Power restriction:	N/A
- Maximum torque transmissible:	N/A
- Direction of rotation (viewed from behind tractor):	N/A

Power take-off at 1000 min^{-1} (rev/min)

- Location:	Rear of tractor, vertical center plane
- Diameter of power take-off shaft end:	44.5 mm
- Number of splines: ..... , in conformity/not in conformity with ISO 500:1991	20 class 3 in conformity with ISO 500:1991
- Height above ground:	837.4 mm
- Distance from the median plane of the tractor:	0 mm
- Distance behind rear-wheel axis:	703.8 mm
- PTO speed at rated engine speed (.... rev/min):	1001 min^{-1} (rev/min)
- Engine speed at standard power take-off speed:	1998 min^{-1} (rev/min)
- Ratio of rotation speeds (engine speed/p.t.o. speed):	1.998
- Power restriction:	None
- Maximum torque transmissible:	None
- Direction of rotation (viewed from behind tractor):	Clockwise

1.4.1.2 Power take-off proportional to ground speed

- - Indicate 540 or 1000 min^{-1} (rev/min):	N/A
- - Traveling distance for one revolution of take-off shaft	N/A
- - Number of power take-off shaft revolutions for one revolution of (rear) driving wheels:	N/A
- - Direction of rotation with forward gear engaged (viewed from behind tractor):	N/A

1.4.2 *Optional power take-off*

- - Give the same description as for the main PTO.	N/A

1.5 Hydraulic power lift

- - Make/Model/Type:	Case IH
- - Type of hydraulic system:	Close center, load sensing
- - Type and number of cylinders (single or double-acting):	2 external, both double acting 2x 101.6 diameter
- - Type of linkage lock for transport:	Hydraulic with locking notch for hand lever in control console.
- - Relief valve pressure setting (tolerance):	20 Mpa ± 0.5 Mpa (high pressure stand by)
- - Opening pressure of cylinder safety valve (if fitted):	20.7 Mpa, -0 + 201 Mpa
- - Lift pump type:	Axial piston/pressure and flow compensated
- - Transmission between pump and engine:	Gear drive on transmission
- - Type and number of filters:	2, turn-on replaceable cartridge, cleanable suction screen inside reservoir
- - Site of oil reservoir:	Left hand side, below cab
- - Type, number and location of tapping points:	4 pairs of ISO standard couplings at rear of tractor (additional pair optionally available)
- - Maximum volume of oil available to external cylinders:	20 liters

1.6 Three point linkage

- - Category: IV, in conformity with ISO 730-1:1994 + Cor. 1:1995 and ISO 730-2:1979.

- Category adapter: Quick attach coupler

		Dimension or range	Settings used in test
		mm	mm
Lift Category:		IV	IV
Rear tire – radius index	**(r)**	905	945*
Front tire – radius index	**(r')**	905	945*
Length of lift arms:	**(A)**	760	760
Length of lower links:	**(B)**	997+184QC	1181
Distance of lift arm pivot point from rear-wheel axis:			
- horizontally	**(a)**	-152	-152
- vertically	**(b)**	558	558
Horizontal distance between the 2 lower link points:	**(u)**	655	655
Horizontal distance between the 2 lift arm end points:	**(v)**	760	760
Length of upper link:	**(S)**	766 to 946	855
Distance of upper link pivot point from rear wheel axis:			
- horizontally	**(c)**	538	538
- vertically	**(d)**	241 and 342	342
Distance of lower link pivot point from rear wheel axis:			
- horizontally	**(e)**	394	394
- vertically	**(f)**	340	340
Distance of lower link pivot points to lift rod pivot points on lower links:	**(D)**	736	736
Length of lift rods:	**(L)**	885 to 1025	1004
Height of lower hitch points relative to the rear-wheel axis:			
- in low position	**(h)**	621 to 761	740
- in high position	**(H)**	119 to 259	140
Height above ground of lower hitch points when locked in transport position (*)		999 to 1139	1020

(*) Assuming r = 945 mm tyre radius (tyre size – 710/70R42)

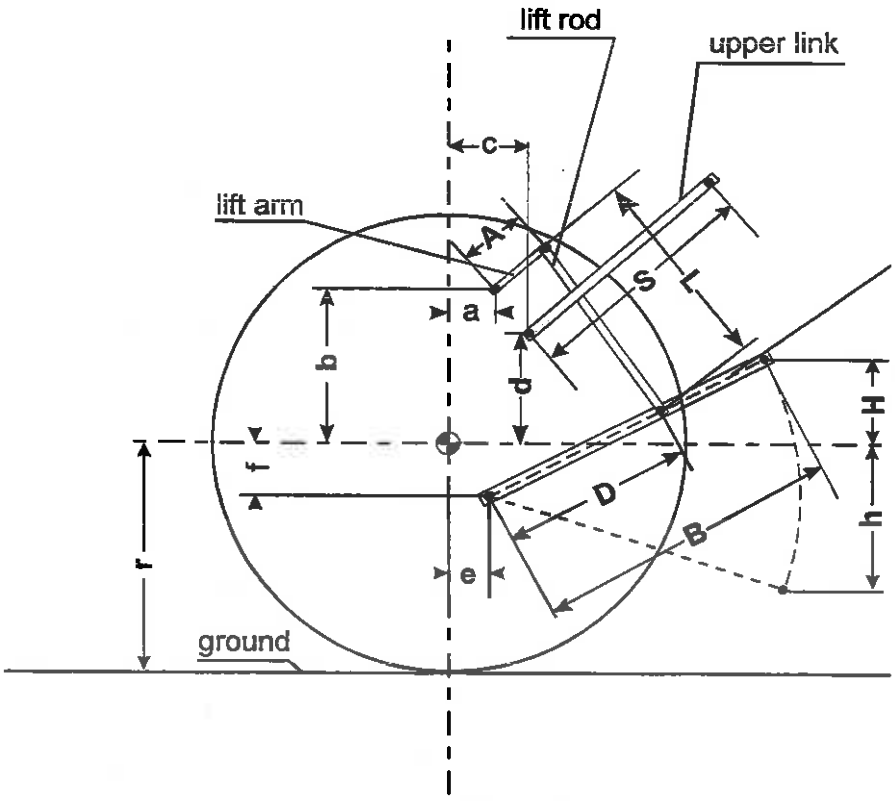


Figure 2.1
Lift Test – Linkage Geometry

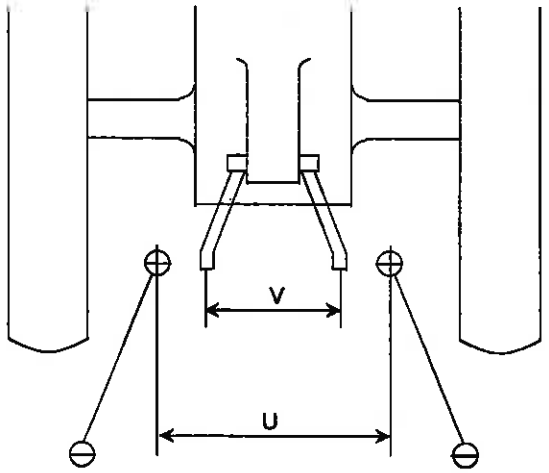


Figure 2.2
Lift Test – Linkage Geometry

1.7 Swinging drawbar

- - Type:	Yoke type, side swing; standard with optional high capacity drawbar
- - Height above ground	
. Maximum:	573 mm
. Minimum:	452 mm
- - Type of adjustment:	Laterally adjustable
- - Distance of hitch point from rear-wheel axis, horizontally: TPH = three point hitch	With TPH, standard drawbar 1199.4 mm With TPH, high capacity drawbar 1199.5 mm With TPH, standard drawbar 1211.4 mm With TPH, high capacity drawbar 1211.5 mm
- - Distance of hitch point from power take-off shaft end	
. Vertically:	305 mm standard drawbar, 312 mm or 344 mm high capacity drawbar
. Horizontally:	With TPH, standard drawbar 495.6 mm With TPH, high capacity drawbar 495.7 mm With TPH, standard drawbar 507.6 mm With TPH, high capacity drawbar 507.7 mm
- - Lateral adjustment (centre of clevis)	
. Right hand	Standard with TPH 120 mm, without TPH 308 mm
. Left hand	Standard with TPH 120 mm, without TPH 308 mm No adjustment with high capacity drawbar
- - Distance of pivot point from rear-wheel axis, horizontally:	1489.6 mm
- - Diameter of drawbar pin hole:	53 mm
- - Maximum vertical permissible load:	Standard 38.7 kN

1.8 Trailer hitch

- - Type:	
- - Hole diameter:	N/A
- - Height above ground:	N/A
- - Distance of hitch point from rear-wheel axis, horizontally:	N/A
- - Distance of hitch point from power take-off shaft end	
. Vertically:	N/A
. Horizontally:	N/A
- - Maximum vertical permissible load:	N/A

1.9 Holed drawbar

- - Number of holes:	
- - Distance between holes:	N/A
- - Hole diameter:	N/A
- - Thickness/width of the drawbar:	N/A

- - Height above ground
  . Minimum: N/A
  . Maximum: N/A
- - Horizontal distance to power take-off shaft end (rear): N/A

1.10 Steering

- - Make/Model/Type: Eaton/20 series/Hydrostatic steering control unit
- - Method of operation
  . Pump(s): Main axial piston pump through steering priority valve
  . Ram(s): 2 double acting
- - Working pressure: 17.9 – 18.6 MPa

1.11 Brakes

1.11.1 *Service brake*

- - Make/Model/Type: Case IH/NA/oil immersed disc
- - Method of operation: Hydraulically actuated by pedal
- - Trailer braking take-off (hydraulic or air brake): None

1.11.2 *Parking brake*

- - Type: Oil immersed
- - Method of operation: Spring applied and pressure released, electrically controlled

1.12 Wheels

- - Number
  . Front: 2, 4, or 6 driving; O steering - articulated steering
  . Rear: 2, 4, or 6 driving; O steering - articulated steering
- - Wheelbase: 3531 mm standard
- - Track width adjustment

	Inner	Outer	Adjustment method
	mm	mm	
Front	1530	3302	Adjustable clamping wedges on bar axle and off set rims
Rear	1530	3302	Adjustable clamping wedges on bar axle and off set rims

1.13 Protective structure

- - Make/Model/Type:	Case IH/STX/Cab
- - Manufacturer's name and address:	Case Corporation 3401 1st Ave N, Fargo, ND 58102
- - Protective device	
. Cab/frame/ rollguard/ other:	Cab
. Tiltable/not tiltable:	Not tiltable

	For the Case IH STX 325	For the New Holland TJ 325
- - OECD approval		
. Approval number:	4/0 628	4/0 628/1
. Date of approval:	12 April 2000	14 February 2002
. Nos. of minor modification certificates, if any:	MOD 1 – 10 May 2001 MOD 2 – 10 May 2001	

1.14 Seat

1.14.1 *Driver's seat*

- - Make/Model/Type:	Sears/Nexgen Air 2000/Air suspension/part# 358202A2
- - Seat and steering wheel reversible: Yes/No	No
- - Type of suspension:	Air ride, fore-aft isolator, side/side isolator, weight adjustment
- - Type of damping:	Air/oil damping
- - Range of adjustment	
. Longitudinally:	200 mm
. Vertically	155 mm
- - Safety belt Yes/No	Yes

1.14.2 *Optional driver's seat #1*

- - Make/Model/Type:	Sears/Nexgen Air 2000/Air suspension/part# 397519A1
- - Type of suspension:	Air ride, fore-aft isolator, side/side isolator weight adjustment
- - Type of damping:	Air/oil damping
- - Range of adjustment	
. Longitudinally:	200 mm
. Vertically:	155 mm

Optional driver's seat #2

- - Make/Model/Type: Sears/Nexgen Air 2000/Air suspension/part# 358203A2
- - Type of suspension: Air ride, fore-aft isolator, side/side isolator weight adjustment
- - Type of damping: Air/oil damping
- - Range of adjustment
  - .Longitudinally: 200 mm
  - .Vertically: 155 mm

1.14.3 *Passenger seat*

- - Location: Optional training seat located left of drivers seat
- - Capacity (number): One

1.15 Lighting

	Height above ground of centre	Size	Distance from outside edge of lights to median plane of tractor
	mm	mm	mm
Inner Headlights	1132	175 x 100	333
Side Headlights	1132	220 x 100	450
Lower Rearlights	2129	135 x 75	960
Reflectors	2218	920 x 50	1805
Front Cab Lights	3375	135 x 75	336
Rear Cab Lights	3375	135 x 75	447
Front Signal Lights	3379	280 x 65	618
Rear Signal Lights	3379	280 x 65	731
Wide Transport Marker Lights	2218	140 x 90	1945
Tail Lights	2031	160 x 65	861
Center Halogen Light in Bumper	1132	255 x 100	133

2. TEST CONDITIONS

2.1 Overall dimensions

	Length	Width		Height at top of	
		minimum	maximum	protective structure	exhaust pipe
	mm	mm	mm	mm	mm
Unballasted	7010	3048	3861	3480	3607

2.2 **Ground clearance** (unballasted tractor):

Clearance-limiting part: Drawbar

2.3 Tractor mass

Mass (with or without frame/ roll guard/ cab/ other):

- Unballasted

	Without driver	With driver
	kg	kg
Front	8140	8180
Rear	6345	6380
Total	14485	14560

2.4 Track specifications N/A

2.5 Tyres and track width specifications

	Front	Rear
Tyres:	Goodyear	Goodyear
- dimensions	20.8 R 42	20.8 R 42
- ply rating	155 A8 (2star)	155 A8 (2star)
- type	Radial	Radial
- maximum load (tyre manufacturer's)	38 kN	38 kN
- maximum load (tractor manufacturer's)	38 kN	38 kN
- inflation pressure (tyre manufacturer's)	160 kPa	160 kPa
- dynamic radius index	905 mm	905 mm
Chosen track width: -inner -outer	 1753 mm 3289 mm	 1753 mm 3289 mm

2.6 Fuel

- Type: No. 2 diesel in conformity with national standard

- Density at 15°C: .844 kg/l

2.7 Oils and lubricants

2.7.1 *Capacity and change interval*

	Capacity	Oil change	Filter change
	dm^3	h	h
Engine	27.6 liters	500	500
Gear box	51.1 liters with PTO 49.2 liters w/o PTO	1500	1500
Front axle	(*)	(*)	(*)
Rear axle	(*)	(*)	(*)
Final drive (front)	(*)	(*)	(*)
Final drive (rear)	(*)	(*)	(*)
Hydraulic system (*)	178 liters	1500	1500
Other (steering, ...)	N/A	N/A	N/A
(*) Common with front and rear axle			

2.7.2 *Specifications (SAE, API, CCMC, ACEA, Mil.L, ISO)*

	Recommended	Used during test
Engine oil . Type: . Viscosity: . Classification:	Case IH no. 1 SAE 15W-40 14.5 to 16.3 cst at 100°C API CH	Case IH no. 1 SAE 15W-40 14.5 to 16.3 cst at 100°C API CH
Transmission oils . Type: . Viscosity: . Classification:	Case IH Hy-Tran Ultra 6.2 mm^2/s (cst) at 100°C none	Case IH Hy-Tran Ultra 6.2 mm^2/s (cst) at 100°C none
Hydraulic fluid . Type: . Viscosity: . Classification:	(same as transmission)	(same as transmission)
Steering oil . Type: . Viscosity: . Classification:	(same as transmission)	(same as transmission)

2.7.3 *Grease*

- - Number of lubrication points: 31

3. COMPULSORY TESTS RESULTS

3.1 Main power take-off

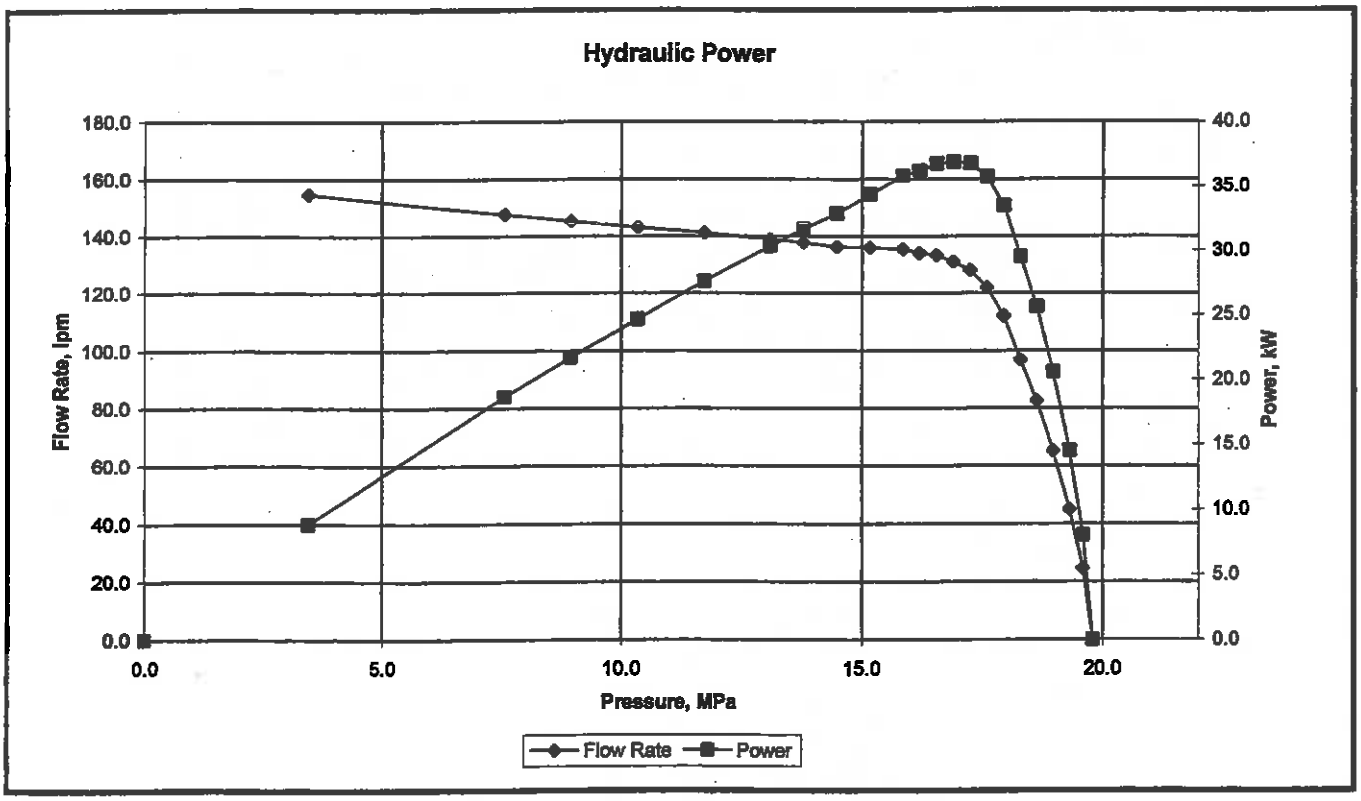
- Date and location of tests: 4-Oct-01 Nebraska Tractor Test Laboratory, Lincoln, NE, USA
- Type of dynamometer bench: Eaton

	Speed		Fuel consumption			Specific
Power	Engine	PTO	Hourly		Specific	energy
kW	rev/min		kg/h	l/h	g/kWh	kW-h/l
3.1 MAXIMUM POWER - TWO HOUR TEST						
239.18	1800	901	54.96	65.10	230	3.67
3.1.2 POWER AT RATED ENGINE SPEED						
217.60	2000	1001	51.44	60.92	236	3.57
3.1.3 STANDARD POWER TAKE-OFF SPEED (1000 +/- 25 rev/min)						
217.60	2000	1001	51.44	60.92	236	3.57
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
217.60	2000	1001	51.44	60.92	236	3.57
3.1.4.2 85% of torque obtained in 3.1.4.1						
188.26	2035	1018	45.59	53.99	242	3.49
3.1.4.3 75% of torque defined in 3.1.4.2						
142.58	2058	1030	37.29	44.16	261	3.23
3.1.4.4 50% of torque defined in 3.1.4.2						
96.07	2081	1041	29.26	34.65	305	2.77
3.1.4.5 25% of torque defined in 3.1.4.2						
48.40	2105	1053	19.19	22.73	396	2.13
3.1.4.6 unloaded						
0.04	2131	1066	10.34	12.25	273321	0.00
3.1.5 PART LOADS AT STANDARD POWER TAKE-OFF SPEED (1000 +/- 25 rev/min)						
3.1.5.1 the torque corresponding to maximum power						
217.60	2000	1001	51.44	60.92	236	3.57
3.1.5.2 85% of torque obtained in 3.1.5.1						
188.26	2035	1018	45.59	53.99	242	3.49
3.1.5.3 75% of torque defined in 3.1.5.2						
142.58	2058	1030	37.29	44.16	261	3.23
3.1.5.4 50% of torque defined in 3.1.5.2						
96.07	2081	1041	29.26	34.65	305	2.77
3.1.5.5 25% of torque defined in 3.1.5.2						
48.40	2105	1053	19.19	22.73	396	2.13
3.1.5.6 unloaded						
0.04	2131	1066	10.34	12.25	273321	0.00

- No load maximum engine speed: 2131 rev/min
- Torque (equivalent crankshaft) at rated speed:
  - At rated engine speed 1039 Nm
  - At 2-hour test 1269 Nm
- Maximum torque (equivalent crankshaft) 1440 Nm
  (engine speed: 1351 rev/min)

Mean atmospheric conditions:		
Temperature	24	°C
Pressure	98.0	kPa
Relative Humidity	51	%
Maximum temperatures:		
Coolant	88	°C
Engine oil	119	°C
Fuel	45	°C
Engine air intake	33	°C

Date of Test:	13-Oct-00	Case IH STX 375	
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:		
	19.79 MPa		
	2870 psig		
II.	Pump delivery rate at minimum pressure at rated engine speed:		
	154.8 l/min		
	40.9 gpm		
III.	Flow rate, pressure, power:		
	90% of relief valve setting		
	112.0 l/min	17.93 MPa	33.5 kW
	29.6 gpm	*2600 psig*	*44.9 hp*
	Maximum hydraulic power:		
	131.0 l/min	16.89 MPa	36.9 kW
	34.6 gpm	*2450 psig*	*49.5 hp*
IV.	Hydraulic fluid temperature at flow meter:		
	68 °C		
	154 ° F		
	This hydraulic system does not use an accumulator. Opening and closing pressures of the unloading valve could not be measured.		



3.2.2 POWER LIFT TEST Category IV with Quick Attaching coupler
Date of test: 23 Jan 2001

		Hitch points	Frame
Lower hitch points above ground - down position:	mm	205	211
Vertical movement - without load:	mm	880	896
with load:	mm	810	820
Maximum corrected force exerted through full range:	kN	77.8	69.7
Corresponding pressure:	MPa	18.2	18.2
Moment about rear axle:	kNm	125.7	155.2
Maximum mast tilt angle:	degrees	--	1.5

Lifting height relative to horizontal position of lower links.

mm		-400	-394	-300	-200	-100	0	100	200	300	410	426
Corrected lift forces												
At the Hitch point	kN	98.4	--	93.8	90.6	88.1	86.0	84.2	82.3	77.9	77.8	--
at the frame	kN	--	106.5	97.4	89.3	87.9	84.5	80.5	77.9	74.7	70.5	69.7
Corresponding pressure	MPa	18.2										

OECD Drawbar Data (SI)

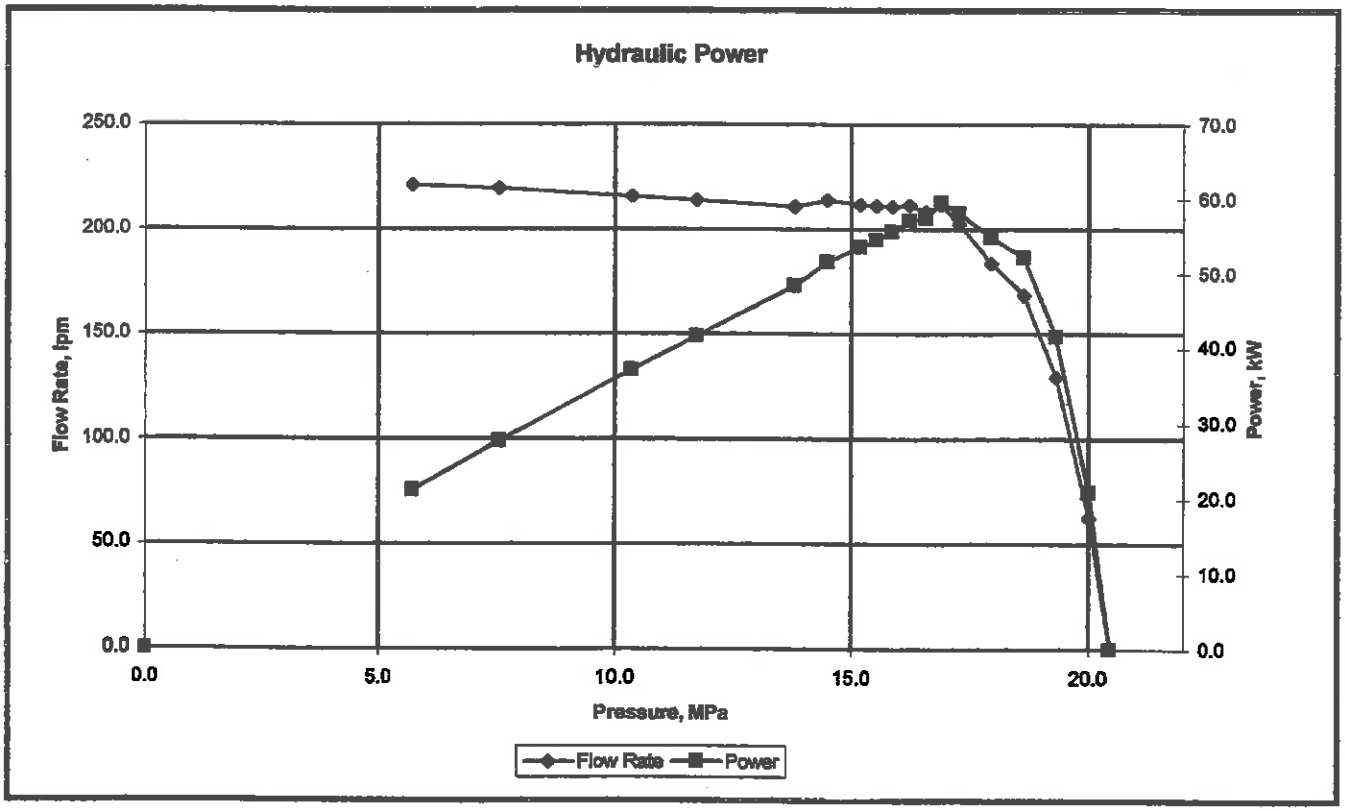
Date of tests: 11-Oct-01 | Fuel density: 0.844 kg/l

Type of track: Concrete | Test number: 1797

3.3.1 Maximum power in tested gears (unballasted, 4wd) | Tire pressure: 55 kPa, rear 76 kPa, front | Drawbar Height: 368 mm

Gear	Gear Designation	Power	Drawbar pull	Speed	Engine speed	Slip	Fuel		Temperature			Atmospheric conditions		
							SFC	SFE	Fuel	Coolant	Oil	Temperature	Relative humidity	Pressure
		kW	kN	km/h	rev/min	%	kg/kW.h	kW.h/l	°C	°C	°C	°C	%	kPa
*1	1	153.19	145.24	3.80	2042	7	0.287	2.94	41	83	108	12	77	98.0
*2	2	181.54	145.89	4.48	2011	7	0.279	3.02	41	83	109	11	76	98.0
3	3	202.16	139.14	5.23	1898	5	0.265	3.19	42	83	113	13	77	97.9
4	4	216.37	128.64	6.06	1796	4	0.257	3.29	42	84	113	13	78	97.9
5	5	217.07	111.01	7.04	1800	3	0.256	3.29	43	84	114	16	69	97.9
6	6	216.48	100.29	7.77	1801	2	0.254	3.32	45	87	117	17	57	97.9
7	7	214.49	90.61	8.52	1798	2	0.258	3.27	45	86	118	18	54	97.9
8	8	215.03	82.26	9.41	1802	2	0.257	3.28	45	87	117	18	50	97.9
9	9	212.73	74.17	10.33	1796	2	0.259	3.26	46	86	118	19	51	97.9
10	10	213.24	67.41	11.39	1798	2	0.261	3.24	46	88	120	19	51	97.9
11	11	208.56	60.18	12.48	1795	1	0.265	3.18	46	88	117	19	51	97.9
12	12	208.99	54.58	13.78	1802	1	0.265	3.19	46	85	116	19	51	97.9
* Note:		Slip limited to avoid excessive bouncing												
3.3.2 Fuel consumption														
3.3.2.1		In selected gear at maximum power at rated engine speed.												
5	5	194.53	88.84	7.88	2002	2	0.268	3.15	44	83	114	17	61	97.9
3.3.2.1.1		75% of pull at maximum power at rated engine speed												
5	5	151.13	67.12	8.11	2046	1	0.284	2.97	45	83	111	20	48	97.8
3.3.2.1.2		50% of pull at maximum power at rated engine speed												
5	5	102.30	44.76	8.23	2069	1	0.332	2.55	46	82	109	21	46	97.8
3.3.2.1.3		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1												
6	6	151.24	67.05	8.12	1864	1	0.268	3.14	46	83	111	21	45	97.8
3.3.2.1.4		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2												
6	6	102.44	44.72	8.25	1888	1	0.309	2.73	46	82	107	22	47	97.7
3.3.2.1.5		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1												
8	8	151.17	67.00	8.12	1550	1	0.262	3.22	46	84	112	21	46	97.8
3.3.2.1.6		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2												
8	8	102.50	44.71	8.25	1568	1	0.285	2.96	46	83	106	22	43	97.7
3.3.2.2		In selected gear nearest to 7.5 km/h at rated engine speed.												
5	5	194.53	88.84	7.88	2002	2	0.268	3.15	44	83	114	17	61	97.9
3.3.2.2.1		75% of pull at maximum power at rated engine speed												
5	5	151.13	67.12	8.11	2046	1	0.284	2.97	45	83	111	20	48	97.8
3.3.2.2.2		50% of pull at maximum power at rated engine speed												
5	5	102.30	44.76	8.23	2069	1	0.332	2.55	46	82	109	21	46	97.8
3.3.2.2.3		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1												
6	6	151.24	67.05	8.12	1864	1	0.268	3.14	46	83	111	21	45	97.8
3.3.2.2.4		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2												
6	6	102.44	44.72	8.25	1888	1	0.309	2.73	46	82	107	22	47	97.7
3.3.2.2.5		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1												
8	8	151.17	67.00	8.12	1550	1	0.262	3.22	46	84	112	21	46	97.8
3.3.2.2.6		Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2												
8	8	102.50	44.71	8.25	1568	1	0.285	2.96	46	83	106	22	43	97.7

Date of Test:	8-Oct-01	Case IH STX 325	
Location of Test-City-State:		Tractor Test Lab, Lincoln, NE, USA	
Tapping point used for test:		Remote hydraulic outlets	
I.	Sustained pressure with pump stalled:		
	20.44 MPa		
	2965 psig		
II.	Pump delivery rate at minimum pressure at rated engine speed:		
	221.1 l/min		
	58.4 gpm		
III.	Flow rate, pressure, power:		
	90% of relief valve setting		
	168.5 l/min	18.62 MPa	52.3 kW
	44.5 gpm	*2700 psig*	*70.1 hp*
	Maximum hydraulic power:		
	212.0 l/min	16.87 MPa	59.6 kW
	56.0 gpm	*2447 psig*	*79.9 hp*
IV.	Hydraulic fluid temperature at flow meter:		
	83 °C		
	181 °F		
	This hydraulic system does not use an accumulator. Opening and closing pressures of the unloading valve could not be measured.		

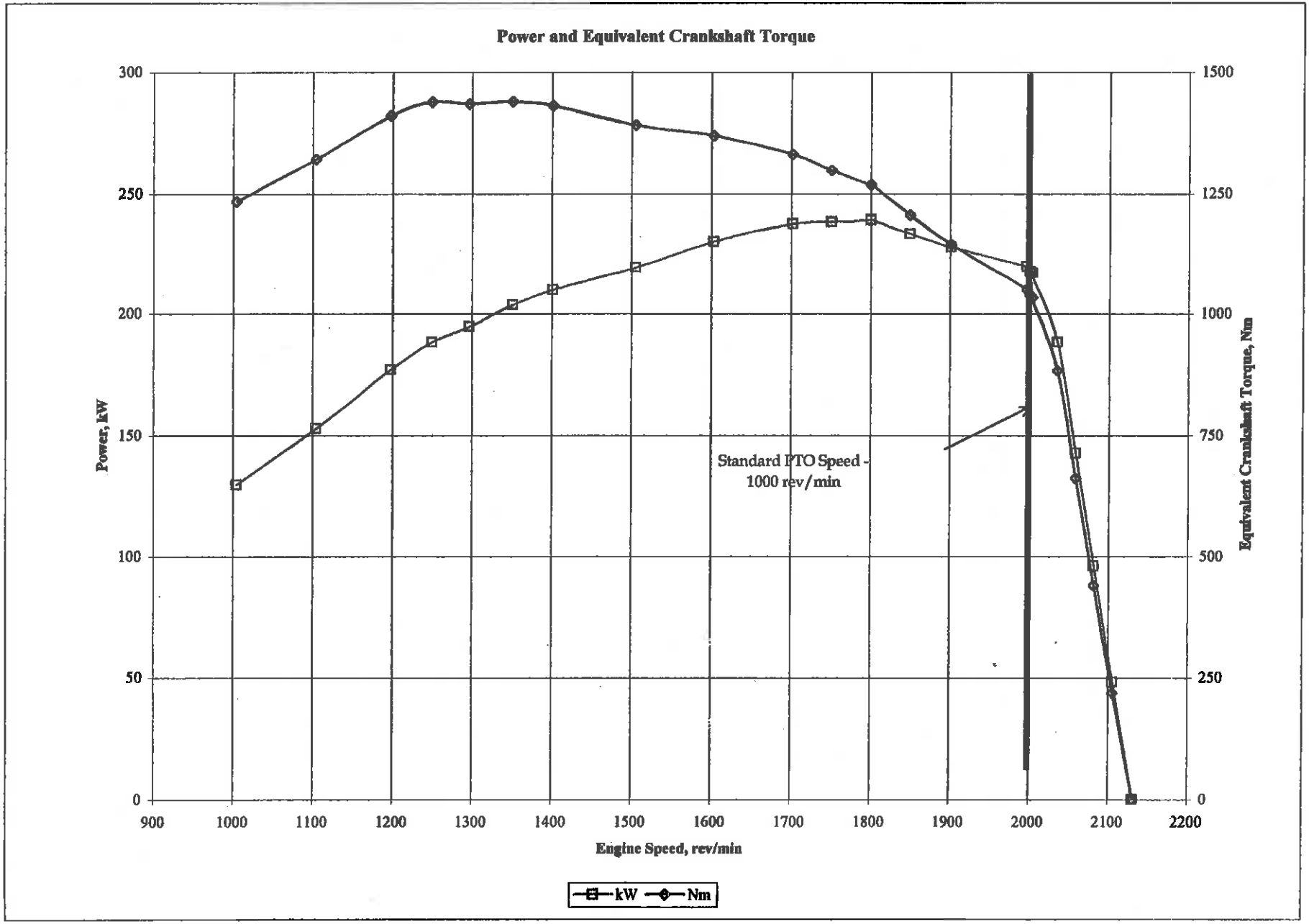


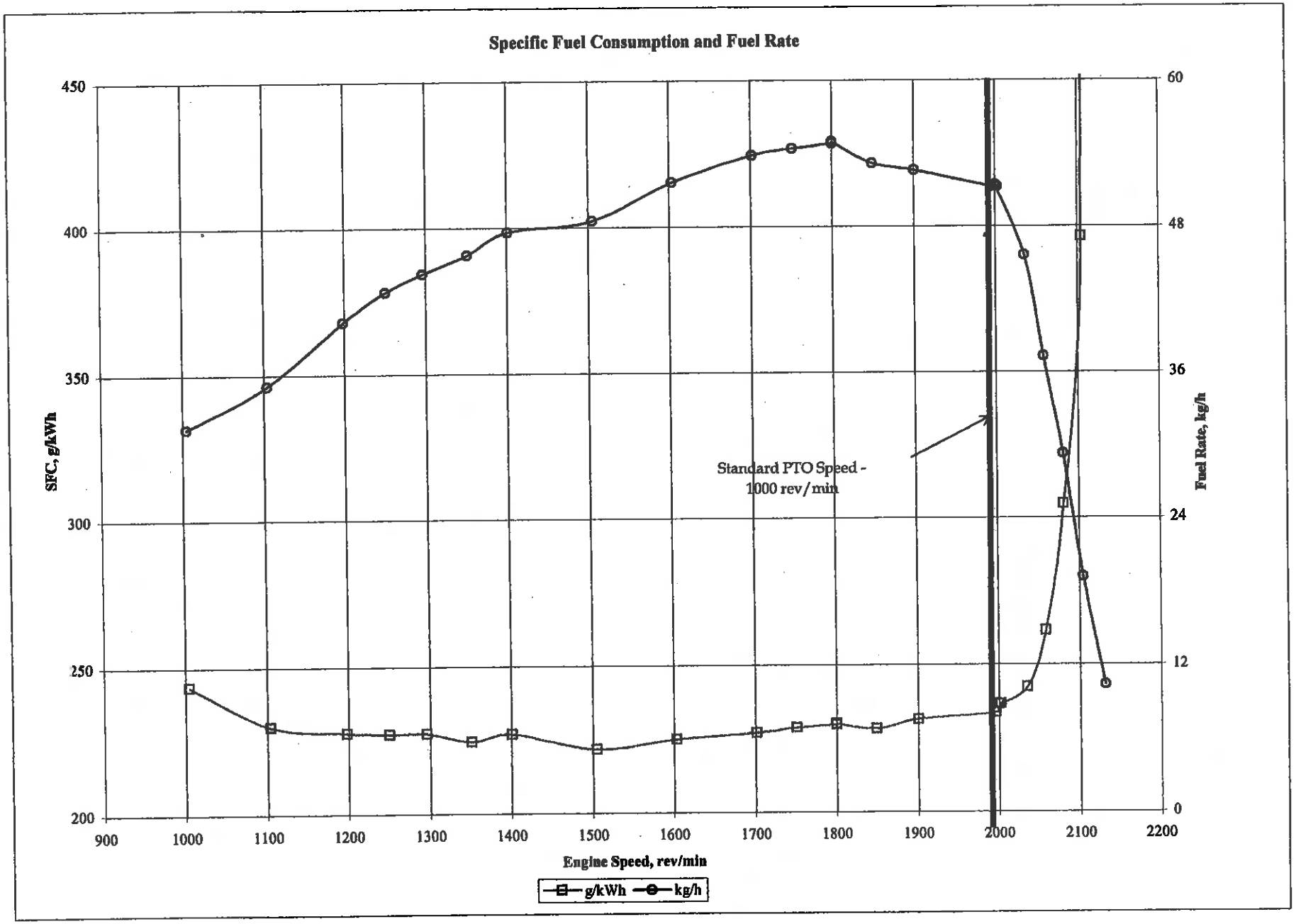
4.2 Measurement of External Noise Level – Case IH STX 325

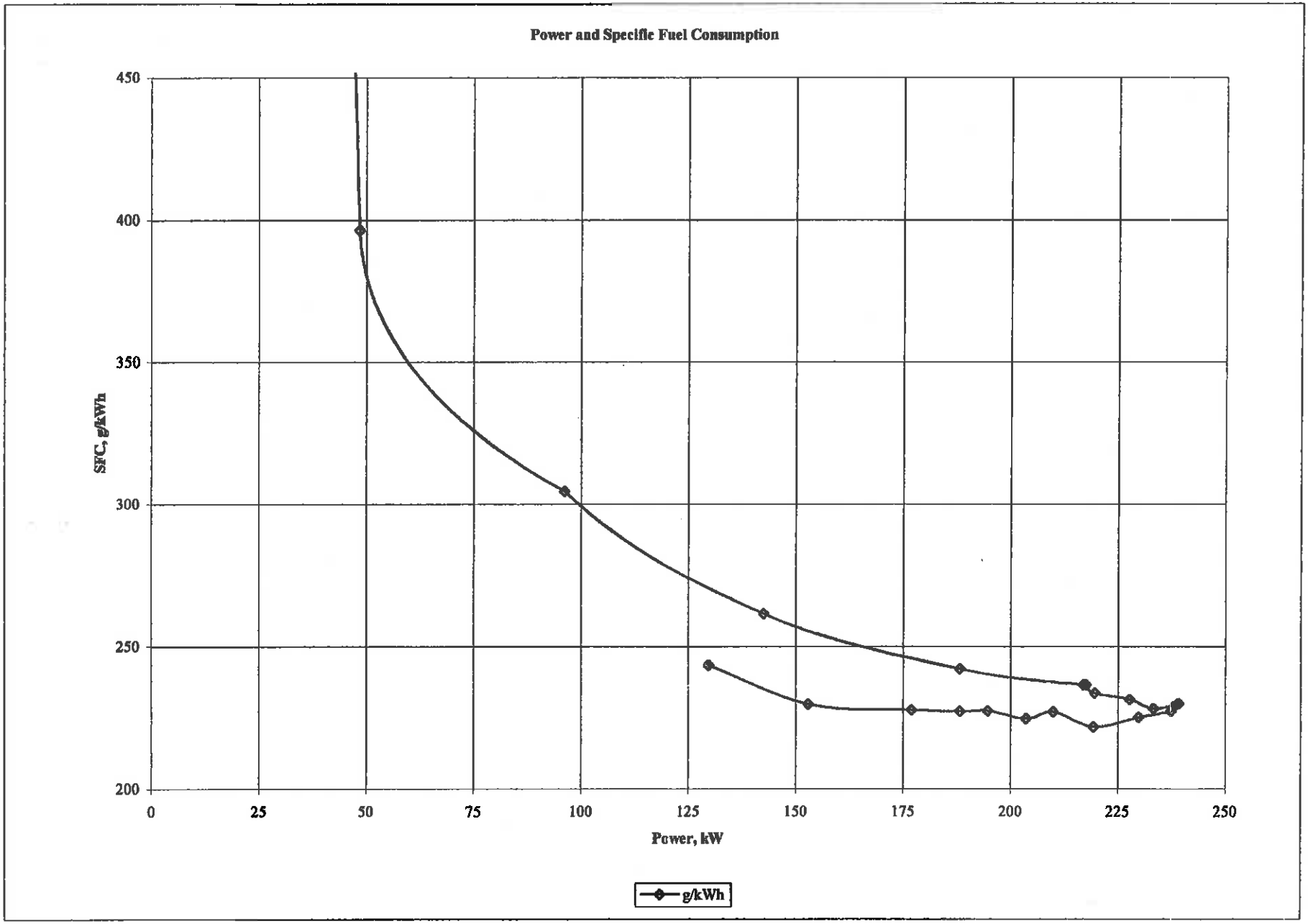
-- Date of Test	8 October 2001
-- Location of Test	Nebraska Tractor Test Laboratory
-- Sound Level Meter	Bruel and Kjaer 2236
-- Type of Track	Concrete Oval
-- Gear Number	16Hi
-- Speed Prior to Acceleration	25.2 km/h
-- Noise Level	87.1 dB(A)

5. Repairs and Adjustments:

6. Remarks:


Power and Equivalent Crankshaft Torque
Power, kW
Equivalent Crankshaft Torque, Nm
Engine Speed, rev/min
Standard PTO Speed - 1000 rev/min
kW
Nm
300
250
200
150
100
50
0
1500
1250
1000
750
500
250
0
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200


Specific Fuel Consumption and Fuel Rate
SFC, g/kWh
Fuel Rate, kg/h
Engine Speed, rev/min
Standard PTO Speed - 1000 rev/min
g/kWh
kg/h
450
400
350
300
250
200
60
48
36
24
12
0
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200


Power and Specific Fuel Consumption
SFC, g/kWh
450
400
350
300
250
200
0
25
50
75
100
125
150
175
200
225
250
Power, kW
g/kWh