OECD APPROVAL NO. 2/1 955/1
DATE OF APPROVAL: 29 May 2001
EXTENSION APPROVAL DATE: 22 February 2002

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

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



CASE IH STX 375



NEW HOLLAND TJ 375

Articulated 4 Wheel Drive with Dual Wheels

MANUFACTURED BY:	**Case Corporation** **700 State St.** **Racine, WI 53404**
NEBRASKA TEST NO.	**1783**
TEST DATES:	**October 9-18, 2000**

University of Nebraska Lincoln

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IANR

15 August 2002

Subject: Correction to Code 2 test report

OECD approval number and date: 2/1 955/1, 29th May 2001

Application: Case IH STX 375/New Holland TJ 375

Changes needed:

1. Page 3, paragraph 1.2.6: Filter make- Fleetguard instead of stated Fleetgaurd

Brent Sampson
Test Engineer

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 29 May 2001 for the Case IH STX 375, 4 wheel drive, with OECD Number 2/1 955. The extension has been approved by the OECD Coordinating Centre in Paris on 22 February 2002 with OECD number 2/1 955/1.

Extension: This report is also valid for the New Holland TJ 375 diesel; manufactured for New Holland by Case Corporation. The New Holland TJ 375 varies from the Case IH STX 375 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 375.

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.

Dr. Leonard L. Bashford, Director
Nebraska Tractor Test Laboratory and
Chair, Nebraska Tractor Test Board

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Nebraska Tractor Test Laboratory

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:	96 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 375
-- Type:	Articulated 4 wheel drive with dual wheels

1.1.2 *Numbers*

-- 1st Serial Nº:	JEE0097501
-- Serial Nº:	JEE0097542

1.1.2 *Other Specifications*

-- Equivalent model:	New Holland TJ 375 diesel; manufactured for New Holland by Case Corporation

1.2 Engine

-- Make/Model/Type:	Cummins/QSX15/Diesel; 4 cycle; Turbo charged; Charge air cooled
-- Serial Nº:	14008620

1.2.1 *Cylinders*

-- Number/disposition:	6 in-line, vertical
-- Bore/stroke:	137 mm/169 mm
-- Capacity:	14945 cm^3
-- Compression ratio:	16.5:1
-- Arrangement of valves:	4V Overhead
-- Cylinder liners (wet or dry):	Wet, replaceable

1.2.2 *Supercharging*

-- Make/Model/Type:	Holset/HX55/Exhaust gas driven with waste gate control
-- Pressure:	149 ± 10 kPa

1.2.3 *Fuel system*

-- Fuel feed system:	Engine driven gear pump
-- Make/Model/Type of fuel filter(s):	Fleetguard/F51007/Spin-on cartridge-fuel water separator
-- Capacity of fuel tank:	1136 L
-- Make/Model/Type of injection pump:	Cummins/HPI – TP/Gear pump rail system
-- Serial N°:	
-- Manufacturer's production setting of injection pump	
. Flow rate (rated engine speed and full load):	69.0 dm^3/h ± *5%*
. Timing:	Variable
-- Make/Model/Type of injectors:	Cummins/NCVOS injectors
-- Injection pressure:	165 MPa
-- Make/Model/Type of carburetor:	N/A

1.2.4 *Governor*

-- Make/Model/Type:	Cummins/HPI-TP/Electronic; variable timing
-- Governed range of engine speed from... to ...	875 ± 50 rev/min to 2145 ± 20, 1-16 gears, 2350 ± 20 rev/min – 16 – high
-- Rated engine speed:	2000 rev/min

1.2.5 *Air cleaner*

-- Pre-cleaner	
. Make/Model/Type:	Donaldson/337738A1/Aspirated
. Location of air intake:	Above cab top; front-right of cab
-- Main cleaner	
. Make/Model/Type:	Donaldson/337738A1/Dry; two stage plerted 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 LF9000 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:	812.8 rotating
-- Coolant capacity:	80.3 L
-- Type of temperature control:	2 thermostats
-- Superpressure system:	181 kPa

1.2.8 *Starting system*

-- Make/Model/Type:	Delco 42MT Heavy Duty
-- Starter motor power rating:	7.5 kW/12V at 25°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:	Three 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/357685A1/Vertical
-- Location:	Mounted to front right fender

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/410 RW/Inboard compound 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/410 FW/Inboard compound 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	171.880	3.97
2	142.700	4.78
3	118.168	5.77
4	98.105	6.96
5	85.432	7.99
6	77.763	8.77
7	70.931	9.62
8	64.557	10.57
9	58.741	11.62
10	53.459	12.76
11	48.760	13.99
12	44.367	15.38
13	38.653	17.65
14	32.101	21.26
15	26.564	25.69
16LO	22.069	30.92
16HI[a]	22.069	34.09
1R	113.444	6.01
2R	51.325	13.29
(*) Calculated with a tyre dynamic radius index of 905 mm (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:	808 mm
- - Distance from the median plane of the tractor:	0 mm
- - Distance behind rear-wheel axis:	744 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:	Closed center, load sensing
-- Type and number of cylinders (single or double-acting):	2 external, both double acting 2x 114.3 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 MPa + 2.1 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	970*
Front tire - radius index	(r')	905	970*
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)	-192	-192
-vertically	(b)	558	558
Horizontal distance between the 2 lower link points:	(u)	825	825
Horizontal distance between the 2 lift arm end points:	(v)	930	930
Length of upper link:	(S)	766 to 946	827
Distance of upper link pivot point from rear wheel axis:			
-horizontally	(c)	578	578
-vertically	(d)	241 to 342	342
Distance of lower link pivot point from rear wheel axis:			
-horizontally	(e)	434	434
-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	1010
Height of lower hitch points relative to the rear wheel axis:			
-in low position	(h)	573 to 770	770
-in high position	(H)	100 to 288	102
Height above ground of lower hitch points when locked in transport position (*)		1070 to 1258	1072

(*) Assuming r=970 mm tyre radius (tyre size - 710/70R42)

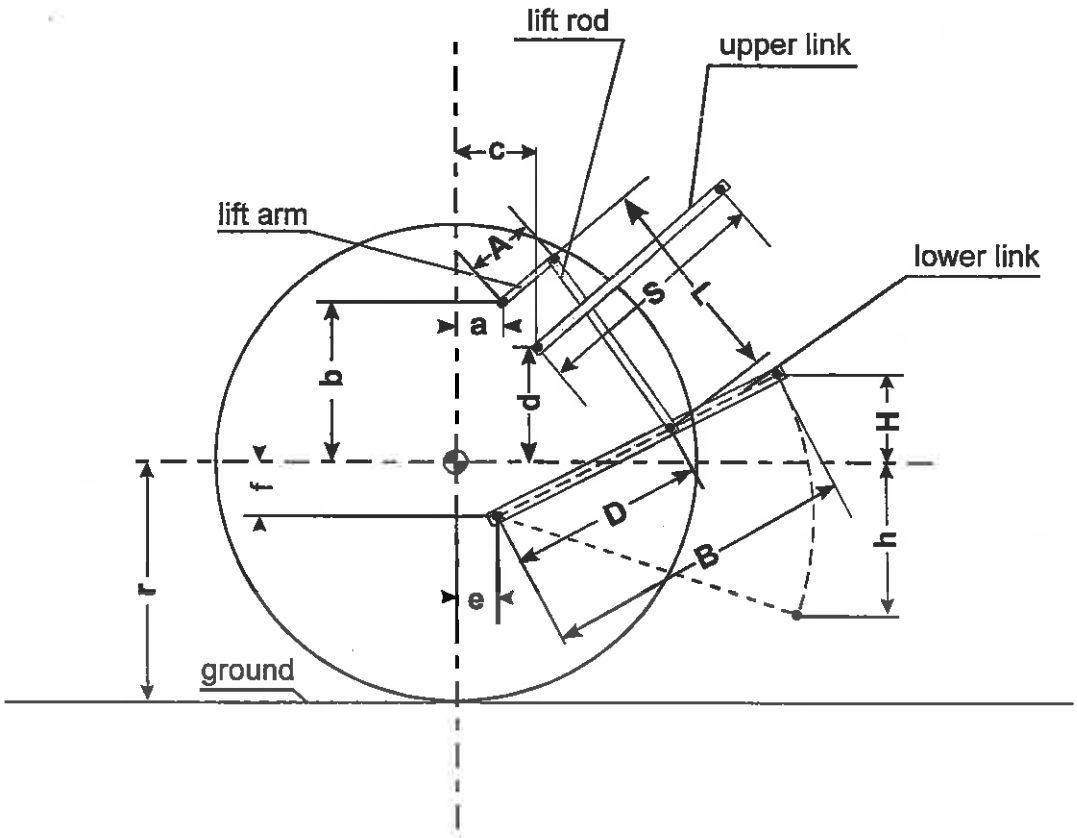


Figure 2.1
Lift test - Linkage Geometry

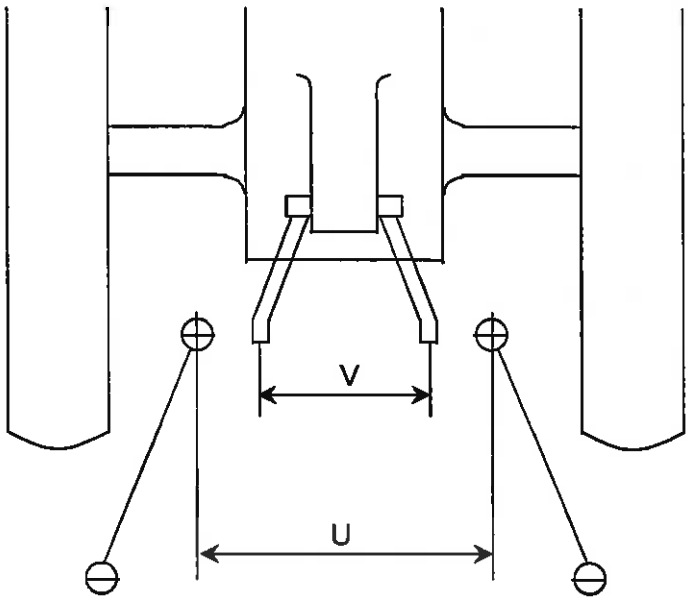


Figure 2.2
Lift test - Linkage Geometry

1.7 Swinging drawbar

-- Type:	Yoke type, side swing; standard with optional high capacity
-- Height above ground	
. Maximum:	496 mm
. Minimum:	464 mm
-- Type of adjustment:	Laterally adjustable
-- Distance of hitch point from rear-wheel axis, horizontally:	1250 mm
-- Distance of hitch point from power take-off shaft end	
. Vertically:	305 mm standard, 312 mm or 344 mm high capacity
. Horizontally:	506 mm without tph, 494 mm with tph
-- Lateral adjustment (centre of clevis)	
. Right hand	Standard with tph 188 mm, without tph 406 mm
. Left hand	Standard with tph 188 mm, without tph 406 mm
-- Distance of pivot point from rear-wheel axis, horizontally:	1671 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/25 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: 3911 mm

-- Track width adjustment

	Inner	Outer	Adjustment method
	mm	mm	
Front	1905	3277	Adjustable clamping wedges on bar axle and off set rims
Rear	1905	3277	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 375	For the New Holland TJ 375
-- 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 358202A1 / Air suspension
-- 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(s)*

-- Make/Model/Type:	Sears/Nexgen 358203A1 / Air suspension
-- 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
Headlights	1060	175 x 100	435
Sidelights	2250	130 x 90	1460
Rearlights	2070	160 x 65	840
Reflectors	2250	270 x 50	1205

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	7558	3683	3886	3631	3631

2.2 **Ground clearance** (unballasted tractor): 334 mm

- - 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	9875	9920
Rear	7189	7219
Total	17064	17139

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 (2 star)	155 A8 (2 star)
-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	1975 mm	1975 mm
-outer	3340 mm	3340 mm

2.6 Fuel

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

- - Density at 15°C: 0.841 kg/l

2.7 Oils and lubricants

2.7.1 *Capacity and change interval*

	Capacity	Oil change	Filter change
	dm^3	h	h
Engine	49.2 liters	500	500
Gear box	76.10 liter with PTO 49.2 liter w/o PTO	1500	1500
Front axle	(*)	(*)	1500
Rear axle	(*)	(*)	(*)
Final drive (front)	(*)	(*)	(*)
Final drive (rear)	(*)	(*)	(*)
Hydraulic system (*)	215 liters	1500	1500
Other (steering, ...)	(*)	N/A	N/A
(*) Common with front and rear axles			

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 14.9 cst at 100°C API SF/CD/CE	Case IH no. 1 SAE 15W-40 14.9 cst at 100°C API SF/CD/CE
Transmission oils . Type: . Viscosity: . Classification:	Case IH Hy-Tran Ultra 6.3 cst at 100°C none	Case IH Hy-Tran Ultra 6.3 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: 27

3. COMPULSORY TESTS RESULTS

3.1 Main power take-off

- Date and location of tests: 9-Oct-00 Nebraska Tractor Test Laboratory, Lincoln, NE, USA
- Type of dynamometer bench: Eaton

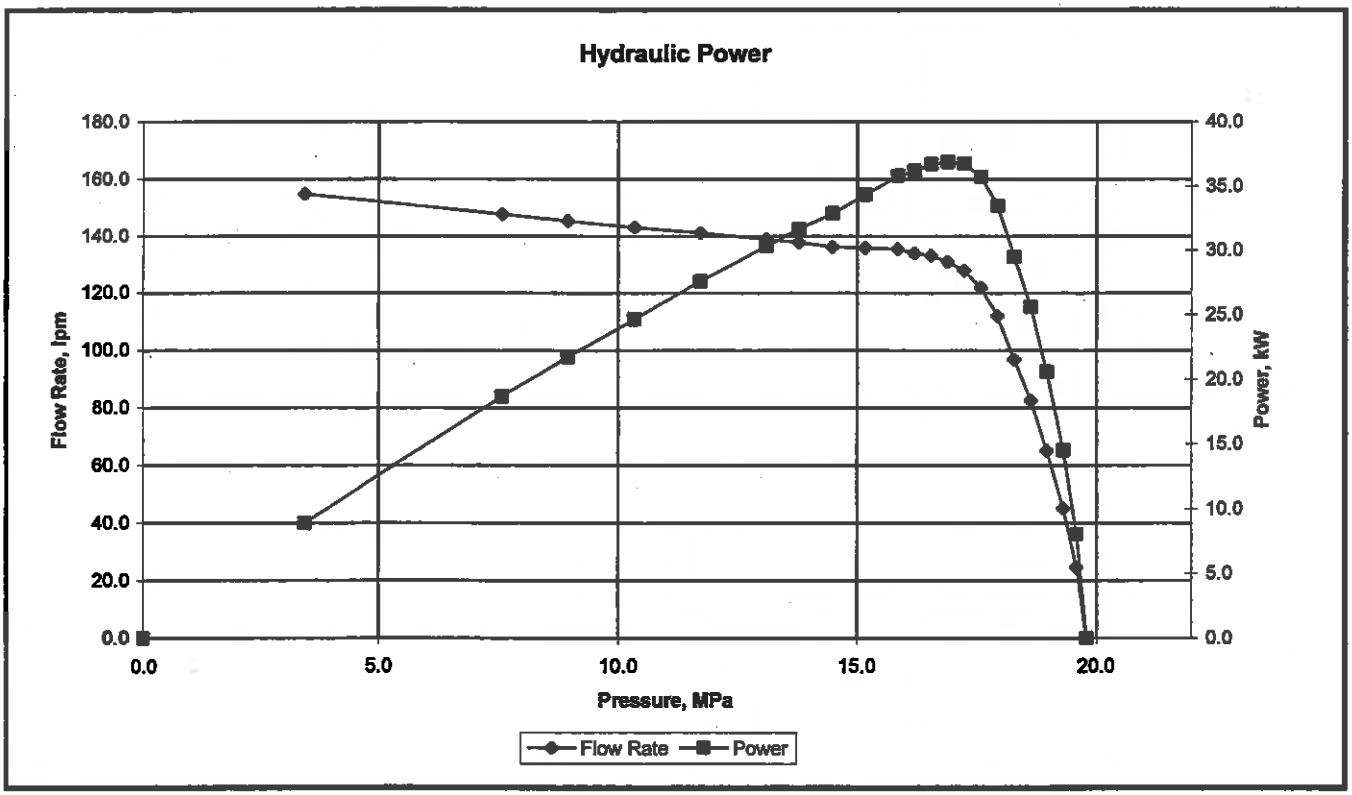
	Speed		Fuel consumption			Specific
Power	Engine	PTO	Hourly		Specific	energy
kW	rev/min		kg/h	l/h	g/kWh	kW-h/l
3.1 MAXIMUM POWER - TWO HOUR TEST						
288.32	1600	801	60.67	72.15	210	4.00
3.1.2 POWER AT RATED ENGINE SPEED						
252.00	2000	1001	60.68	72.17	241	3.49
3.1.3 STANDARD POWER TAKE-OFF SPEED (1000 +/- 25 rev/min)						
251.99	2000	1001	60.68	72.17	241	3.49
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
252.00	2000	1001	60.68	72.17	241	3.49
3.1.4.2 85% of torque obtained in 3.1.4.1						
219.00	2042	1022	55.52	66.03	254	3.32
3.1.4.3 75% of torque defined in 3.1.4.2						
165.82	2065	1034	45.86	54.54	277	3.04
3.1.4.4 50% of torque defined in 3.1.4.2						
111.22	2079	1041	36.47	43.37	328	2.56
3.1.4.5 25% of torque defined in 3.1.4.2						
56.30	2111	1056	26.81	31.88	476	1.77
3.1.4.6 unloaded						
0.76	2134	1068	17.28	20.55	22793	0.04
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						
251.99	2000	1001	60.68	72.17	241	3.49
3.1.5.2 85% of torque obtained in 3.1.5.1						
219.00	2042	1022	55.52	66.03	254	3.32
3.1.5.3 75% of torque defined in 3.1.5.2						
165.82	2065	1034	45.86	54.54	277	3.04
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111.22	2079	1041	36.47	43.37	328	2.56
3.1.5.5 25% of torque defined in 3.1.5.2						
56.30	2111	1056	26.81	31.88	476	1.77
3.1.5.6 unloaded						
0.76	2134	1068	17.28	20.55	22793	0.04

- No load maximum engine speed: 2134 rev/min
- Torque (equivalent crankshaft) at rated speed:
  - At rated engine speed 1203 Nm
  - At 2-hour test 1721 Nm
- Maximum torque (equivalent crankshaft): 1797 Nm
  (engine speed: 1198 rev/min)

Mean atmospheric conditions:		
Dry bulb	24	°C
Pressure	98.9	kPa
Relative Humidity	22	%
Maximum temperatures:		
Coolant	91	°C
Engine oil	112	°C
Fuel	66	°C
Engine air intake	50	°C

3.2 Hydraulic Power and lifting forces

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	
Sustained pressure with pump stalled:		
19.79 MPa		
2870 psig		
Pump delivery rate at minimum pressure at rated engine speed:		
154.8 l/min		
40.9 gpm		
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*
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: 16 Dec 1999

		Hitch points	Frame
Lower hitch points above ground - down position:	mm	195	202
Vertical movement - without load:	mm	872	879
with load:	mm	808	815
Maximum corrected force exerted through full range:	kN	95.6	87.3
Corresponding pressure:	MPa	18.1	18.1
Moment about rear axle:	kNm	154.3	194.2
Maximum mast tilt angle:	degrees	--	1.3

Lifting height relative to horizontal position of lower links.

mm	-458	-400	-300	-200	-100	0	100	200	300	350	357
Corrected lift forces											
At the Hitch point kN	132.0	124.2	117.7	113.5	109.7	106.8	104.0	101.9	97.8	95.6	--
at the frame kN	138.5	129.7	120.5	114.0	109.2	104.3	100.4	95.9	91.1	--	87.3
Corresponding pressure MPa 18.1											

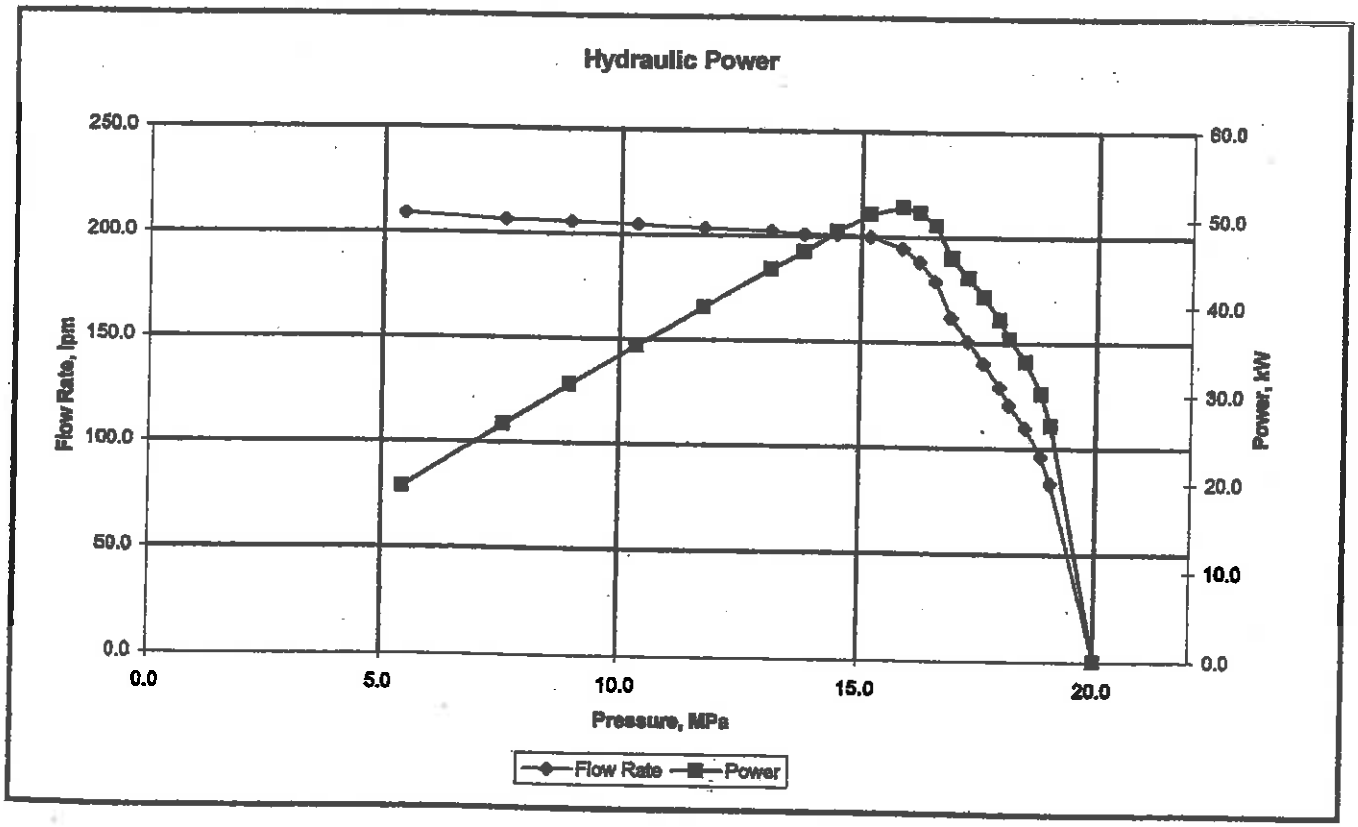
3.3 Drawbar performance - unballasted,4WD

OECD Drawbar Data (SI)

Date(s) of tests: 10,11,12-Oct-00					Fuel density: 0.841 kg/l									
Type of track: Concrete					Test number: 1783									
3.3.1 Maximum power in tested gears (unballasted, 4wd)						Tire pressure: 97 kPa, rear 103 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	130.38	149.72	3.14	1626	5	0.274	3.06	63	83	109	19	32	98.4
*2	2	169.27	135.20	4.51	1924	4	0.279	3.01	64	83	109	19	32	98.4
*3	3	211.42	138.38	5.50	1941	4	0.260	3.23	66	84	110	19	32	98.4
*4	4	248.49	141.77	6.31	1854	5	0.242	3.48	66	85	111	18	34	98.5
*5	5	256.05	141.04	6.54	1674	4	0.230	3.65	65	87	112	18	37	98.5
6	6	258.23	134.77	6.90	1603	4	0.234	3.60	64	89	113	21	42	98.1
7	7	258.54	121.46	7.66	1604	3	0.235	3.58	64	86	110	9	50	98.7
8	8	260.57	111.41	8.42	1601	3	0.232	3.63	64	86	110	11	48	98.6
9	9	258.83	100.62	9.26	1598	2	0.234	3.60	64	87	111	12	50	98.6
10	10	262.58	92.27	10.24	1607	2	0.229	3.68	65	87	110	14	44	98.6
11	11	256.07	81.74	11.28	1608	2	0.237	3.54	65	88	111	16	38	98.5
12	12	258.35	75.18	12.37	1603	2	0.235	3.58	65	88	111	16	43	98.5
13	13	254.12	64.20	14.25	1603	2	0.240	3.50	65	87	111	17	39	98.5
* Note: Maximum engine torque electronically limited.														
3.3.2 Fuel consumption														
3.3.2.1			In selected gear at maximum power at rated engine speed.											
8	8	233.28	79.33	10.59	1995	2	0.258	3.26	66	85	111	10	52	98.7
3.3.2.1.1			75% of pull at maximum power at rated engine speed											
8	8	179.77	59.32	10.91	2056	2	0.288	2.92	68	84	110	23	52	97.9
3.3.2.1.2			50% of pull at maximum power at rated engine speed											
8	8	122.27	39.59	11.12	2080	1	0.333	2.53	67	84	109	24	53	97.8
3.3.2.1.3			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1											
9	9	180.44	59.43	10.93	1871	1	0.265	3.17	66	83	109	24	52	97.8
3.3.2.1.4			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2											
9	9	122.76	39.60	11.16	1899	1	0.304	2.76	66	82	108	25	50	97.8
3.3.2.1.5			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1											
11	11	180.23	59.35	10.93	1555	2	0.228	3.68	64	84	109	24	53	97.8
3.3.2.1.6			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2											
11	11	122.50	39.57	11.14	1576	1	0.259	3.25	64	82	107	26	51	97.8
3.3.2.2			In selected gear nearest to 7.5 km/h at rated engine speed.											
5	5	234.12	106.26	7.93	1997	3	0.260	3.23	67	86	111	17	36	98.5
3.3.2.2.1			75% of pull at maximum power at rated engine speed											
5	5	181.05	79.43	8.21	2052	2	0.287	2.93	65	85	110	19	32	98.4
3.3.2.2.2			50% of pull at maximum power at rated engine speed											
5	5	123.06	52.94	8.37	2081	2	0.330	2.55	64	83	109	18	31	98.4
3.3.2.2.3			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1											
6	6	180.45	79.49	8.17	1868	3	0.267	3.15	63	82	109	19	32	98.4
3.3.2.2.4			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2											
6	6	123.41	52.95	8.39	1897	2	0.290	2.90	63	82	108	18	31	98.4
3.3.2.2.5			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1											
8	8	181.33	79.37	8.22	1555	2	0.225	3.73	61	82	108	19	32	98.4
3.3.2.2.6			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2											
8	8	123.44	52.94	8.39	1574	1	0.250	3.36	61	82	107	18	33	98.4

4.1 Optional test - Hydraulic flow, optional pump, 2 outlets

Date of Test: 6-Oct-00		
Location of Test-City-State:	Tractor Test Lab, Lincoln, NE, USA	
Tapping point used for test:	Remote hydraulic outlets	
Sustained pressure with pump stalled:		
19.99 MPa		
2900 psig		
Pump delivery rate at minimum pressure at rated engine speed:		
209.0 l/min		
55.2 gpm		
Flow rate, pressure, power:		
90% of relief valve setting		
129.5 l/min	17.93 MPa	38.7 kW
34.2 gpm	*2600 psig*	*51.9 hp*
Maximum hydraulic power:		
194.6 l/min	15.86 MPa	51.4 kW
51.4 gpm	*2300 psig*	*69.0 hp*
Hydraulic fluid temperature at flow meter:		
73 °C		
164 °F		
This hydraulic system does not use an accumulator. Opening and closing pressures of the unloading valve could not be measured.		

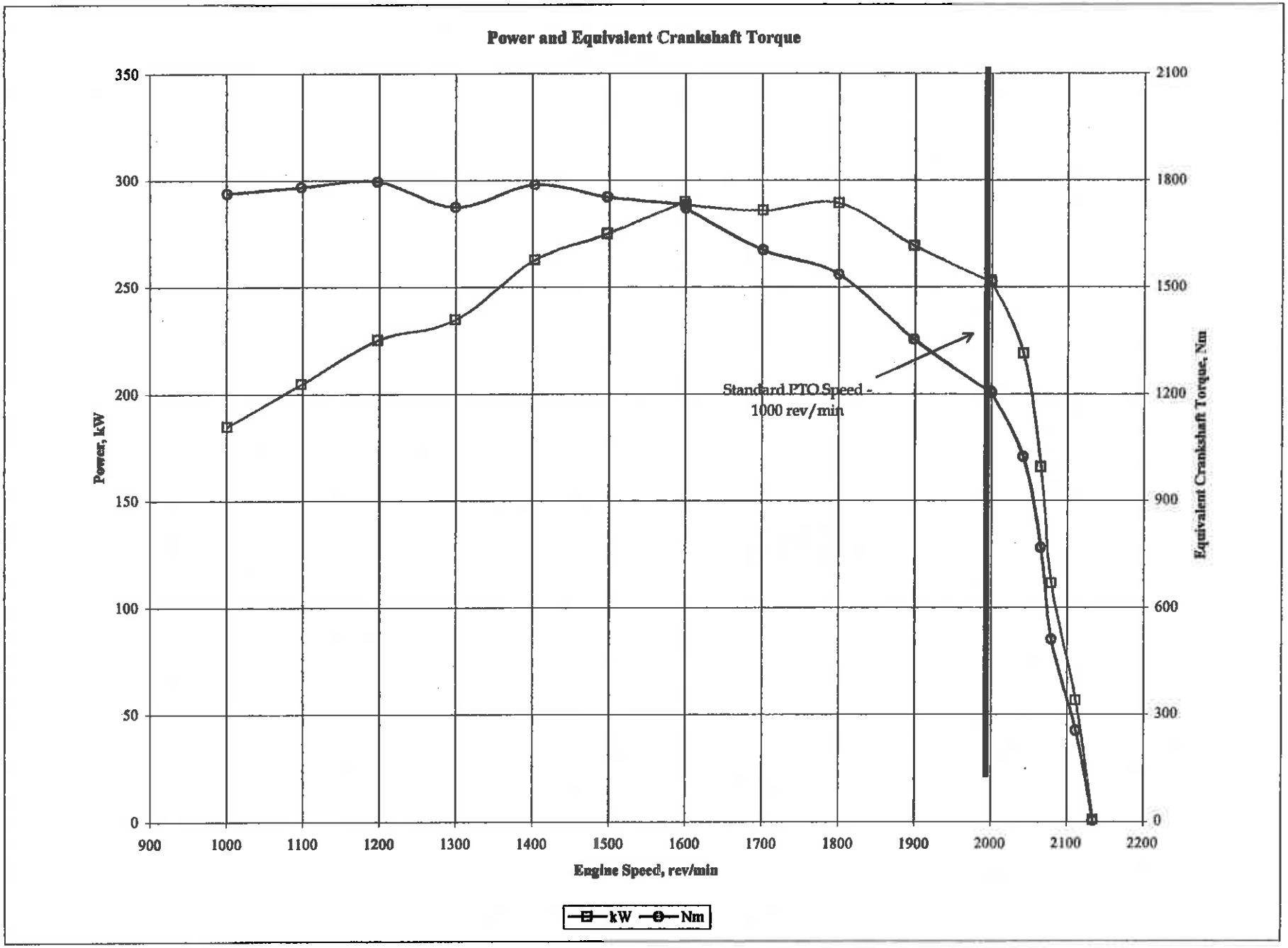


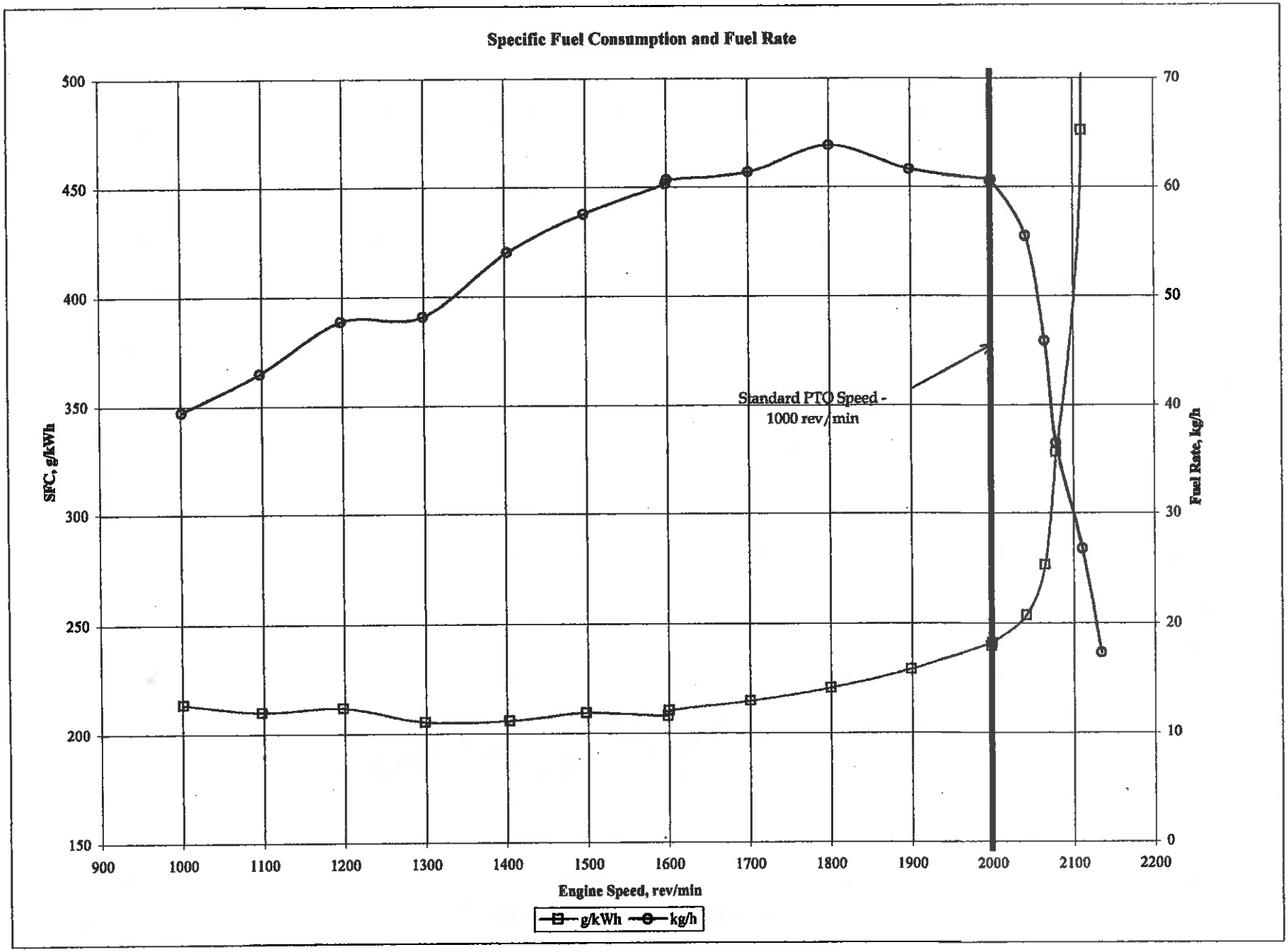
4.2 Measurement of External Noise Level - Case IH STX 375

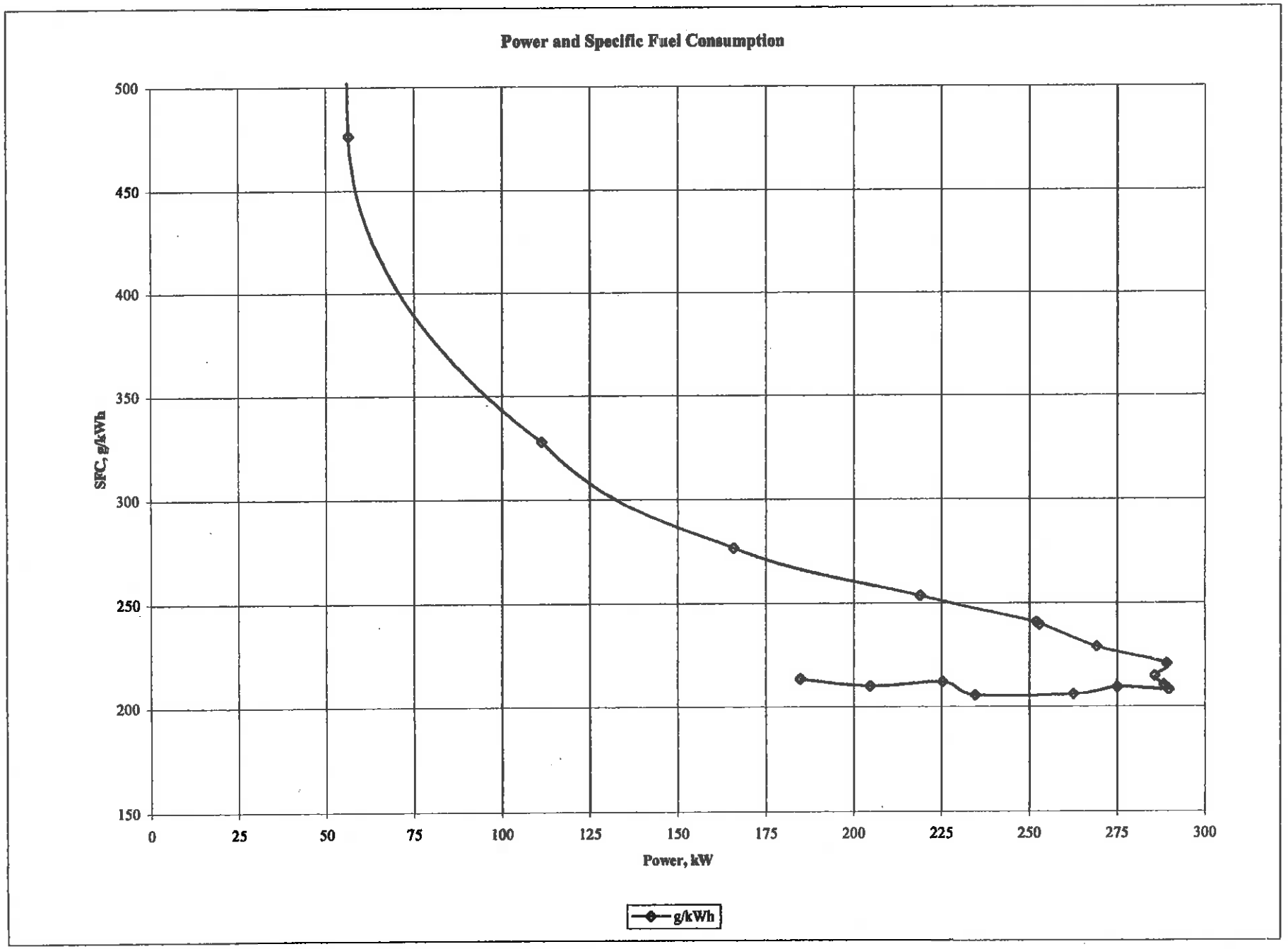
-- Date of Test	October 13, 2000
-- Location of Test	Nebraska Tractor Test Laboratory
-- Sound Level Meter	Bruel and Kjaer 2236
-- Type of Track	Concrete Oval
-- Gear Number	16 Hi
-- Speed Prior to Acceleration	27.5 km/h
-- Noise Level	88.4 dB(A)

5. Repairs and Adjustments: No repairs or adjustments.

6. Remarks: This tractor has a driveline protection system that limits the maximum engine torque in gears 1 through 5.


Power and Equivalent Crankshaft Torque
Power, kW
Equivalent Crankshaft Torque, Nm
Engine Speed, rev/min
Standard PTO Speed -
1000 rev/min
kW
Nm
350
300
250
200
150
100
50
0
2100
1800
1500
1200
900
600
300
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
500
450
400
350
300
250
200
150
70
60
50
40
30
20
10
0
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200


Power and Specific Fuel Consumption
SFC, g/kWh
500
450
400
350
300
250
200
150
0
25
50
75
100
125
150
175
200
225
250
275
300
Power, kW
g/kWh