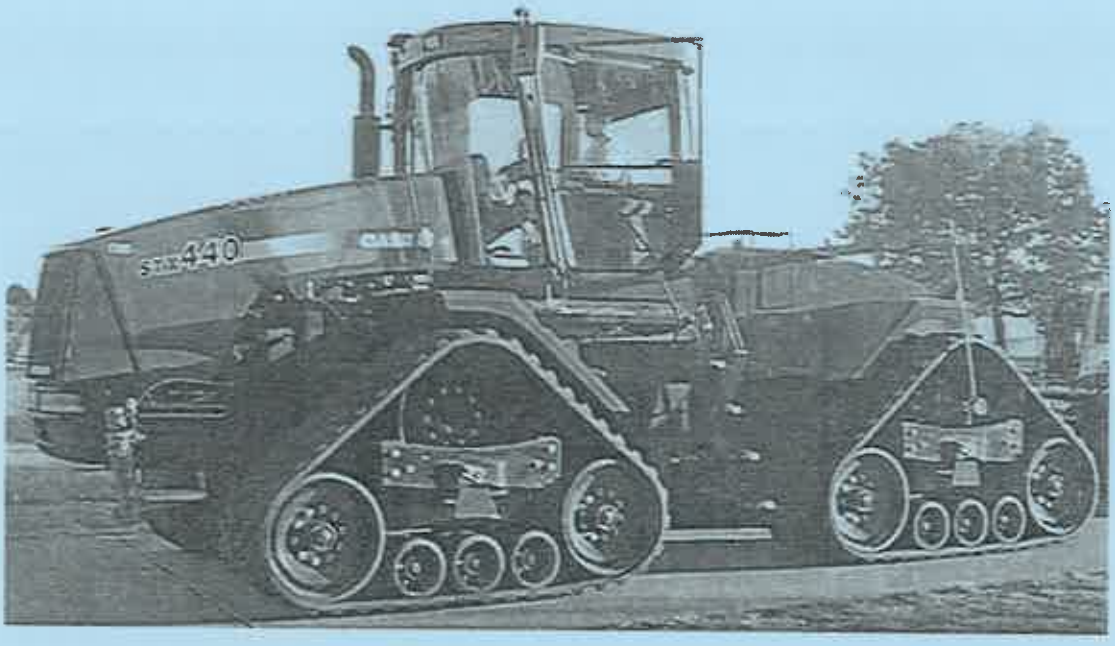
OECD APPROVAL NO. 2/1 958
CODE 2
DATE OF APPROVAL: 01 June 2001

NEBRASKA TRACTOR TEST 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 STANDARD CODE 2 FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS



CASE IH STX 440
QUADTRAC

MANUFACTURED BY:	Case Corporation 700 State St. Racine, WI 53404
NEBRASKA TEST NO.	1785
TEST DATES:	October 4-19, 2000

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 01 June 2001 for the Case IH STX 440, Quadtrac, with OECD Number 2/1 958.

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: JUN 1 1 2001

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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:	90 hours
-- Location of test:	Nebraska Tractor Test Laboratory, Lincoln Nebraska, USA

1. SPECIFICATIONS OF TRACTOR

1.1 Identification

- Make/Model/Type:	Case Corporation/STX440 Quadtrac/4Wheel Drive
- Number of driving wheels:	4
- Serial N°:	JEE0097543
- 1st Serial N°:	JEE0097501

1.2 Engine

-- Make/Model/Type:	Cummins/QSX15/Diesel; 4 cycle; Turbo charged; Charge air cooled
-- Serial N°:	14007184

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:	156 ± 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 ull load):	80.1 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 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 filer(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/510 RQ/Quadtrac
- - 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/510 FQ/ Quadtrac
- - 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	82.299	4.26
2	68.327	5.13
3	56.580	6.19
4	46.974	7.46
5	40.906	8.57
6	37.234	9.41
7	33.963	10.32
8	30.911	11.33
9	28.126	12.46
10	25.597	13.69
11	23.347	15.01
12	21.244	16.49
13	18.508	18.93
14	15.370	22.80
15	12.719	27.55
16LO	10.567	33.16
16HI[a]	10.567	36.56
1R	54.319	6.45
2R	24.575	14.26
(*) Calculated with a track dynamic radius index of 464 mm [a] Engine high idle increased 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 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:	773 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):	20.70 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
Pivot Radius:	(r)	N/A	890
Drive axle distance:	(r')	N/A	300
Length of lift arms:	(A)	760	760
Length of lower links	(B)	997+184QC	1181
Distance of lift arm pivot point from rear axle pivot point:			
-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 axle pivot point:			
-horizontally	(c)	578	578
-vertically	(d)	241 to 342	342
Distance of lower link pivot point from rear axle pivot point:			
-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 axle pivot point:			
-in low position	(h)	573 to 770	690
-in high position	(H)	100 to 288	149
Height above ground of lower hitch points when locked in transport position		990 to 1178	1039

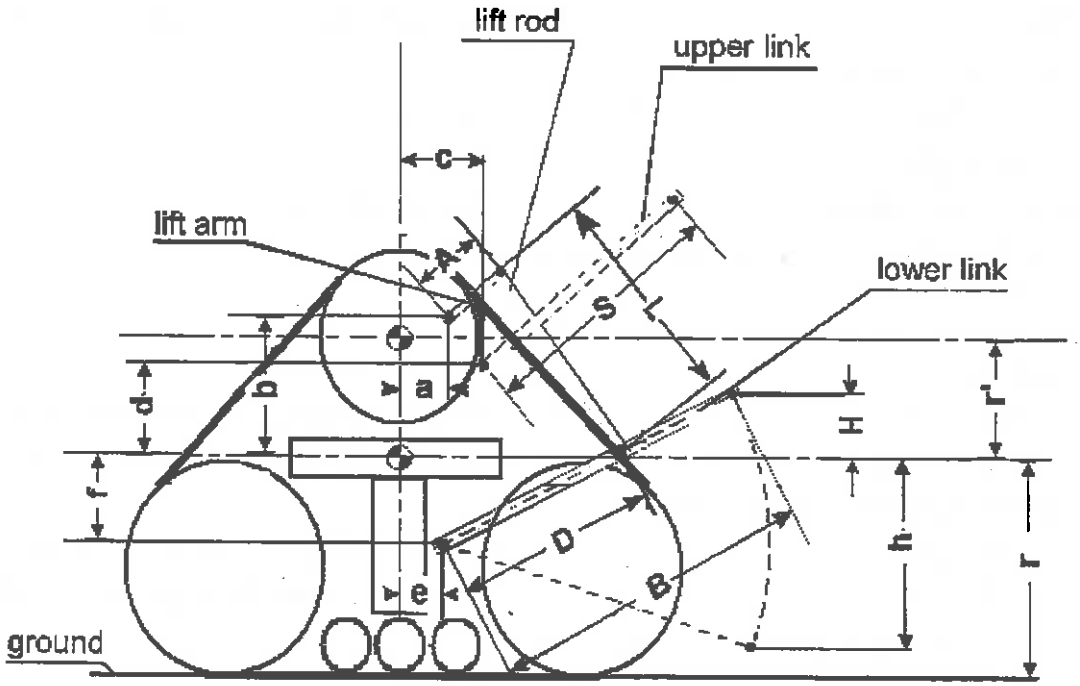


Figure 2.1
Lift test - Linkage Geometry

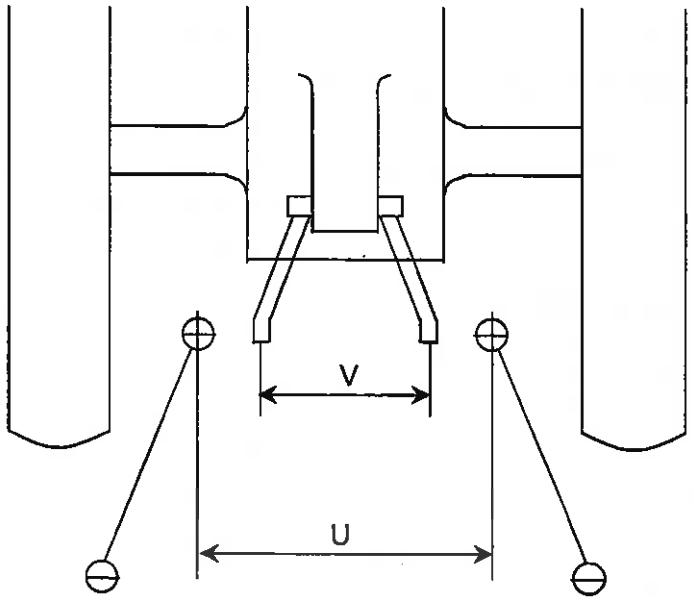


Figure 2.2
Lift test - Linkage Geometry

1.7 Swinging drawbar

- - Type:	Yoke type, side swing; standard with optional high capacity
- - Height above ground	
. Maximum:	460 mm
. Minimum:	430 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 driving; O steering - articulated steering
  - . Rear: 2 driving; O steering - articulated steering
- -- Wheelbase: 3912 mm
- -- Track width adjustment

	mm	Adjustment method
Front	2235	None
Rear	2235	None

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
- - OECD approval	
. Approval number:	4/0 628
. Date of approval:	12 April 2000
. 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	1160	175 x 100	435
Sidelights	2200	130 x 90	1440
Rearlights	1770	160 x 65	950
Reflectors	2200	270 x 50	1295

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	2997	2997	3671	3842

2.2 **Ground clearance** (unballasted tractor): 254 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	13009	13054
Rear	10289	10319
Total	23298	23373

2.4 Track specifications

Track materials	Rubber belt, self cleaning
Track width and base	762 mm, 3912 mm
Dynamic radius (rolling radius)	460.9 mm
Track support system	Integral center pivot design, 10° up/down oscillation
Treadbars: Number per meter Bar height	 6.6 51 mm
Track length	6400 mm
Track ground contact length	748 mm

2.5 Tyres and track width specifications N/A

Chosen track width: -front -back	 2235 mm 2235 mm

2.6 Fuel

- -Type: No. 2 diesel in conformity with national standard
- -Density at 15°C: 0.841 kg/cm^3

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 (*)	300 liters	1500	1500
Other (steering, ...)	N/A	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: 4-Oct-00 / 5-Oct-00 Nebraska Tractor Test Laboratory, Lincoln, NE, USA
- Type of dynamometer bench: Eaton

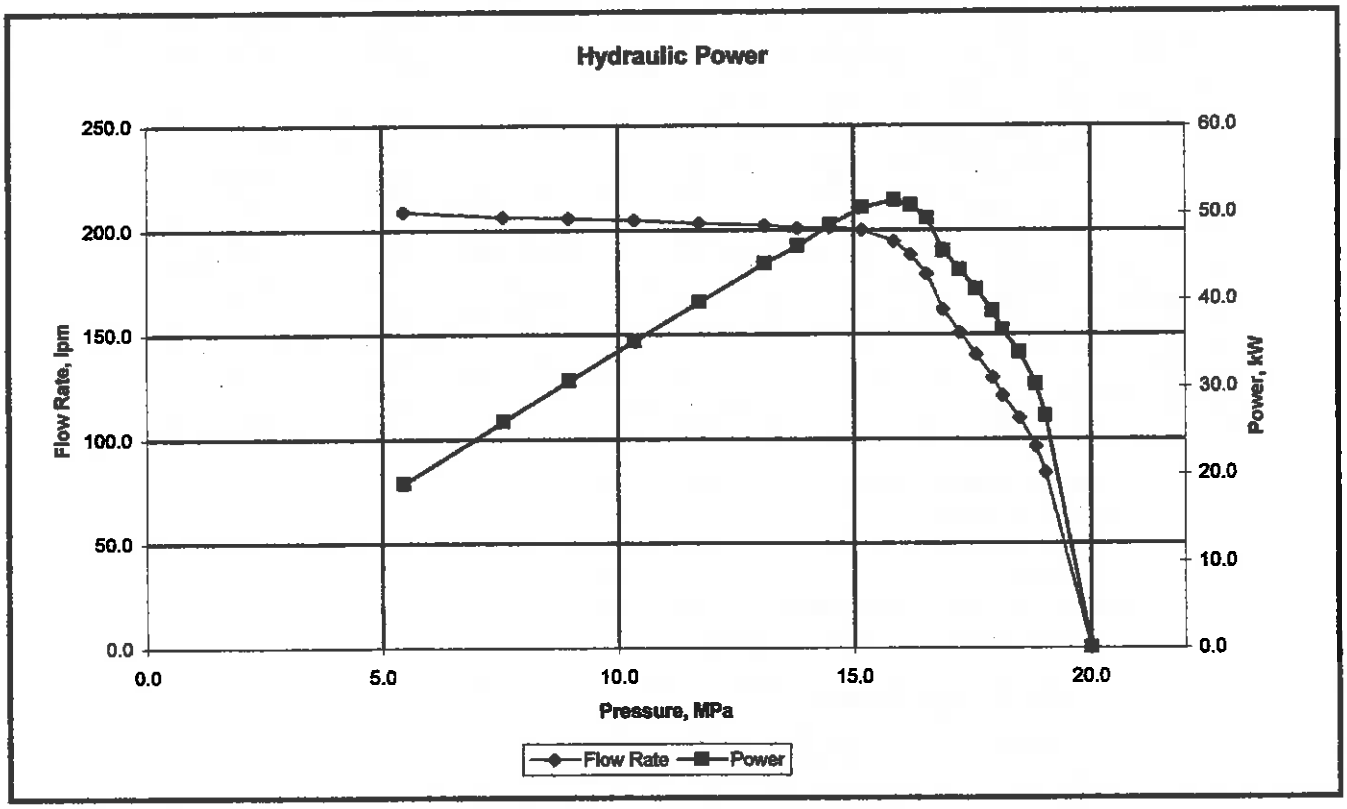
Power	Speed		Fuel consumption			Specific energy
	Engine	PTO	Hourly		Specific	
kW	rev/min		kg/h	l/h	g/kWh	kW-h/l
3.1 MAXIMUM POWER - TWO HOUR TEST						
335.78	1599	801	70.86	84.27	211	3.98
3.1.2 POWER AT RATED ENGINE SPEED						
297.64	1999	1001	70.12	83.39	236	3.57
3.1.3 STANDARD POWER TAKE-OFF SPEED (1000 +/- 25 rev/min)						
297.64	1999	1001	70.12	83.39	236	3.57
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
297.64	1999	1001	70.12	83.39	236	3.57
3.1.4.2 85% of torque obtained in 3.1.4.1						
258.58	2044	1023	63.96	76.06	247	3.40
3.1.4.3 75% of torque defined in 3.1.4.2						
196.71	2072	1037	51.98	61.82	264	3.18
3.1.4.4 50% of torque defined in 3.1.4.2						
133.00	2102	1052	40.69	48.39	306	2.75
3.1.4.5 25% of torque defined in 3.1.4.2						
67.23	2129	1066	28.85	34.31	429	1.96
3.1.4.6 unloaded						
0.61	2160	1081	17.01	20.23	27706	0.03
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						
297.64	1999	1001	70.12	83.39	236	3.57
3.1.5.2 85% of torque obtained in 3.1.5.1						
258.58	2044	1023	63.96	76.06	247	3.40
3.1.5.3 75% of torque defined in 3.1.5.2						
196.71	2072	1037	51.98	61.82	264	3.18
3.1.5.4 50% of torque defined in 3.1.5.2						
133.00	2102	1052	40.69	48.39	306	2.75
3.1.5.5 25% of torque defined in 3.1.5.2						
67.23	2129	1066	28.85	34.31	429	1.96
3.1.5.6 unloaded						
0.61	2160	1081	17.01	20.23	27706	0.03

- No load maximum engine speed: 2160 rev/min
- Torque (equivalent crankshaft) at rated speed:
  - At rated engine speed 1422 Nm
  - At 2-hour test 2005 Nm
- Maximum torque (equivalent crankshaft): 2146 Nm
  (engine speed: 1099 rev/min)

Mean atmospheric conditions:		
Dry bulb	24	°C
Pressure	98.0	kPa
Relative Humidity	40	%
Maximum temperatures:		
Coolant	93	°C
Engine oil	114	°C
Fuel	67	°C
Engine air intake	53	°C

3.2 Hydraulic Power and lifting forces

Date of Test: 6-Oct-00	Case IH STX 440 QuadTrac		
Location of Test-City-State:	Tractor Test Lab, Lincoln, NE, USA		
Tapping point used for test:	Remote hydraulic outlets		
3.2.1	Sustained pressure with pump stalled:		
	19.99 MPa		
	2900 psig		
3.2.2	Pump delivery rate at minimum pressure at rated engine speed:		
	209.0 l/min		
	55.2 gpm		
3.2.3	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*
3.2.4	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.		



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	200	199
Vertical movement - without load:	mm	839	859
with load:	mm	817	822
Maximum corrected force exerted through full range:	kN	94.4	87.8
Corresponding pressure:	MPa	18.1	18.1
Moment about rear axle:	kNm	152.5	195.3
Maximum mast tilt angle:	degrees	--	0.9

Lifting height relative to horizontal position of lower links.

mm	-382	-300	-200	-100	0	100	200	300	400	435	440
Corrected lift forces											
At the Hitch point kN	131.3	122.3	116.7	112.5	109.5	106.6	103.6	100.8	97.0	94.4	--
at the frame kN	135.9	126.2	118.9	113.3	108.5	103.0	99.5	95.0	89.6	–	87.8
Corresponding pressure MPa 18.1											

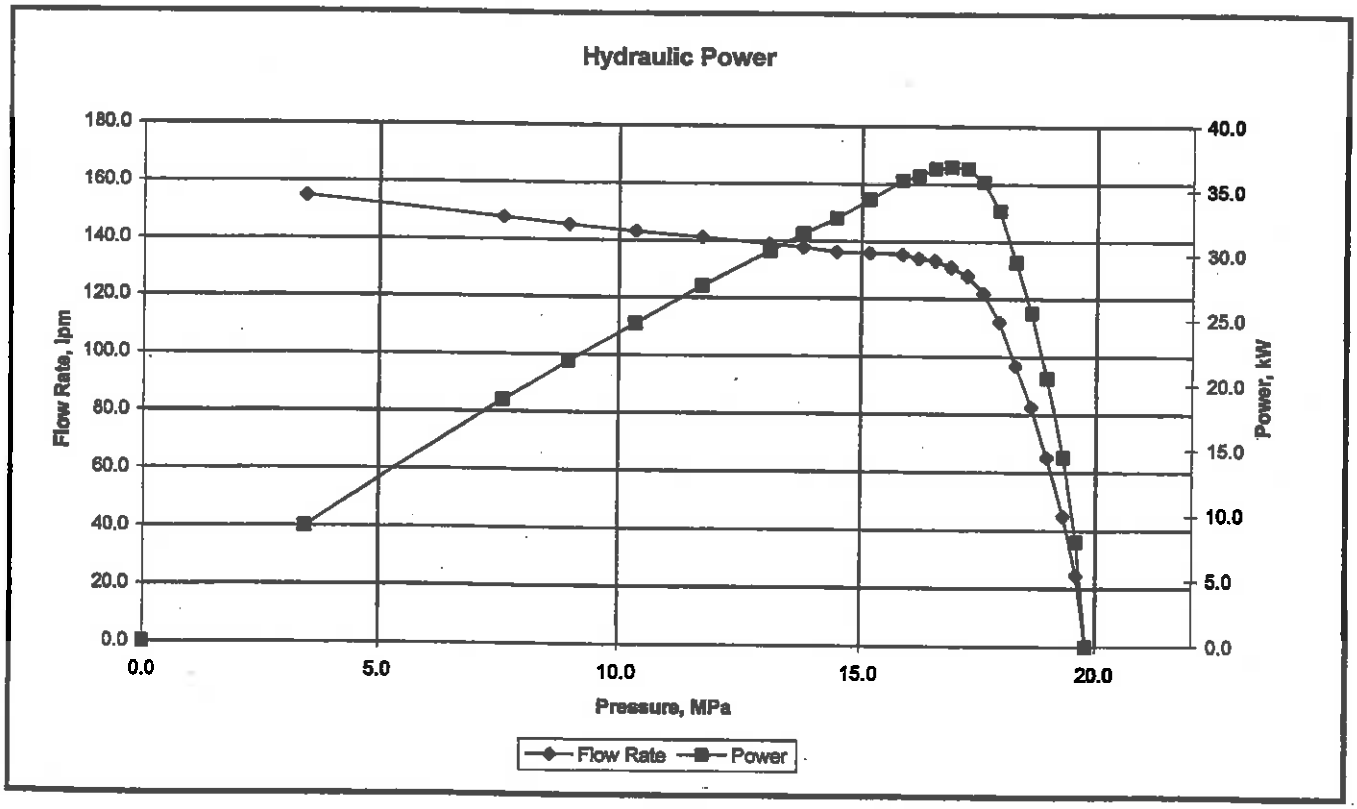
3.3 Drawbar performance - Unballasted, 4WD

OECD Drawbar Data (SI)

Date of tests: 17,18-Oct-00						**Fuel density:** 0.841 kg/l								
Type of track: Concrete						**Test number:** 1785								
3.3.1 Maximum power in tested gears (unballasted, 4wd)							**Tire pressure:** 0 kPa, rear 0 kPa, front				**Drawbar Height:** 356 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**
*2	2	182.71	170.41	3.86	1604	6	0.258	3.26	64	84	110	15	69	98.5
*3	3	221.63	170.86	4.67	1605	6	0.250	3.37	64	85	111	14	73	98.5
*4	4	266.46	170.06	5.64	1613	6	0.255	3.30	65	89	113	17	66	98.5
5	5	281.81	155.74	6.51	1604	5	0.249	3.38	65	90	115	18	66	98.5
6	6	285.95	142.09	7.24	1606	4	0.248	3.39	65	89	115	19	59	98.5
7	7	284.19	127.87	8.00	1603	3	0.249	3.38	65	89	116	21	57	98.5
8	8	287.87	117.80	8.80	1596	3	0.244	3.45	67	88	113	22	54	98.5
9	9	285.16	104.99	9.78	1601	2	0.247	3.40	65	89	113	22	51	98.5
10	10	287.34	95.97	10.78	1601	2	0.247	3.40	66	89	114	22	51	98.4
11	11	285.05	86.43	11.87	1605	1	0.249	3.38	66	88	114	23	45	98.4
12	12	284.08	78.35	13.05	1602	1	0.248	3.39	65	88	114	25	37	98.4
* 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	255.04	82.14	11.18	1998	1	0.273	3.08	69	89	115	22	54	98.5
3.3.2.1.1			75% of pull at maximum power at rated engine speed											
8	8	197.78	61.75	11.53	2055	1	0.307	2.74	70	87	113	26	32	98.4
3.3.2.1.2			50% of pull at maximum power at rated engine speed											
8	8	134.17	41.17	11.73	2084	1	0.364	2.31	68	85	110	26	32	98.4
3.3.2.1.3			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1											
9	9	197.88	61.68	11.55	1869	1	0.281	2.99	68	86	111	26	32	98.4
3.3.2.1.4			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2											
9	9	134.28	41.17	11.74	1894	1	0.336	2.50	68	83	109	26	30	98.5
3.3.2.1.5			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.1											
11	11	197.70	61.70	11.53	1550	1	0.261	3.22	65	84	109	26	32	98.4
3.3.2.1.6			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.1.2											
11	11	134.11	41.13	11.74	1570	0	0.301	2.79	65	82	108	26	30	98.5
3.3.2.2			In selected gear nearest to 7.5 km/h at rated engine speed.											
4	4	257.77	128.53	7.22	1997	3	0.273	3.08	66	87	113	17	66	98.5
3.3.2.2.1			75% of pull at maximum power at rated engine speed											
4	4	201.52	96.07	7.55	2055	2	0.292	2.88	67	84	110	19	47	98.5
3.3.2.2.2			50% of pull at maximum power at rated engine speed											
4	4	137.36	64.05	7.72	2089	1	0.342	2.46	211	84	109	28	35	98.4
3.3.2.2.3			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1											
5	5	201.23	95.91	7.55	1793	2	0.266	3.16	69	86	110	28	35	98.4
3.3.2.2.4			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2											
5	5	137.35	64.02	7.72	1821	1	0.298	2.82	153	82	108	29	33	98.4
3.3.2.2.5			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.1											
7	7	200.84	96.00	7.53	1484	2	0.251	3.36	65	87	110	28	35	98.4
3.3.2.2.6			Higher gear at reduced engine speed, same pull and travel speed as 3.3.2.2.2											
7	7	136.93	64.01	7.70	1505	1	0.266	3.16	66	83	108	29	31	98.4

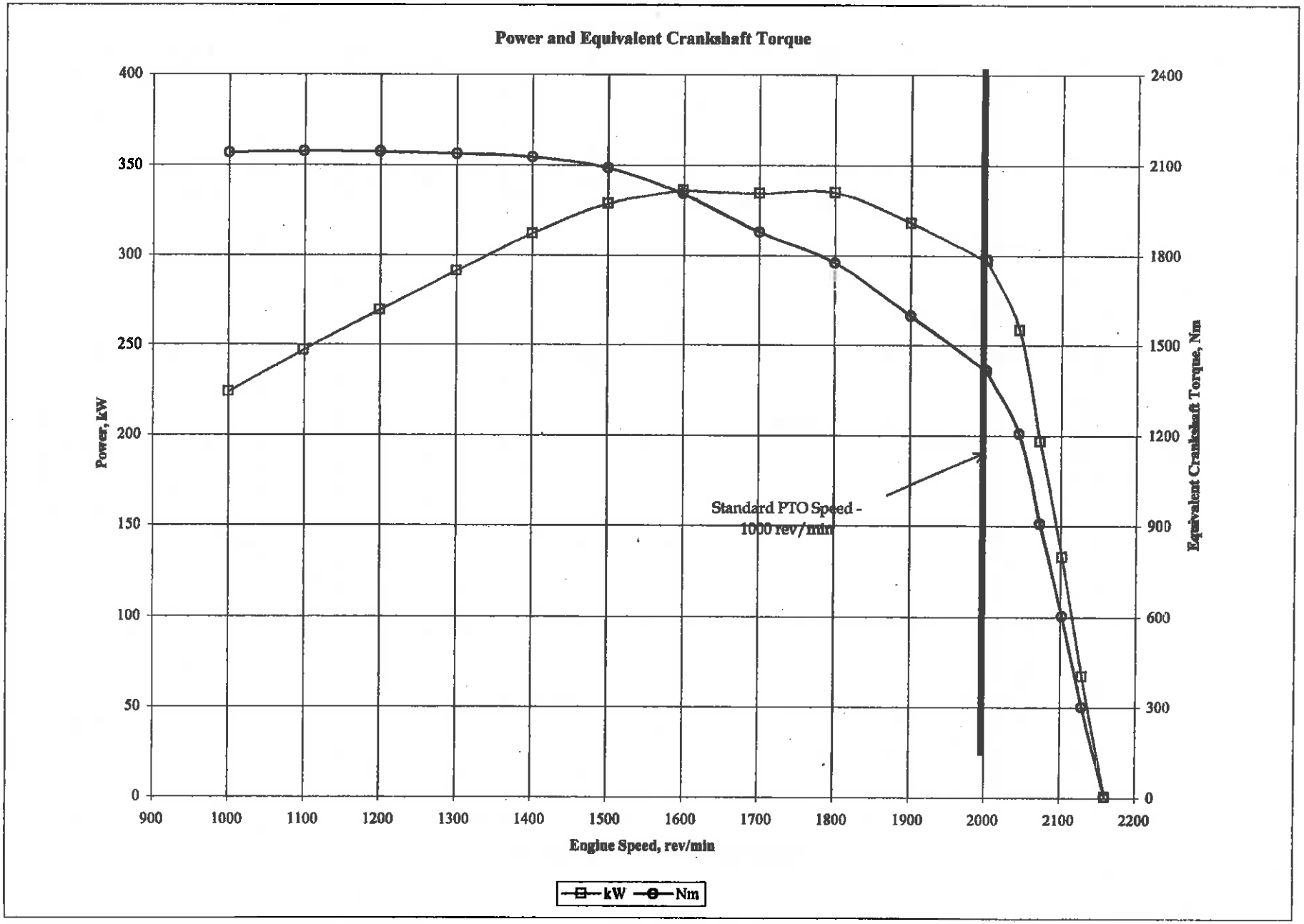
4.1 Optional test - Hydraulic power, optional pump, 2 outlets

Date of Test:	13-Oct-00		
Location of Test-City-State:	Tractor Test Lab, Lincoln, NE, USA		
Tapping point used for test:	Remote hydraulic outlets		
4.1.1	Sustained pressure with pump stalled:		
	19.79 MPa		
	2870 psig		
4.1.2	Pump delivery rate at minimum pressure at rated engine speed:		
	154.8 l/min		
	40.9 gpm		
4.1.3	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*
4.1.4	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.		

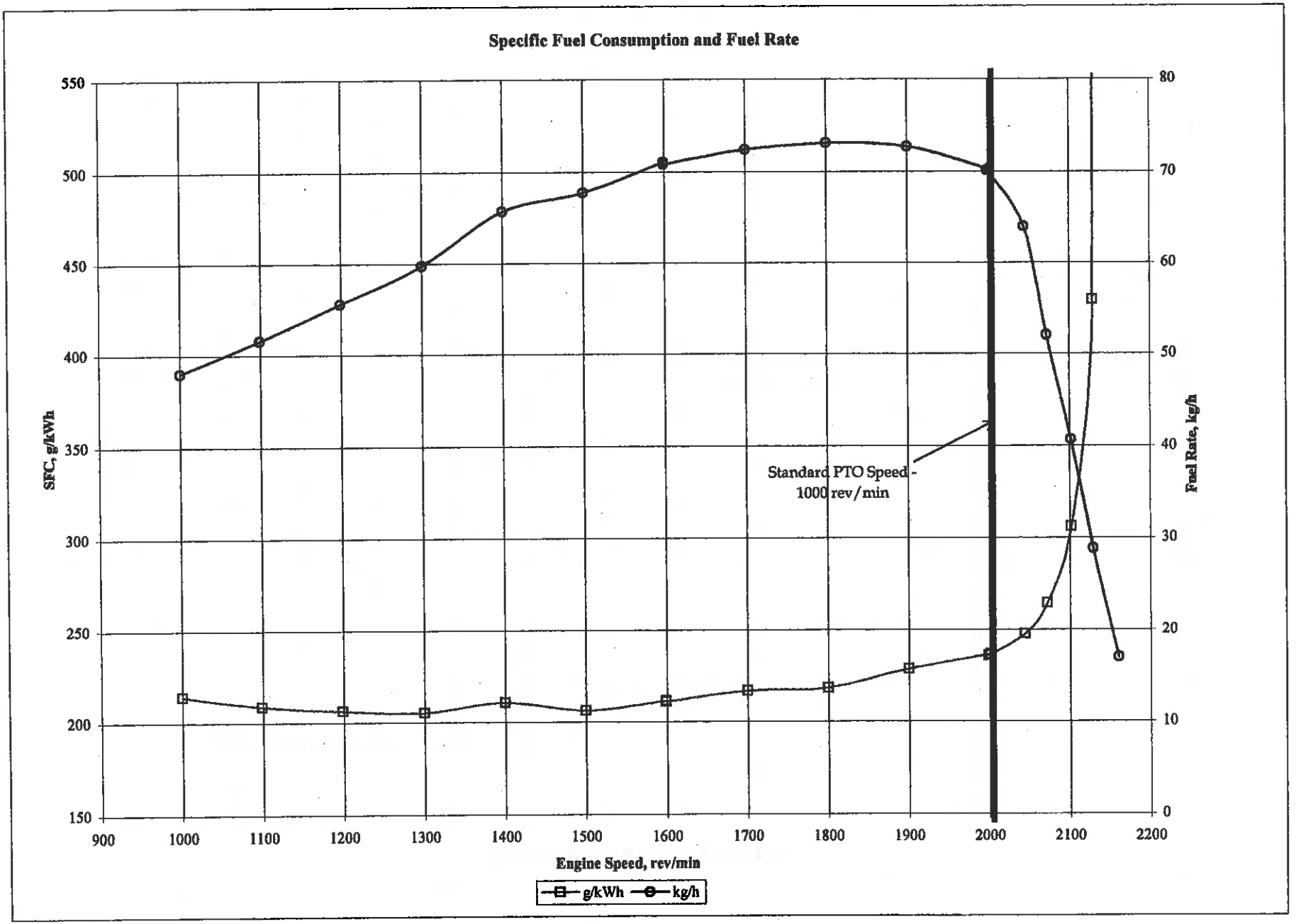


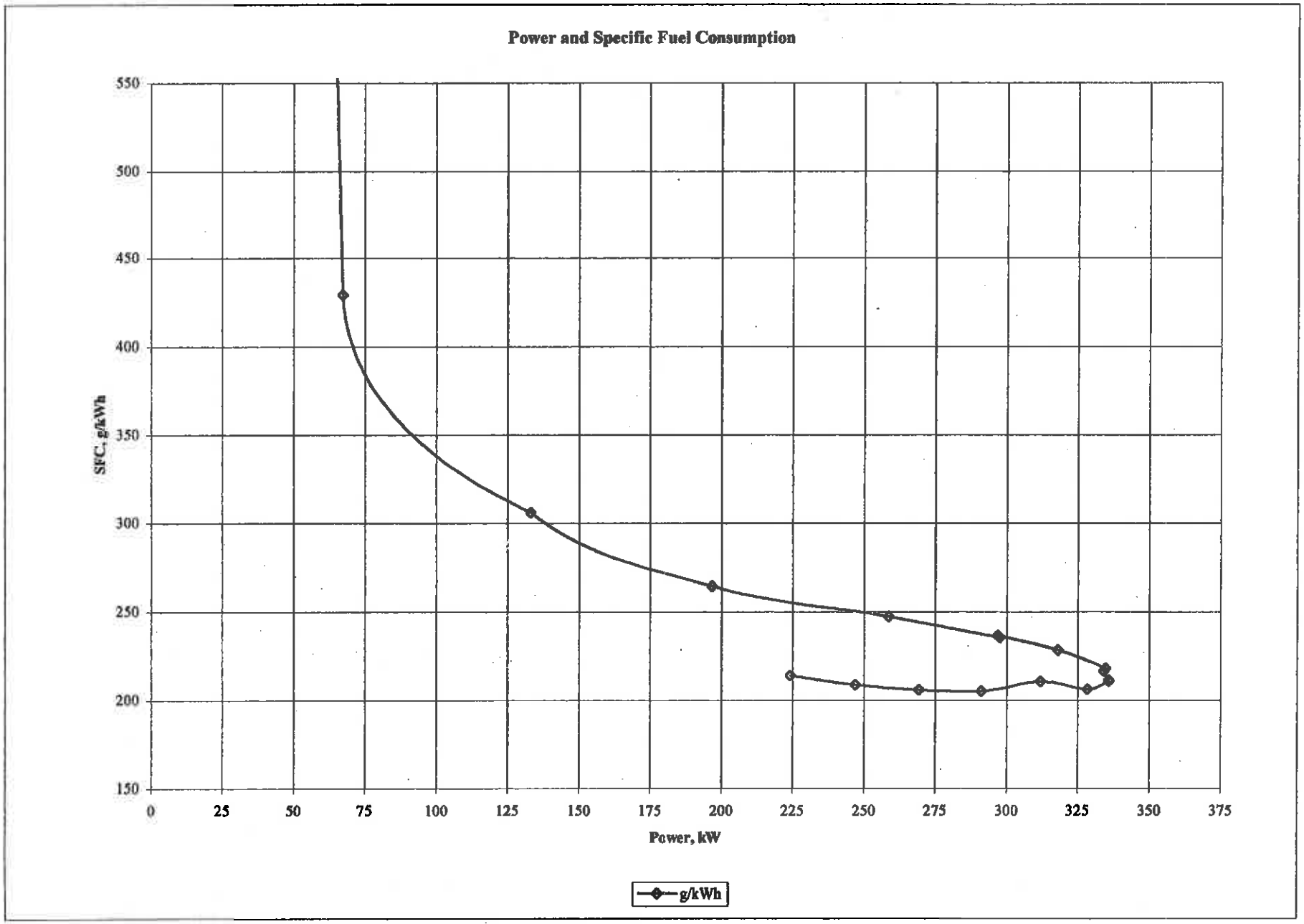
5. **Repairs and Adjustments:** No repairs or adjustments.

6. **Remarks:** This tractor has a driveline protection system that limits the maximum engine torque in gears 1 through 4.


Power and Equivalent Crankshaft Torque
Power, kW
Equivalent Crankshaft Torque, Nm
Engine Speed, rev/min
Standard PTO Speed - 1000 rev/min
kW
Nm
400
350
300
250
200
150
100
50
0
2400
2100
1800
1500
1200
900
600
300
0
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200

Case IH STX 440 QuadTrac




Power and Specific Fuel Consumption
SFC, g/kWh
550
500
450
400
350
300
250
200
150
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Power, kW
g/kWh