PAMI

O.E.C.D. No. 2/1 942
Date of Approval: November 22, 2000

REPORT ON TEST IN ACCORDANCE WITH THE OECD RESTRICTED CODE (CODE II) FOR THE OFFICIAL TESTING OF AGRICULTURAL AND FORESTRY TRACTORS



New Holland Model 9684
Articulated 4-wheel Drive Tractor

Manufactured by: New Holland Canada Ltd.
Versatile Farm Equipment Operations
Box 7300, 1260 Clarence Ave.
Winnipeg, MB R3C 4E8

Date of Test: July 2000

PRAIRIE AGRICULTURAL MACHINERY INSTITUE

Test Station: P.O. Box 1060
Portage la Prairie, Manitoba
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Head Office: P.O. Box 1900
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SPECIMEN TEST REPORT

Manufacturer's Name and Address:	New Holland Canada, Ltd. Versatile Farm Equipment Operations Box 7300, 1260 Clarence Ave. Winnipeg, Manitoba; Canada R3C 4E8
Location of tractor assembly plant:	Winnipeg, MB; Canada
Submitted for test by:	Manufacturer
Selected for test by:	Manufacturer, with agreement of the test station
Location of running in:	Prairie Agricultural Machinery Institute (PAMI); Portage la Prairie, MB; Canada
Duration of running in:	54 hours
Location of test:	PTO test carried out at Prairie Agricultural Machinery Institute (PAMI); Portage la Prairie, MB; Canada. Drawbar performance, noise tests, and hydraulic power tests carried out at the manufacturers premises Versatile Farm Equipment test track Sanford Manitoba and witnessed by D.S. Petkau, P. Eng., Project Manager, T.W. Selley, Project EIT, and K.A. Carmichael, Technical Services Supervisor (PAMI – Portage la Prairie).

1. SPECIFICATIONS OF TRACTOR

1.1 IDENTIFICATION

Make/Model/Type:	New Holland /9684/4-wheel drive, articulated
Number of driving wheels:	Four
Serial N^{o}:	D108303
1st Serial N^{o} :	Confidential

1.2 ENGINE

Make/Model/Type:	New Holland / N14-C360/ 360 hp Diesel, turbocharged aftercooled
Serial Nº:	11999631

1.2.1 Cylinders

Number/disposition:	6 / In-line, vertical
Bore/Stroke:	140 mm / 152 mm , (5.5 / 6.0 in.)
Capacity:	14039 cm^3 (855 in^3)
Compression ratio:	18.5 : 1
Arrangement of valves:	Overhead
Cylinder liners:	Wet (replaceable liners)

1.2.2 Supercharging

Make/Model:	Holset/HT60/Exhaust gas driven turbo
Pressure (max.):	0.142 to 0.182 MPa (42 to 54 in. Hg)

1.2.3 Fuel System

NOTE: This tractor uses the Cummins Celect electronically controlled fuel system. There is no injection pump.

Fuel feed system:	Engine driven transfer pump
Make/model/type of fuel filters:	Fleetguard/FS1000/single element, spin on with water separator
Capacity of fuel tank:	927 L (245 gal U.S.)
Fuel cooler:	Yes
Make/model/type of injection pump:	n/a See NOTE above
Flow rate (rated engine speed & full load):	66.3 dm^3/hr (124 lb/hr) ± 5%
Fuel density:	*0.838 to 0.858 kg/L* (6.99 to 7.16 lb/US gal)
Timing:	Variable, contolled by Celect engine control module
Make/model/type of injectors:	Cummins Celect injectors
Injection pressure:	124.1 MPa (18000 psi)

1.2.4 Governor

Make/model/type:	Cummins Celect
Governed range of speed:	875 – 2275 or 2400 rpm (2 high idles due to two governor droops)
Rated engine speed:	2100 rpm
High Idle speed range:	2245-2305 ± 30 rpm or 2370-2430 ± 30 rpm (two high idles due to two governor droops)

1.2.5 Air cleaner

Pre-cleaner:	Donaldson/H001926/Strattatube exhaust aspirated
Location of air intake:	Integral with air cleaner
Main Cleaner:	
Make/model/type:	Donaldson/STB 14 0228/Dual element
Outer element:	NH p/n V95611
Maintenance indicator:	Electronic restriction indicator mounted on outlet tube of air cleaner, indication light located in cab on instrument panel
Location of air intake:	Mounted under hood
Secondary element:	NH p/n V95612

1.2.6 Lubrication system

Type of feed pump:	Full pressure, positive displacement
Type of filter:	Spin on
Number:	One
Oil cooler:	Oil to water, plate type, engine mounted

1.2.7 Cooling system

Type of coolant:	50/50, water/ glycol based anti-freeze
Type of pump:	Belt driven, centrifugal pump
Specification of fan:	Belt driven, suction type
Number of fan blades:	8
Fan diameter:	813 mm (32 in)
Coolant capacity:	59.1 L (15.6 US gal)
Type of temperature control:	Thermostat
System pressure:	96.5 kPa (14 psi)

1.2.8 Starting system

Make/model/series/type:	Delco Remy/ 42MT/ electric motor – solenoid engagement
Starter motor power rating:	6.5 kW (8.7 HP)
Cold starting aid:	Optional engine coolant heater and Ether injection spray to intake manifold
Safety device:	PTO off, park brake on transmission in neutral to start tractor

1.2.9 Electrical system

Voltage:	12 Volt, negative ground
Generator	
Make/Model/Type:	Delco Remy/30 Si/Belt driven
Power:	1.56 kW (12 Volt, 130 amp)
Number: Battery or accumulators	Three, (SAE Group31) 950 cold cranking amps/battery at -18ºC (SAE J537)
Rating:	120 Ah each at 20 h rating

1.2.10 Exhaust system

Make/Model/Type:	Donaldson/M090753 G4/aspirating
Location:	Mounted on rear of front R/H fender mounted vertically

1.3 TRANSMISSION

1.3.1 Clutch (travel alone)

Make/Model/Type:	Versatile/integral with gear box/Hydraulic, multidisc, wet
Number of plates:	6
Diameter of plates:	280 mm (11 in)
Method of operation:	Hydraulic/Pedal actuated

1.3.2 Gear box

Make/Model/Type: Versatile/TM78EV/12 Speed, Mechanical

Description:

	Forward	Reverse
Number of gears	4	4
Number of ranges/groups	3	1
Total of arrangements	12	4

Available options:	Twin Disc/12 speed powershift
Oil Cooler:	Heat exchanger with air, front of radiator

1.3.3 Rear axle and final drives

Make/Model/Type:	Versatile/23130differential)/Outboard planetary
Differential lock:	Optional
Type:	Electrical motor operated mechanical clutch
Method of engagement:	Right side, console mounted switch
Method of disengagement:	same

1.3.4 Front axie and final drives

Make/Model/Type:	Versatile/231.30 (differential) /Outboard planetary
Differential lock:	Optional
Type:	Electrical motor operated mechanical clutch
Method of engagement:	Right side, console mounted switch
Method of disengagement:	Same

1.3.5 Total ratios and travelling speeds

Gear No	Group or range	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (*) at rated engine speed of 2100 min (rev/min) km/h	(mph)
Low (L)	1	150.154	4.77	(2.96)
	2	128.335	5.58	(3.47)
	3	110.075	6.51	(4.04)
	4	94.549	7.58	(4.71)
Medium (M)	1	82.737	8.66	(5.38)
	2	70.718	10.13	(6.30)
	3	60.660	11.81	(7.34)
	4	52.097	13.75	(8.55)
High (H)	1	39.924	17.95	(11.15)
	2	34.147	20.98	(13.04)
	3	29.273	24.48	(15.21)
	4	25.146	28.49	(17.70)
Reverse (R)	1	115.878	6.18	(3.84)
	2	99.062	7.23	(4.49)
	3	84.955	8.43	(5.24)
	4	72.962	9.82	(6.10)

*Tire dynamic radius 905mm (Not in conformity with ISO 4251-1:1998(E))
*Tire dynamic radius of 905 mm is in conformity with ETRTO 2000 Standards Manual
Number of revolutions of front wheels for one revolution of rear-wheels:1.0

1.4 POWER TAKE-OFF

1.4.1 Main power take-off

Type:	Independent/wet/multi-plate
Method of engagement:	Electro-hydraulic/Modulated engagement/controlled from console
Number of shafts:	One at rear of tractor in vertical median plane
Method of changing power take-off shaft ends and speeds:	None

1.4.1.1 Power take-off proportional to engine speed

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

Location:	Rear of tractor in vertical median plane 43.5 mm (1.71 in) below centreline of wheels .
Diameter of power take-off shaft end:	44.5 mm (1.75 in)
Number of splines:	20 in conformity with ISO 500-1991
Height above ground:	746 to 872 mm (29.4 to 34.3 in) depending on tire option
Distance from the median plane of the tractor:	0 mm
Distance behind rear-wheel axis:	638 mm (25.1 in)
PTO speed at rated engine speed (rev/min):	997 rev/min
Engine speed at standard power take-off speed:	2106 rev/min
Ratio of rotation speeds (engine speed/p.t.o. speed):	2.1065
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: None

1.4.2 Optional power take-off: None

1.5 HYDRAULIC POWER LIFT

The tractor tested was not equipped with a power lift.
The hydraulic power lift could be fitted as an option.

Make/Model/Type:	Versatile/Cat 3, 4N
Type of hydraulic system:	Closed centre, load sensing, variable flow
Type and number of cylinders (single or double-acting):	Two/single acting/104.6 mm diameter x 330.2 mm stroke
Type of linkage lock for transport:	Electro-hydraulic
Relief valve pressure setting (tolerance):	19.3 to 20.0 MPa (2800 to 2900 psi)
Opening pressure of cylinder safety valve (if fitted):	
Lift pump type:	None
Transmission between pump and engine:	Direct drive at engine accessory drive
Type and number of filters:	Two - canister type replaceable elements and cleanable suction screen inside oil reservoir
Site of oil reservoir:	Beneath engine - 75.7 L (20 US gal)
Type, number and location of tapping points:	Leverless, quick disconect/4 sets (5 optional)/rear of tractor
Maximum volume of oil available to external cylinders:	19.3 L (5.1 US gal)

1.6 THREE POINT LINKAGE

The tractor tested was not equipped with a Three Point Linkage.
The Three Point Linkage could be fitted as an option.

Category:	3/4N, in conformity with 3 wide/4 narrow ISO 730/3-1982
Category adapter:	Reverse lower links; install alternate bushings at hitch points

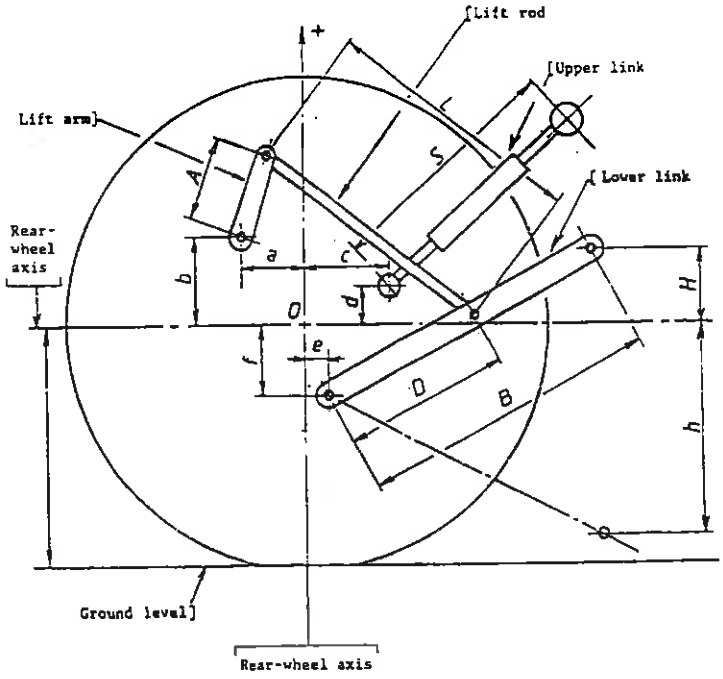


Figure 1.1 Lift test - Linkage geometry

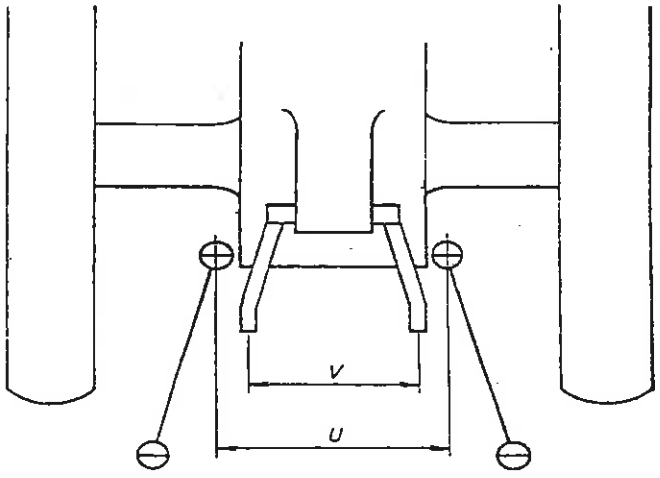


Figure 1.2 Lift Test - Linkage Geometry

Table 1.1 - Linkage geometry dimensions (when connected to standard frame)

		Dimension or range mm
Length of lift arms:	**(A)**	472
Length of lower links:	**(B)**	1092
Distance of lift arm pivot point from rear-wheel axis :		
- horizontally	**(a)**	-486
- vertically	**(b)**	483
Horizontal distance between the 2 lower link points:	**(u)**	945
Horizontal distance between the 2 lift arm end points:	**(v)**	954
Length of upper link:	**(S)**	660 to 838
Distance of upper link pivot point from rear wheel axis :		
Horizontally	**(c)**	642
Vertically	**(d)**	341 or 214
Distance of lower link pivot point from rear wheel axis :		
Horizontally	**(e)**	264
Vertically	**(f)**	263
Distance of lower link pivot points to lift rod pivot points on lower links:	**(D)**	457 or 635
Length of lift rods :	**(L)**	737 to 877
Height of lower hitch points relative to the rear-wheel axis:		
in low position	**(h)**	419 to 695
in high position	**(H)**	356 to 141
Height above ground of lower hitch points when locked in transport position (*)		Any height within lift range - Electro-hydraulic lock

(*) Assuming r= tire dynamic radius index of 905 mm (not in conformity with ISO 4251-1:1998(E))
*Tire dynamic radius of 905 mm is in conformity with ETRTO 2000 Standards Manual

1.7 SWINGING DRAWBAR

Type:	Swinging clevis type of drawbar in conformity with Category 4 hitches (SAEJ1548)
Height above ground: Maximum (top mounted clevis):	419 to 544 mm (16.5 to 21.4 in) depending on tire option
Minimum (bottom mounted clevis):	249 to 404 mm (9.8 to 15.9 in) depending on tire option
Type of adjustment: Vertical: Horizontal:	 Top or bottom mounted clevis Manual slide
Distance of hitch point from rear wheel axis, horizontally:	1145 mm (45.1 in)
Distance of hitch point from power take-off shaft end Vertical (top mounted clevis): Horizontal:	328 mm (12.9 in) or 468 mm (18.4 in) 507 mm (20.0 in) behind PTO
Lateral adjustment (centre of clevis): Right hand: standard drawbar cage: optional 3PH drawbar cage: Left hand: standard drawbar cage: optional 3PH drawbar cage:	 414 mm (16.3 in) 214 mm (8.4 in) 414 mm (16.3 in) 214 mm (8.4 in)
Distance of pivot point from rear-wheel axis, horizontally:	1335 mm (52.6 in) ahead of rear wheel axis
Diameter of drawbar pinhole: Maximum vertical permissible load:	51 mm (2 in diameter) 26.0 kN (5840 lb)

1.8 TRAILER HITCH

None

1.9 HOLED DRAWBAR

None

1.10 STEERING

Make/Model/Type:	Eaton/92226/hydrostatic open centre steering valve
Method of operation: Pump(s): Ram(s):	Articulated tractor Gear pump 2, double acting, 89 mm (3.5 in) bore x 419 mm (16.5 in) stroke
Working pressure:	17.2 MPa (2500 psi)

1.11 BRAKES

1.11.1 Service brake

Make/Model/Type:	Kelsey Hayes/DOO-11791/dry disc
Method of operation:	Hydraulic boosted, in cab pedal
Trailer braking take-off (hydraulic or air brake):	Not available

1.11.2 Parking brake

Type:	Single caliper with dual pads
Method of operation:	Cable operated, mechanically actuated

1.12 WHEELS

Number:	
Front:	Two (restricted), Four (duals), or six (triples) Optional (tested with 4)
Rear:	Two (restricted), Four (duals), or six (triples) Optional (tested with 4)
Wheelbase:	3380 mm (133 in)
Track width adjustment:	

	Minimum*	Maximum*	Adjustment Method
Front	3173 mm (124.7 in)	4619 mm (181.9 in)	Reverse wheels and offset lug rims.
Rear	3173 mm (124.7 in)	4619 mm (181.9 in)	Add duals or triples with drums

*With 20.8 R42 Tires, front and rear.

1.13 PROTECTIVE STRUCTURE

Make/Model/Type:	Versatile/9703124/safety cab
Manufacturer's name and address:	New Holland Canada, Ltd. Box 7300, 1260 Clarence Avenue Winnipeg, Manitoba, Canada R3C 4E8
Protective device:	Cab
Tiltable/not tiltable:	Not tiltable
OECD approval number:	4/0 290/1
Date of approval:	December 15, 2000
Modification Certificate if any:	CSS 0290/1 to 4 MOD1/CDN (PAMI) CSS 0290/1 to 4 MOD2/CDN (PAMI)

1.14 SEAT

1.14.1 Driver's seat

Make/Model/Type:	Sears/2000/Low profile air suspension
Seat and steering wheel reversible:	not reversible
Type of suspension:	Air-electric air compressor
Type of damping:	Fluid/adjustable
Range of adjustment	
Rotation:	28 degrees to right of centre, 90 degrees to left of centre
Longitudinally:	178 mm (7.0 in)
Vertically:	76 mm (3.0 in)
Safety belt:	Yes

1.14.2 Optional driver's seat(s)

Not Available

1.14.3 Passenger Seat

Not Available

1.15 LIGHTING

	Height above ground of centre	Size	Distance from outside edge of lights to median plane of tractor
	mm	mm	mm
Headlights	2190	145 w x 80 h	400
Sidelights	2110	170 w x 105 h	1160
Rear top	2160	170 w x 105 h	1020
Reflectors	3405	160 w x 105 h	370
Rear Fender	2185	165 w x 110 h	Adj. 1730 to 2330
Front cab	3245	170 w x 105 h	450

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	6079	3090	3100	3054	3067

2.2 GROUND CLEARANCE (UNBALLASTED TRACTOR):

Clearance-limiting part: Drawbar cage 402 mm (15.8in)

2.3 TRACTOR MASS

Mass (with cab):

	Unballasted	
	Without driver	With driver
	kg	kg
Front	8635	8675
Rear	5258	5293
Total	13893	13968

2.4 TIRES AND TRACK WIDTH SPECIFICATIONS

	Front	Rear
Tires:		
- make	Armstrong	Armstrong
- dimensions	20.8R x 42	20.8R x 42
- ply rating	2 Star	2 Star
- maximum load (tire manufacturer's)	33.4kN at 165 kPa (7520 lb at 24 psi)	33.4kN at 165 kPa (7520 lb at 24 psi)
- maximum load (tractor manufacturer's)	33.4kN at 165 kPa (7520 lb at 24 psi)	33.4kN at 165 kPa (7520 lb at 24 psi)
- inflation pressure (tire manufacturer's)	165 kPa (24 psi)	165 kPa (24 psi)
- dynamic radius index	905 mm (35.6 in)	905 mm (35.6 in)
Chosen track width, inner tires outer tires	1829 mm (72.0 in) 3275 mm(128.9 in)	1829 mm (72.0 in) 3275 mm (128.9 in)

***Tractor tested with 4 front tires and 4 rear tires (duals)**

2.5 FUEL

Type: No. 2 diesel, in conformity/with national standard.

Density at 15°C: 0.848 g/cm^3 (7.080 lb/U.S. gal)

2.6 OILS AND LUBRICANTS

2.6.1 Capacity and change interval

	Capacity		Oil change	Filter change
	(Liters)	(US gal)	(Hours)	(Hours)
Engine	38.7	(10.2)	250	250
Transmission with PTO Option	41.6	(11.0)	1500	500
Rear Axle with final drive	42.0	(11.1)	500	no filter
Front Axle with final drive	42.0	(11.1)	500	no filter
Hydraulic System	124.9	(33.0)	1500	500
Brakes	0.896	(0.27)	as required	no filter
Steering	Same as hydraulic System			

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

	Recommended	Used during test
Engine oil . Type: . Viscosity: . Classification:	New Holland Spec. 86050227 15W - 40 API CF-4	Petro Canada - Super Plus 15W - 40 Meets New Holland Spec. 86050227
Transmission oils . Type: . Viscosity: . Classification:	New Holland Spec. 9627251 54 cSt at 40°C to 8.9 cSt at 100°C (Min) Not available	Esso - Hydraul 56 Meets new Holland Spec. 9627251
Hydraulic fluid	Same as transmission	Same as transmission
Rear axle and final drive oil	New Holland Spec. 86050042 80W-90 API GL5	Esso - Gear oil GX (80W-90) Meets New Holland Spec.86050042
Front axle and final drive oil	Same as rear axle	Same as rear axle
Steering oil	Same as transmission	Same as transmission
Brake Fluid	DOT 3	DOT 3

2.6.3 Grease

Type: Lithium base EP high temperature
Number of lubrication points: 30 without PTO (39 with PTO)

3. COMPULSORY TESTS RESULTS

3.1 MAIN POWER TAKE-OFF

Date and location of tests: June 15, 2000
Prairie Agricultural Machinery Institute
Portage la Prairie, MB; Canada

Type of dynamometer bench: Taylor Water Turbine Dynamometer

Power	Speed		Fuel consumption			Specific Energy
	Engine	P.T.O.	Hourly		Specific	
kW	min^{-1} (rev/min)		kg/h	L/h	g/kWh	kWh/l
3.1.1 MAXIMUM POWER - TWO-HOUR TEST						
260.3	1800	855	59.4	69.99	228	3.72
3.1.2 POWER AT RATED ENGINE SPEED						
224.7	2100	997	57.3	67.53	255	3.33
3.1.3 STANDARD POWER TAKE-OFF SPEED [1000 ± 25 or 540 ± 10 min^{-1} (rev/min)]						
224.7	2100	997	57.3	67.53	255	3.33
3.1.4 PART LOADS 3.1.4.1 the torque corresponding to maximum power at rated engine speed						
224.7	2100	997	57.3	67.53	255	3.33
3.1.4.2 85 % of torque obtained in 3.1.4.1						
194.2	2134	1013	51.9	61.22	267	3.17
3.1.4.3 75 % of torque defined in 3.1.4.2						
147.1	2159	1025	43.3	51.01	294	2.88
3.1.4.4 50 % of torque defined in 3.1.4.2						
99.4	2184	1037	34.1	40.17	343	2.47
3.1.4.5 25 % of torque defined in 3.1.4.2						
50.3	2211	1050	25.1	29.62	500	1.70
3.1.4.6 unloaded						
8.8	2225	1056	18.3	21.56	2081	0.41

3.1.5 PART LOADS AT STANDARD POWER TAKE-OFF SPEED 3.1.5.1 the torque corresponding to maximum power at standard power-take off speed						
224.7	2100	997	57.3	67.53	255	3.33
3.1.5.2 85 % of torque obtained in 3.1.5.1						
194.2	2134	1013	51.9	61.22	267	3.17
3.1.5.3 75 % of torque defined in 3.1.5.2						
147.1	2159	1025	43.3	51.01	294	2.88
3.1.5.4 50 % of torque defined in 3.1.5.2						
99.4	2184	1037	34.1	40.17	343	2.47
3.1.5.5 25 % of torque defined in 3.1.5.2						
50.3	2211	1050	25.1	29.62	500	1.70
3.1.5.6 unloaded						
8.8	2225	1056	18.3	21.56	2081	0.41

No load maximum engine speed: 2225 min^{-1}(rev/min)

Torque (equivalent crankshaft) at maximum power:
At rated engine speed 1022 Nm
At 2-hour test 1381 Nm

Maximum torque (equivalent crankshaft): 1490 Nm
(engine speed: 1400 min^{-1} (rev/min))

Mean atmospheric conditions:	
Temperature	22 °C
Pressure	99.89 kPa
Relative humidity	63%
Maximum temperatures:	
Coolant	85 °C
Engine oil	109 °C
Fuel	49 °C
Engine air intake	46 °C

3.2 HYDRAULIC POWER AND LIFTING FORCE

Date of tests: July 27, 2000

3.2.1 Hydraulic power test

Note: Hydraulic system tested using optional ¾" coupler adapter

Sustained pressure with relief valve open: 19.95 MPa
Pump stalled: Yes

Pump delivery rate at minimum pressure 185.5 L/min

	Flow rate	Pressure	Power
	l/min	MPa	kW
Flow rate corresponding to a hydraulic pressure equivalent to 90 % of the actual relief valve pressure setting and corresponding hydraulic power	85.9	17.95	25.70
Flow rate and hydraulic pressure corresponding to maximum hydraulic power	167.5	15.02	41.93

Tapping point used for test: Two remote hydraulic couplers
Temperature of hydraulic fluid, if different from 65 ± 5°C: Tested at stated temperature
Opening/ closing pressure of unloading valve: This system does not use an accumulator so there is no opening or closing pressure of the unloading valve.

3.2.2 Power lift test

Tractor was not supplied with a three-point hitch.

3.3 DRAWBAR POWER TEST (UNBALLASTED TRACTOR)

Date of tests: July 6, 2000
Type of track: Concrete

	Height of drawbar	Tyre inflation pressure	
	Above ground	Front	Rear
	mm	kPa	kPa
Unballasted	555	82.74	55.16

Gear Number and range	Power	Drawbar pull	Speed	Engine speed	Slip of wheels *	Specific fuel consumption	Specific energy	Temperature			Atmospheric conditions		
	kW	kN	km/h	min^{-1}	%	g/kWh	kWh/l	°C	°C	°C	°C	%	kPa
3.3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)													
L1	174.6	137.55	4.57	2137	6.93	307	2.74	49	78	106	14.9	93	98.84
L2	201.8	139.47	5.21	2079	6.94	288	2.93	48	78	107	14.9	93	98.84
L3	220.7	138.20	5.75	1960	6.46	268	3.14	47	79	107	14.9	93	98.84
L4	233.3	135.05	6.22	1801	5.37	251	3.36	48	79	107	15.3	91	98.85
M1	236.5	117.44	7.25	1799	3.33	249	3.38	48	79	107	15.3	91	98.85
M2	238.0	100.11	8.56	1800	2.47	246	3.43	48	80	108	15.7	90	98.91
M3	238.7	85.68	10.03	1801	2.00	247	3.42	50	80	108	16.0	88	99.01
M4	239.7	73.75	11.71	1800	1.72	246	3.43	49	81	109	16.4	88	99.01
H1	235.8	55.29	15.35	1801	1.23	248	3.40	50	81	108	16.4	88	99.01
3.3.2 FUEL CONSUMPTION													
3.3.2.1 in selected gear, at maximum power at rated speed													
M4	205.6	53.98	13.71	2100	1.34	277	3.04	49	81	108	16.0	88	99.01
3.2.2.1.1 75 % of pull at maximum power at rated speed													
M4	158.6	40.47	14.11	2153	1.00	304	2.77	48	80	108	16.9	87	99.05
3.2.2.1.2 50 % of pull at maximum power at rated speed													
M4	107.3	26.96	14.33	2181	0.73	362	2.33	48	79	106	16.9	87	99.05
3.3.2.1.3 next higher gear at reduced engine speed; same pull and travelling speed as in 3.3.2.1.1													
H1	158.2	40.47	14.07	1646	0.95	267	3.15	48	80	108	17.5	85	98.97
3.3.2.1.4 next higher gear at reduced engine speed; same pull and travelling speed as in 3.3.2.1.2													
H1	107.3	26.91	14.36	1674	0.60	306	2.76	47	79	106	17.5	85	98.97
3.3.2.2 in selected gear nearest to 7.5 km/h at rated speed													
L4	206.7	99.73	7.46	2100	2.62	276	3.06	48	79	107	15.3	91	98.85
3.2.2.2.1 75 % of pull at maximum power at rated speed													
L4	159.7	74.78	7.69	2153	2.10	300	2.81	48	80	108	16.9	87	99.05
3.2.2.2.2 50 % of pull at maximum power at rated speed													
L4	108.9	49.88	7.86	2183	1.36	352	2.40	48	79	106	16.9	87	99.05
3.3.2.2.3 next higher gear at reduced engine speed; same pull and travelling speed as in 3.3.2.2.1													
M1	159.6	74.82	7.68	1879	1.91	276	3.05	48	80	107	17.5	85	98.97
3.3.2.2.4 next higher gear at reduced engine speed; same pull and travelling speed as in 3.3.2.2.2													
M1	108.7	49.83	7.85	1906	1.22	317	2.66	47	79	106	17.5	85	98.97

* Note: 15% slip was not achieved due to problems with tire hop.

4. OPTIONAL TESTS RESULTS

4.1 Noise Tests (SAE J919-1995)

Date of Tests:	July 6, 2000 Location of Tests:Versatile Farm Equipment Test Track Sanford, Manitoba; Canada
Sound Level Meter:	Bruel & Kjaer / Model T2236 / Precision Integrating
Type of Track:	Concrete
Noise at operator ear: 75% pull at maximum power at rated speed noise level	77.9 dB (A)
Range and Gear: *Note: Not covered by OECD approval procedure	M1

5. REPAIRS

6. REMARKS

7. ANNEX (curves)

Test carried out by: D.S. Petkau. P.Ag.,P.Eng.,M.B.A, Project Manager
T.W. Selley, Project E.I.T.
K.A. Carmichael, Project Technologist

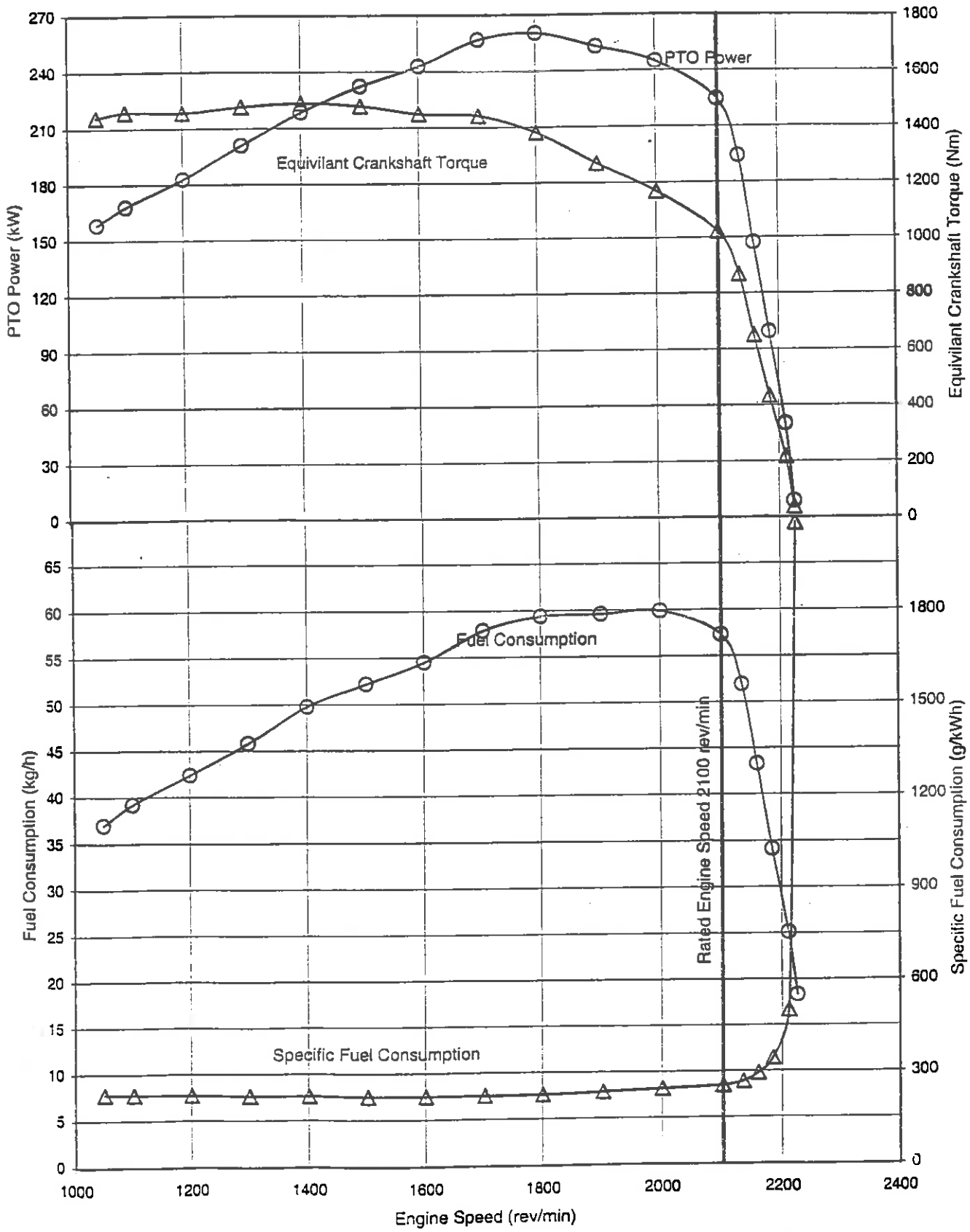
Signed:

Donald S. Petkau,P.Ag., P.Eng., M.B.A, Project Manager

Doug May, P.Eng., VP MB Operations

Date: February 2, 2001

NEW HOLLAND 9684 TRACTOR



NEW HOLLAND 9684 TRACTOR

