OECD No. 1345 FULL CODE
Date of Approval: January 14, 1992

REPORT OF TEST IN ACCORDANCE WITH OECD STANDARD CODE (CODE I) FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS



FORD VERSATILE 9030 BIDIRECTIONAL (4WD) ARTICULATED AGRICULTURAL TRACTOR

Manufactured by: Ford New Holland Canada Limited
Versatile Farm Equipment Operations
Box 7300-1260 Clarence Avenue
Winnipeg, Manitoba
R3C 4E8 Canada

Date of test: August, 1990

Printed in Canada

Prairie Agricultural Machinery Institute

Test Station: P.O. Box 1060
Portage la Prairie, Manitoba
CANADA R1N 3C5
Telephone: (204) 239-5445
Fax: (204) 239-7124

Head Office: P.O. Box 1900
Humboldt, Saskatchewan
CANADA S0K 2A0
Telephone: (306) 682-2555
Fax: (306) 682-5080

TABLE OF CONTENTS

		Page
I.	Specifications of Tractor	1
II.	Test Conditions	11
III.	Test Results	14
	1. Main Power Take-Off	14
	2. Hydraulic Power and Lifting Force	18
	3. Drawbar Power and Fuel Consumption	19
	4. Turning Area and Turning Circle	21
	5. Location of Centre of Gravity	21
	6. Braking	21
	7. Measurement of Noise Level	22

	Ford Versatile 9030
Tractor manufacturer's name and address:	Ford New Holland Canada Ltd. Versatile Farm Equipment Operations Box 7300 1260 Clarence Avenue Winnipeg, Manitoba R3C 4E8 Canada
Location of tractor assembly:	Winnipeg, Manitoba
Submitted for test by:	Manufacturer
Selected for test by:	Manufacturer in agreement with the test station
Place of running-in:	Winnipeg, Manitoba
Duration of running-in:	88 h
Location of test:	Tests carried out at the manufacturer's premises VERSATILE, Winnipeg (Manitoba) and witnessed by D.J. May, Project Engineer (PAMI - Portage la Prairie, Manitoba)

I. SPECIFICATIONS OF TRACTOR

TRACTOR

Make/Model/Type:	Ford Versatile/9030/4 wheel drive articulated, BiDirectional™
Number of driving wheels:	4
Serial No.:	9030-91-D470111
1st Serial No.:	9030-91-D470100

ENGINE

Make/Model/Type:	Ford/BSD444T/Diesel, turbo charged, direct injection
Serial No.:	F255776

Cylinders

Number/disposition:	4, In-line, vertical
Bore/stroke:	112 mm/112 mm
Capacity:	4392 cm^3
Compression ratio:	17:1
Arrangement of valves:	Overhead
Cylinder liners (wet or dry):	None

Turbocharging

Make/Model/Type:	Air Research/TA 31/centrifugal turbocharger

Pressure:	54-55 kPa at rated speed/full load
Fuel system:	
Fuel feed system:	Engine driven transfer pump (integral with injection pump)
Make/Model/Type of fuel filter(s):	Lucas/2FSSL/sedimenter filter assembly
Capacity of fuel tank:	170 dm^3
Make/Model/Type of injection pump:	Lucas CAV/82L1150/2/2750/DPS rotary system
Serial No:	34519 DHG
Manufacturer's production setting of injection pump: - Flow rate (rated engine speed and full load): - Timing:	 20.4-21.8 kg/h 14° BTDC
Make/Model/Type of injectors:	Lucas CAV/LR/5 hole direct injection
Injection pressure:	55.16 MPa
Governor	
Make/Model/Type:	Lucas/CAV/mechanical
Governed range of engine speed:	From 1000 to 2750 rev/min
Rated engine speed:	2500 rev/min
Air Cleaner	
Make/Model/Type:	Donaldson/FHG09/dry type with safety element and dump valve
Location of air intake:	Above hood, canister behind engine
Maintenance indicator:	Restriction indicator warning light on console
Lubrication system	
Type of feed pump:	Full pressure positive displacement
Type of filter:	Full flow spin-on dual paper element
Number:	One
Cooling system	
Type of coolant:	50/50 water/glycol base anti-freeze
Type of pump:	Centrifugal, belt driven
Specification of fan or blower:	Belt driven
Number of fan blades:	6
Fan diameter:	508 mm

Coolant capacity:	24 dm^3
Type of temperature control:	Thermostat
Superpressure system:	48.3 kPa

Starting system

Make/Model/Type:	Lucas/M127/electrical, solenoid controlled
Starter motor power rating:	2.8 kW nominal
Cold starting aid:	Immersion coolant heater and ether spray in intake manifold
Safety device:	Electrical lockout on seat base swivel, PTO and hydrostatic control levers

Electrical system

Voltage:	12V, negative ground
Generator:	
- Make/Model/Type:	Delco/15S1, type 116/alternator
- Power:	12V, 85A
Battery(number of accumulators):	Two (maintenance free)
- Make:	Exide
- Rating:	625CCA at -18°C 119 Ah each at 20 hours rating

Exhaust system

Make/Model:	Donaldson/MO-M060233 Rev 3
Dimensions of expansion chamber:	213 x 111 mm Oval, 457 mm high
Location:	Vertical at 194 mm left of hood centre, outlet directed left

TRANSMISSION TO WHEELS

Clutch	None; direct drive to hydrostatic transmission

Hydrostatic Transmission

Make/Model/Type:	Eaton/46H/Variable displacement pump and fixed displacement motor
Displacement:	75 cm^3
Maximum Pressure:	41.37 MPa

Gear Box

Make/Model/Type:	Versatile, Mechanical, manual operation
Arrangement:	3 speed constant mesh
Number of gears:	3 - forward/reverse; speed controlled by hydrostatic transmission

Rear axle and final drives

Make/Model/Type:	Versatile axles and drop boxes; Dana model 70 HD differentials
Differential lock:	Optional
- Type:	Limited slip
- Method of engagement:	Self engaging/disengaging

Front axle and final drives:

Make/Model/Type:	Versatile axles and drop boxes; Dana model 70 HD differentials
Differential lock:	Optional
- Type:	Limited slip
- Method of engagement:	Self engaging/disengaging

Total ratios and travelling speeds

	Gear	Number of engine revolutions for one revolution of the driving wheels (max. hydrostatic disp.)	Nominal travelling speed (*) at rated engine speed of 2500 rev/min km/h
Forward or Reverse	1	69.99	0 - 9.1
Forward or Reverse	2	49.96	0 - 12.7
Forward or Reverse	3	21.55	0 - 29.5

(*) Calculated with a tire dynamic radius index of 670 mm (ISO 4251/1-1984).

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

POWER TAKE-OFF

Main power take-off

Type:	Independent, wet, multi-plate
Method of engagement:	Mechanical wet clutch operated by over centre hand lever
Number of shafts:	One at rear in vertical median plane front PTO optional (540,1000 or dual speed available both ends)
Method of changing power take-off shaft ends and speeds:	Manually interchange output shafts

Power take-off proportional to engine speed

540 rev/min (not fitted for test)

Location:	Rear, vertical median plane
Diameter of power take-off shaft end:	34.9 mm
Number of splines:	6 in conformity with ISO 500/1979
Height above ground:	767 mm
Distance from the median plane of the tractor:	0 mm
Distance behind rear-wheel axis:	446 mm
PTO speed at rated engine speed (2500 rev/min):	552 rev/min
Engine speed at standard power take-off speed:	2447 rev/min
Ratio of rotation speeds (engine speed/PTO speed):	4.532/1
Power restriction and maximum torque:	56 kW 161 Nm
Direction of rotation (viewed from behind tractor):	Clockwise

1000 rev/min

Location:	Rear, vertical median plane
Diameter of power take-off shaft end:	34.9 mm
Number of splines:	21, in conformity with ISO 500/1979
Height above ground:	767 mm
Distance from the median plane of the tractor:	0 mm
Distance behind rear-wheel axis:	446 mm
PTO speed at rated engine speed (2500 rev/min):	1026 rev/min
Engine speed at standard power take-off speed:	2436 rev/min
Ratio of rotation speeds (engine speed/PTO speed):	2.436/1
Direction of rotation (viewed from behind tractor):	Clockwise - viewing end of shaft

Optional Power Take-off

Same as for Main Power Take-off except for:

Location:	Front, vertical median plane
Direction of rotation (viewed from front of tractor):	Clockwise

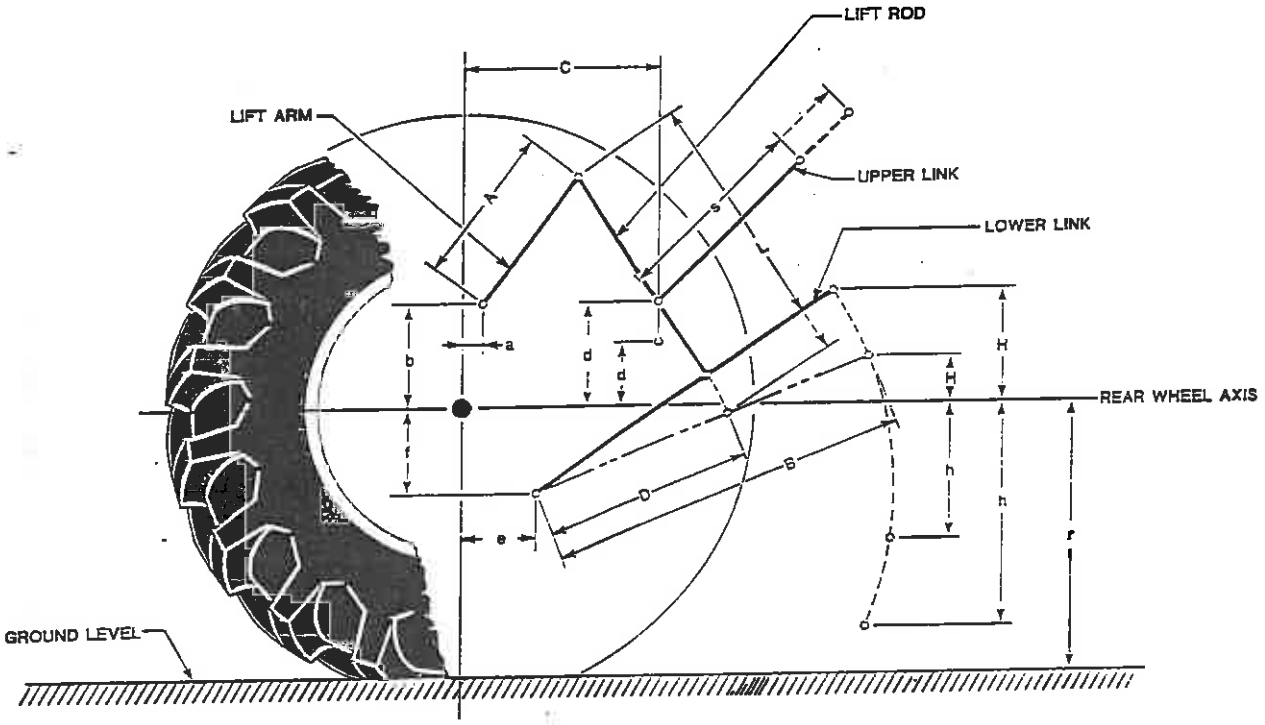
POWER LIFT

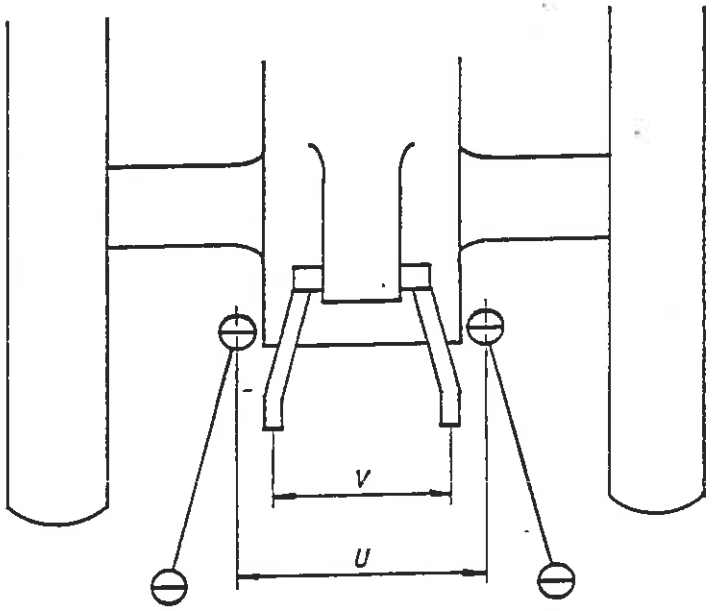
Make/Model/Type:	Versatile/Hydraulic
Type of hydraulic system:	Closed centre, load sensing
Type and number of cylinders (single-acting):	2
Type of linkage lock for transport:	Hydraulic
Relief valve pressure setting (tolerance):	20.684 (+.689) MPa (MPa)
Lift pump type:	Cessna axial piston, pressure & flow compensated
Transmission between pump and engine:	Direct drive at engine rear
Type and number of filters:	One canister type filter, replaceable element; cleanable suction screen in reservoir
Site of oil reservoir:	Behind engine
Type, number and location of tapping points:	3 pair ISO 5675
Maximum volume of oil available to external cylinders:	14.8 dm^3

Three-point linkage

Category:	1 or 2 in conformity with categories 1, or 2 of ISO 730/1 - 1977.
Category adapter:	Exchange ball bushings at hitch points

Implement Linkage:





			Dimension or range mm	Settings used in test mm
Length of lift arms		(A)	315	
Length of lower links		(B)	987	
Distance lift-arm pivot: point from rear-wheel axis:	horizontally	(a)	102	
	vertically	(b)	498	
Horizontal distance between the 2 lower link points		(u)	705	
Horizontal distance between the 2 lift arm end points		(v)	660	
Length of upper link		(S)	From 580 to 690	580
Distance of upper link pivot points from rear : wheel axis :	horizontally	(c)	405	
	vertically	(d)	365/405/445	
Distance of lower link pivot points from rear : wheel axis :	horizontally	(e)	0	0
	vertically	(f)	81	81
Distance of lower link pivot points to lift rod pivot points on lower links		(D)	465	465
Length of lift rods		(L)	From 625 to 705	670
Height of lower hitch points relative to the rear-wheel axis:				
- in low position		(h)	From 330 to 503	425
- in high position		(H)	From 283 to 164	175
Height above ground of lower hitch points when locked in transport position		(*)	Any height within lift range	

Table 1.1 Dimensions of linkage geometry
(when connected to the standard frame)

* Assuming r=tire dynamic radius index of 670 mm ISO 4251/1 - 1984.

SWINGING DRAWBAR

Height above ground to centre of clevis:	
- maximum	535 mm
- minimum	424 mm
Type of adjustment:	Invert devis
Distance of hitch point from rear-wheel axis, horizontally:	837 mm (1000 rpm PTO), 787 mm (540 rpm PTO)
Distance of hitch point from power take-off shaft end:	
- Vertically:	290 mm
- Horizontally:	406 mm (1000 rpm PTO); 356 mm (540 rpm PTO)
Lateral adjustment (centre of clevis):	
- Right hand:	288 mm (1000 rpm PTO); 280 mm (540 rpm PTO)
- Left hand:	288 mm (1000 rpm PTO); 280 mm (540 rpm PTO)
Distance of pivot point from rear-wheel axis, horizontally:	856 mm (forward)
Diameter drawbar pin hole:	33.0 mm
Maximum vertical permissible load:	15.124 kN (540 PTO) 13.345 kN (1000 PTO)

STEERING

Make/Model/Type:	Eaton/213-4015-001/hydrostatic closed centre, load sensing control valve
Method of operation:	Operated by hand wheel
- Pump:	Cessna axial piston pump; pressure and flow compensated
- Ram:	2 double acting
Working pressure:	17.237 MPa

BRAKES

Service brake

Make/Model/Type:	Kelsey Hayes/ P/N D00-08813/calliper, dry disc
Method of operation:	Manual pedal to hydraulic valve
Trailer braking take-off (hydraulic or air brake):	None

Parking brake

Type: Disc

Method of operation: Mechanical, hand lever

WHEELS

Number 4

Make/Size: Firestone, 23° all traction, 16.9 x 28 bias ply

Front: 2 driving

Rear: 2 driving

Wheelbase: 2260 mm

Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1605	2416	Manual, reverse disc and rim, 8 positions
Rear	1605	2416	Manual, reverse disc and rim, 8 positions

PROTECTIVE STRUCTURE

Make/Model/Type: Ford/9702207/Safety Cab

Manufacturer's name and address: Ford New Holland Canada
Versatile Farm Equipment Operations
Box 7300 - 1260 Clarence Avenue
Winnipeg, MB
R3C 4E8 Canada

Protective device:

- Cab:
- Not tiltable:

OECD approval number: CSS 0157/1

DRIVER'S SEAT

Make/Model/Type: Grammer/DS86H/LA/Mechanical

Type of suspension: Mechanical spring

Type of damping: Hydraulic

Range of adjustment:

- Longitudinal: ±75 mm
- Vertical: ±30 mm

LIGHTING

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights	1400	115 x 115	530
Sidelights	2819	75 x 130	477
Rearlights	1480	75 x 130	548
Reflectors	2842	60 x 210	475

II. TEST CONDITIONS

Overall dimensions

	Length (Note 1) mm	Width minimum mm	Width maximum mm	Height at top of protective structure mm	Height at top of exhaust silencer mm
Ballasted	5120	2475	2475	2872	2938
Unballasted	5120	2475	2475	2889	2958

Note 1: Length measured with front and rear three-point hitch lower links parallel to ground at a Cat II width.

Ground clearance (unballasted tractor): 400 mm

Clearance-limiting part: Drawbar cage

Tractor mass (with cab) Note 2:

	Ballasted		Unballasted	
	Without driver kg	With driver kg	Without driver kg	With driver kg
Front	3982	4010	3303	3331
Rear	2141	2188	1916	1963
Total	6123	6198	5219	5294

Note 2: Seat at maximum rearward position facing engine end. All ballast in the form of liquid added to tyres.

Ballast (all ballast in the form of liquid added to tyres)

	Weights kg	CaCl Solution kg
Front	---	679
Rear	---	225
Total	---	904

Tyres and track width specifications

	Front	Rear
Tyres: Firestone All Traction 23° - dimensions - ply rating - type - maximum load (tyre manufacturer's)(Note 3) - maximum load (tractor manufacturer's) - inflation pressure (tyre manufacturer's) - dynamic radius index	16.9 x 28 6 Bias 18.015 kN 18.015 kN 124.1 kPa 670 mm	16.9 x 28 6 Bias 18.015 kN 18.015 kN 124.1 kPa 670 mm
Chosen track width:	2010 mm	2010 mm

Note 3: At speeds below 10 mph, loads may be increased 20%

Oils and lubrication

Capacity and change interval

	Capacity dm^3	Oil change h	Filter change h
Engine	14	First 50/200	First 50/200
Gear box	7	1000	--
Front axle	2.3	Note: 4	--
Rear axle	2.3	Note: 4	--
Final drive (front)	17 x 2	First 50/400	--
Final drive (rear)	17 x 2	First 50/400	--
Hydraulic system	32	First 50/1000	200
Other	--	--	--

Note 4: With optional Dana Powr-Lok differentials at 100 h drain, flush and replace oil (80W90 below 90°F) and add 4-5% Sturaco 7098 additive (Ford P/N C8AZ19B546A). Repeat every 2000 hr.

Specifications (SAE, API, Mil.L, ISO)

	Recommended	Used during test
Engine oil - Type: - Viscosity: - Classification:	 SAE 10W30 9.3 cSt @ 100°C API SF/CD	As recommended
Transmission oils - Type: - Viscosity: - Classification:	 Ford 134 55 cSt @ 40°C 9.3 cSt @ 100°C SAE 20SF/CD	As recommended
Hydraulic fluid - Type: - Viscosity: - Classification:	 Dexron II 5.5 cSt min @ 100°C ATF	As recommended
Steering oil - Type: - Viscosity: - Classification	 Dexron II 5.5 cSt min @ 100°C ATF	As recommended

Grease: SAE multi-purpose

Number of lubrication points: 32 (including front and rear three-point hitch)

Fuel

Type: No. 2 Diesel, in conformity with national standard

Density at 15°C: 0.843 g/cm^3

TEST RESULTS

COMPULSORY TEST RESULTS

1. MAIN POWER TAKE-OFF
   -Date and location of tests: September 6, 1990 Winnipeg, Manitoba, Canada
   -Type of dynamometer: Eddy Current

Power	Speed		Fuel Consumption			Specific Energy
	Engine	PTO	Hourly		Specific	
kW	rev/min		kg/h	l/h	g/kWh	kWh/l
1.1 MAXIMUM POWER - TWO HOUR TEST						
78.7	2538	1042	20.9	25.0	266	3.15
1.2 POWER AT RATED ENGINE SPEED						
77.3	2498	1025	20.5	24.5	265	3.16
1.3 STANDARD POWER TAKE-OFF SPEED (1000 ± 25 rev/min)						
77.3	2498	1025	20.5	24.5	265	3.16
1.4 PART LOADS 1.4.1 the torque corresponding to maximum power at rated engine speed						
77.3	2498	1025	20.5	24.5	265	3.16
1.4.2 85% of torque obtained in 1.4.1						
68.2	2593	1064	19.1	22.7	279	3.00
1.4.3 75% of torque defined in 1.4.2						
52.2	2645	1086	16.3	19.5	313	2.68
1.4.4 50% of torque defined in 1.4.2						
35.0	2665	1094	13.0	15.5	371	2.26
1.4.5 25% of torque defined in 1.4.2						
17.6	2683	1102	9.7	11.6	553	1.52
1.4.6 unloaded						
0.3	2697	1107	6.8	7.5	20119	0.04

Power	Speed		Fuel Consumption			Specific Energy
	Engine	PTO	Hourly		Specific	
kW	rev/min		kg/h	l/h	g/kWh	kWh/l
.5 PART LOADS AT STANDARD POWER TAKE-OFF SPEED (1000 rev/min) .5.1 the torque corresponding to maximum power						
77.3	2498	1025	20.5	24.5	265	3.16
.5.2 85% of torque obtained in 1.5.1						
68.2	2593	1064	19.1	22.7	279	3.00
.5.3 75% of torque defined in 1.5.2						
52.2	2645	1086	16.3	19.5	313	2.68
.5.4 50% of torque defined in 1.5.2						
35.0	2665	1094	13.0	15.5	371	2.26
.5.5 25% of torque obtained in 1.5.2						
17.6	2683	1102	9.7	11.6	553	1.52
.5.6 unloaded						
0.3	2697	1107	6.8	7.5	20119	0.04

No load maximum engine speed: 2697 rev/min

Torque (equivalent crankshaft) at maximum power: 296.0 Nm

Torque (equivalent crankshaft) at rated engine speed: 295.1 Nm

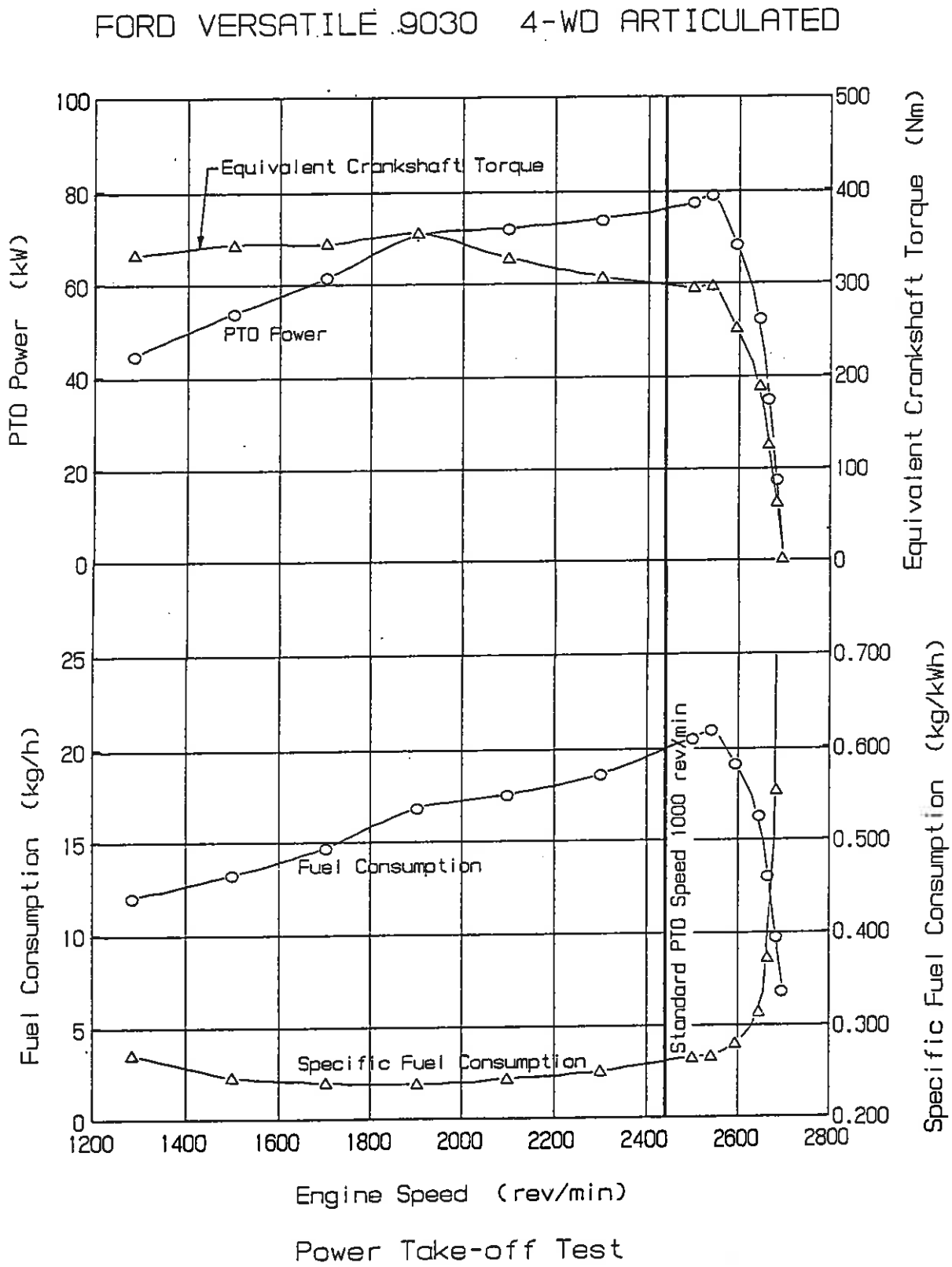
Maximum torque (equivalent crankshaft): 354.0 at 1900 rev/min

Mean atmospheric conditions:

-Temperature: 23°C
-Pressure: 101.32 kPa
-Relative Humidity: 49%

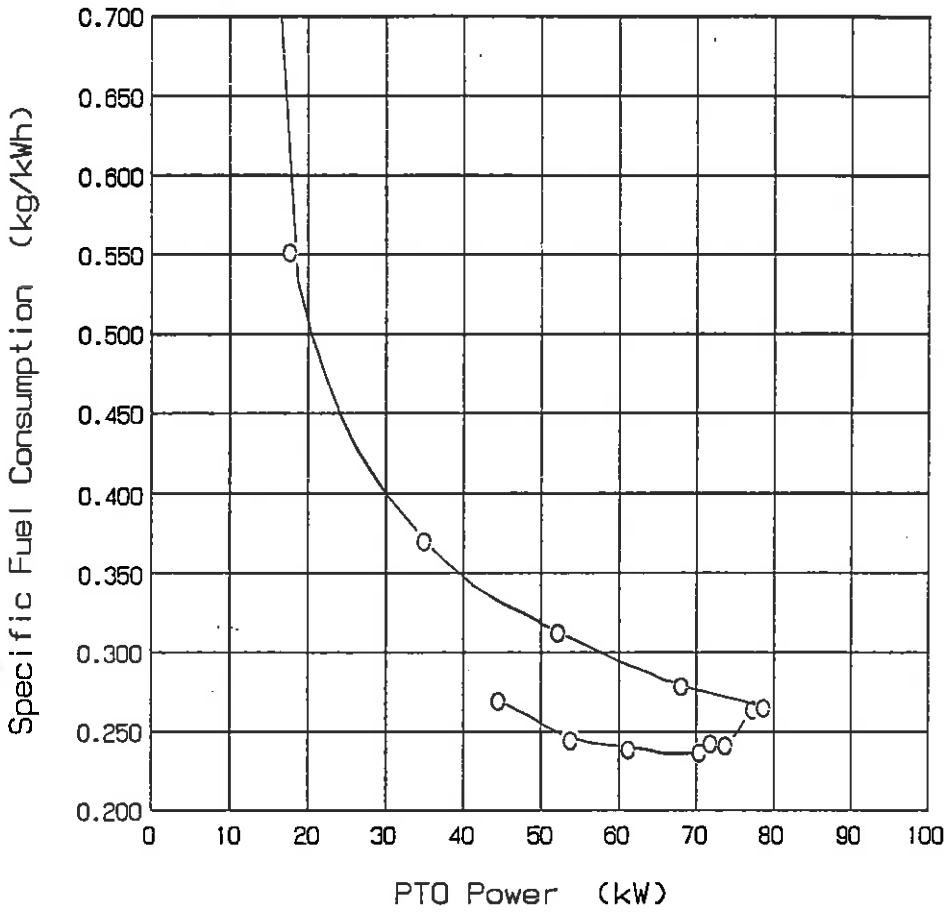
Maximum temperatures:

-Coolant: 85°C
-Engine oil: 111°C
-Fuel: 49°C
-Engine air intake: 40°C



Power Take-off Test

FORD VERSATILE 9030 4-WD ARTICULATED



2. HYDRAULIC POWER AND LIFTING FORCE

-Date of tests: September 14, 1990

2.1 HYDRAULIC POWER TESTS

-Sustained pressure with relief valve open: (Pump stalled) — 20.4 MPa

-Pump delivery rate at minimum pressure: — 114.7 l/min

	Flow Rate L\min	Pressure MPa	Power kW
Flow rate corresponding to a hydraulic pressure equivalent to 90 per cent of the actual relief valve pressure setting and corresponding hydraulic power	90.8	18.4	27.8
Flow rate and hydraulic pressure corresponding to maximum hydraulic power	103.7	17.7	30.6

-Tapping point used for test: — Remote outlet at rear of tractor

-Temperature of hydraulic fluid: — 65 ± 5°C

2.2 POWER LIFT TEST

	At the hitch point	On the frame
Height of the lower hitch points above ground in down position	245 mm	306 mm
Vertical movement	600 mm	700 mm
Maximum corrected force exerted through full range	29.6 kN	25.4 kN
Corresponding pressure of hydraulic fluid	20.4 MPa	20.3 MPa
Moment about rear wheel axis	27.4 kNm	38.9 kNm
Maximum tilt angle of mast from vertical	-	8 degrees

Linkage settings for test- see Table 1.1 and Figures 1.1 and 1.2

Lifting heights relative to the horizontal, plane including the lower link pivot points												
mm	-344	-306	-300	-200	-100	0	+100	+200	+256	+294	+ --	+ --
Lifting forces (the values measured are corrected to correspond to a hydraulic pressure equivalent to 90% of the actual relief valve pressure setting or to a maximum power delivered by the hydraulic system, whichever is lower)												
at the hitch points kN	29.6	-	30.3	32.9	34.3	35.6	37.2	38.7	39.8	-	-	-
Corresponding pressure: 20.4 MPa												
at the frame kN	-	35.5	35.3	34.0	32.6	30.9	29.3	27.4	-	25.4	-	-
Corresponding pressure: 20.4 MPa												

. DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

Date of tests: September 12, 1990

Type of track: Concrete

	Height of drawbar above ground	Tire inflation pressure	
		Front	Rear
Unballasted	500 mm	124 kPa	124 kPa
Ballasted	492 mm	152 kPa	138 kPa

Gear and range	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperature			Atmospheric conditions		
								Fuel	Coolant	Engine oil	Temp.	Relative humidity	Pressure
	kW	kN	km/h	rev/min	%	g/kWh	kWh/l	°C	°C	°C	°C	%	kPa
3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)													
1a	39.0	42.1	3.3	2527	15.0	516	1.64	34	84	106	12	83	102.02
1b	39.5	40.8	3.5	2520	10.2	495	1.70	34	84	106	12	83	102.02
1c	48.2	34.7	5.0	2522	6.0	451	1.87	29	82	107	13	77	101.97
1d	50.6	28.0	6.5	2512	3.3	418	2.00	33	84	109	15	72	101.86
1e	52.7	23.7	8.0	2520	1.8	404	2.09	30	82	105	16	67	101.83
2a	48.8	27.0	6.5	2520	4.8	406	2.07	34	85	108	17	63	101.79
2b	51.3	23.1	8.0	2520	2.7	402	2.10	32	84	108	17	63	101.79
2c	53.1	17.4	11.0	2514	0.7	397	2.12	33	83	108	18	59	101.65
3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)													
1a**	25.2	45.4	2.0	2536	15.0	784	1.08	41	89	109	25	38	99.71
1b	31.2	44.9	2.5	2502	12.5	587	1.44	36	85	107	23	39	99.75
1c	41.1	42.3	3.5	2499	10.0	483	1.74	37	87	112	25	38	99.71
1d	48.6	35.0	5.0	2504	6.3	431	1.97	37	86	107	24	39	99.75
1e	52.0	28.8	6.5	2498	2.4	407	2.07	36	85	107	24	39	99.75
1f	52.2	23.5	8.0	2498	2.4	397	2.12	36	86	109	24	39	99.75
2a	49.1	27.2	6.5	2496	3.5	425	1.97	37	86	109	24	39	99.75
2b	51.1	23.0	8.0	2497	2.4	408	2.05	38	86	111	25	38	99.71
2c*	53.8	18.8	10.3	2487	0.7	386	2.18	38	86	111	25	38	99.71
2d	53.5	17.5	11.0	2494	0.4	385	2.19	38	86	111	25	38	99.71
***3.3.1 FIVE HOUR TEST** at 75% of pull at maximum power (pneumatic tired tractors)													
2	37.5	14.1	9.6	2577	1.2	451	1.87	37	83	107	24	32	100.62
****3.3.2 FIVE HOUR TEST** at pull corresponding to 15% wheelslip, no additional ballast)													
1	30.1	45.2	2.4	2524	14.7	659	1.29	39	85	110	22	36	100.96

Manufacturer claimed that gear 3 is to be used for transport or road travel only. Therefore power tests were not performed in this gear.

No additional ballast was added prior to the second five hour test. Values for power, slip and fuel consumption are therefore significant.

Oil consumption during 10 hours duration of tests 3.3.1 and 3.3.2: 70 g/h

. TURNING AREA AND TURNING CIRCLE

	Without brakes	
	Right-hand m	Left-hand m
Radius of turning area	4.89	4.92
Radius of turning circle	4.63	4.67

. LOCATION OF CENTRE OF GRAVITY

-Height above ground: 1022 mm

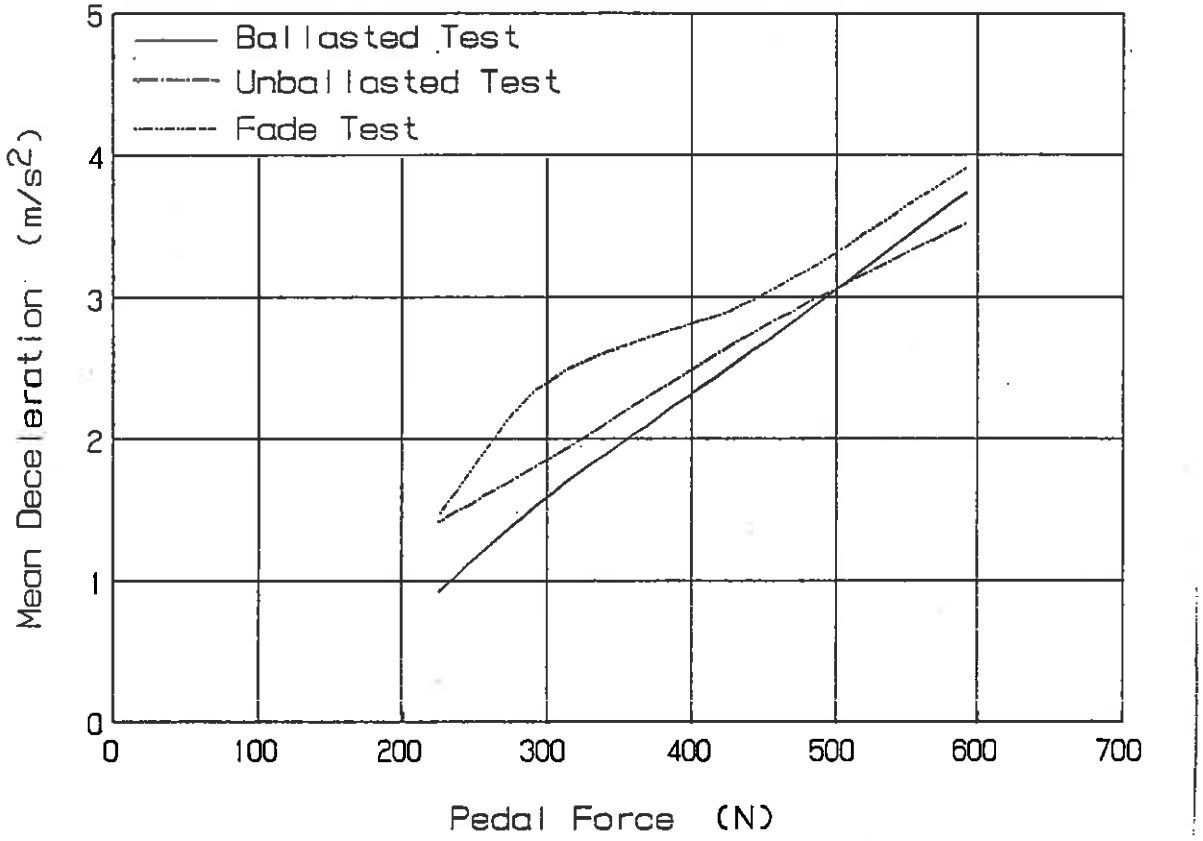
-Distance forward from the vertical plane containing the axis of the rear wheels: 1418 mm

-Distance from the median plane of the tractor: 0 mm

. BRAKING

-Date of tests: October 9,1990

.1 COLD SERVICE BRAKING TEST



6.2 FADE TEST

-Maximum deviation of tractor from it's original course: none

-Abnormal vibration: none

-Brake heating method: Tractor towed for 1 km at 80% of maximum speed and service brake such that towing force is 10% of maximum tractor weight

6.3 PARKING BRAKE DEVICE TEST

	Uphill	Downhill
Braking device control force	0.13 kN	0.13 kN

7. MEASUREMENT OF EXTERNAL NOISE LEVEL

-Date of tests: September 17, 1990

-Sound level meter,Make/Model/Type: Bruel & Kjaer, Model T2209 Impulse Precision Sound Level Meter

-Type of track: concrete

-Gear number: 3

-Travelling speed before acceleration: 24 km/h

-Sound level: 91.5 dB(A)

REPAIRS AND ADJUSTMENTS DURING TESTS: Tubes in both rear tires replaced due to valve cores ripping out of tubes as a result of tires slipping on rims during ballasted drawbar power tests.

REMARKS: None

Test carried out by: D. J. May, P.Eng. Project Engineer

Signed: Bruce Allen Head of the test station

Date: July 10, 1991