Report on test in accordance with O.E.C.D.
STANDARD CODE for the Official Testing of
Agricultural Tractors

O. E. C. D. Approval No. **1157**

Restricted Code



FORD 2120-12x12 Hydraulic (4WD)

Manufacturer

ISHIKAWAJIMA SHIBAURA MACHINERY Co., Ltd.

Ishishiba 1-1-1 Matsumoto City, Nagano, Japan

Bio-oriented Technology Research Advancement Institution
(B R A I N)

1-40-2 Nisshin Omiya Saitama 331 JAPAN

This bulletin is based on engineering tests in accordance with the O.E.C.D. STANDARD CODE for the Official Testing of Agricultural Tractor Performance. It does not contain the evaluation of the tractor performance on practical work.
This report has been approved by the O.E.C.D. Coordinating Center (C.E.M.A.G.R.E.F., France) as being in accordance with the O.E.C.D. STANDARD CODE.

Test No.:	88004 /O.E.C.D.
Date of Test:	June, 1988
Date of Approval:	Sep.14th, 1988

In this report all performance characteristics are given corresponding to the International System of Units.
The reference to the former used Technical System of Units is given by the following relations:

Forces	1 kgf	= 9.80665	N
Powers	1 PS	= 0.7355	kW
Pressures	1 kgf/cm^2	= 98.0665	kPa

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Printed in JAPAN

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Tractor manufacturer's name and address:	ISHIKAWAJIMA SHIBAURA MACHINERY Co., Ltd. Ishishiba 1-1-1 Matsumoto City, Nagano, Japan
Location of tractor assembly:	Ishishiba 1-1-1 Matsumoto City, Nagano, Japan
Submitted for test by:	FORD NEW HOLLAND, Inc. PA 17557, U.S.A.
Selected for test by:	The manufacturer with agreement by BRAIN
Place of running-in:	ISHIKAWAJIMA SHIBAURA MACHINERY Co., Ltd. Matsumoto Plant
Duration of running-in:	Engine and tractor 92.5 h
Location of test:	BRAIN

SPECIFICATIONS OF TRACTOR

TRACTOR

Make:	ISHIKAWAJIMA SHIBAURA
Model:	FORD 2120-12x12 Hydraulic
Type:	Wheel tractor, unit construction, four wheel driven
Number of driving wheels:	4
Serial No.:	UV 21129
1st Serial No.:	UV 21001

ENGINE

Make:	ISHIKAWAJIMA SHIBAURA
Model:	T854B
Type:	Water-cooled 4-stroke diesel-engine, direct injection
Serial No.:	16249

Cylinders

Number/Disposition:	4, vertical in line
Bore/stroke:	85/100 mm
Capacity:	2269 cm^3
Compression ratio:	18 : 1
Arrangement of valves:	Overhead
Cylinder liners (wet or dry):	Unreplaceable integral, dry

Fuel system

Fuel feed system:	Gravity feed
Filters	
Make:	TAIYO GIKEN
Model:	IK 19-100
Type:	Replaceable paper element with sediment bowl
Capacity of fuel tank:	42 l
Injection pump	
Make:	DIESEL KIKI
Model:	NP-PES4K70B210RA2
Type:	In-line
Serial No.:	844M793142

Manufacturer's production setting of injection pump	
Flow rate	
(rated engine speed):	8.5±0.4 l/h
(full load):	8.5±0.4 l/h
Timing:	From 19° to 21° before TDC
Injectors	
Make:	DIESEL KIKI
Model:	105118-4580
Type:	Hole type
Injection pressure:	20±0.5 MPa

Governor

Make:	DIESEL KIKI
Model:	130500-0820
Type:	All speed mechanical governor
Governed range of engine speed:	From 950 to 2700 rev/min
Rated engine speed:	2500 rev/min

Air cleaner

Make:	NIPPON DENSO
Model:	100140-2800
Type:	Dry, paper element, cyclone type
Location of air intake:	Above the engine under the hood
Maintenance indicator:	Clogged indicator warning light

Lubrication system

Type of feed pump:	Forced feed with gear pump
Type of filter(s):	Full flow with by-pass valve and replaceable cartridge
Number:	1

Cooling system

Type of coolant:	50/50 solution of permanent antifreeze and clear water
Type of pump:	Centrifugal
Make of pump:	ISHIKAWAJIMA SHIBAURA
Model of pump:	145016540
Specification of fan:	Axial
Number of fan blades:	6
Fan diameter:	360 mm
Coolant capacity:	8 l
Type of temperature control:	Thermostat
Superpressure system:	90 kPa

Starting system

Make:	MITSUBISHI
Model:	M2T54091
Type:	Magnetic shift reduction
Starter motor power rating:	12 V, 2.0 kW
Cold starting aid:	Electrical glow plug
Safety device:	Operable only with shuttle lever and P.T.O. control lever in neutral position

Electrical system

Voltage:	12 V
Generator:	Alternator
Make:	MITSUBISHI
Model:	A1T 25087
Type:	Three phase alternator
Power:	35 A, 0.42 kW
Battery(Number of accumulators):	1
Rating:	100 Ah at 20 hours

Exhaust system

Make:	ISHIKAWAJIMA SHIBAURA
Model:	314011540
Type:	Multi-chamber absorption-expansion type
Location:	Vertical on the left side of tractor

TRANSMISSION TO WHEELS

Clutch

For travel and power take-off

Make:	AISHIN SEIKI
Model:	31501-99373
Type:	Dry disk
Number of plates:	1
Diameter of plates:	260 mm
Method of operation:	Pedal operated

For travel

Make:	DAIKIN
Type:	Wet disk
Number of plates:	9 for forward and 9 for reverse
Diameter of plates:	105 mm
Method of operation:	Shuttle lever operated

Gear box

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Mechanical and hydraulic shuttle transmission
Arrangement:	Shuttle gear for forward - reverse, 4 speed gears with synchromesh, and 3 range gears (L, M, H)
Number of gears:	12 forward and 12 reverse
Available options:	Creeper range kit

Rear axle and final drives

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Bevel gear type differential, spur gear final drives

Differential lock

Type:	Differential lock in rear axle (Mechanical)
Method of engagement:	Pedal operated
Method of disengagement:	Self disengaged

Front axle and final drives

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Bevel gear type differential and final drives
Differential lock	None

Total ratios and traveling speeds

Gear No.	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal traveling speed at rated engine speed of 2500 rev/min(*) km/h
Forward F			
1st	L-1	347.762	1.73
2nd	L-2	256.809	2.34
3rd	L-3	196.174	3.06
4th	L-4	152.863	3.93
5th	M-1	146.833	4.09
6th	M-2	108.431	5.54
7th	M-3	82.829	7.25
8th	M-4	64.542	9.30
9th	H-1	51.794	11.59
10th	H-2	38.248	15.70
11th	H-3	29.217	20.55
12th	H-4	22.767	26.37
Reverse R			
1st	L-1	325.905	1.84
2nd	L-2	240.668	2.49
3rd	L-3	183.844	3.27
4th	L-4	143.255	4.19
5th	M-1	137.604	4.36
6th	M-2	101.615	5.91
7th	M-3	77.623	7.73
8th	M-4	60.485	9.93
9th	H-1	48.539	12.37
10th	H-2	35.844	16.75
11th	H-3	27.381	21.93
12th	H-4	21.336	28.14

(*)Calculated with a tyre dynamic radius index of 637 mm

Number of revolutions of front wheels for one revolution of rear wheels : 1.64

POWER TAKE-OFF

Main power take-off

Type:	Semi-independent P.T.O.
Method of engagement:	Operated by clutch pedal
Number of shafts:	1
Method of changing P.T.O. shafts ends and speeds:	None

Power take-off proportional to engine speed

540 rev/min	
Location:	At rear of tractor in tractor's median plane
Diameter of power take-off shaft end:	35 mm
Number of splines:	6, In conformity with ISO 500/1979
Height above ground:	630 mm
Distance from the median plane of the tractor:	0 mm
Distance behind rear wheel axle:	297 mm
P.T.O. speed at rated engine speed:	585 rev/min
Engine speed at standard power take-off speed:	2307 rev/min
Ratio of rotation speeds (engine speed/p.t.o. speed):	4.273
Power restriction and maximum torque:	35.0 kW, 608 N·m
Direction of rotation (viewed facing driving end):	Clockwise

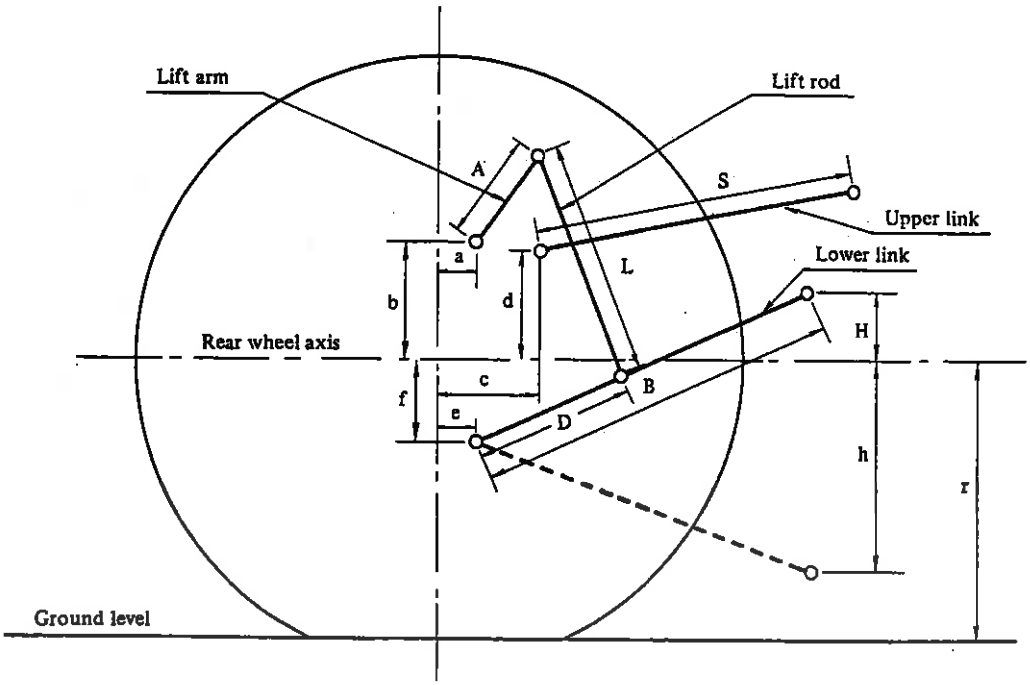
POWER LIFT

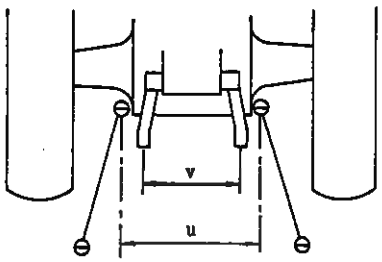
Make:	ISHIKAWAJIMA SHIBAURA
Type:	Hydraulically power lift in unit construction
Type of hydraulic system:	Open center, two lever lift system with draft and position control, flow control
Type and number of cylinders:	Single acting, 1
Type of linkage lock for transport:	Hydraulically closed by flow control valve
Relief valve pressure setting:	17.2+0.6 MPa
Opening pressure of cylinder safety valve:	24.5+0.5 MPa
Lift pump type:	Gear pump
Transmission between pump and engine:	Directly gear driven by engine
Type and number of filters:	Replaceable cartridge, 1
Site of oil reservoir:	In rear transmission case
Type, number and location of tapping points:	NPTF 3/8 tapping, 1, At right side of clutch housing

Maximum volume of oil available to external cylinders: 30 l

Three-point linkage

Category: In conformity with categories 1 in ISO 730/3-1982





Lift test – Linkage geometry

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

			Dimension or range mm	Settings used in test mm
Length of lift arms		(A)	300	
Length of lower links		(B)	800	
Distance of lift arm pivot point from rear wheel axis	horizontally	(a)	35	
	vertically	(b)	342	
Horizontal distance between the 2 lower link points		(u)	480	
Horizontal distance between the 2 lift arm end points		(v)	455	
Length of upper link		(S)	from 485 to 715	577
Distance of upper link pivot point from rear wheel axis	horizontally	(c)	309	
	vertically	(d)	232, 262	262
Distance of lower link pivot point from rear wheel axis	horizontally	(e)	79	
	vertically	(f)	132	
Distance of lower link pivot points to lift rod pivot points on lower links		(D)	468	
Length of lift rods		(L)	from 486 to 576	576
Height of lower hitch points relative to the rear wheel axis:				
in low position		(h)	from 256 to 450	450
in high position		(H)	from 154 to 292	154
Height above ground of lower hitch points when locked transport position (*)			from 160 to 902	from 160 to 764

(*) Assuming r = dynamic radius index (ISO 4251/1-1984). 610 mm

SWINGING DRAWBAR

Type:	Shiftable type
Height above ground:	420 mm
Type of adjustment:	Changing by turning clevis

Distance of hitch point from rear wheel axis, horizontally:	From 473 to 653 mm
Distance of hitch point from power take-off shaft end	
Vertically:	210 mm
Horizontally:	From 176 to 356 mm
Lateral adjustment (center of clevis)	
Right hand:	230 mm
Left hand:	230 mm
Distance of pivot point from rear wheel axis, horizontally:	7 mm
Diameter drawbar pin hole:	26 mm
Maximum vertical permissible load:	4.91 kN

HOLED DRAWBAR

Number of holes:	7
Distance between holes:	80 mm
Hole diameter:	22 mm
Thickness/width of the drawbar:	25/75 mm
Height above ground	
Minimum:	174 mm
Maximum:	916 mm
Horizontal distance to power take-off shaft end (rear):	585 mm

STEERING

Make:	JIDOSHA KIKI
Model:	415-07156
Type:	Hydrostatic steering
Method of operation:	Steering wheel operated hydraulically
Pump:	Gear type
Ram:	One double acting cylinder
Working pressure:	11.7 MPa

BRAKES

Service brake

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Wet disc, internal sliding mechanically
Method of operation:	Pedal operated, divided pedal of service brake, for normal use locked together
Trailer braking take-off:	None

Parking brake

Type:	In common with service brake
Method of operation:	Depressed by brake pedals and latched by hand lever

WHEELS

Number	
Front:	2, driving/steering
Rear:	2, driving
Wheelbase:	1900 mm

Track width adjustment

	Minimum mm	Maximum mm	Adjustment method
Front	1250	—	Not available
Rear	1240	1940	Interchanging right and left wheels, and/or resetting rim and disc

PROTECTIVE STRUCTURE

Make:	ISHIKAWAJIMA SHIBAURA
Model:	FORD 19SA 9074
Type:	2-post frame of steel tube
Manufacturer's name and address:	ISHIKAWAJIMA SHIBAURA MACHINERY Co., Ltd. Ishishiba 1-1-1 Matsumoto City, Nagano, Japan
Protective device:	Frame, not tiltable
O.E.C.D. approval number:	None

DRIVER'S SEAT

Make:	BOSTROM
Type of suspension:	Coil spring
Type of damping:	Rubber
Range of adjustment	
Longitudinal:	120 mm
Vertical:	30 mm

LIGHTING

	Height above ground of center mm	Size mm	Distance from outside edge of tractor to median plane mm
Headlights	1175	108x65	679
Flashers	1620	ø119	203
Rearlights	1480	56.5x56.5	291
Reflectors	1375	64.5x45	291

TEST CONDITIONS

Overall dimensions

Length:	3485 mm
Width	
Minimum:	1631 mm
Maximum:	2295 mm
Height	
Top of protective structure:	2265 mm
Top of exhaust:	2115 mm

Ground clearance (unballasted tractor): 335 mm

Clearance-limiting part: Front differential case

Tractor mass (with frame)

		Without driver kg	With driver kg
Unballasted	Front	813	825
	Rear	992	1055
	Total	1805	1880
Ballasted	Front	941	953
	Rear	1580	1643
	Total	2521	2596

Ballast

	Number of weights	Mass (total) kg	Water kg
Front	–	–	–
Rear	8	280	346
Additional	3	90	–

Tyres and track width specifications

	Front wheels	Rear wheels	
Tyres:			
Dimensions	8-18	13.6-28	
Ply rating	4	4	
Type	Cross-ply	Cross-ply	
Maximum load (tyre manufacturer's):	4.7	10.7	(kN)
Inflation pressure (tyre manufacture's):	137	100	(kPa)
Dynamic radius index:	391	610	(mm)
Chosen track width:	1250	1240	(mm)

Oils and lubrication

Capacity and change interval

	Capacity l	Oil change h	Filter change h
Engine	7.5	100	200
Gear box	33	300	300
Front axle	4.4	300	—
Rear axle	In common with gear box		
Final drive (front)	In common with front axle		
Final drive (rear)	In common with gear box		
Hydraulic system	In common with gear box		
Other(steering, etc.)	1.8	600	—

Specifications (SAE, API)

	Recommended	Used during test
Engine oil		SAE 10W/30
Type:	Below 0°C SAE 10W or SAE 10W/30 From 0°C to 25°C SAE 20 or SAE 10W/30 Over 25°C SAE 30 or SAE 10W/30	
Viscosity:	68.2 cSt at 40°C 11.4 cSt at 100°C	
Classification:	API CC or CD	
Transmission oils		As recommended
Type:	SAE 80	
Viscosity:	72.27 cSt at 40°C 9.30 cSt at 100°C	
Classification:	API GL-4	
Steering oil		As recommended
Type:	SAE 32	
Viscosity:	32.0 cSt at 40°C 5.5 cSt at 100°C	
Classification:	API GL-3	
Grease		
Number of lubrication points:		12

Fuel

Type:	Diesel fuel, No.2 in conformity with JIS (Japanese Industrial Standard)
Density at 15°C:	0.842g/cm^3

TEST RESULTS

(1) COMPULSORY TESTS RESULTS

1. MAIN POWER TAKE-OFF

Date and location of tests: 23rd June, 1988, BRAIN, Omiya
Type of dynamometer: DC electrical, MEIDENSHA EB-DH1

Power	Speed		Fuel consumption			Specific energy
	Engine	PTO	Hourly		Specific	
kW	rev/min	rev/min	kg/h	l/h	g/kW·h	kW·h/l
1.1 Maximum power - 2-hour test						
25.85	2500	585	7.35	8.73	284	2.96
1.2 Power at rated engine speed						
25.85	2500	585	7.35	8.73	284	2.96
1.3 Standard power take-off speed(540 rev/min)						
24.99	2307	540	6.90	8.20	276	3.05
1.4 Part loads						
1.4.1 The torque corresponding to maximum power at rated engine speed						
25.85	2500	585	7.35	8.73	284	2.96
1.4.2 85 % of torque obtained in 1.4.1						
22.59	2568	601	6.38	7.57	282	2.98
1.4.3 75 % of torque defined in 1.4.2						
17.16	2603	609	5.41	6.43	315	2.67
1.4.4 50 % of torque defined in 1.4.2						
11.56	2636	617	4.47	5.30	386	2.18
1.4.5 25 % of torque defined in 1.4.2						
5.87	2660	623	3.39	4.03	578	1.46
1.4.6 Unloaded						
0.0	2700	632	2.50	2.97	—	0.0

1.5 Part loads at standard power take-off speed (540 rev/min)

Power	Speed		Fuel consumption			Specific energy
	Engine	PTO	Hourly		Specific	
kW	rev/min	rev/min	kg/h	l/h	g/kW·h	kW·h/l
1.5.1	The torque corresponding to maximum power					
24.99	2307	540	6.90	8.20	276	3.05
1.5.2	85 % of torque obtained in 1.5.1					
21.73	2359	552	5.90	7.01	272	3.10
1.5.3	75 % of torque defined in 1.5.2					
16.65	2410	564	4.99	5.92	299	2.81
1.5.4	50 % of torque defined in 1.5.2					
11.24	2440	571	4.04	4.80	359	2.34
1.5.5	25 % of torque defined in 1.5.2					
5.70	2474	579	3.03	3.60	532	1.58
1.5.6	Unloaded					
0.0	2521	590	2.20	2.62	–	0.0

No load maximum engine speed: 2700 rev/min

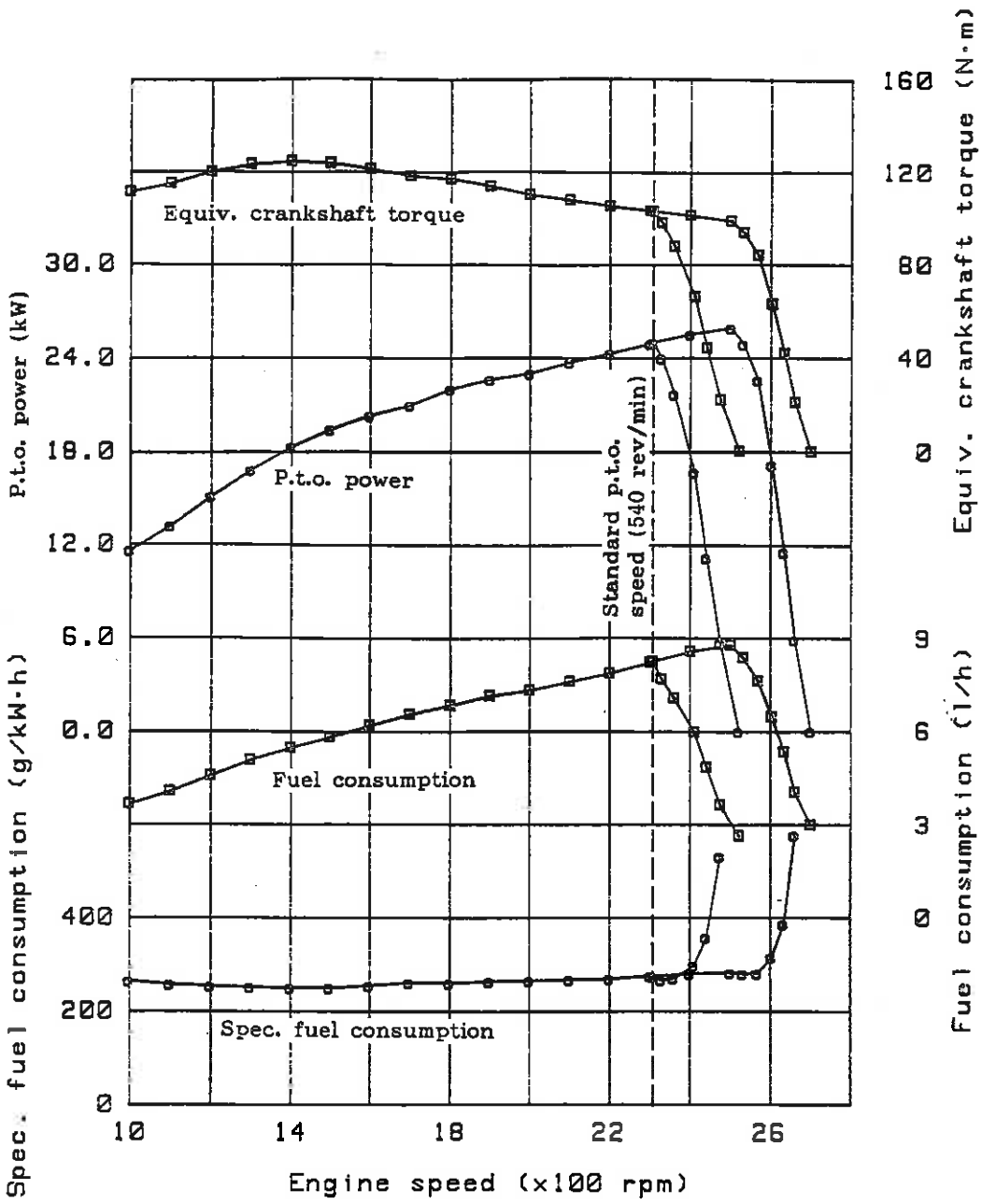
Torque (equivalent crankshaft) at maximum power: 98.8 N·m

Maximum torque (equivalent crankshaft): 124.7 N·m
(engine speed: 1400 rev/min)

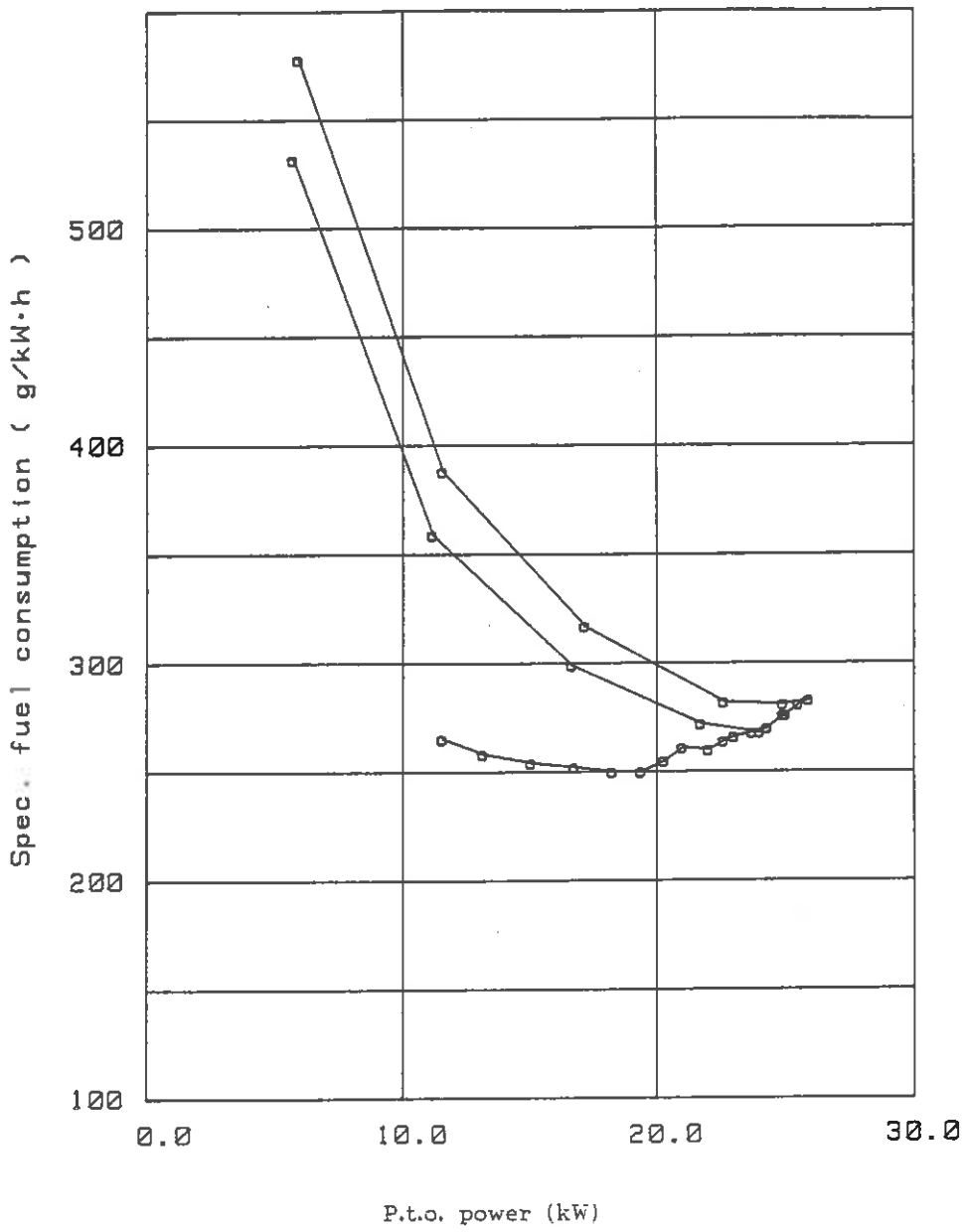
Mean atmospheric conditions
- Temperature: 22 °C
- Pressure: 101.6 kPa
- Relative humidity: 34 %

Maximum temperatures
- Coolant: 85 °C
- Engine oil: 106 °C
- Fuel: 34 °C
- Engine air intake: 32 °C

P. T. O. PERFORMANCE



P. T. O. PERFORMANCE



(2) HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 21st June, 1988

2.1 HYDRAULIC POWER TEST.

Sustained pressure with relief valve open: (pump not stalled)	17.75 MPa
Pump delivery rate at minimum pressure:	37.50 l/min

Flow rate corresponding to a hydraulic pressure equivalent to 90 percent of the actual relief valve pressure setting and corresponding to hydraulic power

Flow rate:	35.90 l/min
Pressure:	15.98 MPa
Power:	9.56 kW

Flow rate and hydraulic pressure corresponding to maximum hydraulic power

Flow rate:	35.70 l/min
Pressure:	16.18 MPa
Power:	9.63 kW

Tapping point used for test:	At right side of clutch housing
Opening pressure of the unloading valve:	Not applicable
Closing pressure of the unloading valve:	Not applicable

2.2 Power lift test.

	Height of lower hitch points above ground in down position mm	Vertical movement mm	Maximum corrected force exerted through full range kN	Corresponding pressure of hydraulic fluid MPa	Moment about rear wheel axle kN·m	Maximum tilt angle of mast from vertical Degrees
At hitch points	160	604	19.41	15.98	—	—
On the frame	145	701	15.43	15.98	22.98	8

Linkage setting for test - see page 7 and 8.

Lifting heights relative to the horizontal plane including the lower link pivot points.

mm	-333	-318	-300	-200	-100	0	100	200	286	300	368

Lifting forces at hitch points (corresponding pressure 15.98 MPa)

kN	—	19.41	19.63	20.69	21.00	21.08	21.04	21.04	21.61	—	—

Lifting forces at test frame (corresponding pressure 15.98 MPa)

kN	20.94	—	20.73	19.80	18.74	17.86	16.80	15.91	—	15.56	15.43

(3) DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

Date of tests: 28th June, 1988
Type of track: Concrete
Height of drawbar above ground: 418 mm

Tyre size and pressure:
Front: 8-18 137 kPa
Rear: 13.6 -28 100 kPa

Gear	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperature			Atmospheric conditions		
								Fuel	Coolant oil	Engine	Temperature	Relative humidity	Pressure
	kW	kN	km/h	rev/min	%	g/kW·h	kW·h/l	°C	°C	°C	°C	%	kPa
1. Maximum power in tested gears													
L-1	6.07	14.32	1.53	2618	15.0	605	1.391	29	62	90	24	67	101.5
L-2	8.20	14.32	2.06	2611	15.0	511	1.646	32	58	93	24	67	101.5
L-3	10.64	14.32	2.67	2591	15.0	415	2.027	33	60	93	24	67	101.5
L-4	13.56	14.32	3.41	2574	15.0	385	2.189	33	66	86	24	67	101.5
M-1	14.12	14.32	3.55	2566	15.0	381	2.207	36	69	94	24	67	101.5
M-2	18.56	14.32	4.67	2500	15.0	356	2.362	37	59	97	24	67	101.5
M-3	19.81	10.89	6.55	2502	9.2	356	2.362	40	61	99	25	54	101.6
M-4	20.01	8.34	8.64	2497	6.5	369	2.284	40	56	99	25	54	101.6
H-1	19.74	6.47	10.98	2507	5.0	354	2.380	41	72	99	25	54	101.6

(3) DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)(continued)

Date of tests: 28th June, 1988
Type of track: Concrete
Height of drawbar above ground: 418 mm
Tyre size and pressure:
Front: 8-18 137 kPa
Rear: 13.6 -28 100 kPa

Gear	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperature			Atmospheric conditions		
								Fuel	Coolant oil	Engine	Temperature	Relative humidity	Pressure
	kW	kN	km/h	rev/min	%	g/kW·h	kW·h/l	°C	°C	°C	°C	%	kPa
2. Fuel consumption													
2.1	In selected gear at maximum power												
M-4	20.01	8.34	8.64	2497	6.5	369	2.284	40	56	99	25	54	101.6
2.1.1	75 % of pull at maximum power at rated speed												
M-4	15.69	6.25	9.04	2555	4.4	387	2.177	42	48	94	25	54	101.6
2.1.2	50 % of pull at maximum power at rated speed												
M-4	10.79	4.17	9.32	2591	2.7	481	1.751	43	52	96	25	54	101.6
2.1.3	Next higher gear at reduced engine speed; same pull and travelling speed as in 2.1.1												
H-1	15.69	6.25	9.04	2044	4.1	332	2.539	44	72	96	25	54	101.6
2.1.4	Next higher gear at reduced engine speed; same pull and travelling speed as in 2.1.2												
H-1	10.79	4.17	9.32	2085	3.0	385	2.186	44	70	96	25	54	101.6
2.2	In selected gear nearest to 7.5 km/h												
M-3	19.81	10.89	6.55	2502	9.2	356	2.362	40	61	99	25	54	101.6
2.2.1	75 % of pull at maximum power at rated speed												
M-3	15.67	8.16	6.91	2565	6.5	410	2.051	43	61	94	25	54	101.6
2.2.2	50 % of pull at maximum power at rated speed												
M-3	10.83	5.44	7.16	2599	4.4	476	1.768	43	58	94	25	54	101.6
2.2.3	Next higher gear at reduced engine speed; same pull and travelling speed as in 2.2.1												
M-4	15.67	8.16	6.91	1990	6.1	326	2.579	43	72	97	25	54	101.6
2.2.4	Next higher gear at reduced engine speed; same pull and travelling speed as in 2.2.2												
M-4	10.83	5.44	7.16	2004	3.4	348	2.416	43	56	95	25	54	101.6

OPTIONAL TEST RESULTS

(4) DRAWBAR PERFORMANCE(BALLASTED TRACTOR)

Date of tests: 23rd June, 1988
Type of track: Concrete
Height of drawbar above ground: 403 mm

Tyre size and pressure:
Front: 8-18 137 kPa
Rear: 13.6 -28 100 kPa

Gear	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperature			Atmospheric conditions		
								Fuel	Coolant oil	Engine	Temperature	Relative humidity	Pressure
	kW	kN	km/h	rev/min	%	g/kW·h	kW·h/l	oC	oC	oC	oC	%	kPa
Maximum power in tested gears (with ballast)													
L-1	8.12	19.42	1.50	2606	15.0	529	1.591	45	49	93	27	34	101.8
L-2	10.95	19.42	2.03	2591	15.0	402	2.095	45	66	96	27	34	101.8
L-3	14.17	19.42	2.63	2559	15.0	370	2.277	45	70	97	27	34	101.8
L-4	17.81	19.42	3.30	2522	15.0	348	2.420	45	50	94	26	41	101.8
M-1	18.37	19.42	3.41	2499	15.0	363	2.318	45	46	95	26	41	101.8
M-2	19.88	14.51	4.93	2490	9.1	347	2.425	45	68	97	26	41	101.8
M-3	21.16	11.38	6.70	2500	6.2	344	2.446	46	56	98	25	47	101.8
M-4	21.06	8.63	8.78	2506	4.3	353	2.386	45	46	97	25	47	101.8

(5) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 29th June, 1988
Sound level meter
Make: RION
Model:Impulse sound level meter
Type: NA-61
Type of track: Concrete

Gear number	Drawbar pull	Measured travelling speed	Sound level	
			Front engaged	Front disengaged
	kN	km/h	dB(A)	dB(A)
Unloaded test in the gear giving the speed nearest to 7.5 km/h				
M-3	light load	7.66	89	88
Unloaded test in the gear giving the maximum speed				
H-4	light load	27.27	90	89
Test with the drawbar pull for which the tractor gives the maximum sound level [combination of gear giving the nearest nominal speed to 7.5 km/h and also in any gear with a sound level increase of at least 1 dB(A)]				
M-3	10.69	6.66	91	92
M-2	13.63	4.90	92	91

REPAIRS AND ADJUSTMENTS DURING TESTS None

REMARKS None