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. **1144**

Restricted Code



FORD 1920-12x12 Synchro(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.:	88002 /O.E.C.D.
Date of Test:	February, 1988
Date of Approval:	3rd May, 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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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

I. SPECIFICATIONS OF TRACTOR

TRACTOR

Make:	ISHIKAWAJIMA SHIBAURA
Model:	FORD 1920-12X12 Synchro
Type:	Wheel tractor, unit construction, four wheel driven
Number of driving wheels:	4
Serial No.:	UP 21246
1st Serial No.:	UP 21001

ENGINE

Make:	ISHIKAWAJIMA SHIBAURA
Model:	N844
Type:	Water-cooled 4-stroke diesel-engine, direct injection
Serial No.:	00213

Cylinders

Number/Disposition:	4, vertical in line
Bore/stroke:	84/90 mm
Capacity:	1995 cm^3
Compression ratio:	19 : 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:	39 l
Injection pump	
Make:	DIESEL KIKI
Model:	NP-PFR4KD65/2NP13
Type:	In-line
Serial No.:	7500027

Manufacturer's production setting of injection pump	
Flow rate	
(rated engine speed):	6.7±0.3 l/h
(full load):	6.7±0.3 l/h
Timing:	From 18°C to 20°C before TDC
Injectors	
Make:	DIESEL KIKI
Model:	105118-4670
Type:	Hole type
Injection pressure:	21±0.5 MPa

Governor

Make:	ISHIKAWAJIMA SHIBAURA
Model:	125206250
Type:	All speed mechanical governor
Governed range of engine speed:	From 900 to 2700 rev/min
Rated engine speed:	2500 rev/min

Air cleaner

Make:	NIPPON DENSO
Model:	114100-2440
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 trochoid 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:	AISHIN SEIKI
Model of pump:	16100-6920
Specification of fan:	Axial
Number of fan blades:	5
Fan diameter:	340 mm
Coolant capacity:	5.6 l
Type of temperature control:	Thermostat
Superpressure system:	90 kPa

Starting system

Make:	MITSUBISHI
Model:	M002T54091
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(travel and power take-off)

Make:	DAIKIN
Model:	0015240121
Type:	Double acting; Dry dual disk
Number of plates:	2
Diameter of plates:	240 mm
Method of operation:	Pedal operated

Gear box

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Mechanical
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	371.450	1.47
2nd	L-2	291.472	1.87
3rd	L-3	233.307	2.34
4th	L-4	176.633	3.09
5th	M-1	136.850	3.99
6th	M-2	107.385	5.09
7th	M-3	85.955	6.36
8th	M-4	65.075	8.40
9th	H-1	52.635	10.38
10th	H-2	41.302	13.23
11th	H-3	33.060	16.53
12th	H-4	25.029	21.84
Reverse R			
1st	L-1	331.392	1.65
2nd	L-2	260.039	2.10
3rd	L-3	208.147	2.63
4th	L-4	157.585	3.47
5th	M-1	122.092	4.48
6th	M-2	95.804	5.71
7th	M-3	76.686	7.13
8th	M-4	58.057	9.41
9th	H-1	46.958	11.64
10th	H-2	36.848	14.83
11th	H-3	29.494	18.53
12th	H-4	22.330	24.48

(*)Calculated with a tyre dynamic radius index of 580 mm

Number of revolutions of front wheels
for one revolution of rear wheels : 1.66

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, except that length of effective portion of splines is by 10 mm shorter than ISO standard
Height above ground:	575 mm
Distance from the median plane of the tractor:	0 mm
Distance behind rear wheel axle:	258 mm
P.T.O. speed at rated engine speed:	603 rev/min
Engine speed at standard power take-off speed:	2237 rev/min
Ratio of rotation speeds (engine speed/p.t.o. speed):	4.143
Power restriction and maximum torque:	28.0 kW, 530 N·m
Direction of rotation (viewed facing driving end):	Clockwise

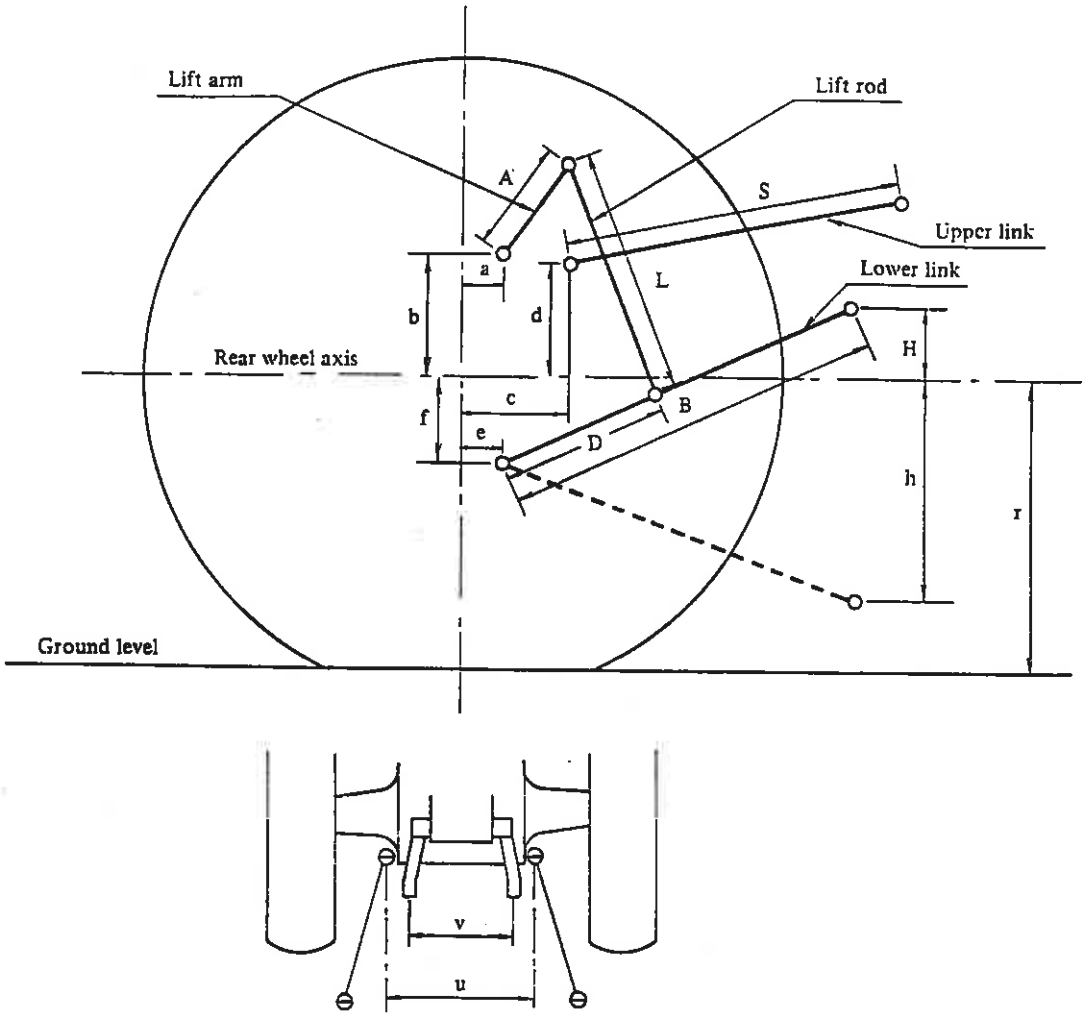
POWER LIFT

Make:	ISHIKAWAJIMA SHIBAURA
Type:	Hydraulically power lift in unit construction
Type of hydraulic system:	Open center, position control, floating position and flow control valve (two lever lift system with draft and position control: optional)
Type and number of cylinders:	Single acting, 1
Type of linkage lock for transport:	Hydraulically closed by flow control valve
Relief valve pressure setting:	14.7+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 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:	29 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) 280	
Length of lower links		(B) 803	
Distance of lift arm pivot point from rear wheel axis	horizontally	(a) 31	
	vertically	(b) 293	
Horizontal distance between the 2 lower link points		(u) 450	
Horizontal distance between the 2 lift arm end points		(v) 460	
Length of upper link		(S)from 490 to 715	595
Distance of upper link pivot point from rear wheel axis	horizontally	(c) 240	
	vertically	(d) 230, 260	260
Distance of lower link pivot point from rear wheel axis	horizontally	(e) 30	
	vertically	(f) 115	
Distance of lower link pivot points to lift rod pivot points on lower links		(D) 375	
Length of lift rods		(L)from 400 to 475	437.5
Height of lower hitch points relative to the rear wheel axis:			
in low position		(h)from 164 to 509	415
in high position		(H)from 168 to 343	243
Height above ground of lower hitch points when locked transport position (*)		from 51 to 903	from 145 to 803

(*) Assuming r = dynamic radius index (ISO 4251/1-1984). 560 mm

SWINGING DRAWBAR

Type:	Shiftable type
Height above ground:	385 mm
Type of adjustment:	Changing by turning clevis

Distance of hitch point from rear wheel axis, horizontally:	From 434 to 614 mm
Distance of hitch point from power take-off shaft end	
Vertically:	190 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:	32 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:	51 mm
Maximum:	903 mm
Horizontal distance to power take-off shaft end (rear):	572 mm

STEERING

Make:	JIDOSHA KIKI
Model:	415-07150
Type:	Hydrostatic steering
Method of operation:	Steering wheel operated hydraulically
Pump:	Gear type
Ram:	One double acting cylinder
Working pressure:	9.8 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:	1775 mm

Track width adjustment

	Minimum mm	Maximum mm	Adjustment method
Front	1155	—	Not available
Rear	1160	1550	Interchanging right and left wheels, and/or resetting rim and disc

PROTECTIVE STRUCTURE

Make:	ISHIKAWAJIMA SHIBAURA
Model:	FORD 19SA 9073
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	1113	108x65	676
Flashers	1510	ϕ119	232
Rearlights	1370	56.5x56.5	318
Reflectors	1270	64.5x45	318

TEST CONDITIONS

Overall dimensions

Length:	3210 mm
Width	
Minimum:	1515 mm
Maximum:	1905 mm
Height	
Top of protective structure:	2240 mm
Top of exhaust:	2070 mm

Ground clearance (unballasted tractor): 320 mm

Clearance-limiting part: Front differential case

Tractor mass (with frame)

		Without driver kg	With driver kg
Unballasted	Front	616	627
	Rear	788	852
	Total	1404	1479
Ballasted	Front	740	751
	Rear	1378	1442
	Total	2118	2193

Ballast

	Number of weights	Mass (total) kg	Water kg
Front	–	–	–
Rear	10	300	324
Additional	3	90	–

Tyres and track width specifications

	Front wheels	Rear wheels	
Tyres:			
Dimensions	7-16	13.6-24	
Ply rating	4	4	
Type	Cross-ply	Cross-ply	
Maximum load (tyre manufacturer's):	3.9	10.1	(kN)
Inflation pressure (tyre manufacture's):	160	100	(kPa)
Dynamic radius index:	347	560	(mm)
Chosen track width:	1155	1275	(mm)

Oils and lubrication

Capacity and change interval

	Capacity l	Oil change h	Filter change h
Engine	5.5	100	200
Gear box	29	300	300
Front axle	5.0	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:		10

Fuel

Type:	Diesel fuel, No.2 in conformity with JIS (Japanese Industrial Standard)
Density at 15°C:	0.835g/cm^3

TEST RESULTS

(1) COMPULSORY TESTS RESULTS

1. MAIN POWER TAKE-OFF

Date and location of tests: 8th Feb., 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						
22.24	2500	603	5.60	6.72	252	3.31
1.2 Power at rated engine speed						
22.24	2500	603	5.60	6.72	252	3.31
1.3 Standard power take-off speed(540 rev/min)						
21.77	2237	540	5.28	6.34	243	3.43
1.4 Part loads						
1.4.1 The torque corresponding to maximum power at rated engine speed						
22.24	2500	603	5.60	6.72	252	3.31
1.4.2 85 % of torque obtained in 1.4.1						
19.53	2584	624	5.05	6.06	259	3.22
1.4.3 75 % of torque defined in 1.4.2						
14.82	2618	632	4.19	5.03	283	2.95
1.4.4 50 % of torque defined in 1.4.2						
10.01	2639	637	3.36	4.04	336	2.48
1.4.5 25 % of torque defined in 1.4.2						
5.04	2661	642	2.57	3.08	509	1.64
1.4.6 Unloaded						
0.0	2700	652	1.89	2.27	–	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					
21.77	2237	540	5.28	6.34	243	3.43
1.5.2	85 % of torque obtained in 1.5.1					
19.03	2303	556	4.72	5.66	248	3.36
1.5.3	75 % of torque defined in 1.5.2					
14.52	2345	566	3.86	4.64	266	3.13
1.5.4	50 % of torque defined in 1.5.2					
9.84	2374	573	3.05	3.67	310	2.68
1.5.5	25 % of torque defined in 1.5.2					
4.98	2402	580	2.27	2.73	456	1.82
1.5.6	Unloaded					
0.0	2455	593	1.57	1.89	–	0.0

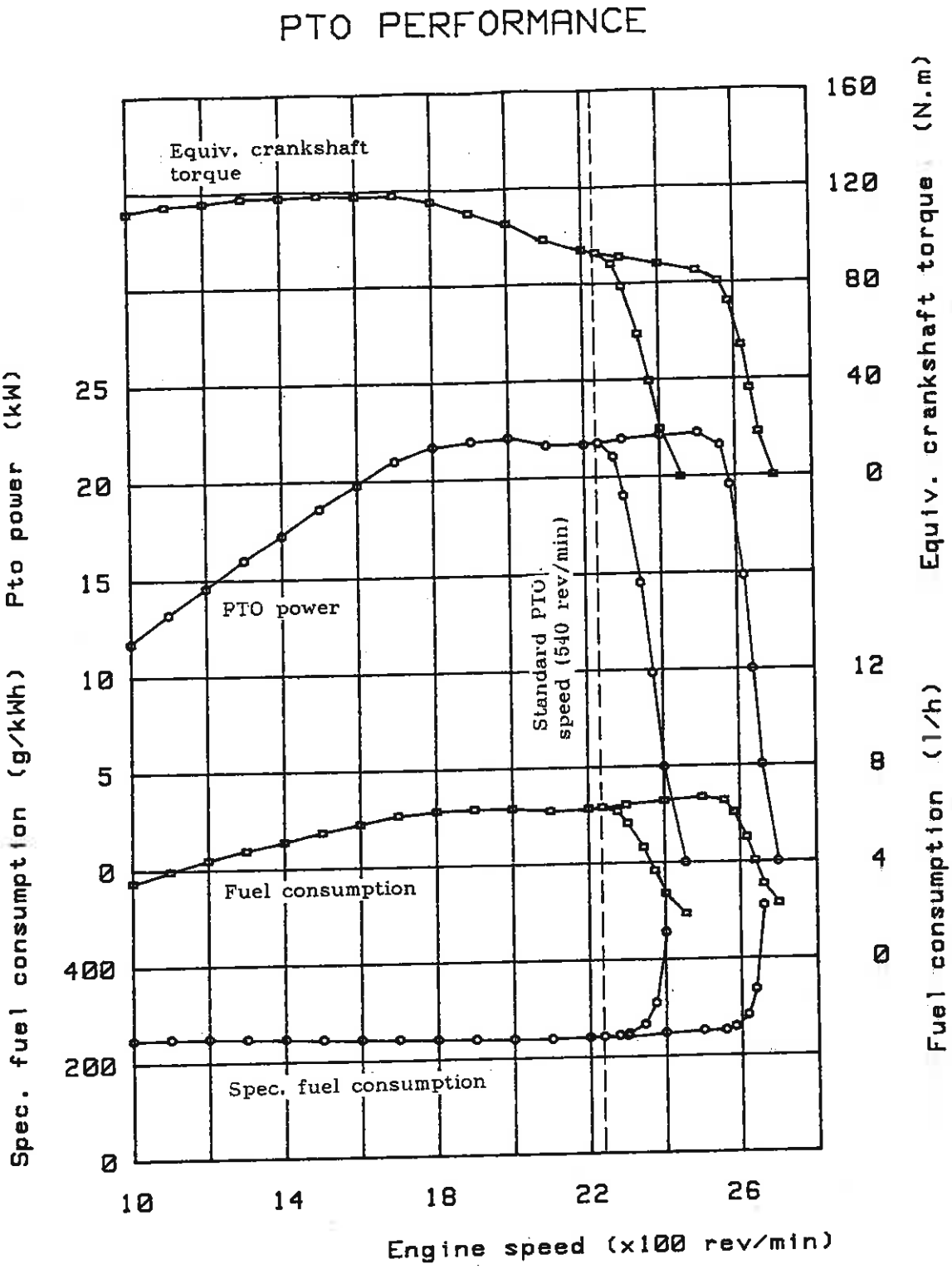
No load maximum engine speed: 2700 rev/min

Torque (equivalent crankshaft) at maximum power: 85.0 N·m

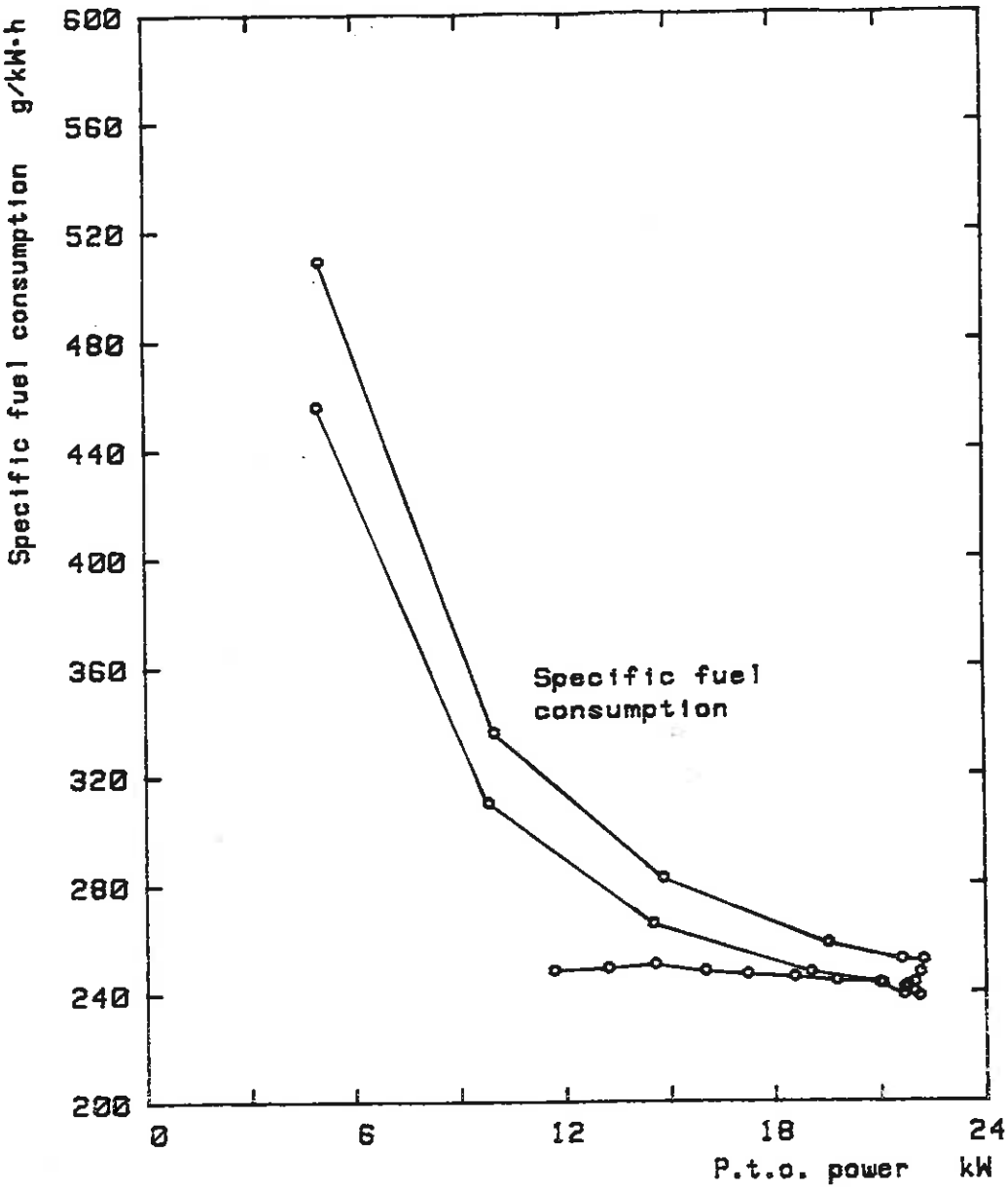
Maximum torque (equivalent crankshaft): 118.3 N·m
(engine speed: 1500 rev/min)

Mean atmospheric conditions
- Temperature: 19 °C
- Pressure: 101.8 kPa
- Relative humidity: 22 %

Maximum temperatures
- Coolant: 94 °C
- Engine oil: 104 °C
- Fuel: 35 °C
- Engine air intake: 24 °C


PTO PERFORMANCE
Equiv. crankshaft torque
PTO power
Fuel consumption
Spec. fuel consumption
Standard PTO speed (540 rev/min)
Spec. fuel consumption (g/kWh)
Pto power (kW)
Equiv. crankshaft torque (N.m)
Fuel consumption (l/h)
Engine speed (x100 rev/min)
0
200
400
0
5
10
15
20
25
0
40
80
120
160
0
4
8
12
10
14
18
22
26

P.T.O. PERFORMANCE



(2) HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 8th Feb., 1988

2.1 HYDRAULIC POWER TEST

Sustained pressure with relief valve open: (pump not stalled)	14.9 MPa
Pump delivery rate at minimum pressure:	30.05 l/min

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

Flow rate:	19.29 l/min
Pressure:	13.44 MPa
Power:	4.32 kW

Flow rate and hydraulic pressure corresponding to maximum hydraulic power

Flow rate:	28.96 l/min
Pressure:	12.85 MPa
Power:	6.20 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	145	658	10.43	12.85	—	—
On the frame	109	819	7.50	12.85	10.82	15

Linkage setting for test - see page 7 and 8.

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

mm	-361	-300	-200	-100	0	100	200	300	358	400	458

Lifting forces at hitch points (corresponding pressure 12.8 MPa)

kN	—	10.43	10.99	11.32	11.42	11.48	11.35	11.51	11.70	—	—

Lifting forces at test frame (corresponding pressure 12.8 MPa)

kN	10.04	10.12	10.06	9.76	9.40	9.02	8.48	8.02	—	7.60	7.50

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

Date of tests: 10th Feb., 1988
Type of track: Concrete
Height of drawbar above ground: 410 mm

Tyre size and pressure:
Front: 7-16 160 kPa
Rear: 13.6-24 100 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	4.84	13.44	1.30	2636	15.0	736	1.125	24	55	82	3	32	102.3
L-2	6.05	13.44	1.62	2624	15.0	635	1.306	22	55	84	3	32	102.3
L-3	7.66	13.44	2.05	2620	15.0	537	1.544	23	58	85	3	32	102.3
L-4	10.08	13.44	2.70	2607	15.0	469	1.768	23	59	86	5	24	102.3
M-1	13.03	13.44	3.49	2580	15.0	405	2.033	28	64	91	5	24	102.3
M-2	16.39	13.44	4.39	2548	15.0	353	2.342	26	68	93	5	24	102.3
M-3	17.90	11.47	5.62	2457	9.5	330	2.500	28	72	95	6	27	102.3
M-4	18.09	8.34	7.81	2497	6.0	315	2.625	26	72	93	6	27	102.3
H-1	17.81	6.57	9.76	2467	4.2	326	2.536	24	72	93	6	27	102.3
2. Fuel consumption													
2.1 In selected gear at maximum power and nearest to 7.5 km/h													
M-4	18.09	8.34	7.81	2497	6.0	315	2.625	26	72	93	6	27	102.3
2.1.1 75 % of pull at maximum power at rated speed													
M-4	14.37	6.28	8.24	2572	3.7	342	2.444	15	68	85	6	84	102.3
2.1.2 50 % of pull at maximum power at rated speed													
M-4	9.95	4.22	8.50	2612	2.3	401	2.078	16	68	88	6	84	102.3
2.1.3 Next higher gear at reduced engine speed; same pull and travelling speed as in 2.1.1													
H-1	14.37	6.28	8.24	2067	3.5	316	2.632	20	71	91	6	84	102.3
2.1.4 Next higher gear at reduced engine speed; same pull and travelling speed as in 2.1.2													
H-1	9.95	4.22	8.50	2107	2.0	359	2.314	21	67	90	6	84	102.3

OPTIONAL TEST RESULTS

(4) DRAWBAR PERFORMANCE(BALLASTED TRACTOR)

Date of tests: 12th Feb., 1988
Type of track: Concrete
Height of drawbar above ground: 385 mm

Tyre size and pressure:
Front: 7-16 160 kPa
Rear: 13.6-24 100 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	kW	km/h	rev/min	%	g/kW·h	kW·h/l	°C	°C	°C	°C	%	kPa
Maximum power in tested gears (with ballast)													
L-1	6.73	19.22	1.26	2630	15.0	578	1.431	25	55	87	5	67	102.3
L-2	8.65	19.22	1.62	2621	15.0	491	1.683	26	59	86	5	67	102.3
L-3	10.76	19.22	2.02	2612	15.0	424	1.905	26	60	89	4	83	102.3
L-4	13.84	19.22	2.59	2578	15.0	394	2.097	27	65	92	4	83	102.3
M-1	17.33	18.63	3.35	2538	14.3	348	2.370	26	65	91	4	83	102.3
M-2	18.39	15.20	4.36	2467	9.7	326	2.533	26	71	92	6	68	102.2
M-3	18.59	11.77	5.69	2463	5.5	314	2.630	26	73	98	6	68	102.2
M-4	18.47	8.63	7.70	2450	2.6	317	2.597	28	73	97	6	68	102.2

(5) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 13th Feb., 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-4	light load	8.53	89.5	90
Unloaded test in the gear giving the maximum speed				
H-4	light load	23.22	93	93
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-4	8.04	7.99	91.5	92
M-3	7.85	6.05	92.5	92
H-1	5.00	10.22	92	94
H-2	3.43	16.02	93	92

REPAIRS AND ADJUSTMENTS DURING TESTS None

REMARKS None