Report on test in accordance with
OECD STANDARD CODE I for the Official
Testing of Agricultural Tractor Performance

Full Code

OECD No. **1478**

Agricultural Tractor
CASE-IH-MAXXUM 5150 (4WD)

30 km/h version

Model denomination 5150 A

Manufacturer

JI CASE GmbH
D-41460 Neuss

Deutsche Landwirtschafts-Gesellschaft e.V. · Eschborner Landstraße 122
D-60489 Frankfurt a.M. · Telefon (069) 24 78 80
Telex 4 13 185 dlg-d · Telefax (069) 24 78 81 10

This is a report on a tractor test in accordance with OECD STANDARD CODE for the Official Testing of Agricultural Tractor Performance (C(87)53(Final), CODE I) and amendments (C(90)79, C(92)52).

It does not contain an evaluation of the tractor on practical work.

Duration of tests: February till May 1993

DLG-Testing Station for Agricultural Machinery, Max-Eyth-Weg 1,
D-64823 Groß-Umstadt

This report has been approved by the OECD Co-Ordinating Centre (CEMAGREF, France) as being in accordance with the OECD STANDARD CODE.

Date of approval: 30th August 1993

OECD No. 1478
Full Code

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	kN	=	1000	N	=	102 kp
Powers				1	kW	=	1,36 PS
Pressures	1	MPa	=	10	bar	=	10,2 kp/cm²
	100	kPa	=	1000	mbar	=	750,10 mm Hg

Printed in the Federal Republic of Germany, September 1993
DLG-No. 275

TABLE OF CONTENTS

Tractor manufacturer:	JI CASE GmbH D-41460 Neuss
Location of tractor assembly:	D-41460 Neuss
Submitted for test by:	Manufacturer
Selected by:	Manufacturer with agreement by DLG
Place of running-in:	Neuss and Groß-Umstadt
Duration of running-in:	Engine 60 hours, tractor 15 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	CASE INTERNATIONAL
Trade name:	MAXXUM 5150 (4 WD), 30 km/h version
Model denomination:	5150 A
Type:	Wheel tractor, unit construction, four wheel driven
Serial no.:	JJF 1022 427
1st Serial no.:	JJF 1022 400

Engine

Make:	CASE
Model:	6T-590
Type:	Watercooled 4 stroke Diesel-engine direct injection, supercharged
Serial no.:	521 294 42
Cylinders:	6, in line, bore 102 mm, stroke 120 mm, displacement 5883 cm^3 compression ratio 17 ± 1.5 :1;
Valves:	Overhead
Supercharging:	
Make	HOLSET
Model	3 528 741
Type	Exhaust driven supercharger, without intercooler
max. pressure	75 ± 10 kPa

Fuel system:	AC SPARK fuel supply pump, BOSCH distributor injection pump VE R512, serial no.: 0460 426 217; manufacturer's production setting 64 + 4.0 mm³/stroke at full load and rated speed; automatic injection timing device, commencement of delivery, static: 1.5 ± 0.15 mm piston stroke of injection pump at TDC; LUCAS multihole injection nozzles 680 1131 5-hole type; injection pressure 24.5+1 MPa; replaceable two-stage fuel filter, capacity of fuel tank 170 dm³;
Governor:	BOSCH centrifugal variable speed governor with supercharge pressure compensating device; governed range of engine speed 900 ± 100 to 2384 ± 44 rev/min; rated engine speed 2200 rev/min
Air cleaner:	DONALDSON 1 988 710 C; dry paper element filter with precleaner, replaceable cartridge; electric warning indicator lamp; air intake below bonnet
Exhaust silencer:	NELSON-BURGESS A 184 475; multi-chamber expansion reflection type, oval 266 x 139 mm, 517 mm long, below bonnet, vertical pipe on the left hand side; mouth showing forward-upwards, 2685 mm above ground
Lubrication system:	Forced feed by internal gear pump, oil filter in full flow with replaceable cartridge, engine oil/cooling-water heat exchanger in crankcase
Cooling system:	Water cooling with impeller pump, overpressure relief valve set to 100 ± 3 kPa; thermostat and by-pass circuit, fan with 7 blades with 450 mm dia, water capacity 22.0 dm³

Starting system:	Electrical; BOSCH solenoid pre engaged-drive starter motor 3.1 kW; cold starting aid: Flame plug in air intake channel Safety device: Range gear in neutral position, forward/reverse control in forward position, p.t.o. lever off
Electrical system:	12 Volt, negative earth; BOSCH 3-phase alternator K1-14 V 23/65 A, 910 W; optional 95 A, 1330 W, not fitted; 1 lead acid battery, 105 Ah at 20 hours rating

Transmission

Clutch (travel alone):	CASE POCLAIN wet multi-plate clutch, 127 mm dia, pedal operated or hydraulically controlled by forward-reverse lever
Gear box:	CASE POCLAIN, POWER SHIFT, 30 km/h version; power shift speed change gear with 4 speeds; range gear with 4 synchronized ranges (I, II, III, IV); power shift reversing gear (F, R); 3 ranges can be used in position reverse; total 16 forward, 12 reverse speeds, 3 levers; optional, not fitted: 1 collar shifted creeper range (CR), acting on 2 range gears (I, II), total 24 forward and 20 reverse speeds;
Rear axle and final drives:	CASE POCLAIN, bevel gear drive; bevel gear differential with multiplate differential lock, electro-hydraulically engaged/disengaged by switch or disengaged by service brake operation or engine cutoff; planetary final drives
Front axle and final drives:	CARRARO 709/S4; driven by wet multi-plate clutch, propeller shaft (in tractor's median plane) and bevel gear; clutch operated by electro-hydraulic switch; limited slip differential; planetary final drives

Total ratios and speeds:

Number of revolutions of front wheels for one revolution of rear wheels: 1.4066

Range	Gear	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed *) at rated engine speed 2200 rev/min km/h
Forward speeds			
I	1	310.30	2.19
	2	257.63	2.64
	3	208.45	3.26
	4	168.27	4.04
II	1	136.15	5.00
	2	113.04	6.02
	3	91.46	7.44
	4	73.83	9.21
III	1	82.81	8.21
	2	68.75	9.89
	3	55.63	12.23
	4	44.91	15.14
IV	1	42.58	15.97
	2	35.35	19.24
	3	28.60	23.78
	4	23.09	29.45
Reverse speeds			
I	1	268.16	2.54
	2	222.64	3.05
	3	180.14	3.78
	4	145.42	4.68
II	1	117.66	5.78
	2	97.69	6.96
	3	79.04	8.60
	4	63.80	10.66
III	1	71.57	9.50
	2	59.42	11.45
	3	48.08	14.15
	4	38.81	17.52

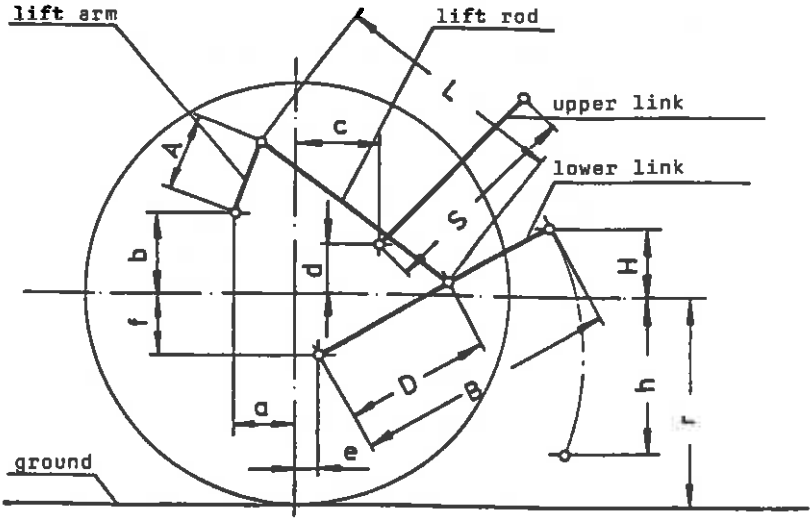
*) calculated with the radius index (ISO 4251/1-1984) 820 mm

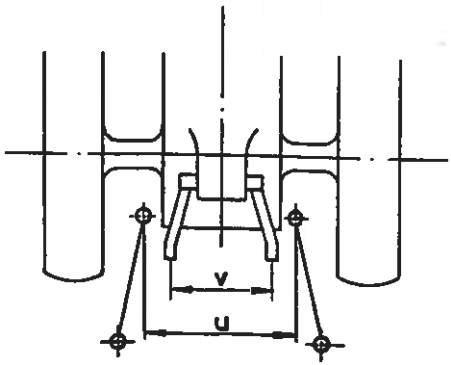
Main p.t.o.: Independent;
driven by wet multi-plate clutch,
hydraulically operated by lever;
1 reversible shaft at tractor's rear,
2 speeds selectable by hand lever;
35 mm dia, 6 splines, ISO 500-1979 type 1,
respectively 35 mm dia, 21 splines, ISO 500-1979 type 2;
725 mm above ground, 500 mm behind rear wheel centre,
in tractor's median plane;
sense of rotation clockwise, viewed facing tractor's rear

p.t.o. type	p.t.o. speed rev/min	engine speed rev/min	p.t.o. transmission ratio	Power restriction kW
540	540 634	1875 2200	3.4720	-
1000	1000 996	2209 2200	2.2095	-

Power lift	CASE POCLAIN servohydraulic power lift, unit construction; draft, position and intermixable control, floating position, fast raising, lowering throttle, lower links' sensing
Hydraulic system:	Load sensing, pressure and flow compensated; REXROTH variable displacement axial-piston pump gear driven by gearbox, max. delivery 75 dm^3/min at rated engine speed; oil cooler in front of engine water cooler, oil filter in feed line; REXROTH control valve, (lever in transport position lockable), relief valve pressure setting 19.1±0.5 MPa; single acting cylinder with 105 mm bore and 227 mm stroke, safety valve set to 22.0 MPa; 3 double acting additional CASE control valves with 2 oil couplings each at rear of tractor; maximum volume of oil available to external cylinders: Stationary tractor operation on slopes of no more than 2 degrees 30 dm^3 moving tractor operation on slopes of no more than 15 degrees 20 dm^3 of no more than 30 degrees 12 dm^3 hydraulic oil reservoir in common with gearbox with 76 dm^3 capacity (88 dm^3 capacity with increased oil level) the hydraulic oil pump further provides hydraulic pressure for actuating of steering, p.t.o. clutch, power-shift gear and for shifting the front axle drive clutch and the rear axle differential lock
Front power lift:	Optionally available, not fitted

Three-point linkage: Category 2 acc. to ISO 730/1-1990,
WALTERSCHEID quick couplers (standard)





Dimensions of rear implement linkage (projected lengths in mm, underlined dimensions are valid for power lift measurements p. 25)

Rear tyres 520/70 R 38	radius index *)	(r)	820
Front tyres 16.9 R 24	radius index *)	(r')	620
Length of lift arms		(A)	230
Length of lower links		(B)	877
Distance of lift arm pivot points from rear wheel centre	horizontal	(a)	-243
	vertical	(b)	181
Horizontal distance between lower link pivot points		(u)	543
Horizontal distance between lift arm end points		(v)	692
Length of upper link		(S)	610 to 880, 755
Distance of upper link pivot point from rear wheel centre	horizontal	(c)	359 or 343
	vertical	(d)	230 or 300
Distance of lower link pivot point from rear wheel centre	horizontal	(e)	231
	vertical	(f)	246
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	555
Length of lift rods		(L)	515 to 640

Height of lower link hitch points relative to rear wheels' centre line (situated 820 mm above ground), these data are valid for unloaded power lift:

Length of lift rods	(L)	515	640
Linkage distance of lift rods	(D)	555	
Lowest position	(h)	325	605
Highest position	(H)	297	120
Transport position	(H')	297	120

*) Assuming r resp. r'= tyre dynamic radius index of ISO 4251/1-1984

Pull equipment

Swinging drawbar:	Longitudinally adjustable;	
	height above ground	490 mm
	distance of hitch point	
	from rear wheel axis, horizontally	900, 950, 1050, 1150 mm
	from p.t.o. shaft end	
	vertically	235 mm
	horizontally	400, 450, 550, 650 mm
	centre of clevis swingable to both sides,	
	with drawbar fully pushed in	60 mm
	with drawbar fully drawn out	180 mm
	distance of pivot point from rear wheel axis	
	horizontally (before axis)	73 mm
	diameter of drawbar pin hole	33 mm
	maximum vertical permissible load (drawbar fully pushed in)	18 kN
Trailer hitch:	Non automatical;	
	diameter of hitch pin	32 mm
	height above ground adjustable to	755, 865, 920, 970 or 1025 mm
	distance of hitch point	
	from rear wheel centre line, horizontally	690 mm
	from p.t.o. shaft end	
	vertically, above p.t.o.	30,140, 195, 245 or 300 mm
	horizontally	190 mm
	maximum vertical permissible load	20 kN
	optionally available, not fitted: CRAMER KU 94 002, automatical; one-hand height adjustment	
Holed drawbar:	Short bar,	
	length between joint balls	825 mm
	9 holes, 33 mm dia with 80 mm distance each,	
	thickness/width of the drawbar	30/80 mm
	height above ground: minimum	215 mm
	maximum	1117 mm
	horizontal distance to p.t.o. shaft end (lower links in horizontal position)	608 mm
Towing hitch:	At front, height above ground	770 mm

Steering

DANFOSS OSPC 160 LSR;
hydrostatic steering, connected by sequence valve to the hydraulic system of the tractor (see on page 9);
1 integrated WEBER ram (symmetrical design), 236 mm stroke, 75 mm bore and 42 mm dia of piston rod, directly acting on steering levers;
working pressure 17.2 ± 0.35 MPa

Brakes

Service brake: CASE POCLAIN
pedal operated muscle power brake with hydraulic transmission, using oil of gearbox, acting on rear wheels;
oil-immersed disc brake with 1 ring-piston on each differential half shaft;
disc diameter 300 mm;
trailer braking take-off optional,
on request hydraulic or pneumatic
(not fitted to tested tractor)

Parking brake: Mechanical wet disc brake, operated by lever with ratchet;
2 lining discs with 143 mm dia each,
situated on drive shaft of rear axle (in front of bevel-gear pair)

Steering brake: Divided pedal of service brake,
for normal use locked together

Wheels

Front: Steering and driving, 2 pneumatics

Rear: Driving, 2 pneumatics

Wheelbase: 2585 mm

Track width: At front and at rear from 1530 mm up to 2230 mm adjustable in steps of 100 mm each by adjustable gauge bowl wheels and by turning the wheels

Possible combinations of tyres sizes front/rear

Tyres sizes	
front	rear
13.6 R 24	18.4 R 34 520/70 R 34 16.9 R 38 480/70 R 38
380/70 R 24	18.4 R 34 520/70 R 34 16.9 R 38
14.9 R 24 420/70 R 24 12.4 R 28	16.9 R 38 480/70 R 38 18.4 R 38 520/70 R 38
16.9 R 24	18.4 R 38 520/70 R 38
14.9 R 26 13.6 R 28 380/70 R 28	18.4 R 38

Protective structure

CASE POCLAIN, cab model CX-94;
OECD-tested driver's platform with integrated safety frame,
OECD approval no. CSS 088/13;
not tiltable, antivibration mounted by silent-blocks on tractor;
2 doors with 3 steps each;
steps 555, 760 and 970 mm,
driver's platform 1165 mm above ground;
rear window and rear side windows tiltable;
air conditioner and combined heating/ventilation system
with 3-step blower and cooling-water heat exchanger
incorporated in roof;
air intake above rear window, dry air filter;
air outlet jets in the roof at front, recirculating louvers at rear,
defroster nozzles;

Noise reduction materials:

Roof	Fabric, PUR-foam	3.5 mm
	resin impregnated felt (molded part)	7 mm
	PUR-foam	50 mm
Roof, front part	ABS-panel part	3 mm
Floor	Compound mat, consisting of:	
	Synthetic heavy foil + PVC coated (molded)	5 mm
	PE-foam	25 mm
	or partially PE-chip foam with waterproof sealing	22.5 mm
Seat support, on the surface and the front side	Compound mat, consisting of:	
	Synthetic heavy foil + PVC coated (molded)	5 mm
	PE-foam + waterproof sealing	25 mm

Console panel	Compound mat, consisting of: Synthetic heavy foil + PVC coated (molded) PE-foam	 5 mm 7 mm
Rear panel	ABS-panel part	3 mm
Mudguards	PVC-foil PUR-foam	3 mm 22 mm
B-posts	ABS-panel part	3 mm
Bulk head	PUR-heavy-foil PE-foam	6 mm up to 6 mm
Draught proofing	Rubber seals and Silicon	

Driver's seat: GRAMMER, LS 95/H 1 90
upholstered seat with back rest and arm rests, pneumatic suspension with automatic weight adjustment, hydraulic shock absorber;
height of unloaded seat above platform steplessly adjustable from 430 to 535 mm, longitudinal adjustment 150 mm

Operating hours meter: Electronic, counts real operating hours when engine is running

Lighting: Electrical, 12 Volt, acc. to German legislation

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights	1425	160x80	300
Auxiliary lights	2600	130x75	480
Side lights	1845	110x35	815
Rearlights	1745	100x40	1065
Reflectors 1st pair 2nd pair	 1765 860	 75x30 80 dia	 1065 583

TEST CONDITIONS

Overall dimensions

	Length mm	Width mm	Height at top of protective structure mm	Height at top of exhaust silencer pipe mm
Unballasted	4350	2360	2720	2755
Ballasted	5210	2360		

Ground clearance (unballasted tractor) 405 mm
Clearance-limiting part: Bracket of swinging drawbar

Tractor mass (with cab)

	Unballasted		Ballasted	
	Without driver kg	With driver kg	Without driver kg	With driver kg
Front	2175	2185	3090	3100
Rear	3185	3250	5135	5200
Total	5360	5435	8225	8300

Ballast

	Weights		Water
	Number	Total mass kg	kg
Front	16	750	430
Rear	18	945	740

Tyres and track widths specifications

	Front	Rear
Tyres:	KLEBER SUPER 8	PIRELLI TM 700
Dimensions	16.9 R 24	520/70 R 38
load index speed index	134 A 8	150 A 8
type	radial ply	radial ply
maximum load (tyre manufacturer's) 40 km/h	21.2 kN	33.6 kN
maximum load (tractor manufacturer's) 30 km/h	22.7 kN	36.0 kN
inflation pressure (tyre manufacturer's)	160 kPa	160 kPa
radius index	620 mm	820 mm
Chosen track width:	1830 mm	1830 mm
Rims:	W 15 Lx24	DH 15x38
Technically permissible axle load:	31.0 kN	60.0 kN
Technically permissible total weight:	**83.0 kN**	

Oils and lubrication

Capacity and change interval:

	Capacity dm³	Oil change h	Filter change h
Engine	15	250	
Gearbox, hydraulic system, rear axle and final drives	76	1000	1000
Front axle	6.5		
Final drives (front)	2 x 1.0		-

Specification:

	Recommended	Used during test
Engine oil used in: Engine Type Viscosity - Winter Summer Tropics Classification	Engine oil SAE 10W/30 SAE 15W/40 or 10W/30 SAE 15W/40 API-CE	CASE-IH engine oil no. 1 SAE 15W/40 API-CE
Transmission oil used in: gearbox with rear axle incl. final drives, hydraulic system, steering, brake system Type Viscosity Classification Front axle incl. final drives Type Viscosity Classification	 HY-TRAN PLUS ISO-VG 95-115 MS 1207*) Gear oil SAE 85W/140 MS 1316*)	 FINA HYTRAN-PLUS ISO-VG 95-115 MS 1207*) FINA SAE 85W/140 MS 1316*)

*) MS = CASE material specification

Grease:	Multi purpose grease number of lubrication points 10	

Fuel

Type:	ARAL Diesel-fuel in conformity with DIN 51601	
Density at 15 °C:	At p.t.o. test	0.827 g/cm³
	at drawbar power test	0.830 g/cm³

COMPULSORY TESTS

1. MAIN POWER TAKE OFF PERFORMANCE (1000 rev/min)

Date of tests: 11th February 1993
Location of tests: DLG-Testing Station Groß-Umstadt
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed Engine rev/min	Speed P.t.o. rev/min	Fuel consumption hourly l/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Maximum power						
1.1 At 2-hour test						
88,3	2000	905	25,50	21,09	239	3,46
1.2 At rated speed						
83,2	2200	996	25,14	20,79	250	3,31
1.3 At standard p.t.o. speed						
83,2	2200	996	25,14	20,79	250	3,31
1.4 Part loads, the governor hand lever in the position corresponding to maximum power at full load (curve a)						
1.4.1 the torque corresponding to maximum power at rated speed						
83,2	2200	996	25,14	20,79	250	3,31
1.4.2 85% of the torque obtained in 1.4.1						
73,6	2291	1037	23,51	19,44	264	3,13
1.4.3 75% of the torque defined in 1.4.2						
56,3	2338	1058	19,61	16,22	288	2,87
1.4.4 50% of the torque defined in 1.4.2						
37,8	2353	1065	15,70	12,99	344	2,41
1.4.5 25% of the torque defined in 1.4.2						
19,0	2361	1069	11,84	9,79	516	1,60
1.4.6 unloaded						
-	2382	1078	8,65	7,16	-	-

Power	Speed		Fuel consumption			Specific energy
	Engine	P.t.o.	hourly		specific	
kW	rev/min	rev/min	l/h	kg/h	g/kWh	kWh/l
1.5 Part loads, the governor hand lever in the position corresponding to the standard p.t.o. speed at full load (curve b)						
1.5.1 the torque corresponding to maximum power						
83,2	2200	996	25,14	20,79	250	3,31
1.5.2 85% of the torque obtained in 1.5.1						
73,6	2291	1037	23,51	19,44	264	3,13
1.5.3 75% of the torque defined in 1.5.2						
56,3	2338	1058	19,61	16,22	288	2,87
1.5.4 50% of the torque defined in 1.5.2						
37,8	2353	1065	15,70	12,99	344	2,41
1.5.5 25% of the torque defined in 1.5.2						
19,0	2361	1069	11,84	9,79	516	1,60
1.5.6 unloaded						
-	2382	1078	8,66	7,16	-	-

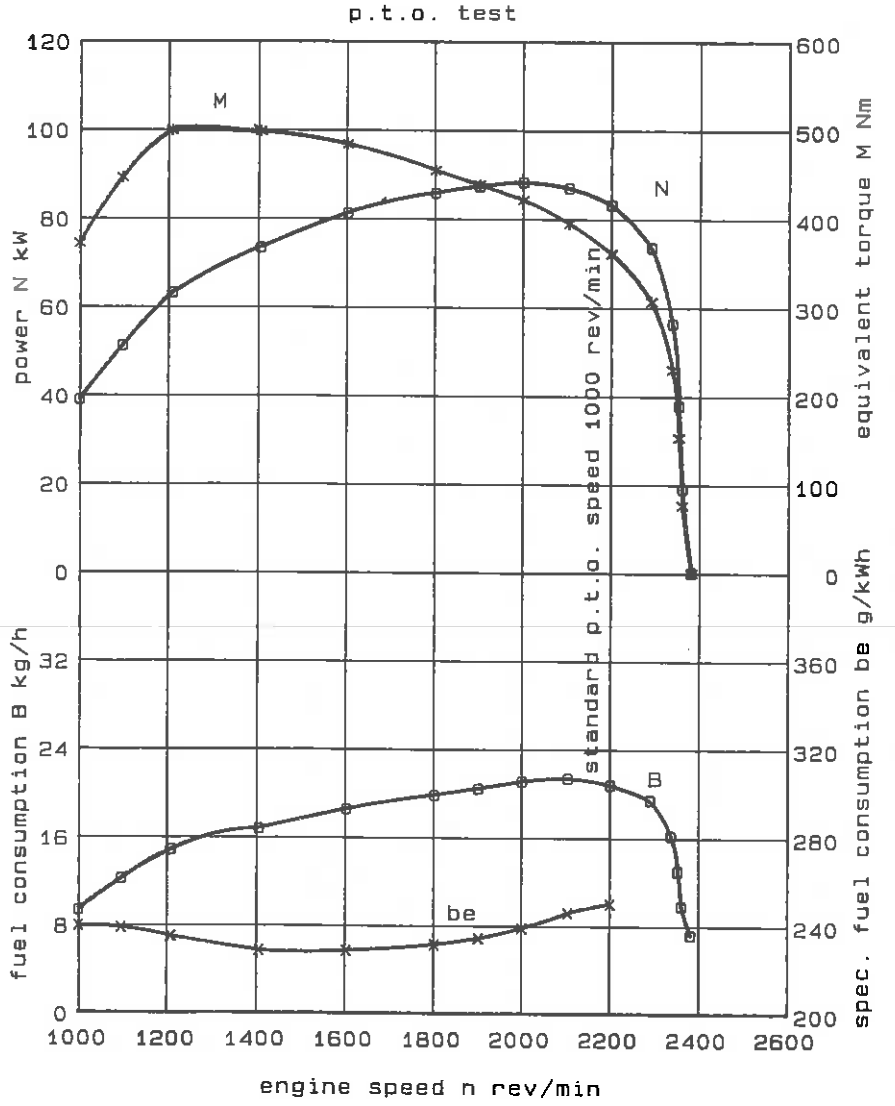
No load maximum engine speed: 2382 rev/min
Equivalent flywheel torque at rated engine speed: 361 Nm
Equivalent flywheel torque at 2-hour test: 421 Nm
Maximum equivalent flywheel torque: 500 Nm at 1207 rev/min of the engine

Mean atmospheric conditions

temperature	21 °C
pressure	101 kPa
rel. humidity	28 %

Maximum temperatures

coolant	84 °C
oil	93 °C
fuel	25 °C
air intake	25 °C


p.t.o. test
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equivalent torque M Nm
fuel consumption B kg/h
spec. fuel consumption be g/kWh
standard p.t.o. speed 1000 rev/min
engine speed n rev/min
M
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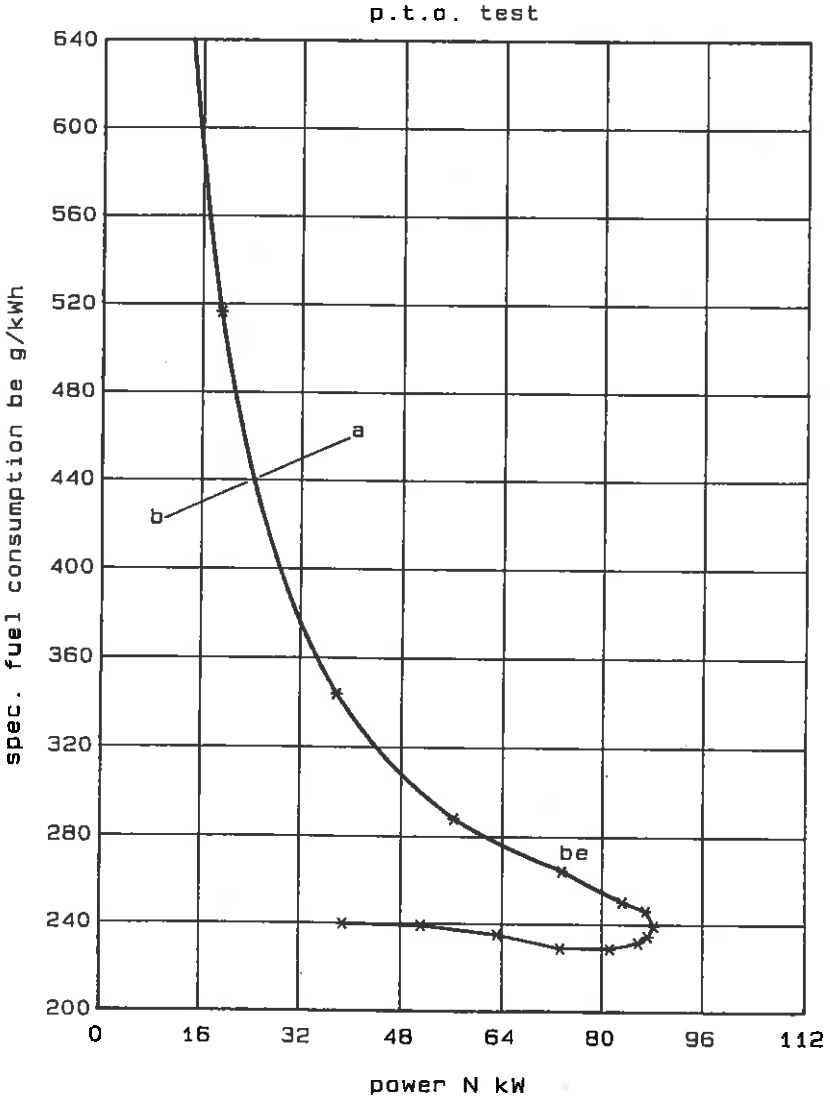
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2 HYDRAULIC POWER AND LIFTING FORCE

Date of tests: 14th and 17th May 1993

2.1 Hydraulic power test

Sustained pressure with relief valve open 19.6 MPa
Pump delivery rate at minimum pressure 75.2 l/min

	Hydraulic power kW	Flow rate l/min	Pressure MPa	Oil temperature °C
At 90% of the actual relief valve setting	15.9	54.3	17.6	65
At max. power	18.2	66.5	16.4	65

Tapping point used for test: At rear of tractor. connected with additional control valve no. 1

2.2 Power lift test

Maximum pressure in the power lift cylinder **18.8 MPa**

	At the hitch points	On the frame
Height of lower hitch points above ground in down position	215 mm	
Vertical movement without lifting forces	705 mm	843 mm
Vertical movement with lifting forces	675 mm	808 mm
Max. corrected force exerted through full range	38.7 kN	32.7 kN
Corresponding pressure	16.9 MPa	
Moment about rear axle	-	56.2 kNm
Max. tilt angle of mast from vertical		9 °

Lifting heights relative to horizontal lower links

mm	-422	-400	-359	-300	-200	-100	0	+100	+200	+300	+316	+386
Lifting forces at hitch points, corrected to 16,9 MPa												
kN			38.7	41.9	44.7	45.8	45.1	44.0	43.3	42.6	42.6	
Lifting forces at standard frame, corrected to 16,9 MPa												
kN	35.6	35.9		38.4	39.4	39.3	38.7	37.0	35.2	33.8		32.7

MAXXUM 5150 (4WD)

3 DRAWBAR POWER AND FUEL CONSUMPTION
Date of test: 28th April till 13th May 1993
Type of track: Concrete

Gear and range	Speed km/h	Drawbar pull kN	Power kW	Engine speed rev/min	Slip of wheels %
3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)					
4 I	3.69	54.37	55.7	2318	15.0
1 II	4.39	54.62	66.6	2232	15.0
2 II	4.80	53.21	70.9	1991	13.5
3 II	6.40	41.05	73.0	2006	7.4
1 III	7.13	36.96	73.2	2004	6.6
4 II	8.05	32.49	72.7	2003	5.8
2 III	8.64	30.53	73.3	1995	5.6
3 III	10.83	24.10	72.5	2002	4.4
3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)					
1 I	2.00	75.48	41.9	2331	14.9
2 I	2.40	75.83	50.6	2318	15.0
3 I	2.92	76.92	62.4	2289	15.0
4 I	3.20	77.39	68.8	2035	15.1
1 II	4.23	63.34	74.4	2000	8.1
2 II	5.21	51.26	74.2	2002	6.1
3 II	6.52	40.49	73.3	2004	4.7
1 III	7.22	37.12	74.4	2000	4.2
4 II	8.15	32.15	72.8	2002	3.8
2 III	8.78	29.45	71.8	2000	3.3
3.3.1 FIVE-HOUR- TEST at 75 % of pull at maximum power (at rated engine speed)					
1 III	8.51	22.52 *)	53.2	2319	2.7
*) drawbar pull at maximum power (measured at rated engine speed): 30.00 kN					
3.3.2. FIVE-HOUR-TEST at pull corresponding to 15 % wheel slip					
3 I	2.88	77.46	62.0	2278	-

Oil consumption during ten hours duration of tests 3.3.1 and 3.3.2 : 48 g/h

	Height of drawbar above ground	Tyre inflation pressure Front	Rear
Unballasted	470 mm	80 kPa	80 kPa
Ballasted	450 mm	100 kPa	120 kPa

Specific fuel consumption g/kWh	Specific energy kWh/l	Temperatures Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions Tempe-rature °C	Relative humidity %	Pressure kPa
355	2.36	35	80	80	17	72	99.7
328	2.53	35	80	80	18	76	99.7
297	2.79	35	82	80	18	74	99.7
291	2.85	30	80	80	20	65	99.5
286	2.90	33	78	80	20	63	99.3
289	2.87	34	80	82	20	63	99.5
286	2.90	35	80	80	20	63	99.5
289	2.87	35	80	79	23	56	99.5
386	2.15	38	80	80	28	62	100.0
356	2.33	33	76	75	18	83	100.0
337	2.46	33	80	80	18	88	100.0
310	2.68	38	81	80	18	88	100.0
285	2.91	35	80	80	17	85	100.0
284	2.93	39	80	83	17	82	100.0
288	2.88	37	83	86	26	65	100.0
283	2.93	40	80	80	26	65	100.0
289	2.88	37	83	86	26	65	100.0
293	2.83	40	80	80	26	65	100.0
in 1 III gear							
339	2.45	36	82	82	24	75	100.0
with additional ballast: 600 kg							
-	-	38	81	82	18	85	99.4

Those figures not quoted are irrelevant due to the additional ballast.

4 TURNING AREA AND TURNING CIRCLE (front wheel drive disengaged)

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning area	4.50	4.45	5.13	5.05
Radius of turning circle	4.15	4.10	4.78	4.70

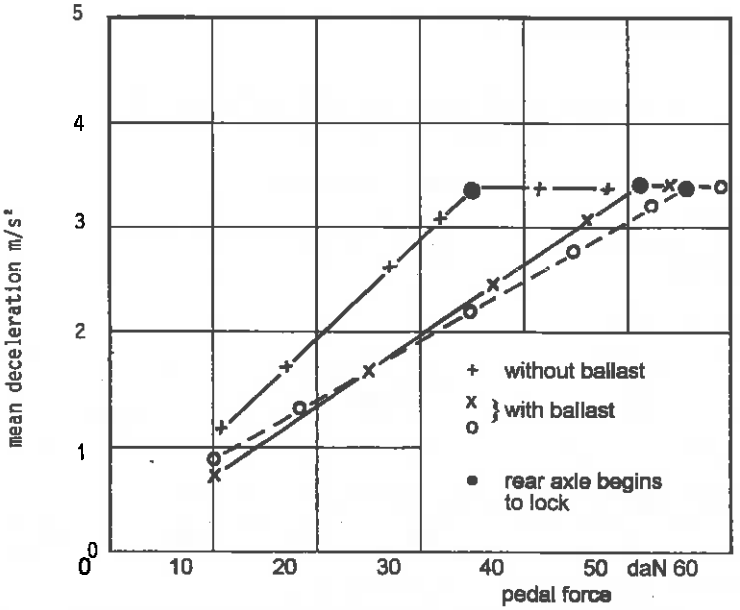
5 LOCATION OF CENTRE OF GRAVITY

Height above ground	983 mm
Distance forward from rear axle centre	1039 mm
Distance from tractor's median plane, to the right	2 mm

6 BRAKING (front wheel drive disengaged)
Date of tests: 4th and 13th May 1993

	Tractor mass (with driver) front kg	rear kg	total kg	Speed before application of brakes km/h
Without ballast	2185	3250	5435	31.4
With ballast	3100	5200	8300	31.4

6.1 Type-O-test (cold brakes) ——— 6.2 Type-I-(fade)test ———



No significant deviation of tractor from original course and no abnormal vibrations

Brakes-heating: Actuating of brake for 1 km with pedal force corresponding to 1 m/s²

6.3 Parking brake

	Ballasted tractor on 18%-slope up	down
Braking device control force daN	9	9

7 MEASUREMENT OF EXTERNAL NOISE LEVEL
(Front wheel drive disengaged)

Date of test:	14th May 1993
Type of track:	Concrete
Type of sound level meter:	BRÜEL & KJAER model 2209
Results of test	
Gear number:	4 IV
Travelling speed before acceleration:	23.0 km/h
Sound level:	86.5 dB(A)

8 REPAIRS AND REMARKS None

ADDITIONAL TESTS UNDER THE RESPONSIBILITY OF THE DLG-TESTING-STATION

9 MEASUREMENTS OF NOISE IN THE SAFETY CAB

Type of track:	Concrete
Type of sound level meter:	BRÜEL & KJAER model 2233
Date of test:	26th April 1993

According to OECD CODE V

Gear number	Drawbar pull kN		Measured travelling speed km/h		Sound level dB(A)	
	1)	2)	1)	2)	1)	2)
Unloaded test in the gear giving the forward speed nearest to 7,5 km/h						
3 II	-	-	7.88	8.07	75.5	75.5
Unloaded test in the gear giving the maximum forward speed						
4 IV	-	-	30.64	-	77.5	-
Test with the drawbar pull for which the tractor gives the maximum sound level (combination of gear giving the nominal forward speed nearest to 7,5 km/h and also in any gear with a sound level increase of at least 1 dB(A))						
3 II	35.01	33.58	6.69	7.10	76.5	76.5
1 II	39.27	48.35	4.15	3.99	77.0	77.5

1) front axle drive disengaged
2) front axle drive engaged

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Deutsche Landwirtschafts-Gesellschaft e.V. (DLG)
Fachbereich Landtechnik – Prüfungsabteilung –
Eschborner Landstraße 122 (DLG-Haus)
D-60489 Frankfurt am Main