Report on test in accordance with O.E.C.D. STANDARD CODE

O.E.C.D. No. 996



Agricultural Tractor
DEUTZ-FAHR DX 3.50 (4WD)
Type denomination D 1067/4 A-S

Manufacturer
Klöckner-Humboldt-Deutz AG
D-5000 Köln-Deutz

Deutsche Landwirtschafts-Gesellschaft e. V.
Zimmerweg 16 · D-6000 Frankfurt a. M. 1
Telefon: (069) 7168-0 · Telex: 0413185 dlg-d

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 an evaluation of the tractor performance on practical work.

Duration of Tests: July till October 1985
DLG-Testing-Station for Agricultural Machinery, Max-Eyth-Weg 1,
D-6114 Groß-Umstadt

This report has been approved by the O.E.C.D. Coordinating Centre (C.E.M.A.G.R.E.F., France) as being in accordance with the O.E.C.D. STANDARD CODE.

Date of Approval: 25th February 1986 O.E.C.D. No. 996

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 daN = 10 N	=	1,02 kp	or 1 kp	= 0,981 daN
Powers	1 kW	=	1,36 PS	or 1 PS	= 0,736 kW
Pressures	1 bar	=	1,02 kp/cm²	or 1 kp/cm²	= 0,981 bar
	1000 mbar	=	750,10 mm Hg		

All rights including the right of translation, reprint and photomechanical copying — also of excerpts — reserved by the editor.

Printed in the Federal Republic of Germany
March 1986; DLG-No. 213

TABLE OF CONTENTS

		Page
SPECIFICATION OF TRACTOR		4 to 15
TEST CONDITIONS		16 and 17
COMPULSORY TESTS		
(1)	Main power take-off performance	18 to 21
(2)	Drawbar performance on a concrete track	22 and 23
(3)	Turning space and turning circle	24
(4)	Location of centre of gravity	24
(5)	Braking	25
(6)	Measurement of external noise level	26
(7)	Noise measurement at the driver's ear	26
(8)	Lifting forces and hydraulic power	27

*) All stated dimensions refer to tyre sizes 11.2 - 24 at front and 16.9 R 30 at rear, as well as to track widths 1500 mm at front and 1520 mm at rear

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50 Test No. 85-131

Tractor manufacturer:	KLÖCKNER-HUMBOLDT-DEUTZ AG D-5000 Köln-Deutz
Submitted for test by:	Manufacturer
Selected by:	Manufacturer with agreement by DLG
Place of running in:	Köln and Groß-Umstadt
Duration of running in:	Engine and tractor appr. 100 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	DEUTZ-FAHR
Trade name:	DX 3.50
Type denomination:	D 1067/4 A-S
Type:	Four-wheel-drive tractor, unit construction
Serial No.:	7744 0482
Start of series:	7744 0001

Engine

Make:	DEUTZ
Model:	F3L 913
Type:	4-stroke Diesel engine, direct injection air cooled
Serial No.:	7047727
Cylinders:	3, in-line, bore 102 mm, stroke 125 mm, displacement 3064 cm^3, compression ratio 17:1, replaceable ribbed cylinder liners
Valves:	Overhead
Fuel system:	PIERBURG fuel supply pump, BOSCH in-line injection pump PES 3A 85 D410/3 RS 2642, serial no.: 54132508; manufacturer's production setting 58,5±1 mm^3/stroke at rated engine speed and full load; injection timing 24°±1° before TDC; BOSCH multihole injection nozzles DLLA 149S 774, injection pressure 175+8 bar; MANN fuel filter WK 7.31 with replaceable cartridge; capacity of fuel tank 83 l

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50 Test No. 85-131

Governor:	BOSCH centrifugal variable speed governor RSV 325-1250 A2C 2168-2L, governed range of engine speed 650 to 2690 1/min, rated engine speed 2500 1/min
Air cleaner:	MANN dry paper element filter with precleaner, replaceable cartridge, pilot lamp; air intake below bonnet
Exhaust silencer:	ROTH multichamber-expansion type silencer, conical, 60 to 125 mm dia, 800 mm long, on the left, above the bonnet, mouth showing upwards; mouth 2460 mm above ground
Lubrication system:	Forced-feed lubrication with gear pump, strainer in sump; MANN oil filter in full flow with by-pass valve and replaceable cartridge; cartridge change every 500 operating hours; oil capacity 9 l; specified oil quality API-CC, oil change period 250 operating hours; specified oil viscosities: below - 5°C SAE 10W from -10°C to +10°C SAE 20W/20 from + 5°C to +30°C SAE 30 over +25°C SAE 40 or over -10°C SAE 15W/40; engine oil cooler inside of cooling baffle
Cooling system:	Air cooling with axial blower with 11 blades, 230 mm dia, V-belt drive, no temperature control
Starting system:*)	Electrical BOSCH solenoid pre-engaged-drive-starting motor JF 12V 2,7 kW; depressed clutch pedal as safety device
Electrical equipment:	12 Volt, negative earth; BOSCH 3 phase alternator K1 14V 33A, 462 W; 1 lead acid battery 88 Ah at 20 hours rating

*) no cold starting aid fitted,
BOSCH heating spiral available

Transmission

Clutch:	LUK dry dual disc clutch DT 280/250 G travel drive pedal operated, disc 280 mm dia; p.t.o. drive handlever operated, disc 250 mm dia
Gear box:	DEUTZ-FAHR TW 521-S/II synchromesh gearbox with 4 speeds; group gear with 2 collar shifted forward ranges (L and H) and 1 sliding gear shifted reverse range (R) synchromesh close stepped gear DUAL-SPLIT with 2 ranges (N and +20%); total 16 forward and 8 reverse speeds, 3 shift levers
Rear axle and final drives:	DEUTZ-FAHR bevel gear driven intermediate shaft, spur gear transmission to bevel gear differential with pedal operated lock on rear axle; lock not self disengaging, with pilot lamp
Front axle and final drives:	SIGE 002, driven by universal joint shaft placed in tractor's median plane; lever operated jaw clutch, not shiftable under load; bevel gear, bevel gear differential without lock, planetary final drives

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

Total ratios and speeds

Gear	Close stepped range	Range	Total ratio engine : driving wheel	Nominal travelling speed *) at rated engine speed km/h
1	N	L	282,84	2,32
2			177,89	3,68
3			121,81	5,38
4			77,38	8,46
1	+20 %		230,74	2,84
2			145,12	4,51
3			99,38	6,59
4			63,13	10,38
1	N	H	101,73	6,44
2			63,98	10,24
3			43,82	14,95
4			27,83	23,53
1	+20 %		83,00	7,89
2			52,20	12,55
3			35,75	18,32
4			22,71	28,85
1	N	R	249,95	2,62
2			157,20	4,17
3			107,65	6,08
4			68,38	9,58
1	+20 %		203,91	3,21
2			128,25	5,11
3			87,82	7,46
4			55,79	11,74

*) calculated with the radius index 695 mm

Lubrication:

	Oil quality API-	Oil viscosity SAE	Oil capacity l	Oil change operating hours
Gear box with rear axle	GL 4	90	21,5	2000
	CC or CD	15W/40		
Front axle	GL 5	90	5	1000
Final drives at front			1,0 each	

Main p.t.o.

Independent, driven by second disc of dual disc clutch;
1 p.t.o. shaft at rear of tractor, 636 mm above ground, in tractor's median plane, shaft end 425 mm behind rear wheel axle;
35 mm dia, 6 splines, ISO 500/DIN 9611, type 1;
sense of rotation clockwise, viewed facing tractor's rear;
2 speeds are preselectable by hand lever

P.t.o.	P.t.o. speed 1/min	Engine speed 1/min	P.t.o. transmission ratio
540	540	2202	4,0769
	613	2500	
1000	1000	2389	2,3889
	1047	2500	

Power lift

DEUTZ-FAHR
K 46.3 DEUTZ-FAHR TRANSFERMATIC;
hydraulic power lift in unit construction;
draft- and position-control both steplessly mixable, floating position;
upper link sensing;
no lowering throttle

Hydraulic system:

Open centre system,
BOSCH gear type pump HY/ZFS 11/19 BL 212/1V, directly driven by engine,
delivery 47,5 l/min at rated engine speed;
DEUTZ-FAHR control valve,
relief valve pressure setting 175+8 bar;
single acting cylinder with 90 mm bore and 152 mm stroke,
safety valve set to 240 bar

1 double acting DEUTZ-FAHR additional control valve SD80 with 2 oil tappings at rear of tractor; max. 3 double acting additional valves optionally avialable;
1 separate oil return line at rear of tractor;
hydraulic oil tank with 16 l capacity in power lift unit;
max. 7 l may be taken off if tractor is working stationary or travelling

Hydraulic oil:*) Engine oil SAE 15W/40 API-CC or -CD, oil change every 1000 operating hours (API-CC) resp. 2000 hours (API-CD)

Implement linkage: 3-point linkage, category 2 acc. to ISO 730/I or DIN 9674;
dimensions: see pages - 10 - and - 11 -

Pull attachment

Trailer hitch: CRAMER KU 9562, automatical, pin 32 mm dia, hitch point

above ground	790 or 837 mm
behind rear wheel axle	496 mm
above p.t.o.	154 or 201 mm
behind p.t.o. shaft end	71 mm
permissible vertical load	1250 kg

Swinging drawbar: Optionally available, not fitted

Holed drawbar: Short bar,
length between joint balls 825 mm,
thickness 30 mm, width 80 mm,
9 holes 33 mm dia with 80 mm distance each,
holes' centres behind p.t.o. shaft end 568 mm
(with horizontal lower links)
height above ground (measured without load):
minimum 35 mm
maximum 930 mm

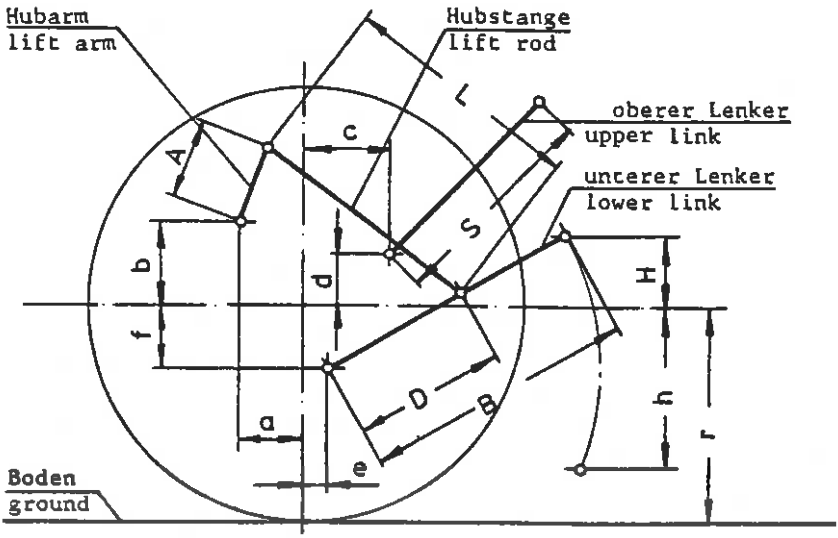
Towing hitch: at front,
730 mm above ground

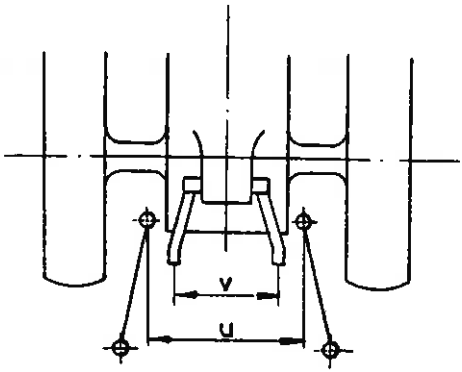
*) oil filter see steering on page 12

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

Implement linkage:





PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

Dimensions of rear implement linkage (projected lengths in mm, underlined dimensions are valid for power lift measurements p. 27)

Rear tyres	radius index	(r)	695
Front tyres	radius index	(r')	515
Length of lift arms		(A)	280
Length of lower links		(B)	905
Distance of lift arm pivot points from rear wheel centre	horizontal	(a)	-47
	vertical	(b)	312
Horizontal distance between lower link pivot points		(u)	470
Horizontal distance between lift arm end points		(v)	580
Length of upper link		(S)	610 to 835, <u>710</u>
Distance of upper link pivot point from rear wheel centre	horizontal	(c)	277
	vertical	(d)	<u>243</u>, 343
Distance of lower link pivot point from rear wheel centre	horizontal	(e)	88
	vertical	(f)	165
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	<u>564</u>, 636
Length of lift rods		(L)	620 to 760, <u>668</u>

Height of lower link hitch points relative to rear axle centre line (situated 695 mm above ground), these data are valid for unloaded power lift:

Length of lift rods	(L)	<u>668</u>	620		760	
Linkage distance of lift rods	(D)	<u>564</u>	564	636	564	636
Lowest position	(h)	495	433	320	660	612
Highest position	(H)	146	207	235	-33	25
Transport position	(h')	255	160	90	430	340

Type of transport lock: Hydraulic-mechanical

Steering

DANFOSS, OSPC 100 OR
hydrostatic;
connected by WABCO flow-control valve to the hydraulic pump of power lift, controlled oil flow 9 l/min, max. pressure 150 bar;
hydraulic oil cooler in steering-oil circuit, at engine's cooling air baffel;
replaceable oil filter PUROLATOR PER 330, in suction line,
filter change once a year or when pilot lamp lights up;
1 integrated WEBER cylinder (symmetrical design), 260 mm stroke, 65 mm bore and 45 mm piston rod diameter, directly acting on steering levers

Brakes

Service brake: DEUTZ-FAHR
pedal operated muscle power brake with hydraulic transmission, acting on rear wheels;
1 caliper disc brake per wheel, disc 440 mm dia

Parking brake: Mechanical drum brake, acting on rear wheels, actuated by pulling handle with ratchet;
1 brake drum with 180 mm dia and 60 mm width on intermediate shaft, on the right, outside of gearbox

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

Trailer brake: Optionally available

Wheels

Steered wheels:	At front, 2 cross-ply tyres 11.2 - 24 8 ply FULDA, max. permissible load per tyre 1225 kg at 2,4 bar inflation pressure and 30 km/h; track width 1500 mm or by turning the wheels 1650 mm; rims W10 x 24
Driving wheels:	At front and at rear, rear driving wheels: 2 radial-ply tyres 16.9 R 30 6 ply PIRELLI TM 300 S; max. permissible load per tyre 1900 kg at 1,3 bar inflation pressure and 30 km/h; track width 1420 mm, adjustable up to 1920 mm in steps of 100 mm each; adjustable gauge bowl wheels; rims W15L x 30
Wheel base:	2079 mm

Cab

DEUTZ-FAHR
safety cab with integrated
safety frame 82/1
approval-no. CSD 0853/5;
antivibration mounted by 4 silent blocks on tractor;
1 door and 2 steps on the left (additional door on the right optionally),
steps 480 and 780 mm, driver's platform 1030 mm above ground;
windscreen, rear and side windows tiltable;
hot-air heating by engine cooling air, combined with fresh-air system incorporated in instruments console;
3-step blower, fresh-air intake above engine bonnet;
air outlet jets at cab floor,
at instruments panel and at windscreen;
recirculating ventilation is possible

Noise-reduction materials:

floor	rubber mat	5 mm
	with foam PUR, foil coated	15 mm
	bitumen foil	5 mm
mudguards	moltoprene foam, imitation leather coated	24 mm
roof	phenolic-resin bonded cotton fleece, molded	4 mm
	textile (PU) covering	1 mm
bulkhead	PU heavy foam on engine's side	10 mm

Seat

GRAMMER DS 85 H3
upholstered seat with back rest,
adjustable spring, shock absorber;
height of unloaded seat above platform
adjustable in 2 steps from 460 to 520 mm;
longitudinal adjustment 150 mm

Number of grease points

23

Overall dimensions

Total length:	3640 mm without ballast 3940 mm with ballast
Total width:	1930 mm with and without ballast
Total height:	2517 mm to top of roof 2460 mm to mouth of exhaust silencer
Ground clearance:	380 mm below front axle differential

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

Lighting equipment: Electrical, 12 Volt, as per German legislation

	Dimensions mm	Height above ground of centre mm	Distance from outside edge of tractor to centre mm
Head lights	130 dia	997	765
Side lights	55 x 60	1615	195
Rear lights	30 x 60	1325	265
Reflectors			
1st pair	181 x 41	1260	265
2nd pair	103 x 58	740	525

Running-time meter: Mechanical, combined with tachometer, driven by camshaft of engine; reference engine speed for one really counted hour 1875 1/min

Permissible combinations of tyres

Tyre size	
at front	at rear
9.5 - 28 6 ply	9.5 - 42 10 ply
11.2 - 24 8 ply	12.4 - 36 6 ply
12.4 - 24 6 ply	13.6 - 36 6 ply
12.5 - 18 MPT 8 ply	14.9 - 28 6 ply
12.5 - 20 MPT 10 ply	14.9 - 30 6 ply
11.2 - 24 8 ply	16.9 - 30 6 ply

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

TEST CONDITIONS

Track setting: 1500 mm at front
1520 mm at rear

Weights

		Without driver	With driver
Without ballast:	front	1335 kg	1345 kg
	rear	1880 kg	1955 kg
	total	3215 kg	3300 kg
Front ballast:	4 weights, total		160 kg
	water in the tyres		155 kg
Rear ballast:	water in the tyres		385 kg
With ballast:	front	1690 kg	1700 kg
	rear	2225 kg	2300 kg
	total	3915 kg	4000 kg

Repairs and remarks: None

Fuels and lubricants used in tests

Fuel:	ARAL Diesel-fuel DIN 51601 density at 15°C	
	at p.t.o. tests	0,846 kg/l
	at drawbar tests	0,838 kg/l
Engine oil:	DEUTZ HDC SAE 15W/40	
Gear oil:	DEUTZ HDC SAE 15W/40 in gearbox including rear axle	
	DEUTZ gear oil API GL5 SAE 90 in front axle including final drives	
Hydraulic oil:	DEUTZ HDC SAE 15W/40 in power lift and steering	
Grease:	Multi-purpose grease	

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE (540 1/min)

Date of tests: 11th July 1985
Location of tests: DLG-Testing-Station Groß-Umstadt
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed engine 1/min	Speed p.t.o. 1/min	Fuel consumption hourly 1/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
MAXIMUM POWER						
At 2-hour test						
42.1	2500	613	13.24	11.20	266	3.18
At rated engine speed						
42.1	2500	613	13.24	11.20	266	3.18
At standard p.t.o. speed						
40.3	2202	540	12.06	10.20	253	3.34
Part loads, the governor hand lever in the position corresponding to the maximum power at full load (curve a)						
(i) the torque corresponding to maximum power at rated speed						
42.1	2500	613	13.24	11.20	266	3.18
(ii) 85% of the torque obtained in (i)						
36.7	2562	629	11.49	9.72	265	3.19
(iii) 75% of the torque defined in (ii)						
27.8	2594	636	9.52	8.05	289	2.93
(iv) 50% of the torque defined in (ii)						
18.8	2622	643	7.73	6.54	349	2.43
(v) 25% of the torque defined in (ii)						
9.5	2647	649	5.66	4.78	505	1.67
(vi) unloaded						
-	2686	659	4.00	3.38	-	-

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

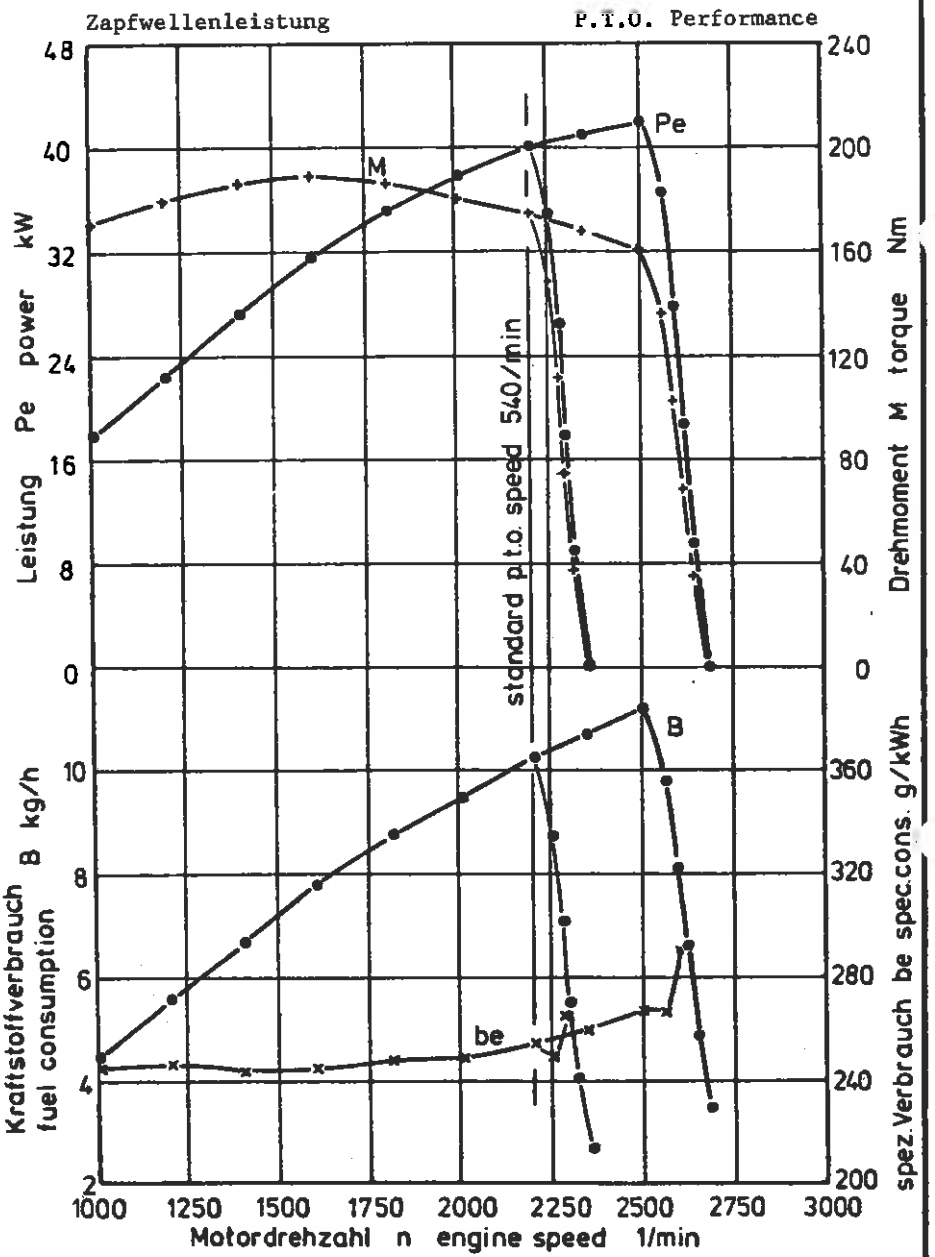
Test No. 85-131

Power kW	Speed engine 1/min	Speed p.t.o. 1/min	Fuel consumption hourly 1/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Part loads, the governor hand lever in the position corresponding to the standard p.t.o. speed at full load (curve b)						
(i) the torque corresponding to maximum power						
40.3	2202	540	12.06	10.20	253	3.34
(ii) 85% of the torque obtained in (i)						
35.0	2249	552	10.26	8.68	248	3.41
(iii) 75% of the torque defined in (ii)						
26.6	2279	559	8.29	7.02	264	3.21
(iv) 50% of the torque defined in (ii)						
17.8	2294	563	6.44	5.44	305	2.77
(v) 25% of the torque defined in (ii)						
9.0	2315	568	4.70	3.98	441	1.92
(vi) unloaded						
-	2357	578	3.11	2.63	-	-

Standard specific fuel consumption (g/kWh): 265/349/248/305

No load maximum engine speed: 2686 1/min
Equivalent flywheel torque at maximum power (2 hours): 161 Nm
Maximum equivalent flywheel torque: 190 Nm at 1597 1/min of the engine

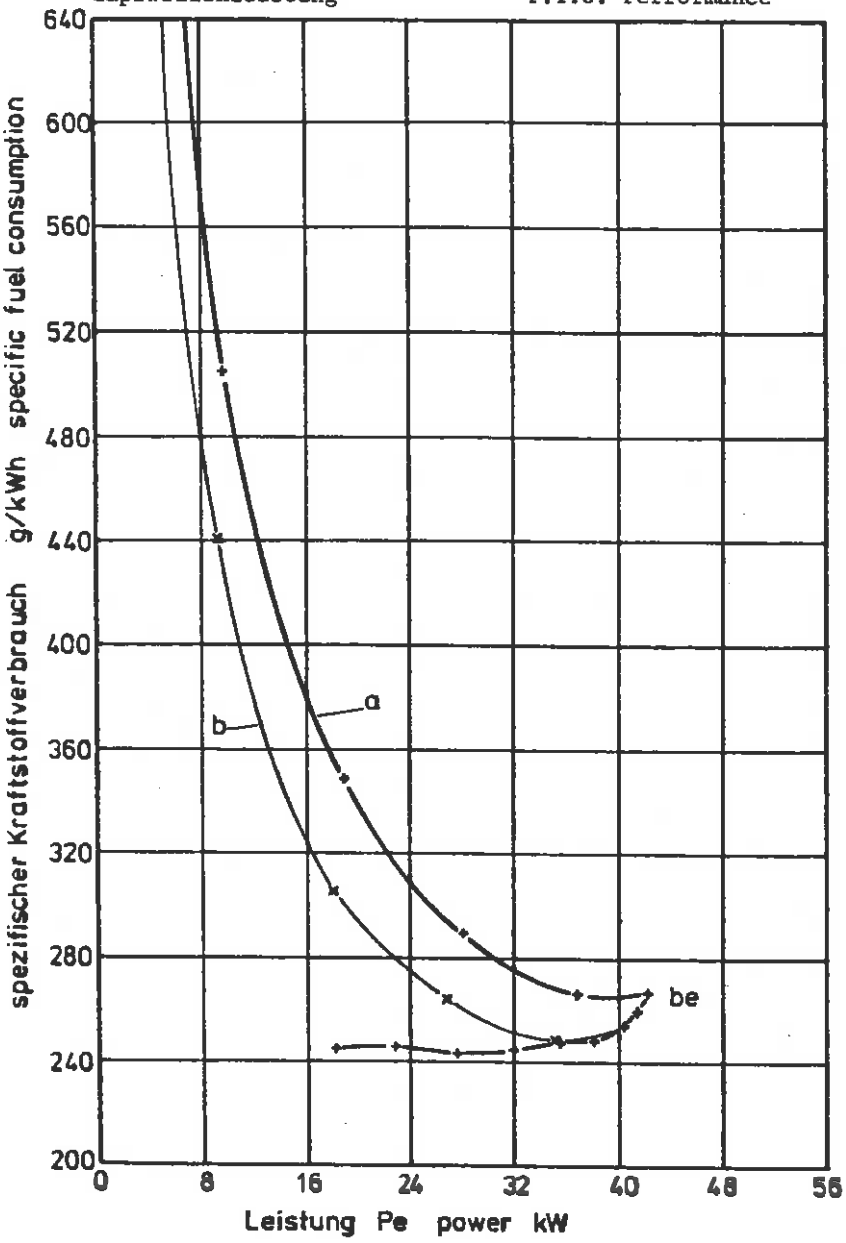
Mean atmospheric conditions:	**temperature**	**21 °C**
	pressure	**999 mbar**
	relative humidity	**60 %**
Maximum temperatures:	**cylinder head**	**89 °C**
	engine oil	**105 °C**
	fuel	**23 °C**
	engine air intake	**23 °C**


Zapfwellenleistung
P.T.O. Performance
Leistung Pe power kW
Drehmoment M torque Nm
Kraftstoffverbrauch B fuel consumption kg/h
spez.Verbrauch be spec.cons. g/kWh
Motordrehzahl n engine speed 1/min
standard p.t.o. speed 540/min
Pe
M
B
be
48
40
32
24
16
8
0
240
200
160
120
80
40
0
10
8
6
4
2
360
320
280
240
200
1000
1250
1500
1750
2000
2250
2500
2750
3000

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

Zapfwellenleistung P.T.O. Performance



PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

(2) DRAWBAR PERFORMANCE

Date of tests: 17th till 23rd October 1985
Type of track: Concrete

Gear	Driving speed km/h	Power kW	Drawbar pull daN	Engine speed 1/min	Slip of wheels %
(i) MAXIMUM POWER (unballasted) height of drawbar above ground 520 mm					
1 L +20%	2,53	23,7	3377	2590	14,9
2 L N	3,25	30,6	3387	2560	14,9
2 L +20%	4,07	34,2	3024	2501	11,1
3 L N	5,00	35,3	2545	2501	8,2
1 H N	6,09	35,9	2124	2500	6,3
3 L +20%	6,25	36,0	2073	2500	6,2
1 H +20%	7,58	36,7	1745	2500	5,1
4 L N	8,17	35,3	1556	2500	4,5
(ii) MAXIMUM POWER (ballasted) height of drawbar above ground 510 mm					
1 L N	2,07	22,5	3910	2586	15,1
1 L +20%	2,52	27,5	3922	2566	14,9
2 L N	3,30	33,1	3607	2500	11,8
2 L +20%	4,21	33,8	2891	2498	7,9
3 L N	5,10	35,9	2535	2500	6,6
1 H N	6,18	36,4	2121	2504	5,4
3 L +20%	6,35	36,7	2078	2506	5,2
1 H +20%	7,63	36,8	1738	2496	4,2
4 L N	8,24	35,5	1552	2496	3,7
(iii) FIVE-HOUR-TEST at 75% of pull at maximum power in 1 H N gear					
1 H N	6,45	28,6	1594	2573	3,9
(iv) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (ii)					
1 L +20%	2,52	27,5	3922	2561	-

Total oil consumption during ten hours duration of tests (iii) and (iv) 42 g/h

Test No. 85-131

Tyre size front: 11.2 - 24 8 ply
rear: 16.9 R 30 6 ply

Tread bar height at the beginning of drawbar tests: 95% at front and at rear of the value when new

Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperatures Fuel °C	Cylinder-head °C	Engine-oil °C	Atmospheric conditions Temperature °C	Relative humidity %	Pressure mbar
tyre inflation pressure: 0,9 bar at front; 0,8 at rear							
368	2,28	40	81	80	12	99	1013
345	2,43	41	80	78	12	96	1013
329	2,54	45	88	88	11	99	1013
320	2,62	43	88	90	11	98	1013
314	2,67	45	87	91	12	99	1013
314	2,67	45	86	92	12	95	1013
306	2,74	43	88	92	13	99	1013
318	2,64	42	86	90	13	93	1013
tyre inflation pressure: 1,4 bar at front; 0,8 bar at rear							
372	2,25	44	78	82	5	79	1017
343	2,44	42	81	82	6	79	1017
337	2,49	43	86	86	6	78	1017
329	2,55	45	88	89	6	72	1017
312	2,69	46	91	89	10	71	1017
305	2,74	44	92	90	10	69	1017
307	2,73	42	85	88	10	69	1017
302	2,78	43	90	89	10	68	1017
314	2,67	43	90	81	10	66	1017
316	2,65	44	64	86	16	40	1014
-	-	43	74	86	12	47	1014

Test (iv) was carried out with additional ballast, the figures not quoted are therefore irrelevant

(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 11.2 - 24 8 ply
rear: 16.9 R 30 6 ply

Track of wheels front: 1500 mm
rear: 1520 mm

Front axle drive disengaged

	With brakes left-hand m	With brakes right-hand m	Without brakes left-hand m	Without brakes right-hand m
Radius of turning space	3,60	3,78	4,18	4,28
Radius of turning circle	3,30	3,49	3,88	3,99

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	860 mm
Distance forward from rear axle centre	850 mm
Distance from tractor's median plane, to the left	12 mm

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

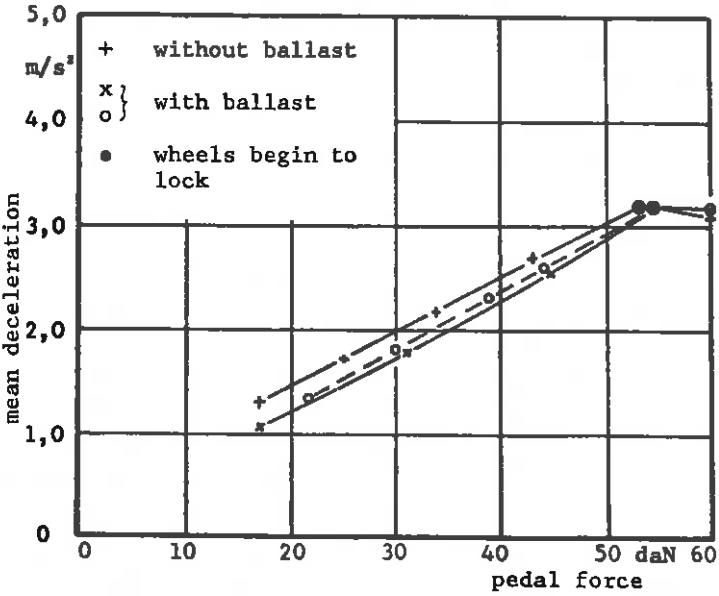
(5) Braking (Front axle drive disengaged)

Date of tests: 21st October 1985

	Tractor mass (with driver) front kg	rear kg	total kg	Speed before application of brakes km/h
Without ballast	1345	1955	3300	30,6
With ballast	1700	2300	4000	30,6

A) Service brake

Type-0-test(cold brakes) ——, 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

B) Parking brake

	Ballasted tractor on 18%-slope		Unballasted tractor on 12%-slope with trailer of 3000 kg	
	up	down	up	down
Braking device control force daN	32	34	33	35

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

(6) MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test: 18th October 1985
Type of track: Concrete
Type of sound level meter: BRÜEL & KJAER model 2209

Results of test

Gear: 4 H +20% *)
Travelling speed before acceleration: 22,9 km/h
Sound level: 87,5 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 17th October 1985
Type of track: Concrete
Type of sound level meter: BRÜEL & KJAER model 2209

with DEUTZ-FAHR safety cab with integrated safety frame 82/1

Results of tests

Gear	Drawbar pull at which the tractor develops the maximum sound level daN	Travelling speed nominal km/h	Travelling speed effective km/h	Sound level dB(A)
1 L N	3206	2,32	2,02	84,0
1 L +20%	3237	2,84	2,54	83,5
2 L N	3229	3,68	3,23	84,0
2 L +20%	3031	4,51	3,92	84,5
3 L N	2525	5,38	4,97	84,5
1 H N	2119	6,44	6,09	84,0
3 L +20%	2041	6,59	6,27	84,0
1 H +20%	+) 1748	7,89	7,56	84,0
1 H +20%	+) light load	7,89	8,56	82,5
4 L N	1548	8,46	8,14	84,0
2 H N	1275	10,24	9,90	84,5
4 L +20%	1265	10,38	10,10	84,0
2 H +20%	1039	12,55	12,25	84,0
3 H N	839	14,95	14,73	84,0
3 H +20%	689	18,32	18,08	84,0
4 H +20%	*) light load	28,85	30,59	83,0

*) Front axle drive disengaged

+) The 1 H +20% gear corresponds to the nominal travelling speed nearest to 7,5 km/h

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.50

Test No. 85-131

(8) LIFTING FORCES AND HYDRAULIC POWER

Date of tests: 2nd October 1985

Lifting Forces (Linkage dimensions: see pages 10 and 11)

	Height of lower hitch points above ground in down pos. mm	Vertical movement mm	Max. force exerted through full range daN	Corresp. pressure of hydraul. fluid bar	Moment about rear axle daNm	Max. tilt angle of mast over range of lift degrees
At hitch points	200	620	2190	162	-	-
On the frame	200	728	1680	162	2693	11

Temperature of hydraulic fluid at start of test 65°C

Lifting heights relative to horizontal lower links

mm	-378	-330	-300	-200	-100	0	+100	+200	+290	+300	+350
Lifting forces at hitch points											
daN		2190	2220	2280	2300	2300	2240	2240	2260		
Lifting forces at test frame											
daN	2060		2060	2040	1970	1920	1810	1750		1700	1680

Hydraulic Power

Sustained pressure with relief valve open 180 bar
Pump delivery rate at minimum pressure 43,7 l/min

	Hydraulic power kW	Flow rate l/min	Pressure bar	Oil temperature °C
at 90% of the actual relief valve setting	10,9	40,4	162	65
maximum	10,9	40,4	162	65

Tapping point used for test: at rear of tractor

Published
with the support of the Federal Minister for Food, Agriculture and Forestry

Deutsche Landwirtschafts-Gesellschaft e. V. (DLG)
Fachbereich Landtechnik — Prüfungsabteilung —
Zimmerweg 16 (DLG-Haus)
D-6000 Frankfurt am Main 1