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

O.E.C.D. No. **988**



Agricultural Tractor
DEUTZ-FAHR DX 3.70 (4WD)
Type denomination D 1069 A-S

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

Deutsche Landwirtschafts-Gesellschaft e. V.
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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: June till September 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: 16th January 1986 O.E.C.D. No. 988

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		

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PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

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 12.4 - 24 at front and 16.9 - 34 at rear, as well as to track widths 1500 mm at front and 1520 mm at rear

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. 60 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	DEUTZ-FAHR
Trade name:	DX 3.70
Type denomination:	D 1069 A-S
Type:	Four-wheel-drive tractor, unit construction
Serial No.:	7752 0346
Start of series:	7752 0001

Engine

Make:	DEUTZ
Model:	F4L 912
Type:	4-stroke Diesel engine, direct injection, air cooled
Serial No.:	7139865
Cylinders:	4, in-line, bore 100 mm, stroke 120 mm, displacement 3768 cm^3, compression ratio 17:1, replaceable ribbed cylinder liners
Valves:	Overhead
Fuel system:	PIERBURG fuel supply pump, BOSCH in-line injection pump PES 4A 80D 410/3 RS 1300; serial no.: 54260190, manufacturer's production setting 50±1 mm^3/stroke at rated engine speed and full load; injection timing $28^{\circ}\pm1^{\circ}$ 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 95 l

Governor:	BOSCH centrifugal variable speed governor: RSV 325-1175 A8C 657-1L; governed range of engine speed 650 to 2490 1/min rated engine speed 2350 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, 70 to 120 mm dia, 800 mm long, on the left, above the bonnet, mouth showing upwards; mouth 2600 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 11 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, driven by V-belt
Starting system:	Electrical BOSCH solenoid pre-engaged-drive-starting motor JF 12V 2,7 kW; BOSCH flame plug in intake manifold; 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 110 Ah at 20 hours rating

Transmission

Clutch:	LUK dry dual disc clutch A2 031; travel drive pedal operated, disc 310 mm dia; p.t.o. drive hand lever operated, disc 280 mm dia
Gear box:	DEUTZ-FAHR TW 57.11-S synchromesh gearbox with 4 speeds; collar shifted group gear with 3 forward ranges (L, M and H) and 1 reverse range (R); 2 gear shift levers; totally 12 forward and 4 reverse speeds
Rear axle and final drives:	DEUTZ-FAHR bevel gear drive, bevel gear type differential on intermediate shaft; spur gear final drives; differential lock in the intermediate shaft, pedal operated, not self disengaging, with pilot lamp
Front axle and final drives:	SIGE 002, driven by universal joint shaft to central bevel gear drive; multi-disc safety clutch, collar shifted by hand lever; bevel gear drive, multi-disc limited-slip differential; planetary final drives

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

Total ratios and speeds

Range	Gear	Total ratio engine : driving wheel	Nominal travelling speed *) at rated engine speed km/h
L	1	298,57	2,21
	2	192,50	3,43
	3	137,88	4,79
	4	93,78	7,04
M	1	124,62	5,30
	2	80,35	8,21
	3	57,55	11,47
	4	39,14	16,86
H	1	68,24	9,67
	2	44,00	15,00
	3	31,52	20,94
	4	21,44	30,79
R	1	92,89	7,11
	2	59,89	11,02
	3	42,90	15,39
	4	29,18	22,62

*) calculated with the radius index 855 mm

Lubrication:

	Oil quality API-	Oil viscosity SAE	Oil capacity l	Oil change h
Gear box with rear axle and final drives at rear	GL 4	90	39	2000
	CC or CD	15W/40		
Front axle	GL 5	90	5	1000
Final drives at front			1,0 each	

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70 Test No. 85-130

Main p.t.o.

Independent, driven by second disc of dual disc clutch;
1 p.t.o. shaft at rear of tractor, 688 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	2025	3,7500
	627	2350	
1000	1000	2167	2,1667
	1085	2350	

Power lift

DEUTZ-FAHR
K 46.1 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 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 available;
1 separate oil return line at rear of tractor;
hydraulic oil tank with 13 l capacity in power lift unit;
max. 7 l may be taken off stationary or travelling

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

Implement linkage: 3-point linkage, category 2 acc. to ISO 730/I or DIN 9674;
WALTERSCHEID quick couplers, optional, fitted to tested tractor;
dimensions: see pages - 10 - and - 11 -

Pull attachment

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

hitch point	
above ground	838 or 903 mm
behind rear wheel axle	527 mm
above p.t.o.	150 or 215 mm
behind p.t.o. shaft end	102 mm
permissible vertical load	1250 kg

Swinging drawbar: Optionally available, not fitted

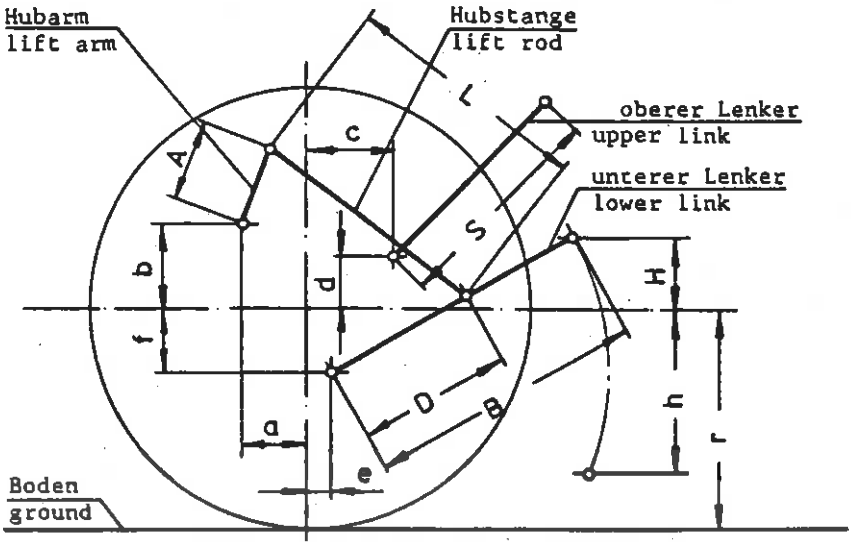
Holed drawbar: Short bar,
length between joint balls 825 mm,
thickness 30 mm, width 80 mm,
9 holes 33 mm dia with 80 mm distance each,
holes' centres behind p.t.o. shaft end 550 mm
(with horizontal lower links)

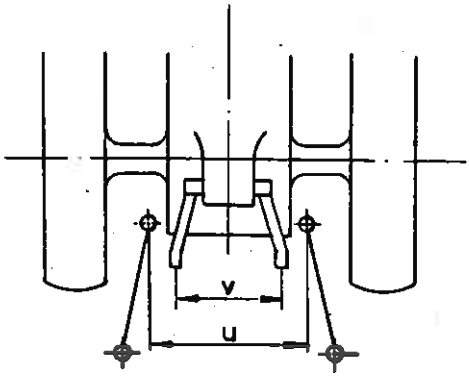
Towing hitch: At front, 805 mm above ground

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

Implement linkage:





PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

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

Rear tyres	radius index	(r)	745
Front tyres	radius index	(r')	540
Length of lift arms		(A)	280
Length of lower links		(B)	940
Distance of lift arm pivot points from rear axle centre	horizontal	(a)	-96
	vertical	(b)	407
Horizontal distance between lower link pivot points		(u)	510
Horizontal distance between lift arm end points		(v)	580
Length of upper link		(S)	590 to 850, 656
Distance of upper link pivot point from rear axle centre	horizontal	(c)	310
	vertical	(d)	204, 240
Distance of lower link pivot point from rear axle centre	horizontal	(e)	35
	vertical	(f)	180
Distance of lower link pivot points from lift rod pivot points on lower links		(D)	512, 648
Length of lift rods		(L)	655 to 790, 715

Height of lower link hitch points relative to rear axle centre line (situated 745 mm above ground), these data are valid for unloaded power lift:

Length of lift rods	(L)	715	655		790	
Linkage distance of lift rods	(D)	512	512	648	512	648
Lowest position	(h)	545	433	293	725	535
Highest position	(H)	115	227	245	-29	23
Transport position	(h')	235	128	58	419	280

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 baffle; replaceable oil filter 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 and KNOTT pedal operated muscle power brake with hydraulic transmission, acting on rear wheels; 2 brake drums with 254 mm dia and 70 mm width on intermediate shaft, outside of gearbox
Parking brake:	Mechanical drum brake, acting on rear wheels, actuated by pulling handle with ratchet; 2 brake drums with 180 mm dia and 40 mm width on intermediate shaft, 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 radial-ply tyres 12.4 R 24 119 A8 MICHELIN BIB X, max. permissible load per tyre 1360 kg at 1,6 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 34 6PR PIRELLI TM 300 S; max. permissible load per tyre 2015 kg at 1,3 bar inflation pressure and 30 km/h; track width 1520 mm, adjustable up to 2020 mm in steps of 100 mm each; adjustable gauge bowl wheels; rims W15L x 34
Wheel base:	2394 mm

Cab

DEUTZ-FAHR
D 82/2 STAR CAB
OECD-tested safety-cab,
approval-no. CSD 0854/3;
antivibration mounted by 4 silent blocks on tractor;
1 door and 2 steps on the left (additional door on the right optionally),
steps 510 and 810, driver's platform 1110 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

19

Overall dimensions

Total length:	4005 mm without ballast 4245 mm with ballast
Total width:	1983 mm with and without ballast
Total height:	2590 mm to top of roof 2600 mm to mouth of exhaust silencer
Ground clearance:	408 mm below front axle differential

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

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	1082	792
Side lights	55 x 60	1695	200
Rear lights	30 x 60	1428	280
Reflectors			
1st pair	181 x 41	1357	280
2nd pair	103 x 58	789	626

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 - 44 8 ply
12.4 - 24 6 ply	13.6 - 36 6 ply
13.6 - 24 8 ply	13.6 - 38 6 ply
11.2 - 24 8 ply	16.9 - 30 6 ply
12.4 - 24 6 ply 13.6 - 24 8 ply	16.9 - 34 6 ply

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

TEST CONDITIONS

Track setting

1500 mm at front
1520 mm at rear

Weights

		Without driver	With driver
Without ballast:	front	1370 kg	1385 kg
	rear	2120 kg	2190 kg
	total	3490 kg	3575 kg
Front ballast:	11 weights, total		440 kg
	water in the tyres		200 kg
Rear ballast:	2 weights per wheel, total		190 kg
	water in the tyres		595 kg
With ballast:	front	2085 kg	2100 kg
	rear	2830 kg	2900 kg
	total	4915 kg	5000 kg

Repairs and remarks

None

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

Fuels and lubricants used in tests

Fuel:	ARAL Diesel-fuel DIN 51601 density at 15°C at p.t.o. tests 0,849 kg/l at drawbar tests 0,844 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 3.70

Test No. 85-130

COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE (1000 1/min)

Date of tests: 20th June 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 l/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
MAXIMUM POWER						
At 2-hour test						
49.1	2350	1085	13.85	11.76	240	3.54
At rated engine speed						
49.1	2350	1085	13.85	11.76	240	3.54
At standard p.t.o. speed						
46.7	2167	1000	12.83	10.90	233	3.64
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						
49.1	2350	1085	13.85	11.76	240	3.54
(ii) 85% of the torque obtained in (i)						
42.5	2395	1105	12.14	10.31	242	3.50
(iii) 75% of the torque defined in (ii)						
32.1	2413	1114	9.69	8.23	256	3.31
(iv) 50% of the torque defined in (ii)						
21.7	2435	1124	7.47	6.34	293	2.90
(v) 25% of the torque defined in (ii)						
10.9	2461	1136	5.45	4.63	423	2.01
(vi) unloaded						
-	2486	1147	3.62	3.07	-	-

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

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						
46.7	2167	1000	12.83	10.90	233	3.64
(ii) 85% of the torque obtained in (i)						
40.5	2212	1021	11.16	9.47	234	3.63
(iii) 75% of the torque defined in (ii)						
30.8	2241	1034	8.92	7.58	246	3.45
(iv) 50% of the torque defined in (ii)						
20.7	2258	1042	6.78	5.75	278	3.05
(v) 25% of the torque defined in (ii)						
10.5	2286	1055	4.85	4.12	393	2.16
(vi) unloaded						
-	2315	1068	3.12	2.65	-	-

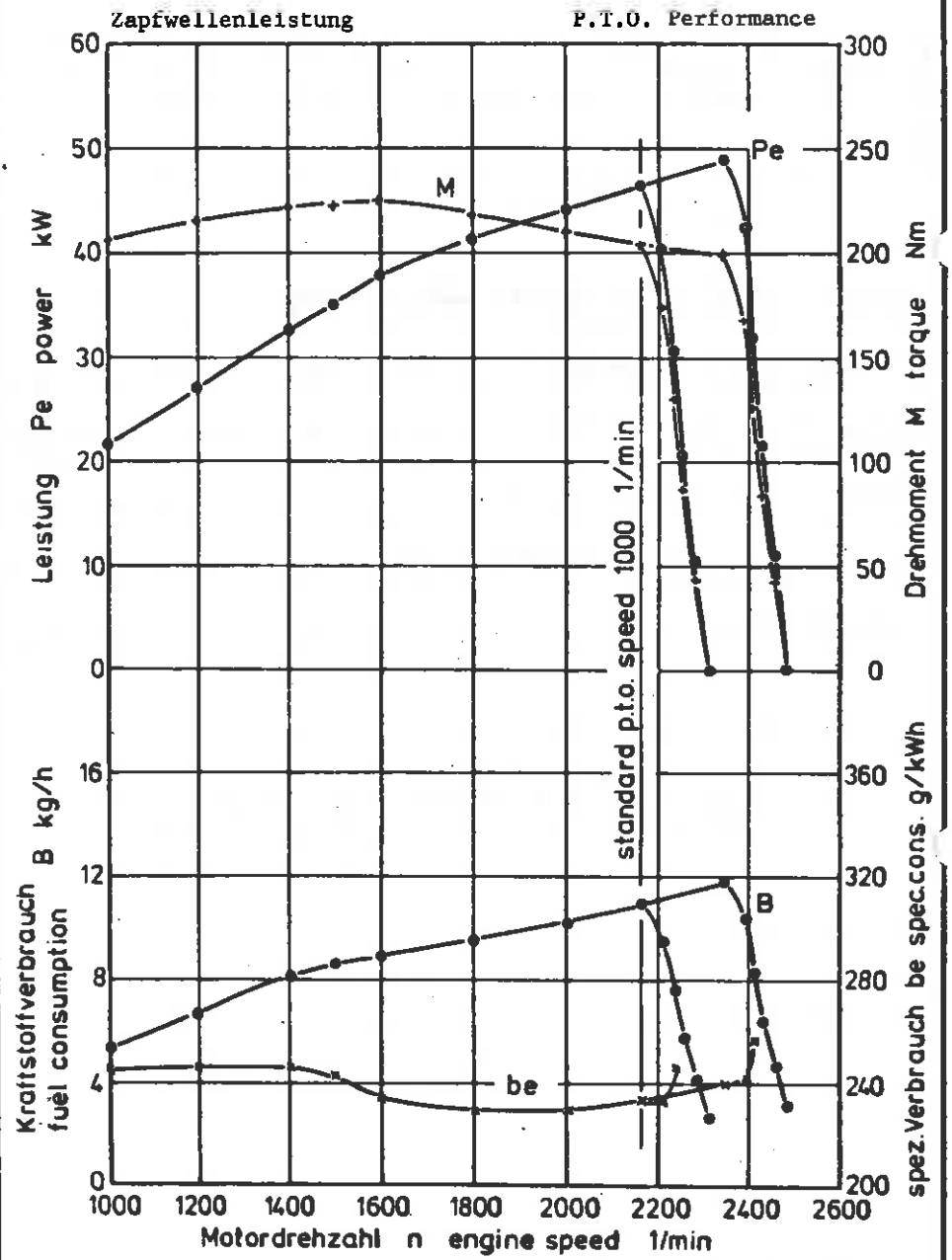
Standard specific fuel consumption (g/kWh): 242/293/234/278

No load maximum engine speed: 2486 1/min
Equivalent flywheel torque at maximum power (2 hours): 200 Nm
Maximum equivalent flywheel torque: 227 Nm at 1600 1/min of the engine

Mean atmospheric conditions:	temperature	21 °C
	pressure	988 mbar
	relative humidity	75 %
Maximum temperatures:	cylinder head	93 °C
	engine oil	105 °C
	fuel	22 °C
	engine air intake	23 °C

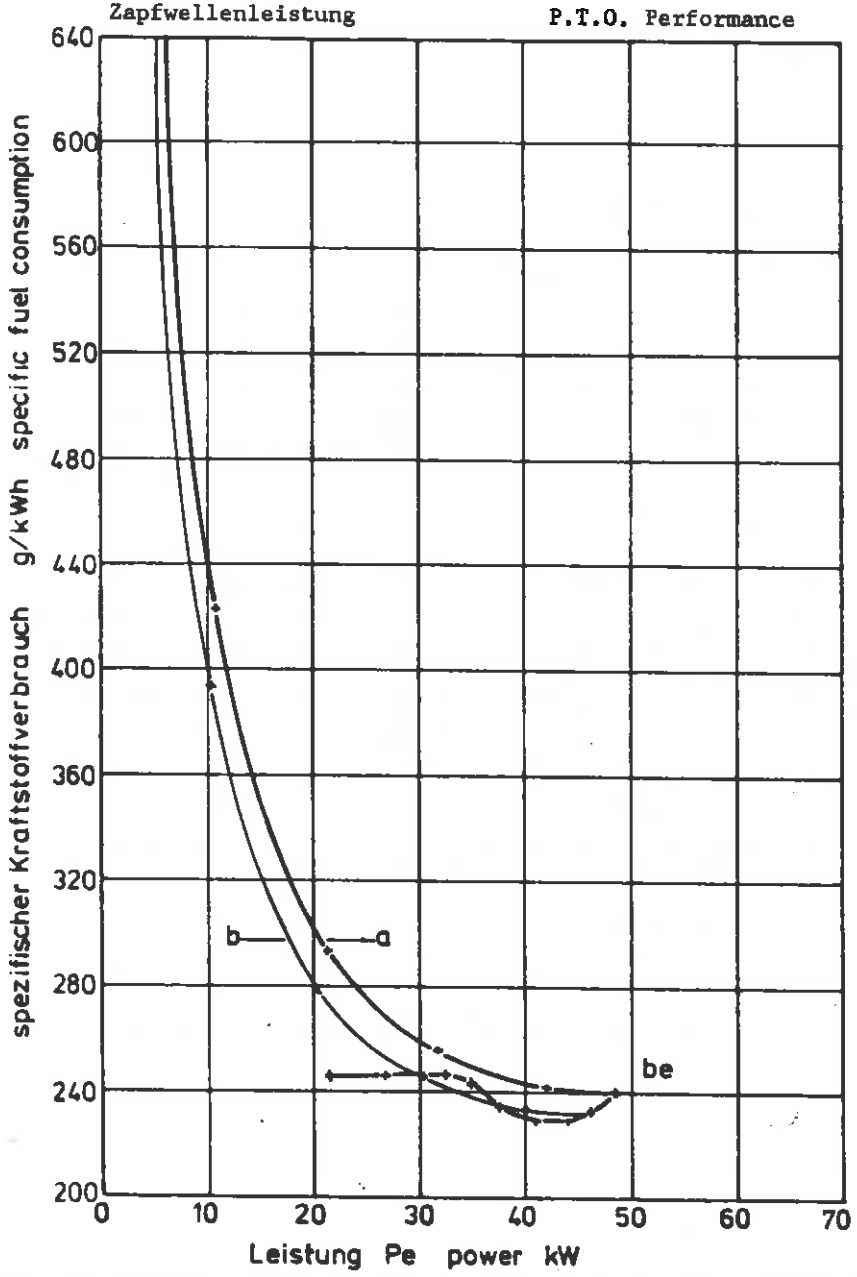
PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130



PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130



PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

(2) DRAWBAR PERFORMANCE

Date of tests: 26th August till 2nd September 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 570 mm					
1 L	1,95	19,9	3679	2403	15,0
2 L	3,00	30,7	3686	2396	15,0
3 L	4,32	40,0	3332	2351	10,6
1 M	4,90	40,9	3005	2352	8,3
4 L	6,68	41,4	2229	2348	5,2
2 M	7,90	42,2	1925	2351	4,3
1 H	9,38	41,7	1600	2348	3,5
3 M	11,22	41,3	1326	2353	2,9
(ii) MAXIMUM POWER (ballasted) height of drawbar above ground 550 mm					
1 L	1,95	26,0	4803	2414	15,1
2 L	3,01	38,6	4620	2354	12,6
3 L	4,54	41,5	3289	2347	5,7
1 M	5,06	42,1	2996	2349	5,0
4 L	6,79	42,0	2226	2348	3,4
2 M	8,00	42,0	1892	2349	2,9
1 H	9,46	41,0	1562	2349	2,2
(iii) FIVE-HOUR-TEST at 75% of pull at maximum power in 2 M gear					
2 M	8,28	32,6	1419	2409	2,0
(iv) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (ii)					
1 L	1,97	26,3	4803	2415	-

Total oil consumption during ten hours duration of tests (iii) and (iv) 22 g/h

PRÜFUNGS-ABTEILUNG

Test No. 85-130

Tyre size front: 12.4 R 24 119 A8
rear: 16.9 R 34 6 ply

Tread bar height at the beginning of drawbar tests 95% at front, 97% 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 Tempe-rature °C	Relative humidity %	Pressure mbar
tyre inflation pressure 0,9 bar at front, 0,8 bar at rear							
370	2,28	35	52	79	16	86	997
325	2,60	36	55	75	16	89	997
297	2,85	44	82	94	21	71	999
291	2,90	42	80	98	20	73	999
287	2,94	45	85	95	18	85	998
280	3,01	43	75	97	18	85	998
284	2,97	42	86	95	19	79	998
286	2,95	46	84	97	20	75	999
tyre inflation pressure 1,1 bar at front, 0,8 bar at rear							
332	2,54	30	74	84	14	81	1009
307	2,75	43	82	95	20	67	1009
286	2,95	44	85	94	13	89	1009
282	2,99	44	85	97	18	75	1009
283	2,99	43	89	99	19	78	1009
282	2,99	46	86	100	20	76	1009
289	2,92	44	84	100	20	77	1009
291	2,90	24	67	87	22	65	1004
-	-	42	76	92	16	80	1007

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

(3) TURNING SPACE AND TURNING CIRCLE (Front wheel drive disengaged)

Wheel equipment front: 12.4 R 24 119 A8
rear: 16.9 R 34 6 ply

Track of wheels front: 1500 mm
rear: 1520 mm

	With brakes left-hand m	With brakes right-hand m	Without brakes left-hand m	Without brakes right-hand m
Radius of turning space	4,20	4,76	4,91	5,67
Radius of turning circle	3,90	4,49	4,61	5,40

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	889 mm
Distance forward from rear axle centre	927 mm
Distance from tractor's median plane, to the left	10 mm

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

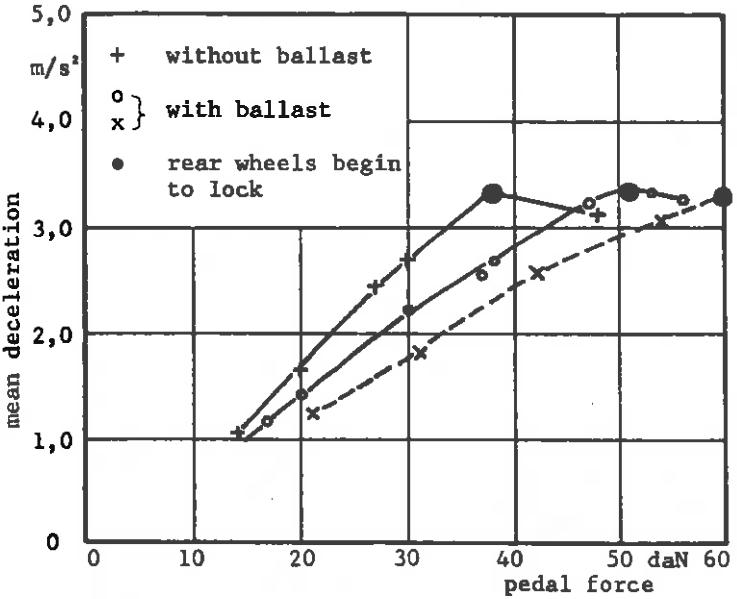
(5) BRAKING (Front wheel drive disengaged)

Date of tests: 27th and 28th August 1985

	Tractor mass (with driver) front kg	rear kg	total kg	Speed before application of brakes km/h
Without ballast	1385	2190	3575	32,4
With ballast	2100	2900	5000	32,2

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	28	29	26	26

(6) MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test: 26th August 1985
Type of track: Concrete
Type of sound level meter: BRÜEL & KJAER model 2209

Results of test

Gear: 4 H +)
Travelling speed before acceleration: 24,0 km/h
Sound level: 87,0 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 23rd August 1985
Type of track: Concrete
Type of sound level meter: BRÜEL & KJAER model 2209

with DEUTZ-FAHR safety cab D 82/2

Results of tests

Gear	Drawbar pull at which the tractor develops the maximum sound level	Travelling speed nominal	Travelling speed effective	Sound level
	daN	km/h	km/h	dB(A)
1 L	3318	2,21	1,97	80,5
2 L	3329	3,43	2,88	81,0
3 L	3309	4,79	3,93	80,5
1 M	3008	5,30	4,86	81,5
4 L *)	2239	7,04	6,66	81,5
4 L *)	light load	7,04	7,47	79,5
2 M	1924	8,21	7,89	82,5
1 H	1601	9,67	9,37	81,5
3 M	1316	11,47	11,16	82,0
2 H	1001	15,00	14,53	81,0
4 M	884	16,86	16,34	82,5
4 H +)	light load	30,79	31,95	81,0

+) Front wheel drive disengaged

*) The 4 L gear corresponds to the nominal travelling speed nearest to 7,5 km/h

PRÜFUNGS-ABTEILUNG
DEUTZ-FAHR DX 3.70

Test No. 85-130

(8) LIFTING FORCES AND HYDRAULIC POWER

Date of tests: 15th and 19th August 1985

Lifting Forces (Linkage dimensions: see page - 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	640	2000	163	-	-
On the frame	200	740	1640	163	2599	10

Temperature of hydraulic fluid at start of test 65°C

Lifting heights relative to horizontal lower links

mm	-400	-365	-300	-200	-100	0	+100	+200	+275	+300	+340
Lifting forces at hitch points											
daN		2000	2060	2120	2180	2220	2230	2260	2370		
Lifting forces at test frame											
daN	1960		1960	1940	1900	1860	1810	1700		1680	1640

Hydraulic Power

Sustained pressure with relief valve open 181 bar
Pump delivery rate at minimum pressure 40,5 l/min

	Hydraulic power kW	Flow rate l/min	Pressure bar	Oil temperature °C
at 90% of the actual relief valve setting	10,2	37,6	163	65
maximum	10,3	37,4	166	65

Tapping point used for test: at rear of tractor

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