

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



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

**821**



**Agricultural Tractor DEUTZ DX 145 (4 WD)  
Type denomination D 1029 A-S**

**Manufacturer**

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

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: May till August 1981  
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.N.E.E.M.A., France) as being in accordance with the O.E.C.D. STANDARD CODE.

Date of Approval: 22nd January 1982

O.E.C.D. No. 821

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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/cm<sup>2</sup> or 1 kp/cm<sup>2</sup> = 0,981 bar

1000 mbar = 750,1 mm Hg

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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-Deutz and Groß-Umstadt

Duration of running-in: Engine appr. 150 hours  
tractor appr. 100 hours

#### SPECIFICATION OF TRACTOR

##### Tractor

Make: DEUTZ  
Trade name: DX 145  
Type  
denomination: D 1029 A-S  
Type: Wheel tractor, unit construction, all wheel driven  
Serial No.: 76 33 0172

##### Engine

Make: DEUTZ  
Model: BF 6L 913  
Type: Supercharged 4-stroke Diesel-engine,  
with direct injection, aircooled  
Serial No.: 633 7748

Cylinders: 6, in line, bore 102 mm, stroke 125 mm;  
displacement 6128 cm<sup>3</sup>, compression ratio 15,5;  
replaceable ribbed cylinders

Valves: Overhead

Fuel system: BOSCH fuel feed pump  
FP/KS 22 AD 6/2;  
BOSCH in line injection pump  
PES 6A 85D 410 RS 2537;  
manufacturer's production setting 68 mm<sup>3</sup>/stroke  
at rated speed and full load;  
injection timing 28° before TDC;  
BOSCH multihole injection nozzles  
DLLA 149 S 775;  
injection pressure 175 + 8 bar;  
BOSCH two stage fuel filter with  
replaceable cartridges;  
capacity of fuel tank 125 l,  
additional tank with 100 l capacity optionally  
available



- Governor:** BOSCH centrifugal variable speed governor  
with manifold-pressure compensator  
EP/RSV 325-1150 A 8 B 2020 DL;  
governed range 700 to 2475 rev/min;  
rated engine speed 2300 rev/min
- Supercharger:** KÜHNLE, KOPP UND KAUSCH  
3 LEP 229 A 13.2;  
exhaust turbo-supercharger,  
maximum supercharge pressure appr. 670 mbar,  
without charge cooling
- Air cleaner:** DEUTZ-SICCOPUR  
dry paper element filter with precleaner;  
replaceable cartridge and safety cartridge;  
electrical maintenance indicator
- Exhaust silencer:** WALKER, KH 11  
single chamber absorption type silencer,  
120 x 230 mm oval, 1140 mm long;  
on the left of bonnet;  
mouth showing upwards;  
mouth 2830 mm above ground
- Lubrication system:** Forced feed from gear pump,  
strainer in sump;  
MANN oil filter in full flow, with replaceable  
cartridge and by-pass valve;  
oil and cartridge change period 200 operating  
hours;  
oil capacity 16 l;  
specified oil quality           API-CD
- recommended oil viscosities:
- |       |            |          |            |
|-------|------------|----------|------------|
| below | -5°C       |          | SAE 10W    |
| over  | -10°C      | to +10°C | SAE 20W/20 |
| over  | +5°C       | to +30°C | SAE 30     |
| over  | +25°C      |          | SAE 40     |
| or    | over -10°C |          | SAE 20W/40 |
- oil cooler at cooling air baffle, controlled  
by thermostat



Cooling system: Air cooling;  
V-belt driven axial blower with fluid coupling,  
blower speed controlled by exhaust gas  
temperature

Starting system: Electrical  
BOSCH solenoid pre-engaged-drive starting  
motor ID 12V 3kW  
BERU flame plug in intake manifold

Electrical  
equipment: 12 Volt, negative earth;  
BOSCH 3-phase alternator K1-14V 65A21, 910W;  
1 lead acid battery, 110 Ah at 20 hours rating

Transmission

Clutch: LAMELLEN UND KUPPLUNGSBAU GMBH  
A1 435 02600  
clutch disc diameter 350 mm  
dry single disc type clutch for travel drive,  
by pedal hydraulically operated

Gear box: DEUTZ  
TW 91.10-S  
synchromesh speed change gear with 4 speeds;  
collar shifted group gear with 3 forward groups  
(L, Z and S)  
and 1 reverse group (R);  
power shift group gear with 2 groups (HI, LO)  
and collar shifted creep speed gear optionally  
available,  
HI-LO power shift gear fitted on tested tractor;  
totally 24 forward and 8 reverse speeds  
  
transmission model without power shift group  
is equipped with 5 speed change gear;  
gear oil cooler at cooling air baffle  
gear oil filter with replaceable cartridge,  
cartridge change once a year or after  
1000 operating hours



Total ratios and speeds (tyres 20.8 R 38)

Power shift group	Group	Gear	Total ratio engine : driving wheel	Nominal travelling speed at rated engine speed *) km/h
LO	L	1	317,48	2,33
		2	222,79	3,33
		3	175,45	4,23
		4	125,32	5,92
	Z	1	156,68	4,73
		2	109,95	6,74
		3	86,59	8,56
		4	61,85	11,99
	S	1	74,70	9,92
		2	52,42	14,14
		3	41,28	17,96
		4	29,49	25,14
	R	1	127,66	5,81
		2	89,58	8,28
		3	70,55	10,51
		4	50,39	14,71
HI	L	1	256,57	2,89
		2	180,05	4,12
		3	141,79	5,23
		4	101,28	7,32
	Z	1	126,62	5,85
		2	88,86	8,34
		3	69,97	10,59
		4	49,98	14,83
	S	1	60,37	12,28
		2	42,37	17,50
		3	33,36	22,22
		4	23,83	31,11
	R	1	103,17	7,19
		2	72,40	10,24
		3	57,01	13,00
		4	40,72	18,20

\*) calculated with the radius index 855 mm



Rear axle and final drive: DEUTZ  
bevel gear and bevel gear differential on intermediate shaft;  
cylindrical gear transmission to rear axle half shafts, rear axle shafts with pedal operated, under load shiftable differential lock;  
differential lock not self disengaging, with pilot lamp;  
planetary final drives

Front axle and final drive: ZAHNRADFABRIK FRIEDRICHSHAFEN AG  
APL 3052  
centre drive, under load engageable, operated by hand lever acting on a wet multi-plate clutch;  
bevel gear drive, self acting differential lock, planetary final drives

Oil change interval: Front axle 1000 operating hours  
other gears 2000 operating hours,  
at least after 2 years

Oil qualities: Front axle (differential and final drives) API-GL5  
gear box, rear axle with final drives API-CC or API-CD

Oil capacity and viscosity: Front axle differential 8 l SAE 90  
front final drives each 1 l SAE 90  
gear box incl. rear axle with final drives 55 l SAE 20W/20

#### Power take-off

Main p.t.o.: 2 p.t.o. shafts at rear of tractor;  
driven by a wet multiplate clutch,  
independent from driving clutch;  
hydraulically operated by hand-valve;  
both shafts rotate simultaneously,  
clockwisely, viewed from tractor rear

540 rev/min p.t.o.  
700 mm above ground,  
50 mm to the right of tractor's median plane,  
525 mm behind rear axle centre line;  
35 mm dia, 6 splines ISO 500/DIN 9611 type 1;  
604 rev/min at rated engine speed, standard  
p.t.o. speed 540 rev/min at 2057 rev/min of engine





1000 rev/min p.t.o.  
685 mm above ground,  
50 mm to the left of tractor's median plane,  
525 mm behind rear axle centre line;  
35 mm dia, 21 splines ISO 500/DIN 9611 type 2,  
type 1 optionally available

1110 rev/min at rated engine speed,  
standard p.t.o. speed 1000 rev/min at  
2071 rev/min of engine

Secondary  
p.t.o.:

1000 rev/min front p.t.o.: optionally available;  
max. p.t.o. power 75 kW,  
direction of rotation clockwise, viewed from  
tractor rear;  
driven by front end of crankshaft;  
hydraulically operated by hand-valve, acting  
on a wet multiplate clutch;  
780 mm above ground in tractor's median plane,  
35 mm dia, 21 splines ISO 500/DIN 9611 Type 2

1126 rev/min at rated engine speed,  
standard p.t.o. speed 1000 rev/min at  
2042 rev/min of engine

#### Power lift

Hydraulic  
system:

Open centre system;  
BOSCH tandem gear pump HY Z FFS 11/22,5 + 14L206  
directly driven by engine;  
delivery 22,5 cm<sup>3</sup>/rev or 52 l/min at rated  
engine speed;  
hydraulic oil filter with replaceable cartridge  
in steering oil circuit, electrical maintenance  
indicator;  
hydraulic oil cooler inside of engine  
cooling-air baffle;  
DEUTZ control valve, maximum working  
pressure 175 + 8 bar;  
1 single acting additional DEUTZ control valve,  
oil tap and return pipe at rear of tractor;  
maximum 3 single or double acting additional  
control valves available;  
when control valves in neutral position short  
circuit to reduce flow loss  
(automatic short circuiting device)



- Power lift at rear: DEUTZ  
K 55.2, DEUTZ-TRANSFERMATIC-system  
hydraulic power lift in unit construction;  
draft and position control, both steplessly  
mixable, floating position,  
lower link sensing;  
single acting cylinder with 90 mm bore  
and 146 mm stroke;  
overpressure relief valve in cylinder set  
to 220 bar;  
2 additional cylinders with 65 mm bore  
and 190 mm stroke or  
2 additional cylinders with 55 mm bore  
optionally available
- Power lift at front: Optionally available, fitted on tested tractor;  
operated by additional control valve of  
remote circuit, with stopcock;  
2 single acting cylinders with 80 mm bore  
and 150 mm stroke, directly acting on  
laterally stabilized lower links
- Oil capacity and oil change interval: Separate hydraulic oil reservoir with 18,5 l  
capacity, incorporated in power lift unit;  
additional tank with 20 l capacity available  
following oil quantities may be taken off  
by tappings:  
without additional tank  
tractor standing or  
tractor travelling 7,5 l  
with additional tank  
tractor standing or  
tractor travelling 27,5 l  
oil change once a year
- Oil: SAE 10W API-CC or API-CD



Implement linkage  
at rear:

Three point linkage, joint balls according to ISO 730/I, category 2;  
may be fitted out optionally with WALTERSCHEID quick coupler;  
lift rods adjustable from 830 to 970 mm;  
2 bores in lower links to pivot lift rods;  
bore 1 in 610 mm  
bore 2 in 710 mm distance to pivot point of lower links

with lift rods fitted in bore 2  
and mean length of lift rods 900 mm,  
lifting range above ground from 344 mm to 880 mm

Implement linkage  
at front:

Three point linkage, joint balls according to ISO 730/I, category 2;  
with DEUTZ quick coupler;  
lifting range above ground from 303 mm to 890 mm;  
hydraulic linkage lock for transport by stopcock

Drawbar:

Short bar, fitted on clevis of rear lower links;  
length between the joint balls 825 mm,  
thickness 30 mm, width 80 mm;  
centre hole and 4 holes in 80 mm distance each on either side;  
all holes 33 mm dia;  
distance of holes centre line with lower links in horizontal position:  
from rear axle centre 1100 mm  
from p.t.o. shaft ends 575 mm

with lift rods fitted in hole 2 and mean length of lift rods 900 mm:  
height above ground adjustable by power lift in the range from 359 to 895 mm, measured at the surface of the bar,  
the drawbar may be mechanically hydraulically fixed in the height of 632 mm, measured at the surface of the bar



Pull attachment

Swinging drawbar: Optional, fitted on tractor tested;  
height above ground 466 mm, measured at the surface of the bar;  
pin hole 33 mm dia;  
distance of pin hole centre to rear axle centre line/p.t.o. shaft ends adjustable by shifting the drawbar in longitudinal direction to

	880/355	925/400	or 1025/500	mm
permissible vertical load	1350	1350	1100	kg

pivot point 338 mm before rear axle centre line;  
swinging drawbar dependent on the length laterally swingable about 280, 285 or 300 mm to either side

Trailer hitch: CRAMER, automatical  
KU 758  
optional DEUTZ, AK 8500, non automatical;  
height above ground adjustable to 948, 998 or 1048 mm;  
coupling pin 32 mm dia;  
Distance of hitch hole centre:  
to rear axle centre line 603 mm  
to p.t.o. shaft ends 78 mm  
permissible vertical load 2000 kg

Towing hitch: Not fitted on tested tractor,  
optionally available, height above ground 890 mm

Steering

ZAHNRADFABRIK FRIEDRICHSHAFEN AG  
hydrostatic steering model 8452;  
oil circuit in common with hydraulic power lift;  
tandem part of the BOSCH gear pump, with 14 cm<sup>3</sup>/rev respectively 32,2 l/min at rated engine speed;  
2 double acting differential rams, directly acting on the linkage levers



Brakes

Parking brake: GIRLING, GMPD  
mechanical, encased, dry full-disc brake  
self reinforcing;  
acting on intermediate shaft of rear axle,  
situated outside of gearbox;  
operated by pulling handle with ratchet;  
2 brake lining discs each on the left and  
right of intermediate shaft, brake discs  
152 mm dia

Service brake: TEVES  
pedal operated muscle power brake with  
hydraulic transmission, acting on inter-  
mediate shaft of rear axle;  
1 encased caliper type disc brake with  
2 calipers each on the left and right of  
intermediate shaft,  
brake cases situated outside of gearbox;  
brake disc 245 mm dia

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

Wheels

Steering wheels: 2 pneumatics at front, 16,9-26 6 ply,  
diagonal type tyre casing;  
maximum permissible load per tyre 1780 kg  
at 1,3 bar inflation pressure and 30 km/h;  
track width 1800 mm, by reversing wheels  
adjustable to 2000 mm;  
rims DW 14 x 26

Driving wheels: At front and at rear;  
rear driving wheels:  
2 pneumatics 20,8 R 38 8 ply,  
radial type tyre casing;  
maximum permissible load per tyre 3090 kg  
at 1,3 bar inflation pressure and 30 km/h;  
optional lug type rims, fitted on tested  
tractor;  
track width adjustable in 4 steps of 100 mm  
each from 1800 to 2200 mm by turning wheels  
and offset lug rims;  
rims W 18L x 38



Wheel base: 2788 mm

Cab

DEUTZ

OECD-tested safety-cab SK 1905-37/3

OECD-No.: CSD 0272/1

4 antivibration mounts;

wind screen and upper part of rear window  
tiltable;

driver's platform 1270 mm above ground;

door on the left, optional on the left and  
on the right,

2 steps 685 mm and 975 mm above ground;

in accordance with the manufacturer's information,  
in meantime the steps are fitted in a height  
of 641 and 931 mm above ground

noise reduction materials

floor:

rubber mat 4 mm

mudguards:

imitation leather-coated foam plastics 8 mm

roof:

textile-coated 2-layer-foam plastics mat 38 mm

engine oil-heat exchanger combined with  
ventilation system, incorporated in instrument  
panel;

air-intake above bonnet, air outlet jets for  
the cab floor,

the windscreen and the head room;

heating by recirculating air possible

optionally auxiliary heater and/or air  
conditioning installation available

the tractor is also available without cab, with  
or without protection frame or with simpler  
cab outfit

Seat

GRAMMER

DS 85H/90A

upholstered seat with back rest and arm rests

adjustable suspension with shock absorber;

back rest infinitely variable,

side inclination and arm rests adjustable;

height of unloaded seat above platform adjustable  
to 3 positions from 490 to 550 mm;

for and aft adjustable about 155 mm



Number of grease points 22

Dimensions

Total length: 5115 mm without ballast  
6320 mm with ballast

Total width: 2372 mm without ballast  
2650 mm with ballast

Total height: 2830 mm to exhaust mouth

Ground clearance: 495 mm below front axle differential

Lighting equipment Electrical, 12 V  
in accordance with German legislation

	Dimensions mm	Height above ground of centre mm	Distance from outside edge of tractor to centre mm
Head lights	130 dia	1194	978
Side lights	50 x 50	1800	388
Rear lights	45 x 65	1795	356
Reflectors	103 x 58	1500	170

Possible formations of tyre pairs

Tyre sizes			
at front		at rear	
9,5-32	10 ply	9,5-48	8 ply
13,6-28	6 ply	18,4-38	8 ply
14,9-28	6 ply	20,8-38	8 ply
16,9-26	6 ply	20,8-38	8 ply

Running-time meter

Mechanical, combined with tachometer, driven by camshaft of engine; reference engine speed for one really counted hour 1500 rev/min

TEST CONDITIONSTrack of wheels

at front 1800 mm  
at rear 1800 mm

Weights

		without driver	with driver
Without ballast:	front	2520 kg	2535 kg
	rear	3335 kg	3400 kg
	total	5855 kg	5935 kg
Front ballast:	1 front frame	265 kg	
	2 weights, total	94 kg	
	water in the tyres	653 kg	
Rear ballast:	1 rear frame	300 kg	
	22 weights, total	748 kg	
With ballast:	front	3185 kg	3200 kg
	rear	4730 kg	4795 kg
	total	7915 kg	7995 kg







COMPULSORY TESTS

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

Date of tests: 24th June 1981

Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed		Fuel consumption			Specific energy kWh/l	
	engine rev/min	p.t.o. rev/min	hourly l/h	kg/h	specific g/kWh		
<u>Maximum power</u>							
At 2-hour test							
88.4	2300	1110	28.12	23.26	263	3.15	
At standard p.t.o. speed							
87.2	2071	1000	25.94	21.45	246	3.36	
At the speed recommended for drawbar work							
88.4	2300	1110	28.12	23.26	263	3.15	
<u>Part loads</u> , the governor hand lever in the position corresponding to the maximum power at full load							
(i) 85% of the torque at maximum power at 2-hour test							
78.6	2404	1161	26.29	21.74	277	2.99	
(ii) unloaded							
-	2476	1195	6.85	5.66	-	-	
(iii) 50% of the load defined in (i)							
39.9	2436	1176	16.38	13.55	340	2.43	
(iv) maximum power							
88.4	2300	1110	28.12	23.26	263	3.15	
(v) 25% of the load defined in (i)							
20.1	2456	1186	11.22	9.28	463	1.79	
(vi) 75% of the load defined in (i)							
59.4	2422	1169	21.30	17.61	296	2.79	



Power kW	Speed		Fuel consumption			Specific energy kWh/l
	engine rev/min	p.t.o. rev/min	hourly l/h	specific kg/h	g/kWh	
<u>Part loads</u> , the governor hand lever in the position corresponding to the standard p.t.o. speed at full load						
(i) 85% of the torque at maximum power at standard p.t.o. speed						
78.3	2191	1058	24.31	20.11	257	3.22
(ii) unloaded						
-	2270	1096	5.66	4.68	-	-
(iii) 50% of the load defined in (i)						
39.8	2222	1073	14.69	12.15	305	2.71
(iv) maximum power						
87.2	2071	1000	25.94	21.45	246	3.36
(v) 25% of the load defined in (i)						
20.0	2238	1081	9.74	8.05	402	2.06
(vi) 75% of the load defined in (i)						
59.2	2210	1067	19.40	16.04	271	3.05

Standard specific fuel consumption (g/kWh): 277/340/257/305

No load maximum engine speed: 2476 rev/min

Equivalent crankshaft torque at maximum power (2 hours): 367 Nm

Maximum equivalent crankshaft torque: 448 Nm at 1602 rev/min of the engine

Mean atmospheric conditions: temperature 26 °C  
 pressure 998 mbar  
 relative humidity 50 %

Maximum temperatures: coolant -  
 engine oil 98 °C  
 fuel 28 °C  
 engine air intake 29 °C



PRÜFUNGS-ABTEILUNG

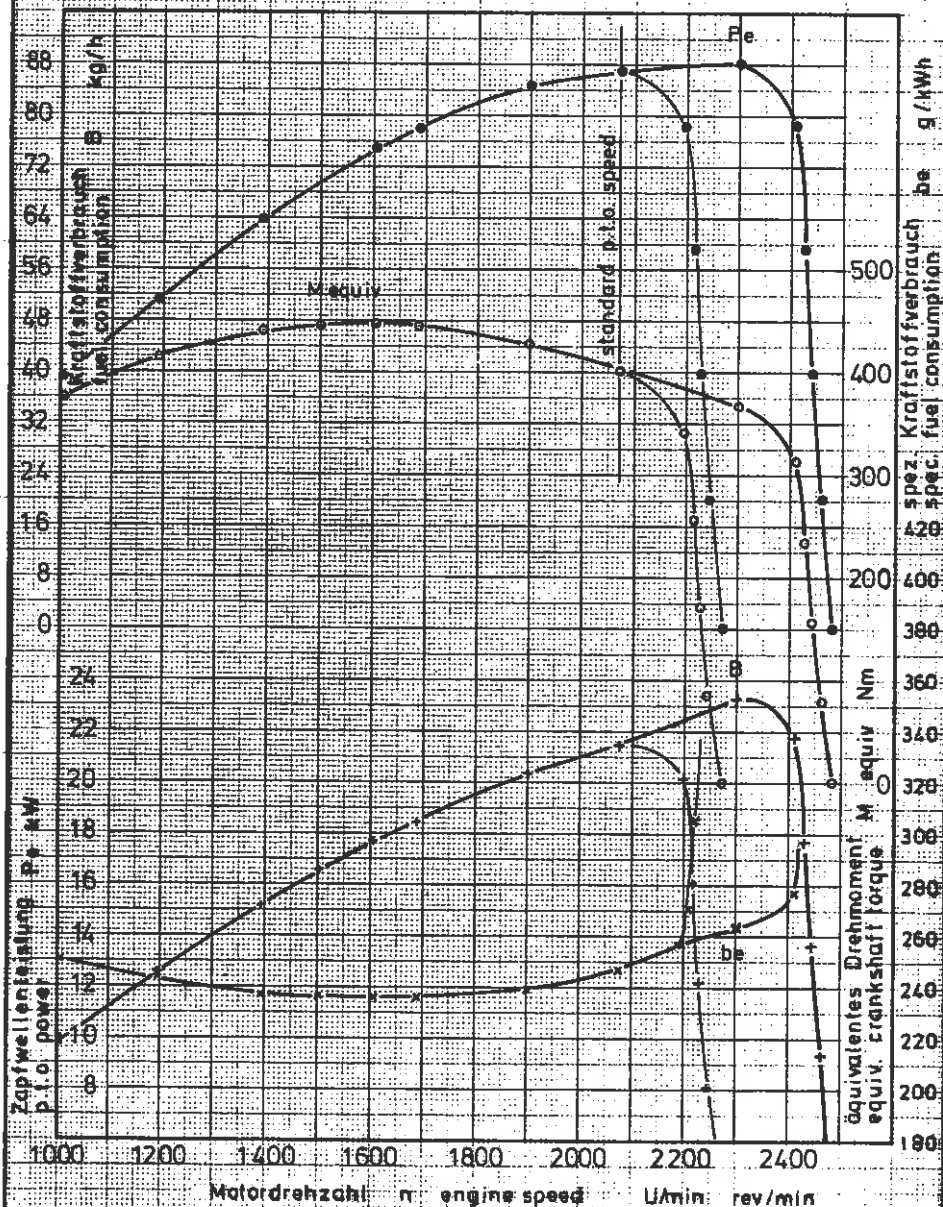
DEUTZ D 1029 A-S

# Zapfwellenleistung

## P.t.a. performance

Test Nr. 80-124

1000 U/min rev/min





PRÜFUNGS-ABTEILUNG

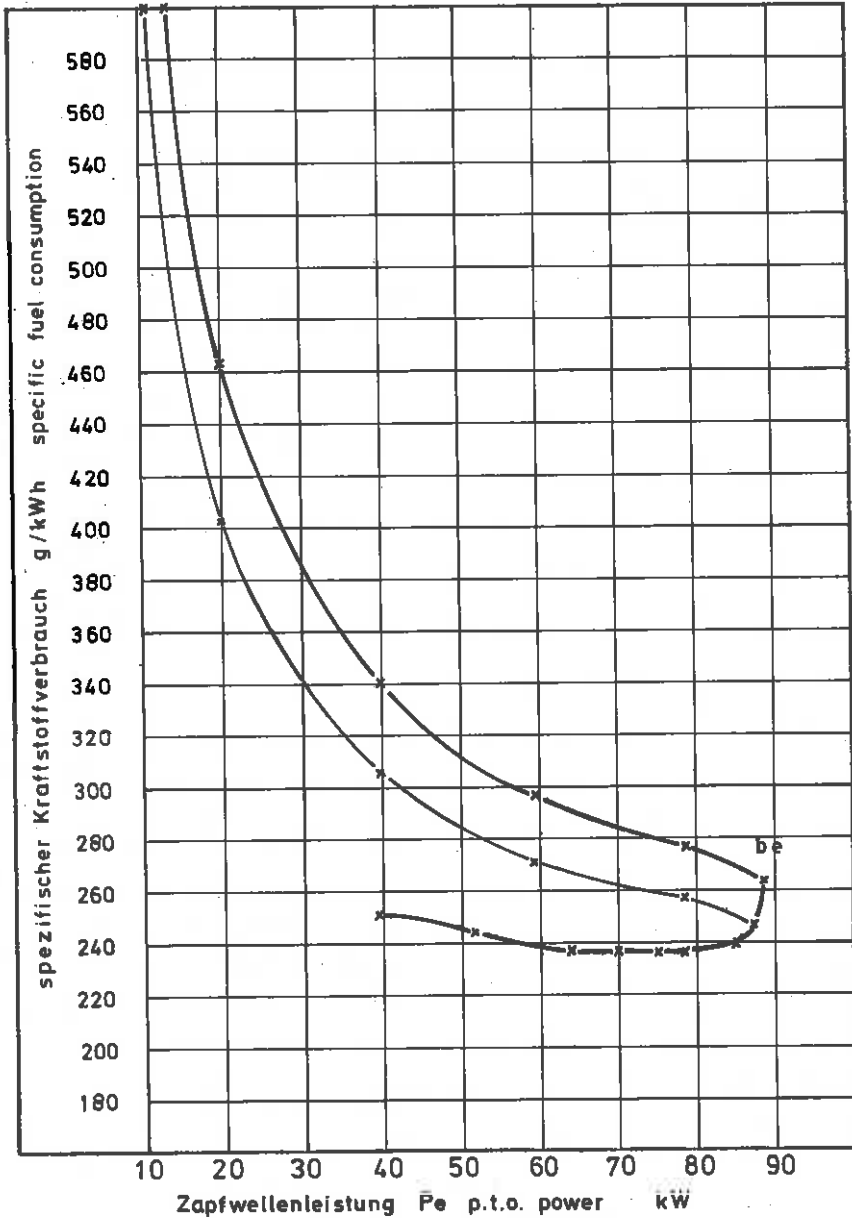
DEUTZ D 1029 A-S

# Zapfwellenleistung

## P.t.o. performance

Test Nr. 80-124

1000 U/min rev/min





**(2) DRAWBAR PERFORMANCE**

Date of tests: 8th July till 3rd August 1981  
Type of track: Concrete

Gear no. and group	Driving speed	Power	Drawbar pull	Engine speed	Slip of wheels
	km/h				kW
<b>(i) MAXIMUM POWER (unballasted)</b> height of drawbar above ground 500 mm					
2 Hi L	3,78	64,2	6118	2390	14,9
3 Lo L	3,88	66,0	6125	2389	14,9
1 Lo Z	4,26	70,6	5964	2302	13,3
3 Hi L	4,84	72,7	5406	2302	10,8
1 Hi Z	5,53	73,2	4767	2300	9,0
4 Lo L	5,60	73,7	4738	2301	8,8
2 Lo Z	6,47	76,6	4260	2298	7,2
4 Hi L	7,10	75,0	3801	2300	6,3
2 Hi Z	8,17	75,6	3329	2298	5,3
3 Lo Z	8,38	78,8	3384	2301	5,5
1 Lo S	9,84	75,8	2772	2300	4,2
3 Hi Z	10,54	77,4	2642	2301	3,9
4 Lo Z	11,95	74,2	2236	2301	3,2
1 Hi S	12,17	74,0	2188	2299	3,1
2 Lo S	13,94	73,5	1897	2302	2,5
<b>(ii) MAXIMUM POWER (ballasted)</b> height of drawbar above ground 475 mm					
1 Lo L	2,16	48,1	8011	2416	15,0
1 Hi L	2,65	58,9	8001	2398	15,0
2 Lo L	3,03	67,5	8023	2390	14,9
2 Hi L	3,78	73,4	6989	2301	11,0
3 Lo L	3,91	74,5	6857	2301	10,5
1 Lo Z	4,50	74,9	5988	2301	8,0
3 Hi L	5,02	76,4	5482	2302	7,0
1 Hi Z	5,68	76,5	4848	2301	6,0
4 Lo L	5,74	75,9	4758	2302	5,7
2 Lo Z	6,60	76,3	4159	2298	4,7
4 Hi L	7,20	76,1	3807	2300	4,4
2 Hi Z	8,25	76,2	3323	2297	3,7
3 Lo Z	8,43	78,1	3336	2296	3,9
1 Lo S	9,88	76,1	2773	2301	3,2
3 Hi Z	10,57	77,4	2637	2299	2,9
4 Lo Z	12,02	75,2	2251	2299	2,4
1 Hi S	12,24	73,8	2171	2302	2,3
2 Lo S	14,24	73,0	1846	2306	1,7
4 Hi Z	14,92	72,3	1744	2298	1,9



Tyre size front: 16,9-26 6 ply  
 rear: 20,8 R 38 8 ply

Tread bar height at the beginning of drawbar tests, at front 91%  
 at rear 97% of the value when new

Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperatures			Atmospheric conditions		
		Fuel °C	Coolant °C	Engine-oil °C	Temperature °C	Relative humidity %	Pressure mbar

tyre inflation pressure 0,8 bar at front, 1,0 bar at rear

352	2,35	48	-	98	23	63	1005
344	2,41	50	-	99	23	64	1005
328	2,52	47	-	101	24	62	1005
318	2,60	48	-	99	23	61	1005
316	2,62	48	-	100	24	60	1005
316	2,61	48	-	97	25	62	1005
307	2,70	42	-	103	24	85	1003
311	2,66	46	-	100	24	81	1003
307	2,69	47	-	99	24	79	1003
298	2,77	47	-	99	24	77	1003
307	2,69	47	-	99	25	76	1003
300	2,76	49	-	98	25	75	1003
310	2,67	48	-	96	25	74	1003
314	2,63	50	-	96	26	70	1003
315	2,62	51	-	102	27	66	1003

tyre inflation pressure 1,1 bar at front, 1,0 bar at rear

378	2,21	40	-	94	21	80	1001
353	2,37	51	-	98	21	71	1001
347	2,41	48	-	103	22	99	1008
319	2,62	50	-	104	24	63	1001
313	2,67	51	-	105	26	62	1001
312	2,68	51	-	102	26	63	1001
305	2,74	53	-	102	26	61	1001
307	2,72	55	-	104	26	62	1001
309	2,71	48	-	102	23	95	1008
307	2,73	48	-	104	25	95	1009
308	2,72	50	-	99	25	89	1009
306	2,73	51	-	99	26	79	1009
300	2,79	52	-	98	26	74	1009
308	2,71	51	-	102	26	74	1009
303	2,75	48	-	104	30	65	1009
312	2,68	49	-	104	30	67	1009
316	2,65	50	-	102	30	81	1009
317	2,64	50	-	100	29	77	1009
321	2,60	50	-	101	28	78	1009



Continuation drawbar performance

Gear no. and group	Driving speed km/h	Power kW	Drawbar pull daN	Engine speed rev/min	Slip of wheels %
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(iii) FIVE-HOUR-TEST  
at 75% of pull at maximum power in 2nd Hi Z gear

2 Hi Z	8,69	60,2	2492	2399	2,8
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(iv) FIVE-HOUR-TEST  
at pull corresponding to 15% wheel slip in test (ii)

2 Lo L	2,76	61,5	8023	2388	-
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Total oil consumption during ten hours duration of tests (iii) and (iv) 81 g/h

(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 16,9-26 6 ply  
rear: 20,8 R 38 8 ply

Track of wheels front: 1800 mm  
rear: 1800 mm

Front wheel drive disengaged

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	5,62	5,68	6,47	6,53
Radius of turning circle	5,21	5,25	6,06	6,10





Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperatures			Atmospheric conditions		
		Fuel °C	Coolant °C	Engine-oil °C	Temperature °C	Relative humidity %	Pressure mbar
337	2,48	54	-	110	28	78	1009
-	-	48	-	114	25	82	1010

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

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	1006 mm
Distance forward from rear axle centre	1196 mm
Distance from tractor's median plane, to the left	3 mm



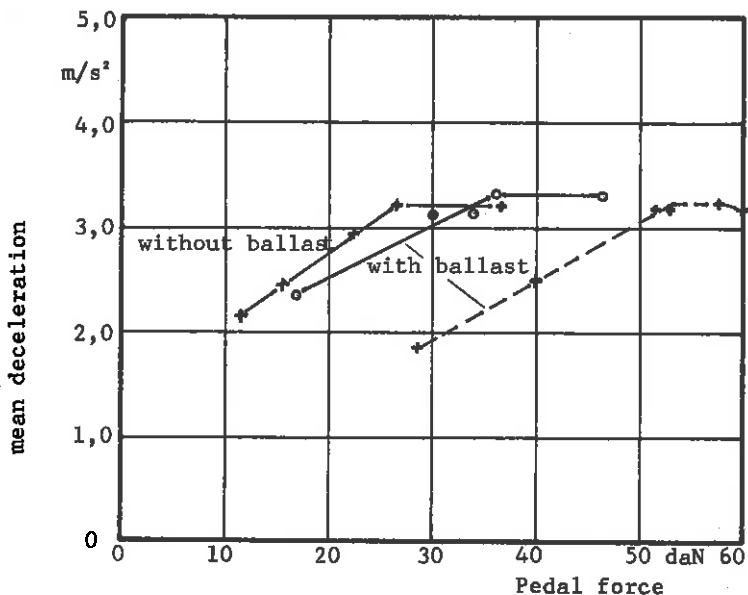
(5) Braking

Date of tests: 30th July 1981

Tractor masses during tests with driver:	front	rear	total
	kg	kg	kg
without ballast	2535	3400	5935
with ballast	3200	4795	7995

A) Service brake

Type-0-test (cold brakes) —, Type-I-(fade)test - - -



Speed before application of brakes, without ballast 34,0 km/h  
with ballast 33,7 km/h

The brakes were heated by towing of the tractor for 1 km

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	14	15	11	12



(6) MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test: 29th July 1981  
 Type of track: Concrete  
 Type of sound level meter: BRÜEL AND KJAER model 2209

Results of test

Gear: 4th Hi S  
 Travelling speed before acceleration: 25,5 km/h  
 Sound level: 86,0 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 27th July 1981  
 Type of track: Concrete  
 Type of sound level meter: BRÜEL AND KJAER model 2209

Tractor with DEUTZ safety cab

Results of tests

Gear	Drawbar pull at which the tractor develops the maximum sound level daN	Travelling speed		Sound level dB(A)
		nominal km/h	effective km/h	
1 Lo L	5809	2,33	2,19	80,5
1 Hi L	5851	2,89	2,66	81,0
2 Lo L	5766	3,33	3,08	80,5
2 Hi L	5713	4,12	3,80	82,0
3 Lo L	5832	4,23	3,88	80,5
1 Lo Z	5792	4,73	4,31	81,0
3 Hi L	5464	5,23	4,82	83,5
1 Hi Z	4674	5,85	5,73	82,5
4 Lo L	4792	5,92	5,59	82,0
2 Lo Z	4102	6,74	6,62	82,0
4 Hi L*)	3834	7,32	7,10	83,5
4 Hi L*)	light load	7,32	8,15	80,5
2 Hi Z	3230	8,34	8,29	83,5
3 Lo Z	3362	8,56	8,37	82,0
1 Lo S	2675	9,92	10,06	82,0
3 Hi Z	2570	10,59	10,66	83,0
4 Lo Z	2202	11,99	12,15	82,5
1 Hi S	2100	12,28	12,62	83,5
2 Lo S	1793	14,14	14,76	82,0
4 Hi Z	1683	14,83	15,39	82,5
2 Hi S	1430	17,50	18,20	83,0
3 Lo S	1427	17,96	18,69	82,0
4 Hi S	light load	31,11	33,99	83,0

\*) The 4th Hi L-gear corresponds to the travelling speed nearest to 7,5 km/h





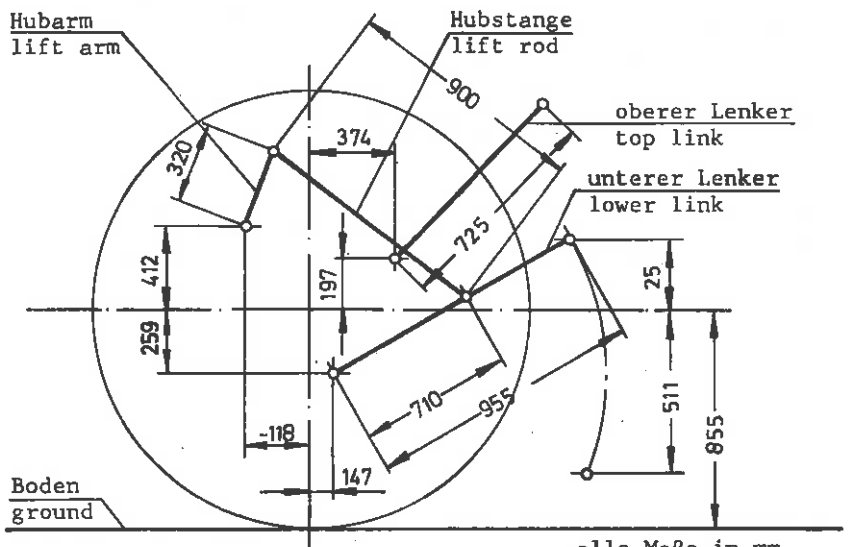
LINKAGE GEOMETRY when connected to the standard frame (at rear)

Projected length in side view:

Lower links	955 mm
Lift arms	320 mm
Lift rods	900 mm
Top link	725 mm
Distance of lift rod connection point from pivot point of lower link	710 mm

The following dimensions are given relative to the rear wheel  
centre line, situated 855 mm above ground:

Lower link pivot point	147 mm behind, 259 mm below
Top link pivot point	374 mm behind, 197 mm above
Lift arm pivot point	118 mm behind, 412 mm above
Maximum and minimum height of lower link hitch points	511 mm below, 25 mm above
Height of lower link hitch points when locked in transport position	38 mm below



alle Maße in mm  
all dimensions in mm



Power lift at front

	Height of lower hitch point above ground in down pos. mm	Vertical movement mm	Max. force exerted through full range daN	Corresp. pressure of hydraul. fluid bar	Moment about front axle daNm	Max. tilt angle of mast over range of lift degrees
At hitch points	303	587	2820	158	-	-
On the frame	303	622	2850	158	4945	6 *)

Temperature of hydraulic fluid at start of test 65°C

\*) max. tilt angle of mast from vertical position to max. height 5°

Lifting heights relative to horizontal lower links

mm	-250	-240	-200	-100	0	+100	+200	+300	+347	+372
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Lifting forces at hitch points

daN		2820	2840	2940	3070	3170	3410	3550	3600	
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Lifting forces at test frame

daN	2850		2850	2870	2920	2940	2960	2920		2850
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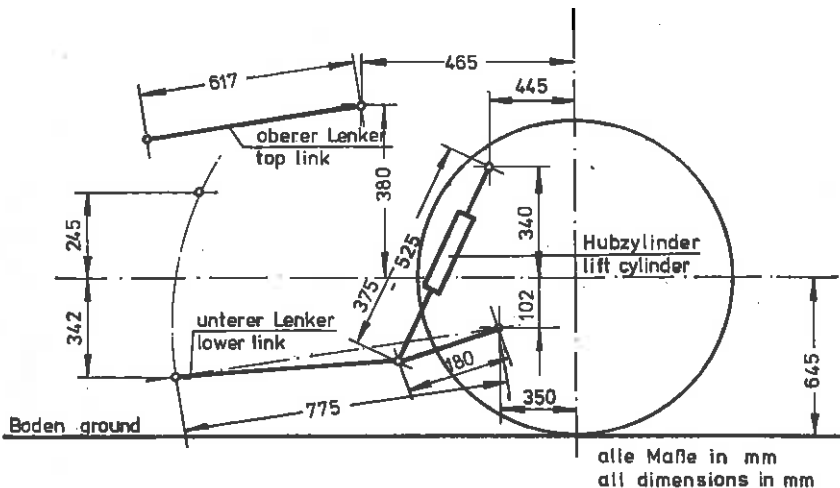
LINKAGE GEOMETRY when connected to the standard frame (at front)

Projected length in side view

Lower links	775 mm
Lift cylinders	375 to 525 mm
Top link	617 mm
Distance of lift cylinder connection points from pivot points of lower links	180 mm

The following dimensions are given relative to the front wheel centre line, situated 645 mm above ground

Lower link pivot point	350 mm before, 102 mm below
Top link pivot point	465 mm before, 380 mm above
Lift cylinder pivot point	445 mm before, 340 mm above
Maximum and minimum height of lower link hitch points	245 mm above, 342 mm below
Height of lower link hitch points when locked in transport position	245 mm above













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