O.E.C.D. No.: 459
Printed: June 1974

Report on test in accordance with
O.E.C.D. STANDARD CODE for the Official Testing
of Agricultural Tractors



DEUTZ-AGRICULTURAL TRACTOR D 130 06

Manufactured by: KLÖCKNER-HUMBOLDT-DEUTZ AG
D-5000 Köln-Deutz

Date of Tests: June till August 1973

DLG-Testing Station for Agricultural Machinery
D-6114 Groß-Umstadt

DEUTSCHE LANDWIRTSCHAFTS-GESELLSCHAFT e.V.
Prüfungsabteilung für Landmaschinen
D-6000 Frankfurt/Main 1, Zimmerweg 16

This bulletin is based on engineering tests in accordance with the O.E.C.D. STANDARD-CODE for the Official Testing of Agricultural Tractors. It does not contain an evaluation of the performance of the tractor on practical work.

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

Date of Approval: 29th May 1974

Serial No.: 459

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Printed in Germany

PRÜFUNGS-ABTEILUNG
Deutz D 130 06

Test No. 73-72

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Test No. 73-72

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:	KLÖCKNER-HUMBOLDT-DEUTZ AG
Model:	D 130 06
Type:	Wheel type tractor, unit construction rear wheel driven
Serial No:	7937/312

Engine

Make:	KLÖCKNER-HUMBOLDT-DEUTZ AG
Model:	BF 6 L 912
Type:	Supercharged 4 stroke Diesel engine; direct injection, air cooled
Serial No:	5122130
Cylinders:	6, in line; bore 100 mm; stroke 120 mm; displacement 5652 cm^3; compression ratio 17 : 1; replaceable ribbed cylinder liners
Valves:	Overhead
Fuel system:	PIERBURG-fuel feed pump PE 15252; BOSCH-in line injection pump: PES 6 A 85 D 410/3 RS 2348; manufacturer's production setting 64 mm^3/stroke at rated engine speed and full load; injection timing 25° before TDC; BOSCH-multihole injection nozzles DLLA 149 S 490; injection pressure 175 kp/cm^2 BOSCH dual fuel filter with replaceable cartridges; capacity of fuel tank appr. 160 l
Governor:	BOSCH mechanically acting variable speed type governor: EP/RSV 325/1400 A 8 B 578 DL governed range of engine speed 650 to 2550 rev/min; rated engine speed 2400 rev/min

Supercharger:	Exhaust type turbo-supercharger; KÜHNLE, KOPP UND KAUSCH; KKK 3 LD 229/10; supercharge pressure 500± 10% mm Hg; without air intercooler
Air cleaner:	DEUTZ-SICCOPUR dry filter; pre-cleaner incorporated; maintenance indicator; make MANN UND HUMMEL
Exhaust silencer:	H. GILLET KG 3-chamber expansion and absorption type silencer; 120 x 230 mm oval, 660 mm long; at the left hand side of tractor; exhaust pipe showing upwards; mouth of exhaust pipe 2950 mm above ground
Lubrication system:	Forced feed from gear type pump; strainer in sump; MANN oil filter in full flow with by-pass; replaceable cartridge; oil capacity 14 l; oil changing period 100 till 120 hours or 200 till 240 hours acc. to oil quality; recommended oil viscosity: winter HD SAE 10W summer HD SAE 20W/20 tropics HD SAE 30
Cooling system:	Air cooling with axial blower; V-belt driven
Starting system:	Electrically; BOSCH starter motor JD (R) 12 V 4 PS; BOSCH flame glowing plug in intake pipe
Electrical equipment:	12 Volt; BOSCH 3 phase alternator: G 1 RL 14 V 28 A 22; 1 lead acid battery 110 Ah at 20 hours rating

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Transmission

Clutch:	LAMELLEN- UND KUPPLUNGSBAU GMBH; dry dual disc type clutch DHU 327/310; driving part operated by foot pedal; p.t.o.-part operated by hand lever
Gear box:	ZAHNRADFABRIK FRIEDRICHSHAFEN AG; T 3402; speed change gear with 6 forward speeds; 1st and 2nd speed collar shifted; 3rd to 6th gear synchronized; group gear with 2 forward and 1 reverse group, fully synchronized; 6th speed of speed change gear is locked in reverse group; creep speed group for 1st and 2nd speed of speed change gear in both forward and reverse group, collar shifted; total 16 forward and 7 reverse speeds
Rear axle and final drive:	Crown wheel and pinion; bevel gear type differential; differential lock fitted; pedal operated, self-disengaging; planetary final drive, outboard mounted
Oil capacity:	Gear box with rear axle drive 45 l planetary final drives 6,5 l each 13 l
Recommended oil qualities:	Gear box with rear axle drive; engine oil SAE 20 or SAE 20W/20; planetary final drives EP-oil SAE 90
Oil changing period:	1000 hours
Power take-off	Live p.t.o.; at rear of tractor; driven by the hand lever operated second disc of the dual clutch; manually engaged; 725 mm above ground in median plane of tractor

(Continuation on page 8)

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Total ratios and speeds

Group gear 1	Group gear 2	Speed change gear No.	Number of engine revolutions for one revolution of the driving wheel	Theoretical travelling speed at rated engine speed of 2300 rev/min km/h	Theoretical travelling speed at rated engine speed of 2300 rev/min m/s *)
Forward speeds					
Creep group	slow	1	742,0	1,01	0,28
		2	473,2	1,58	0,44
	fast	1	576,0	1,30	0,36
		2	367,3	2,04	0,57
Normal group	slow	1	302,2	2,48	0,69
		2	192,7	3,88	1,08
		3	124,2	6,03	1,66
		4	80,62	9,29	2,58
		5	50,56	14,81	4,11
		6	31,94	23,44	6,51
	fast	1	234,6	3,19	0,89
		2	149,6	5,00	1,39
		3	96,46	7,76	2,16
		4	62,57	11,97	3,32
		5	39,24	19,08	5,30
		6	24,79	30,20	8,39
Reverse speeds					
Creep group	reverse	1	540,2	1,38	0,39
		2	344,5	2,17	0,60
Normal group		1	220,0	3,40	0,95
		2	140,3	5,34	1,48
		3	90,48	8,28	2,30
		4	58,70	12,76	3,54
		5	36,81	20,34	5,65

*) calculated with the effective tyre radius 0,828 m acc. to manufacturer's specification

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Power take-off (Continuation)	28,9 x 34,8 x 8,7 mm = 1 3/8 inches; 6 splines; (DIN 9611 Form A; BS. 1495; ASAE S. 203.7) 1067 rev/min at rated engine speed; p.t.o.-standard speed 1000 rev/min at 2250 rev/min engine speed; standard speed may be set by aid of tractormeter; direction of rotation clockwise, viewed from tractor rear
Belt pulley	(Not fitted on tractor tested, figures acc. to manufacturer's specifications); at rear of tractor; driving device attached to p.t.o.-shaft; engaged by p.t.o.-hand lever; 280 mm diameter, 220 mm width; 1380 rev/min at rated engine speed; linear belt speed 20,22 m/s; direction of rotation anticlockwise, viewed from the right hand side of tractor
Power lift	Own make; K 45.2; DEUTZ-TRANSFERMATIC-system; hydraulic power lift, unit construction; power control, position control, floating position; single acting ram; bore 90 mm; stroke 152 mm; 2 external single acting additional rams; bore 55 mm, stroke 200 mm; overpressure relief valve for ram adjusted at 210 to 260 kp/cm² ; BOSCH gear type tandem pump 0510 665 316 with 16 cm³/rev delivery for power lift and 11 cm³/rev delivery for steering; directly driven by engine; DEUTZ control valve; maximum oil pressure 175 kp/cm² ; up to 5 oil tappings with max. 3 additional DEUTZ control valves available, one single and two dual acting or vice versa; hydraulic linkage lock for transport; transmission oil is use as hydraulic fluid; 12,5 l may be taken off when operating stationary and 5 l when operating driving

Implement linkage	Three point linkage, category II (DIN 9674); operated by power lift; cast iron telescopic lower links with 2 holes for fixing lifting rods, 530 and 570 mm distance from pivot points; lifting rods length adjustable from 740 to 880 mm; lifting range above ground from 175 to 1130 mm depending on lifting rods length and working point
Holed drawbar	Short drwabar; fitted on clevis of lower links; centre hole and 4 holes on either side 80 mm distance each; all holes 33 mm diameter; length of drawbar between the joint balls 830 mm; thickness of drawbar 30 mm; height above ground adjustable by power-lift between 190 and 1145 mm depending on lifting rods length and working point measured on the surface of the drawbar; in standard height 450 mm above ground mechanically-hydraulically lockable; with lower links in horizontal position distance of centre hole from rear axle centre 1115 mm p.t.o.-shaft end 795 mm
Swinging drawbar	Height above ground 520 mm; diameter of coupling hole 33 mm; distance from end of p.t.o.-shaft 605 and 815 mm; adjustable by shifting swinging drawbar
Trailer hitch	Own make; AK 90 Height above ground 910, 960, 1010 and 1060 mm; adjustable by stifting hitch; hitch hole 33 mm diameter; distance of hitch hole from rear axle centre 575 mm; maximum permissible supporting force 1350 kp
Towing hitch	At front of tractor; height above ground 805 mm

Steering

DANFOSS
hydrostatic steering;
pressure feed by tandem part of the hydraulic pump;
ORBIT control pump OSPA 100, operated by steering wheel;
acting on a double-acting steering ram on the front wheels;
ram with 45 mm bore; 22 mm diameter of piston rod; 250 mm stroke;
propped to the front axle base support

Brakes

Parking brake:

MASCHINENBAU KNOTT;
simplex shoe type brake 25 - 683
mechanically acting on 2 brake drums on the differential shafts;
brake drums 250 mm diameter;
operated by hand lever with ratchet

Foot brake:

MASCHINENBAU KNOTT;
Servo-internal shoe type brake 25 - 868/1
hydraulically acting on 2 brake drums on the differential shafts;
brake drums 250 mm diameter;
operated by foot pedal

Brake drums of parking brake are the same as of foot brake

Steering brake:

Divided pedal of foot brake;
for normal use both parts of pedal are locked together by a safety bolt

Wheels

Steering wheels:

Two pneumatics at front;
11,00 - 16 8 ply
maximum permissible weight on each tyre 1320 kp at 2,5 kp/cm² inflation pressure and 30 km/h velocity;
track width from 1540 to 2140 mm in steps of 100 mm each changeable by extending front axle

rims W 8 L x 16

Wheels (Continuation)

Driving wheels:	Two pneumatics at rear; 20,8-38 8 ply; maximum permissible weight on each tyre 3090 kp at 1,3 kp/cm² inflation pressure and 30 km/h velocity; track width 1724, 1820, 1920, 2024 and 2124 mm; changeable by reversing wheels and offset lug type rims; (with disc wheels track width 1720 and 1820 mm; changeable by reversing wheels) rims W 18L x 38
Wheel base:	2550 mm
Cab	Optional, fitted on tractor tested; FRITZMEIER; all steel construction consisting of square steel bars, square steel tubes and molded pieces welded and bolted together; with rubber vibration dampers mounted on the rear axle housing and on two brackets on the clutch housing, mud guards integrated; entry at the left hand side; 1 mounting step 620 mm above ground; windscreen and all windows of safety glass; inside covered with PVC-materials; the window in the upper part of the back face and both rear windows at the right and left hand side may be opened; further windows in the lower part of the back face for operating the bolt of the trailerhitch and the crank handle of the right hand lifting rod of the three point linkage; the lower part of the back face is removable; the roof plate may be opened and is removable too; blower ventilation and hot air heating; electrically operated windscreen wiper, 1 rear view mirror outdoors at the left hand side

Seat

GRAMMER
DS 20 D 3 H;
upholstered seat with arm rests and up and down adjustable back rest;
parallelogram-guide;
adjustable spring with shock absorber;
height of platform above ground 1110 mm;
height of seat above platform 460 mm in midposition;
from midposition displaceable:
± 60 mm up and down and
± 120 mm to and fro;
up and down and to and fro adjustments are interdependent;
in median plane of tractor

Number of grease points (whole tractor): 14

Weights — Ready for use, with full tanks as tested

Weight of tractor without ballast: Cab fitted

		Without driver	with driver
	front	1610 kp	1610 kp
	rear	2970 kp	3040 kp
	total	4580 kp	4650 kp
Front ballast:	15 front weights 45 kp each		675 kp
Rear ballast:	11 weights per wheel 60 kp each		1320 kp
	water in the tyres		855 kp
with ballast:	front	2480 kp	2490 kp
	rear	4950 kp	5010 kp
	total	7430 kp	7500 kp

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Overall dimensions

Total length: 4230 mm with implement linkage
4520 mm with implement linkage and front ballast

Total width: 2210 mm at smallest track width 1720 mm
2655 mm at largest track width 2124 mm

Total height: 2950 mm to mouth of exhaust pipe
2865 mm to top of the opened roof
2750 mm to top of the closed roof

Maximum ground clearence: 490 mm in the median plane of the tractor

Lighting equipment: Electrical;
12 Volt;
acc. to German governmental regulations

	Dimensions of area mm	Height above ground to centre mm	Distance from outside edge of tractor to centre mm ***)
Head lights	130 Ø	1175	952
Side lights *)	155 x 55	1875	230
Rear lights **)	155 x 55	1680	260
Reflectors	75 Ø	1270	160

*) in combination with direction indicator
**) in combination with direction indicator and stop light
***) at 1720 mm track width of rear wheels

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FUELS AND LUBRICANTS USED IN TESTS

Fuel:	ARAL Diesel fuel (DIN 51601)
	specific gravity at 15°C:
	during laboratory tests 0,830 kg/l
	during drawbar tests 0,815 kg/l
Engine oil:	SHELL - ROTELLA TX HD 30
Transmission oil:	Engine oil SAE 20W/20
Hydraulic oil:	Engine oil SAE 20W/20

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COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE

Date of tests: 29th June 1973
Type of dynamometer: Schenck hydraulic dynamometer U1-40

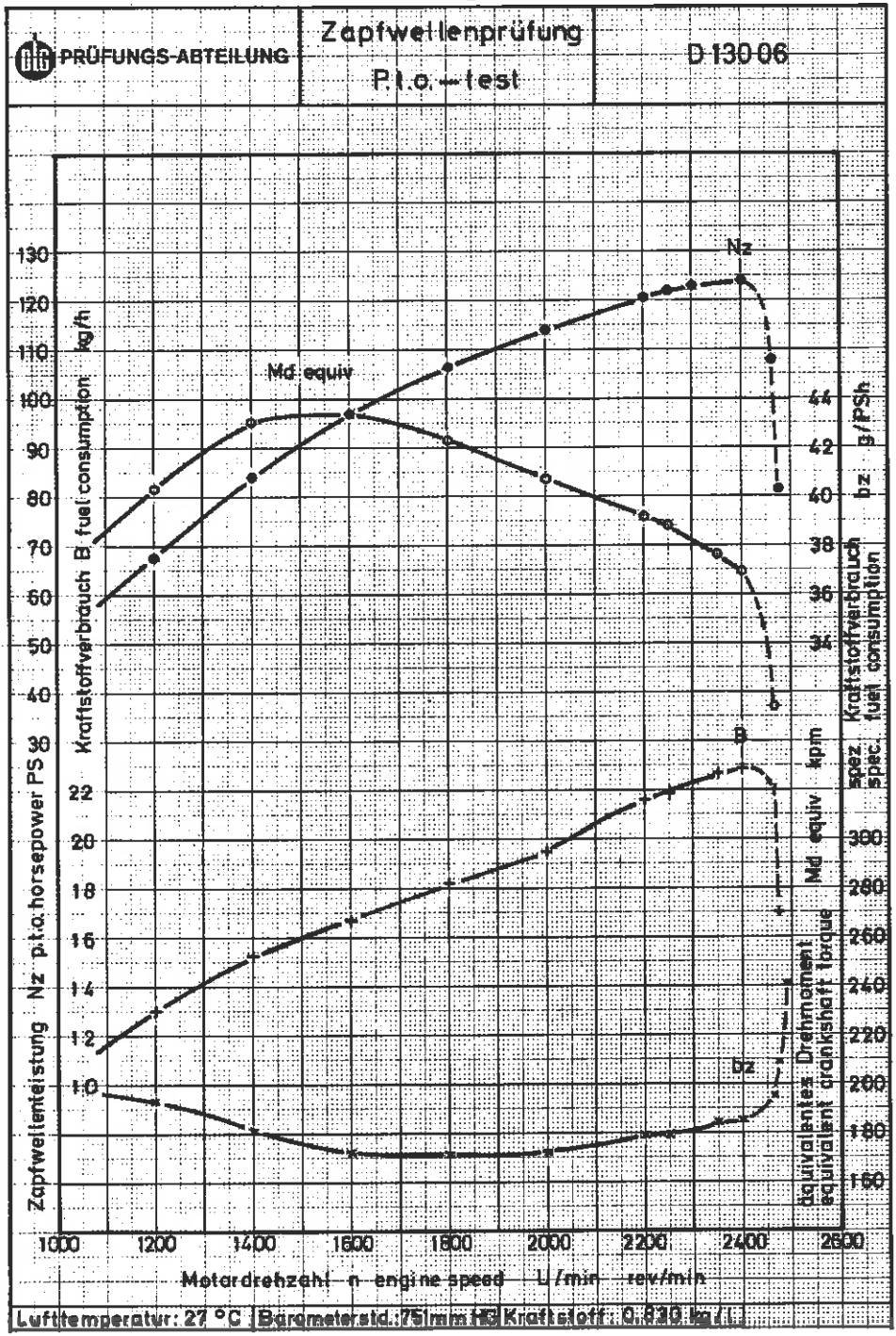
Maximum power

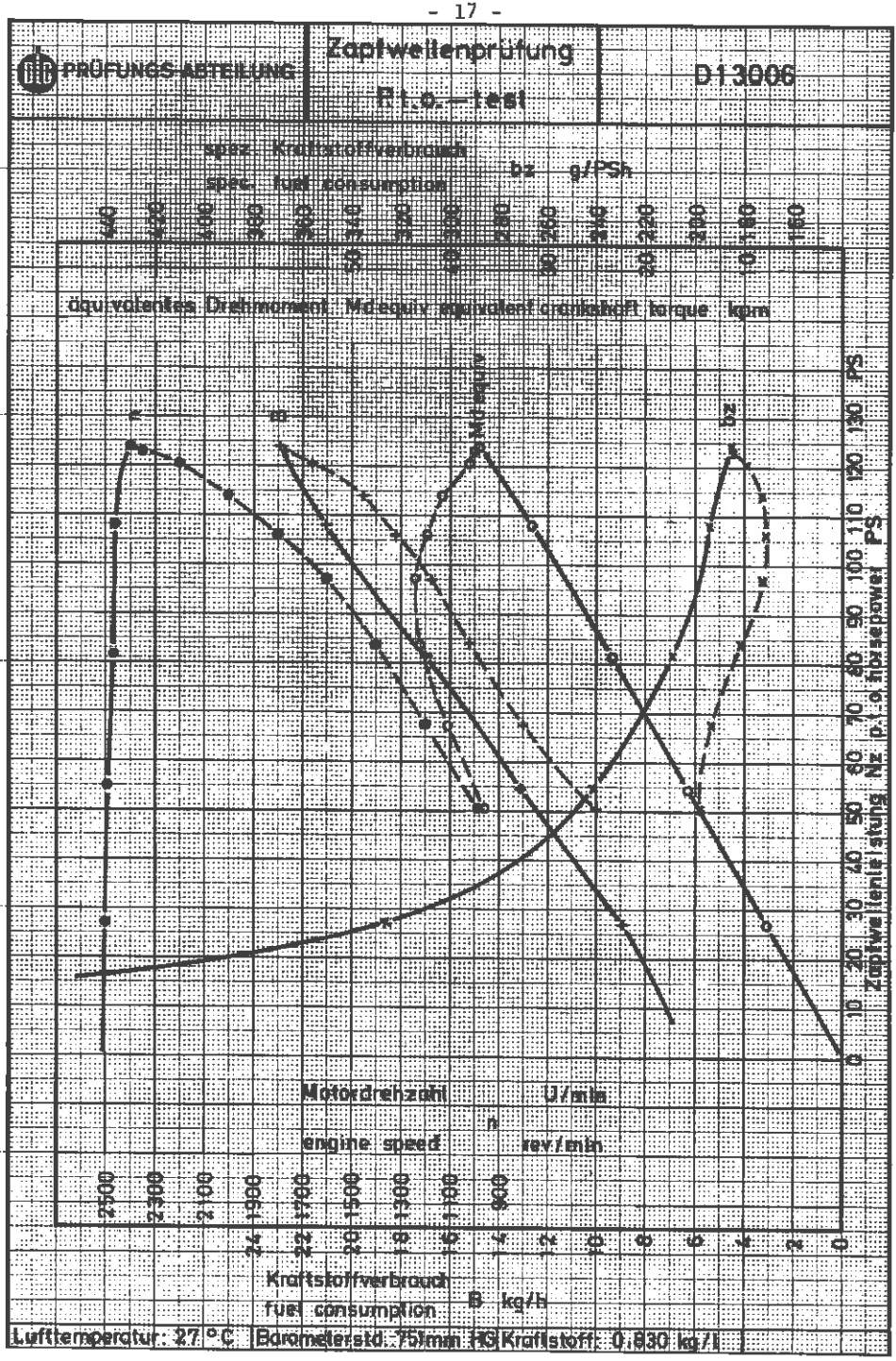
Power PS	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption total 1/h	Fuel consumption total kg/h	Fuel consumption specific g/PSh	Specific energy PSh/1
At maximum power 2-hour test						
123,7	2400	1067	27,61	22,86	185	4,48
At standard p.t.o. speed (1000 rev/min)						
121,8	2250	1000	26,33	21,80	179	4,63
At the speed recommended for drawbar work						
123,7	2400	1067	27,61	22,86	185	4,48
Part loads						
(i) 85% of torque at maximum power						
107,8	2463	1095	25,30	20,95	194	4,26
(ii) unloaded						
-	2512	1116	7,79	6,45	-	-
(iii) 50% of the load defined in (i)						
54,6	2490	1107	15,87	13,14	241	3,44
(iv) maximum power						
123,7	2400	1067	27,61	22,86	185	4,48
(v) 25% of the load defined in (i)						
27,3	2499	1111	10,75	8,90	326	2,54
(vi) 75% of the load defined in (i)						
81,4	2474	1100	20,59	17,05	209	3,95

No load maximum engine speed: 2512 rev/min
Equivalent crankshaft torque at maximum power: 36,9 kpm
Maximum equivalent crankshaft torque: 43,4 kpm at 1600 rev/min of the engine

Mean atmospheric conditions:
- temperature 27°C
- pressure 751 mm Hg
- relative humidity 62%

Maximum temperatures:
- coolant not recorded
- engine oil 114°C
- fuel 31°C


PRÜFUNGS-ABTEILUNG
Zapfwellenprüfung
P.t.o.-test
D 130 06
Nz
Md equiv
B
bz
Zapfwellenleistung Nz p.t.o. horsepower PS
Kraftstoffverbrauch B fuel consumption kg/h
Äquivalentes Drehmoment equivalent crankshaft torque Md equiv kpm
spez. Kraftstoffverbrauch bz spec. fuel consumption g/PSh
Motordrehzahl n engine speed U/min rev/min
Lufttemperatur: 27 °C
Barometerstd. 751 mm HG
Kraftstoff: 0,830 kg/l


PRÜFUNGS-ABTEILUNG
Zapfwellenprüfung
P.t.o.-Test
D13006
spez. Kraftstoffverbrauch
spec. fuel consumption
bz g/PSh
äquivalentes Drehmoment Meequiv equivalent crankshaft torque kpm
Kr kpm
bz
Zapfwellenleistung Nz p.t.o. horsepower PS
Motordrehzahl U/min
engine speed n rev/min
Kraftstoffverbrauch
fuel consumption B kg/h
Lufttemperatur: 27 °C
Barometerstd. 751mm HG
Kraftstoff: 0,830 kg/l

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(2) DRAWBAR PERFORMANCE

Date of test: 19th July and 17th till 21st August 1973
Type of track: concrete

Gear No. and Group	Speed km/h	Horse-power PS	Drawbar pull kp	Engine speed rev/min	Slip of wheels %	Specific energy PSh/l
(i) MAXIMUM POWER with ballast height of drawbar above ground 720 mm						
1 cr slow	0,91	21,7	6440	2479	15,1	1,88
1 cr fast	1,17	27,9	6440	2478	15,1	2,17
2 cr slow	1,43	34,1	6440	2474	14,6	2,43
2 cr fast	1,83	43,6	6440	2470	15,0	2,70
1 slow	2,22	53,2	6470	2469	15,0	2,90
1 fast	2,86	67,9	6410	2464	15,0	3,15
2 slow	3,46	82,6	6440	2457	14,9	3,33
2 fast	4,38	101,2	6240	2402	14,6	3,55
3 slow	5,48	104,6	5150	2401	11,3	3,70
3 fast	7,28	106,5	3950	2400	8,4	3,78
4 slow	8,84	108,4	3310	2403	7,0	3,82
4 fast	11,61	108,5	2520	2398	5,1	3,85
5 slow	14,58	107,7	1990	2404	3,9	3,82
5 fast	18,94	104,0	1480	2400	2,8	3,68
(ii) FIVE-HOUR-TEST at 75% of pull at maximum power in 3rd gear of slow group						
3 slow	5,77	82,6	3860	2457	8,1	3,54
(iii) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (i)						
2 slow	-	-	6470	2456	-	-
(v) MAXIMUM POWER without ballast height of drawbar above ground 710 mm						
2 fast	4,53	75,9	4530	2458	14,9	3,30
3 slow	5,43	90,8	4520	2450	15,1	3,44
3 fast	7,04	104,8	4020	2400	12,9	3,72
4 slow	8,69	107,1	3330	2399	9,9	3,81
4 fast	11,49	109,3	2570	2401	7,4	3,88
5 slow	14,51	111,5	2080	2399	5,6	3,94
5 fast	18,92	110,9	1580	2399	4,4	3,92

Total oil consumption during ten hours duration of tests (ii) and (iii): 110 g/h

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Tyres make and size — Front: Good Year F2 11-16/3T 6 ply
Rear: Good Year Power Torque 20,8-38 8 ply

Specific fuel consumpt. g/PSh	Temperatures: Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions: Temperature °C	Relative humidity %	Pressure mm Hg
inflation pressure 1,0 kp/cm² active tyre radius 865 mm						
429	40	-	80	31	64	752
373	40	-	86	30	68	752
333	37	-	85	30	72	752
299	36	-	83	28	79	752
277	36	-	80	28	81	752
256	35	-	83	28	81	752
243	34	-	94	27	89	752
228	32	-	98	26	95	752
218	33	-	92	25	95	752
214	34	-	94	28	67	754
212	28	-	90	23	76	754
210	30	-	95	24	76	754
212	31	-	94	25	76	754
220	31	-	92	25	76	754
228	40	-	88	30	63	752
-	35	-	85	28	68	752
inflation pressure 1,0 kp/cm² active tyre radius 866 mm						
248	34	-	90	25	76	750
238	33	-	94	24	80	750
220	32	-	97	24	82	750
215	32	-	96	24	83	750
212	30	-	95	21	90	749
208	30	-	100	22	89	749
209	30	-	99	21	89	749

Test (iii) was carried out with additional ballast, the figures not quoted are there fore irrelevant

(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 11,00-16 AS Front 8 ply
rear: 20,8-38 AS 8 ply

Track of wheels front: 1540 mm
rear: 1720 mm

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	4,13	4,07	4,57	4,50
Radius of turning circle	3,89	3,85	4,33	4,23

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	1020 mm
Distance forward from the vertical plane containing the axis of the rear wheels	905 mm
Distance of the median plane of the tractor to the right hand side	13 mm

(5) BRAKING PERFORMANCE

A) FOOT BRAKE

Date of tests: 20th July and 16th August 1973
Type of track: concrete
Type of decelerometer: MOTO METER-Bremsverzögerungs- und Pedalkraftschreiber

Weight of ballasted tractor 7500 kp with driver

Cold brakes

		with ballast	without ballast
Travelling speed	km/h	25,0	25,0
Deceleration	m/s^2	4,7	4,5
Stopping distance	m	6,0	6,4
Force on pedal	kp	39	37
Force on pedal to achieve a deceleration of 2,5 m/s^2	kp	23	15

Brake fade characteristics (hot tests)

Deceleration hot/cold	%	98	100
Stopping distance cold/hot	%	97	103
Force on pedal cold/hot	%	98	115

B) PARKING BRAKE

Tractor facing up slope:
Pull on hand brake 9 kp, tractor does not roll

Tractor facing down slope:
Pull on hand brake 8 kp, tractor does not roll

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(6) AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 12th July 1973
Type of track: Concrete
Type of sound level meter: Brüel and Kjaer type 2203

Results of test

Gear: 6th fast gear
Travelling speed before acceleration: 21,5 km/h
Sound level: 89 dBA

(7) NOISE AT THE DRIVER'S EAR LEVEL

Date of tests: 11th July 1973
Type of track: Concrete
Type of sound level meter: Brüel and Kjaer type 2607
Type of frequency analyser: Brüel and Kjaer type 1614
(fitted with octave filter)

Noise tests were carried out with cab fitted as well as removed

Results of tests

Gear	Drawbar pull at which the tractor develops the maximum sound level kp	Travelling speed nominal km/h	Travelling speed effective km/h	Sound level dBA	Sone
with cab; roof-plate and all windows closed					
1 cr.slow	4520	1,01	0,87	96	
1 cr.fast	4500	1,30	1,09	97	
2 cr.slow	4510	1,58	1,40	97	
2 cr.fast	4520	2,04	1,80	97	
1 slow	4520	2,48	2,15	96	
1 fast	4420	3,19	2,81	96	
2 slow	4460	3,88	3,34	97	
2 fast	4230	5,00	4,63	97	
3 slow	4480	6,03	4,99	99	108
3 fast *	3730	7,76	7,20	98	103
4 slow	3060	9,29	8,96	97	
4 fast	2490	11,97	11,53	98	
5 slow	1800	14,81	14,80	98	
5 fast	1500	19,08	18,84	97	
6 fast	light load	30,20	31,60	96	

*) see foot-note on page 23

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(7) NOISE AT THE DRIVER'S EAR LEVEL (continuation)

Gear	Drawbar pull at which the tractor develops the maximum sound level kp	Travelling speed nominal km/h	Travelling speed effective km/h	Sound level dBA	Sone
with cab; roof-plate and lower part of back face removed, all windows opened					
1 cr.slow	4520	1,01	0,90	94	
1 cr.fast	4510	1,30	1,17	95	
2 cr.slow	4500	1,58	1,41	95	
2 cr.fast	4510	2,04	1,81	95	
1 slow	4530	2,48	2,06	94	
1 fast	4430	3,19	2,67	95	
2 slow	4480	3,88	3,21	95	
2 fast	4340	5,00	4,53	96	
3 slow	4430	6,03	5,26	97	92
3 fast *	3730	7,76	7,29	96	94
4 slow	3140	9,29	8,90	96	
4 fast	2440	11,97	11,49	96	
5 slow	1850	14,81	14,78	95	
5 fast	1490	19,08	18,91	95	
6 fast	light load	30,20	31,60	95	
without cab					
1 cr.slow	4490	1.01	0,90	95	
1 cr.fast	4430	1,30	1,16	96	
2 cr.slow	4350	1,58	1,41	95	
2 cr.fast	4370	2,04	1,81	95	
1 slow	4300	2,48	2,25	96	
1 fast	4380	3,19	2,70	96	
2 slow	4280	3,88	3,42	96	
2 fast	4230	5,00	4,44	96	
3 slow	4260	6,03	5,28	96	
3 fast *	3670	7,76	7,20	96	93
4 slow	3060	9,29	8,88	96	
4 fast	2440	11,97	11,75	96	
5 slow	1850	14,81	14,35	96	
5 fast	1420	19,08	19,18	96	
6 fast	light load	30,20	31,60	96	

*) the 3rd fast gear corresponds to the travelling speed nearest to 7,25 km/h

(8) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date of tests: 17th July 1973

POWER LIFT

	Height above ground in down position		Vertical movement	Maximum force excerted throughout the full lift range	Oil pressure	Lifting force when front of tractor lifts *)
	hitch points mm	test frame mm	mm	kp	kp/cm²	kp
Lifting rods fixed on lower links in 530 mm distance from pivot point Linkage giving maximum mechanical advantage						
At hitch points	452	-	673	4280	175	3680
On the frame	175	220	655	3955	175	2390
Linkage giving minimum mechanical advantage						
At hitch points	175	-	728	4000	175	3680
On the frame	452	456	669	3915	175	2390
Lifting rods fixed on lower links in 570 mm distance from pivot point Linkage giving maximum mechanical advantage						
At hitch points	520	-	610	4690	175	3680
On the frame	250	280	625	4135	175	2390
Linkage giving minimum mechanical advantage						
At hitch points	250	-	680	4280	175	3680
On the frame	520	510	610	4135	175	2390

*) with front axle unballasted

PRÜFUNGS-ABTEILUNG
Deutz D 130 06

Test No. 73-72

PUMP CHARACTERISTICS

(i)	opening pressure of relief valve in the remote circuit	185 kp/cm²
	sustained pressure by the open relief valve:	175 kp/cm²
(ii)	pump delivery rate at minimum pressure with the governor fully open:	41,0 l/min
(iii)	pump delivery rate:	38,5 l/min
	delivery pressure:	165 kp/cm²
	power:	14,1 PS

PRÜFUNGS-ABTEILUNG
Deutz D 130 06

Test No. 73-72

OPTIONAL TESTS

(9) ENGINE PERFORMANCE

Date of tests: 14th and 18th June 1973
Type of dynamometer: Schenck hydraulic dynamometer U1-30

Maximum power

Power PS	Engine speed rev/min	Fuel consumption total l/h	Fuel consumption total kg/h	Fuel consumption specific g/PSh	Specific energy PSh/l
At maximum power 2-hour test					
130,3	2400	27,51	22,83	175	4,74
At standard p.t.o. speed (1000 rev/min)					
127,8	2250	26,36	21,88	171	4,85
At the speed recommended for drawbar work					
130,3	2400	27,51	22,83	175	4,74
Fuel consumption at part loads					
(i) 85% of torque at maximum power					
113,7	2467	24,99	20,74	182	4,55
(ii) unloaded					
-	2515	6,04	5,01	-	-
(iii) 50% of the load defined in (i)					
57,3	2491	14,41	11,96	209	3,98
(iv) maximum power					
130,3	2400	27,51	22,83	175	4,74
(v) 25% of the load defined in (i)					
28,7	2499	10,16	8,43	294	2,82
(vi) 75% of the load defined in (i)					
85,8	2487	19,84	16,47	192	4,32

Optimum fuel consumption: 162 g/PSh at 96 PS and 1745 rev/min
Standard fuel consumption 1/2 (DIN 9606): 11,2/23,9 l/h
No load maximum engine speed: 2515 rev/min
Torque at maximum power: 38,9 kpm
Maximum torque: 44,4 kpm at 1600 rev/min of the engine

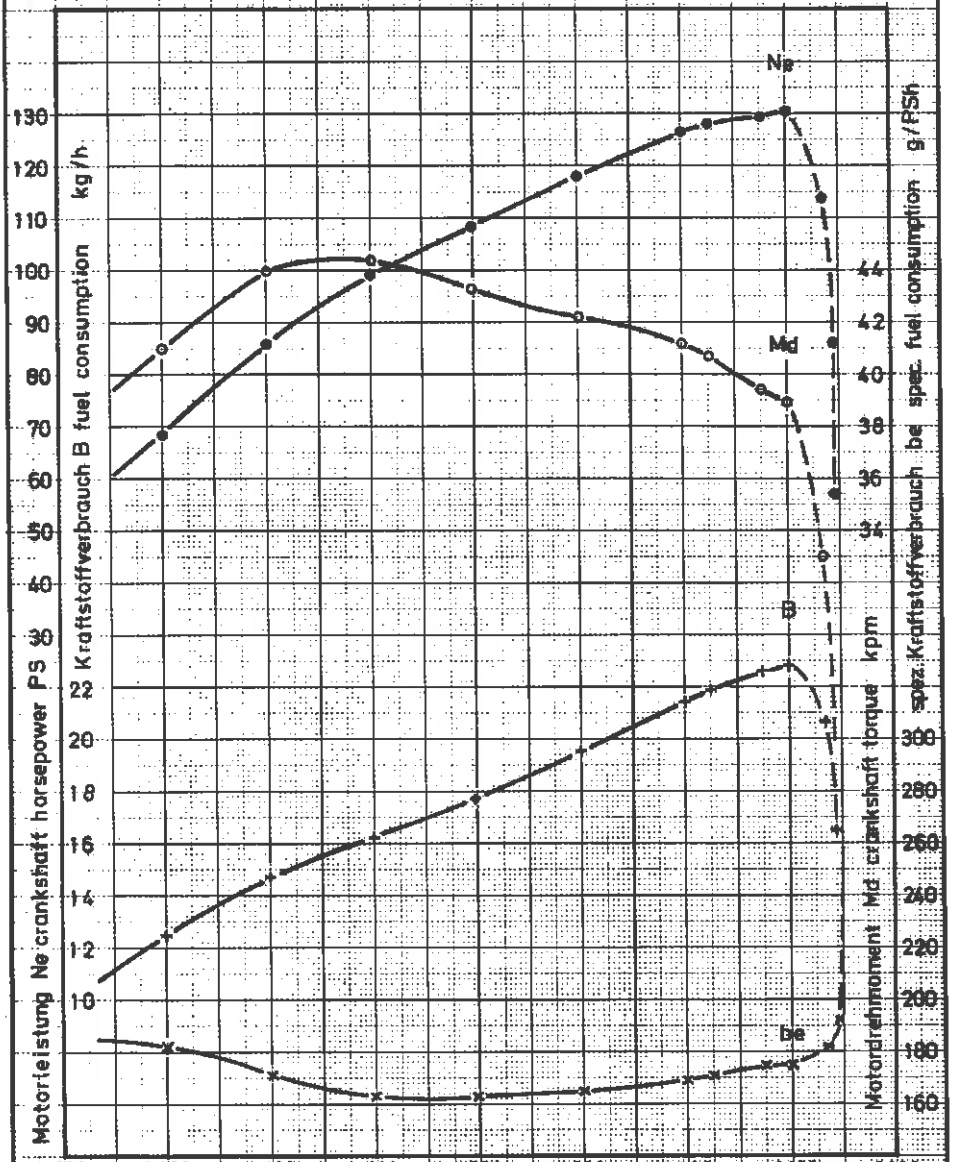
Mean atmospheric conditions: temperature 26°C
pressure 749 mm HG
relative humidity 70%

Maximum temperatures: coolant not recorded
engine oil 106°C
fuel 29°C

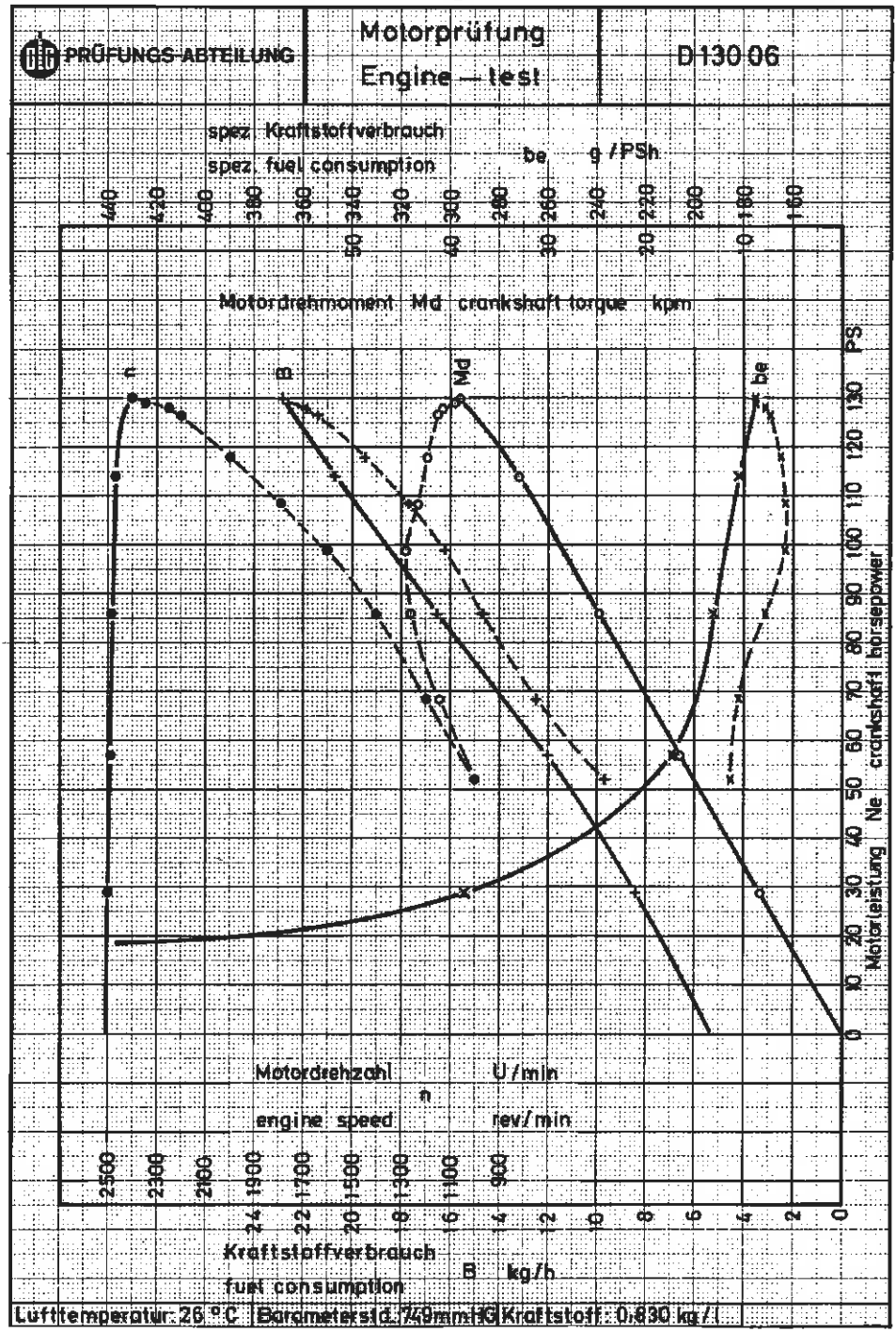
PRÜFUNGS-ABTEILUNG

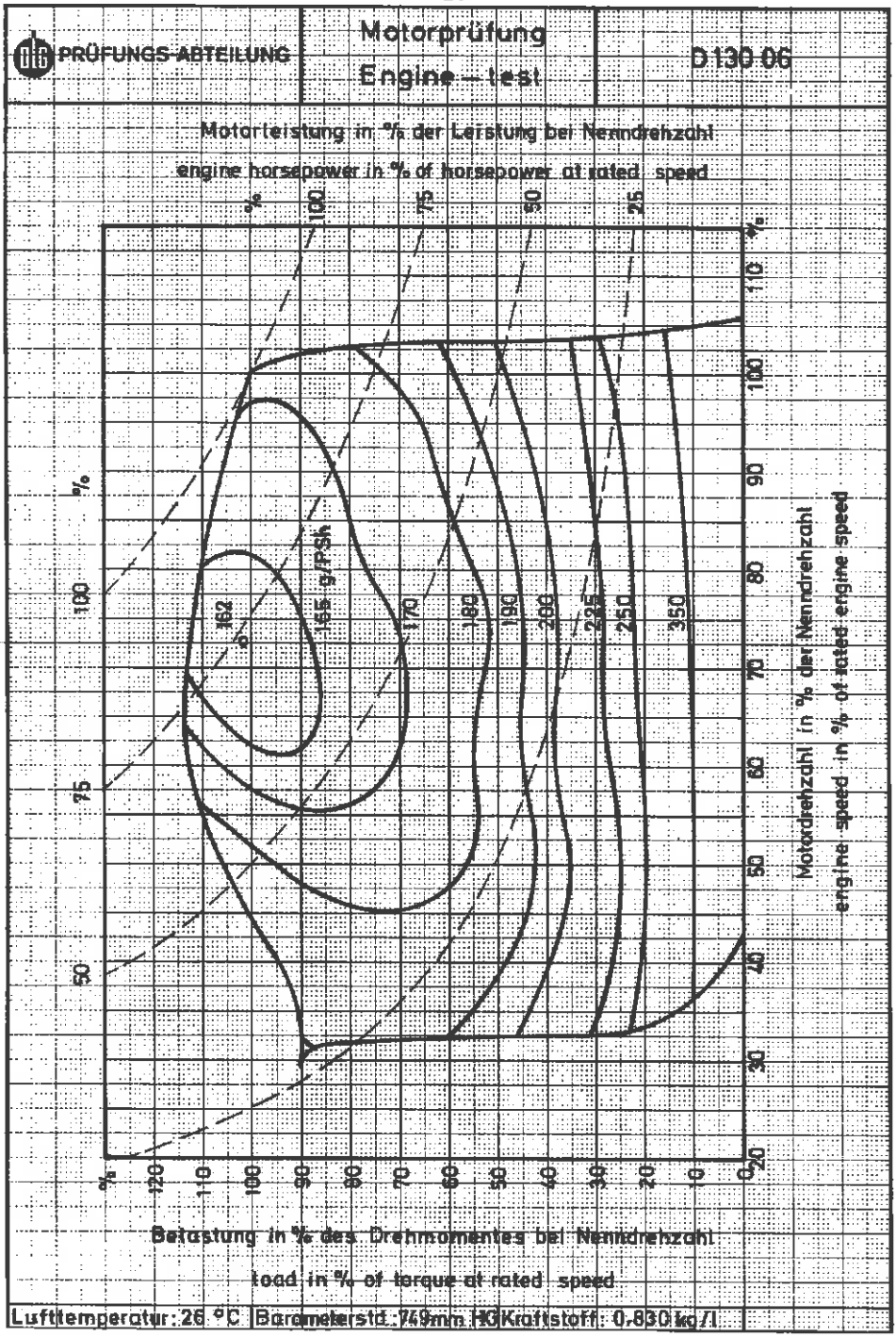
Motorprüfung
Engine – test

D 130 06



Lufttemperatur: 26 °C | Barometerstd.: 749 mmHG | Kraftstoff: 0.830 kg/l


PRÜFUNGS-ABTEILUNG
Motorprüfung
Engine — test
D 130 06
spez. Kraftstoffverbrauch
spez. fuel consumption
be g/PSh
Motordrehmoment Md crankshaft torque kpm
n
B
Md
be
PS
Motorleistung Ne crankshaft horsepower
Motordrehzahl n U/min
engine speed rev/min
Kraftstoffverbrauch B kg/h
fuel consumption
Lufttemperatur: 26 °C
Barometerstd. 749mmHG
Kraftstoff: 0,830 kg/l


PRÜFUNGS-ABTEILUNG
Motorprüfung
Engine – test
D 130 06
Motorleistung in % der Leistung bei Nenndrehzahl
engine horsepower in % of horsepower at rated speed
Motordrehzahl in % der Nenndrehzahl
engine speed in % of rated engine speed
Belastung in % des Drehmomentes bei Nenndrehzahl
load in % of torque at rated speed
g/PSh
162
155
170
180
190
200
225
250
350
Lufttemperatur: 26 °C
Barometerstd.: 749 mm HG
Kraftstoff: 0,830 kg/l