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

O.E.C.D. No. 672



Agricultural Tractor EICHER 3655
trade name: EICHER 3085

Manufacturer
Gebr. Eicher, Traktoren- und Landmaschinenwerke GmbH
D-8380 Landau a. d. Isar

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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: February 1979 till January 1980

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: 6th March 1980 O.E.C.D. No. 672

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 = 750,1 mm Hg			

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PRÜFUNGS-ABTEILUNG
EICHER 3655

Test No. 79 - 9

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Tractor manufacturer:	GEBR. EICHER GMBH D-8380 Landau
Submitted for test by:	Manufacturer
Selected by:	Manufacturer with agreement by DLG
Place of running-in:	Landau
Duration of running-in:	Engine 50 hours, tractor appr. 95 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	EICHER
Model:	3655 trade name 3085
Type:	Wheel tractor, unit construction, rear wheel driven
Serial No:	15o 388

Engine

Make:	EICHER
Model:	E D K 4 - 12
Type:	4-stroke Diesel-engine, direct injection, air-cooled, turbo supercharged
Serial No:	129883
Cylinders:	4, in line, bore 100 mm, stroke 125 mm, displacement 3927 cm^3, compression ratio 18; replaceable ribbed cylinder liners
Valves:	Overhead, self-adjusting hydraulic tappets
Fuel system:	BOSCH fuel feed pump FP/KS 22 AD 6/4; BOSCH in line injection pump: PES 4 A 80 D 420 RS 1277, manufacturer's production setting 70 mm^3/stroke at rated engine speed; injection timing 30,5° before TDC; BOSCH pintle-type nozzles DNO SD 137, injection pressure 148 bar; CAV two-stage fuel filter with replaceable cartridges; capacity of fuel tank 150 l
Governor:	BOSCH centrifugal variable speed governor: RSV 300-1050 A 1 B 2052 DR, governed range of speed 650 to 2225 rev/min, rated engine speed 2100 rev/min

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Charger:	KÜHNLE, KOPP UND KAUSCH exhaust driven supercharger K 26-2470 V 6.11 supercharge pressure max. 700 mbar, without air intercooler
Air cleaner:	MANN PICLON dry paper element filter with precleaner, with replaceable cartridge and electrically operating maintenance-indicator
Exhaust silencer:	LANGE single chamber reflexion-absorption-type silencer, 108 mm dia, 650 mm long, on the left hand side of engine cowling, mouth showing upward, mouth 2590 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; cartridge change at all oil changes; oil capacity 12 l; recommended oil quality MIL-L-2104 C; recommended oil viscosities: winter SAE 10W summer SAE 20W/20 tropics SAE 30 or multigrade oil SAE 15W/40 oil change interval 200 hours, with oil cooler
Cooling system:	Air cooling 1 radial blower per cylinder and oil cooler with common driving shaft, V-belt driven
Starting system:	Electrical BOSCH screw-push starter motor JD 12V 3kW; additional fuel injection in all intake pipes with hand pump
Electrical equipment:	12 Volt negative earth; BOSCH 3-phase alternator G1 14V 28A; 1 lead acid battery 143 Ah at 20 hours rating

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Transmission

Clutch:	LAMELLEN- UND KUPPLUNGSBAU GMBH dry dual disc clutch DT 280/280 G; gearbox drive pedal operated, p.t.o. drive hand lever operated; both discs 280 mm dia
Gear box:	Own make speed change gear with 4 forward speeds and 1 reverse speed, reverse and 1st gear collar shifted, 2nd gear sliding gear shifted, 3rd and 4th gear synchronized; group gear with 2 groups L and H, L-group collar shifted, H-group sliding gear shifted; additional reduction gear with 2 groups RGL and RGH, collar shifted; totally 16 forward speeds and 4 reverse speeds
Rear axle and final drives:	MASSEY-FERGUSON S.A. bevel gear drive with crown wheel and pinion; bevel gear differential with lock, pedal operated, self disengaging; planetary final drives
Front axle:	Not propelled

Oil capacity: Gear box in common with
rear axle drive and hydraulic system 47 l
final drives each 1,7 l

Oil changing interval: 6oo hours

Recommended oil qualities: Final drives: Transmission oil SAE 9o
MIL - L - 21o5 B

gear box: Compulsorily multi-purpose
transmission oil SAE 2oW/3o
acc. to MF specif. M 1139

Total ratios and speeds see page 8

Power take off Independent p.t.o.,
at rear of tractor,
driven through the second disc of the dual disc clutch;
height above ground 637 mm, in tractor's median plane; 3oo mm behind rear axle centre line;
2 interchangeable p.t.o. shafts for 54o rev/min and 1ooo rev/min p.t.o. speeds;
by interchanging p.t.o.-stub-shafts correct speed ratio is selected:

54o rev/min p.t.o.
35 mm dia, 6 splines, DIN 9611 and ISO 5oo type 1;
599 rev/min at rated engine speed,
standard p.t.o. speed 54o rev/min at 1893 rev/min engine speed

1ooo rev/min p.t.o.
35 mm dia, 21 splines, DIN 9611 and ISO 5oo type 2;
11o5 rev/min at rated engine speed,
standard p.t.o. speed 1ooo rev/min at 19oo rev/min engine speed

p.t.o. speeds may be set by aid of tractormeter;
direction of rotation clockwise, viewed from tractor rear

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Total ratios and speeds (tyres 18,4 R 34)

Group	Reduction gear	Gear	Total ratio engine : driving wheels	Nominal travelling speed *) at rated engine speed Km/h
Forward speeds				
L	RGL	1	615,21	0,99
		2	410,14	1,49
		3	300,28	2,03
		4	223,71	2,72
	RGH	1	264,34	2,31
		2	176,22	3,46
		3	129,02	4,72
		4	96,12	6,34
H	RGL	1	150,38	4,05
		2	100,26	6,08
		3	73,40	8,30
		4	54,69	11,15
	RGH	1	64,62	9,43
		2	43,08	14,15
		3	31,54	19,33
		4	23,50	25,94
Reverse speeds				
L	RGL	R	410,14	1,49
	RGH	R	176,22	3,46
H	RGL	R	100,26	6,08
	RGH	R	43,08	14,15

*) calculated with the INDEX RADIUS 770 mm as per WdK 154

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Power lift

Hydraulic system:

MASSEY-FERGUSON S.A.
hydraulic power lift in unit construction;
MF piston pump with 29 l/min delivery at rated engine speed,
in gear box, driven by the disc of the p.t.o. clutch (*);
MF control valve for lifting, lowering, draft control, position control and floating position;
top link sensing;
maximum oil pressure 230 bar;
1 single acting main cylinder with 85,6 mm bore and 12o,7 mm stroke,
without overpressure relief valve;
2 external additional MF cylinders with 25 mm bore and 302 mm stroke

MF gear-type pump for auxiliary hydraulic system,
36 l/min delivery at rated engine speed,
in gear box, driven by the disc of the p.t.o. clutch;(*)
up to 3 single or double acting additional control valves with oil tappings available

Oil capacity 47 l in common with gear box;
max. 13 l may be taken off through oil tappings when tractor is travelling, 15 l when tractor is working stationary

Implement linkage:

Three point linkage category II DIN 9674,
WALTERSCHEID quick coupler;
2 holes in the lower links for fitting the lift rods:
hole 1 in 560 mm,
hole 2 in 610 mm distance of pivot point of lower links;

lift rods adjustable from	630 to 740 mm ;
lifting range above ground when using	
hole no. 1:	
with short lift rods from	453 to 952 mm
with long lift rods from	163 to 778 mm
hole no. 2:	
with short lift rods from	552 to 998 mm
with long lift rods from	272 to 831 mm

(*) both pumps stall during manipulation of the p.t.o. clutch hand lever

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Holed bar:	Short bar, fitted on clevis of lower links; length between the joint balls 830 mm, width 80 mm, thickness 30 mm; centre hole and 4 holes in 80 mm distance each on either side; all holes 33 mm diameter; height above ground adjustable by power lift in the range from 178 to 1013 mm, depending on lift rods length and fixing on the lower links, measured at the surface of the bar; distance of holes centre line with lower links in horizontal position: from rear axle centre 998 mm from p.t.o. shaft end 698 mm

Pull attachment

Swinging drawbar:	Height above ground 380 or 465 mm, adjustable by turning drawbar; hitch hole 33 mm diameter; distance of hitch hole centre from rear axle centre 700 mm from p.t.o. shaft end 400 mm pivot point 145 mm behind rear axle centre; drawbar lateral swingable about 280 mm to either side
Trailer hitch:	CRAMER height above ground adjustable by shifting and turning in 4 steps from 825 to 1020 mm; hitch hole 33 mm diameter; distance of hitch hole centre to rear axle centre 550 mm; permissible vertical load 1000 kg
Towing hitch:	700 mm above ground

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Steering

ZAHNRADFABRIK FRIEDRICHSHAFEN AG
hydrostatic steering model 8450 with own oil circuit;
PLESSEY gear type pump with 8 cm^3/rev delivery,
directly driven by engine;
oil capacity 5 l,
transmission oil ATF type A;
oil changing once a year;
1 double acting ram with 45 mm bore and 200 mm stroke,
acting directly on front axle

Brakes

Parking brake: Mechanically acting on the discs of the service brake;
operated by hand lever with ratchet

Service brake: GIRLING
hydraulically acting wet disc brake with 5 lining discs on each differential half shaft,
disc diameter 222 mm,
pedal operated

Steering brake: 2 additional hand levers on the left hand side of driver's seat, acting on the parking brake

Wheels

Steered wheels: 2 pneumatics in front 7,5o-2o 6 ply;
maximum permissible load per tyre 875 kg at 2,25 bar inflation pressure and 3o km/h;
track width adjustable to 158o or 1715 mm by turning wheels;
rims 5.5o F x 2o

Driving wheels:	2 pneumatics at rear 18,4 R 34 6 ply; radial type tyre casing; maximum permissible load per tyre 225o kg at 1,1 bar inflation pressure and 3o km/h; track widths adjustable from 153o to 223o mm in steps of 1oo mm each by turning wheels and offset lug type rims; rims W 14 L x 34
Wheel base:	2565 mm
Cab	Own make safety cab, OECD-tested, approval no. CSD o129/2; antivibration mounts; all windows tiltable; inside of cab covered with noise damping materials; doors on both sides of the cab; each entry with 2 steps; heating by radial blower of oil cooler, optionally additional Diesel-fuel heating available
Seat	GRAMMER DS 2o 4 H upholstered seat with back rest; adjustable spring with shock absorber; height of driver's platform above ground 1o4o mm; height of unloaded seat above platform adjustable in 3 steps from 42o to 48o mm; for and aft adjustable about 15o mm

Number of grease points 21

Track setting during tests

front axle	158o mm
rear axle	153o mm

Dimensions

Total length:	412o mm	without ballast
	444o mm	with ballast
Total width:	198o mm	without ballast
	218o mm	with ballast
Total height	259o mm	to mouth of exhaust silencer
Ground clearance	393 mm	below swinging drawbar

Weights

Ready for use as tested, with cab

		without driver	with driver
Without ballast:	front	141o kg	142o kg
	rear	2465 kg	254o kg
	total	3875 kg	396o kg
Front ballast:	1 front weight		37 kg
	8 front weights 28 kg each		224 kg
Rear ballast:	1 weight per wheel 18o kg each		36o kg
	water in the tyres		699 kg
With ballast:	front	174o kg	175o kg
	rear	3455 kg	353o kg
	total	5195 kg	528o kg

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Lighting equipment Electrical 12 Volt, as per German legislation

	Dimensions	Height above ground to centre mm	Distance from outside edge of tractor to centre mm
Head lights	145 x 9o	1ooo	827
Side lights	7o x 2o	1665	17o
Rear lights	3o x 65	1528	245
Reflectors			
1st pair	13o x 4o	13oo	25o
2nd pair	6o Ø	65o	47o

Permissible total weights and axle loads for all available wheel equipment

Wheel equipment front	Wheel equipment rear	Permissible total weight kg	Permissible axle load front kg	Permissible axle load rear kg
6,5o - 2o 6 ply 7,5o - 2o 6 ply	13,6 - 36 6 ply	545o	165o 2ooo	345o
6,5o - 2o 6 ply 7,5o - 2o 6 ply	13,6 - 38 6 ply	555o	165o 2ooo	355o
6,5o - 2o 6 ply 7,5o - 2o 6 ply	16,9 - 34 6 ply	6ooo	165o 2ooo	43oo
6,5o - 2o 6 ply 7,5o - 2o 6 ply	16,9 - 38 8 ply	6ooo	165o 2ooo	48oo
6,5o - 2o 6 ply 7,5o - 2o 6 ply	18,4 - 3o 6 ply	6ooo	165o 2ooo	45oo
6,5o - 2o 6 ply 7,5o - 2o 6 ply	18,4 - 34 6 ply	6ooo	165o 2ooo	48oo

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FUELS AND LUBRICANTS USED IN TESTS

Fuel:	ARAL Diesel-fuel DIN 51601	
	specific gravity at 15° C:	
	at engine tests	0,829 kg/l
	at p.t.o. tests	0,828 kg/l
	at drawbar tests	0,824 kg/l
Engine:	ESSO ESSOLUBE XD 3	SAE 20W/20
Transmission, rear axle and hydraulic:	ESSO multi purpose oil	20W/30
Final drives:	ESSO transmission oil	SAE 90
Steering:	OEST ATF oil type A	

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COMPULSORY TESTS

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

Date of tests: 24th April 1979
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption total l/h	Fuel consumption total kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Maximum power						
At 2-hour test						
57.5	2100	599	17.63	14.59	254	3.26
At standard p.t.o. speed						
54.6	1893	540	16.45	13.61	249	3.32
At the speed recommended for drawbar work						
57.5	2100	599	17.63	14.59	254	3.26
Part loads, 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						
49.6	2130	608	15.38	12.73	257	3.22
(ii) unloaded						
-	2225	635	4.22	3.49	-	-
(iii) 50% of the load defined in (i)						
25.4	2180	622	9.76	8.08	318	2.60
(iv) maximum power						
57.5	2100	599	17.63	14.59	254	3.26
(v) 25% of the load defined in (i)						
12.8	2205	629	6.95	5.75	449	1.84
(vi) 75% of the load defined in (i)						
37.7	2158	615	12.68	10.49	279	2.97

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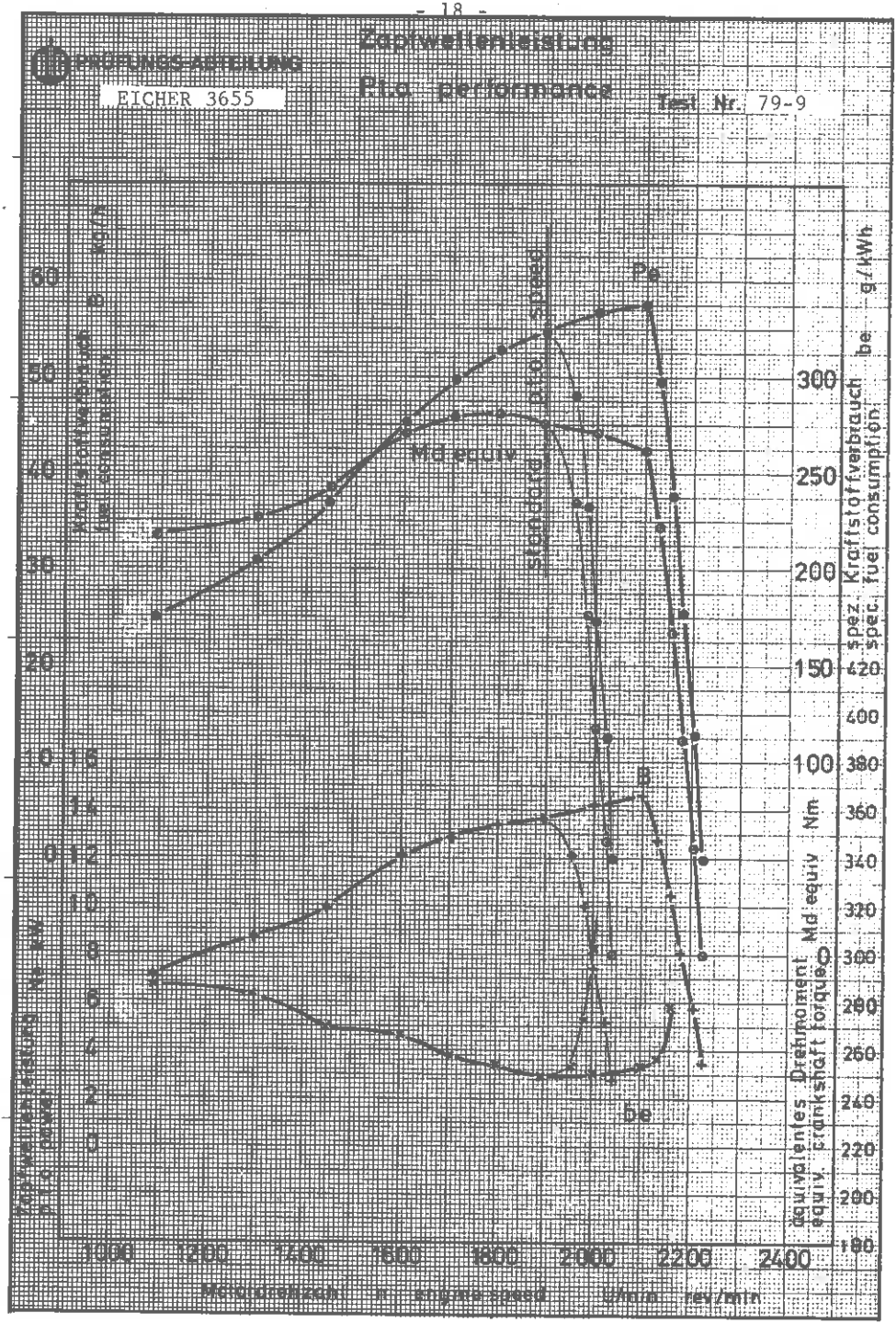
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Power kW	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption total l/h	Fuel consumption total kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Part loads, the governor hand lever in the position corresponding to the standard p.t.o. speed at full load						
(i) 85% of the torque at maximum power at 2-hour test						
48.0	1955	558	14.68	12.15	253	3.27
(ii) unloaded						
-	2040	582	3.39	2.81	-	-
(iii) 50% of the load defined in (i)						
24.5	2000	570	8.95	7.41	302	2.74
(iv) maximum power						
54.6	1893	540	16.45	13.61	249	3.32
(v) 25% of the load defined in (i)						
12.4	2026	578	6.31	5.22	421	1.97
(vi) 75% of the load defined in (i)						
36.4	1983	566	12.02	9.95	273	3.03

Standard specific fuel consumption (g/kWh): 257/318/253/302

No load maximum engine speed: 2225 rev/min
Equivalent crankshaft torque at maximum power (2 hours): 261 Nm
Maximum equivalent crankshaft torque: 278 Nm at 1705 rev/min of the engine

Mean atmospheric conditions:	temperature	17 °C
	pressure	977 mbar
	relative humidity	70 %
Maximum temperatures:	coolant	-
	engine oil	96 °C
	fuel	25 °C
	engine air intake	18 °C


Zapfwellenleistung
PTO performance
PRÜFUNGS-ABTEILUNG
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Pe
Md equiv
B
be
Motordrehzahl n engine speed U/min rev/min
Äquivalentes Drehmoment Md equiv Nm
equiv. crankshaft torque
spez. Kraftstoffverbrauch be g/kWh
spec. fuel consumption

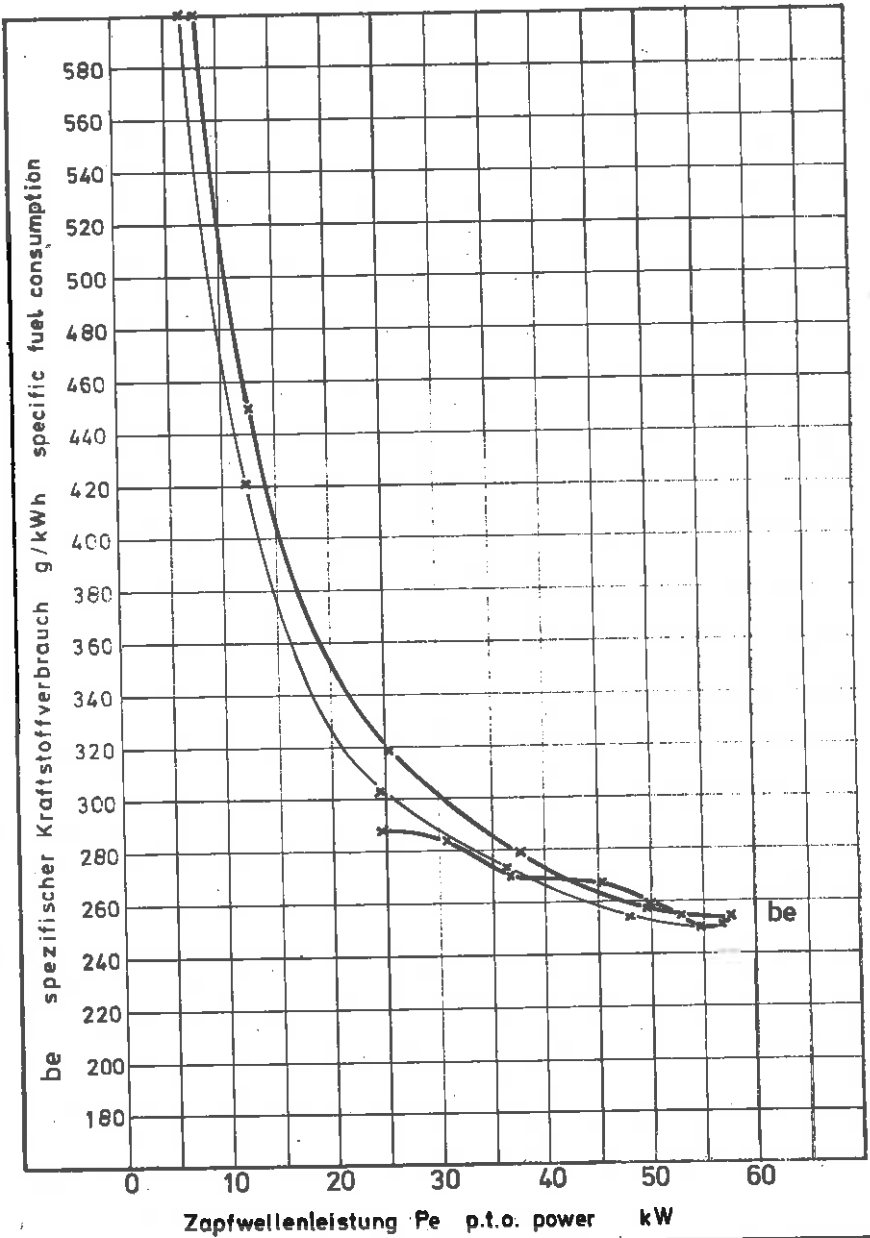
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Zapfwellenleistung

P.t.o. performance

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(2) DRAWBAR PERFORMANCE

Date of tests: 9th till 16th January 198o
Type of track: Concrete

Gear No. and Group	Driving speed km/h	Power kW	Drawbar pull daN	Engine speed rev/min	Slip of wheels %
(i) MAXIMUM POWER with ballast height of drawbar above ground 65o mm					
1 L RGL	o,87	12,8	5311	2179	15,o
2 L RGL	1,29	19,1	53o3	2166	15,o
3 L RGL	1,75	25,8	5315	215o	14,9
1 L RGH	1,98	29,2	53oo	2146	15,o
4 L RGL	2,33	34,3	5312	2132	15,o
2 L RGH	2,94	43,4	5327	2118	15,o
1 H RGL	3,52	47,9	49o2	2o97	12,2
3 L RGH	4,21	49,3	4214	21oo	9,5
2 H RGL	5,6o	5o,1	3218	21o2	6,9
4 L RGH	5,86	49,6	3o5o	21oo	6,5
3 H RGL	7,82	49,4	2275	21o2	4,4
1 H RGH	8,93	5o,7	2o44	21o3	3,9
4 H RGL	1o,63	49,2	1666	21o2	3,1
2 H RGH	13,62	48,4	128o	21o5	2,3
(ii) FIVE-HOUR-TEST at 75% of pull at maximum power in 4 L RGH gear					
4 L RGH	6,o8	38,6	2288	2136	4,6
(iii) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (i)					
2 L RGH	3,o4	45,o	5327	-	-
(iv) MAXIMUM POWER without ballast height of drawbar above ground 659 mm					
2 L RGH	2,95	35,5	433o	2137	15,o
1 H RGL	3,45	41,6	4336	2125	15,o
3 L RGH	4,o6	47,6	422o	21oo	13,2
2 H RGL	5,49	49,3	323o	2o99	8,5
4 L RGH	5,74	49,8	3125	2o99	8,1
3 H RGL	7,7o	49,9	2333	21oo	5,9
1 H RGH	8,82	5o,9	2o76	21o1	5,1
4 H RGL	1o,5o	49,3	169o	2o99	4,2
2 H RGH	13,42	5o,1	1343	2o99	3,5

Total oil consumption during ten hours duration of tests (ii) and (iii) 63 g/h

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Tyres size front: 7,5o - 2o 6 ply
rear: 18,4 R 34 6 ply

Tread bar height at the beginning of drawbar tests 88 % of the value when new

Specific energy kWh/l	Specific fuel consumpt. g/kWh	Temperatures Fuel °C	Coolant °C	Engine-oil °C	Atmospheric conditions Tempe-rature °C	Relative humidity %	Pressure mbar
tyre inflation pressure 1,1 bar							
1,64	5o5	9	-	75	2	77	1oo5
2,o3	4o8	12	-	68	3	73	1oo5
2,23	37o	14	-	75	3	69	1oo5
2,38	348	9	-	73	6	86	1oo3
2,43	34o	14	-	75	6	63	1oo4
2,59	319	12	-	76	6	96	1oo4
2,72	3o3	12	-	76	6	96	1oo4
2,78	297	12	-	72	6	96	1oo4
2,84	291	12	-	73	6	95	1oo4
2,82	296	12	-	8o	5	95	1oo4
2,8o	295	9	-	78	6	86	1oo3
2,85	29o	9	-	73	6	87	1oo3
2,76	3oo	9	-	73	6	84	1oo3
2,76	3oo	9	-	73	6	86	1oo3
2,71	3o6	9	-	78	6	8o	1oo6
-	-	8	-	98	5	52	1oo7
tyre inflation pressure 1,1 bar							
2,46	333	6	-	75	o	7o	994
2,56	325	7	-	75	o	7o	994
2,72	3o6	6	-	77	o	8o	994
2,8o	296	12	-	82	-2	75	993
2,82	294	9	-	75	-2	75	994
2,82	295	5	-	75	-3	85	995
2,89	288	5	-	72	-3	88	995
2,8o	297	5	-	72	-3	9o	995
2,84	294	4	-	72	1	89	995

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

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(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 7.5o - 2o 6 ply
rear: 18,4 R 34 6 ply

Track of wheels front: 158o mm
rear: 153o 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	4,16	4,18	4,62	4,63
Radius of turning circle	4,oo	4,o2	4,46	4,47

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	965 mm
Distance forward from rear axle centre	921 mm
Distance from tractor's median plane, to the left	2 mm

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(5) BRAKING PERFORMANCE

A) SERVICE BRAKE

Date of tests: 14th January 198o
Type of track: Concrete
Type of decelerometer: MOTO-METER-Bremsverzögerungs- und Pedalkraftschreiber

Weight of ballasted tractor with driver 528o kg

Cold brakes

		With ballast	Without ballast
Travelling speed	km/h	25,o	25,o
Deceleration	m/s^2	4,o	4,o
Stopping distance	m	7,4	7,6
Force on pedal	daN	36	24
Force on pedal to achieve a deceleration of 2,5 m/s^2	daN	18	15

Brake fade characteristics (hot tests)

Deceleration	hot/cold	%	1oo	1oo
Stopping distance	cold/hot	%	97	1oo
Force on pedal	cold/hot	%	12o	1o9

B) PARKING BRAKE

Tractor facing up 16% slope
Pull on hand brake 19 daN, tractor does not roll

Tractor facing down 16% slope
Pull on hand brake 17 daN, tractor does not roll

PRÜFUNGS-ABTEILUNG

EICHER 3655

Test No. 79 - 9

(6) AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 17th January 198o
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 22o9

Results of test

Gear: 4th RG H
Travelling speed before acceleration: 2o,3 km/h
Sound level: 88,5 dB (A)

(7) NOISE AT THE DRIVER'S EAR LEVEL

Date of tests: 16th January 198o
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 22o9

The tractor was fitted with EICHER safety cab

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 RGL	4329	o,99	o,87	88,o
2 L RGL	4336	1,49	1,28	88,5
3 L RGL	4329	2,o3	1,71	88,o
1 L RGH	431o	2,31	1,96	88,o
4 L RGL	4314	2,72	2,31	88,o
2 L RGH	4295	3,46	2,95	88,o
1 H RGL	43oo	4,o5	3,45	88,o
3 L RGH	4125	4,72	4,16	88,o
2 H RGL	32o2	6,o8	5,5o	89,5
4 L RGH	3o46	6,34	5,78	88,o
3 H RGL*)	2258	8,3o	7,71	89,o
1 H RGH	1o55	9,43	9,3o	89,o
4 H RGL	914	11,15	1o,96	89,o
2 H RGH	1296	14,15	13,43	89,o
3 H RGH	459	19,33	19,24	88,5
4 H RGH	light load	25,94	27,o	88,o

*)The 3rd H RGL gear corresponds to the travelling speed nearest to 7,5 km/h

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Test No. 79 - 9

(8) HYDRAULIC PUMP PERFORMANCE AND POWER LIFT

Date of tests: 30th July and 2nd August 1979

HYDRAULIC PUMP

Power lift circuit

(1) Opening pressure of relief valve in power lift circuit	184	bar
Sustained pressure by open relief valve	235	bar
(2) Pump delivery rate at minimum pressure and rated engine speed	29,6	l/min
(3) Pump delivery rate at max. hydraulic power	26,1	l/min
corresponding delivery pressure	184	bar
power	8,0	KW

Auxiliary hydraulic circuit

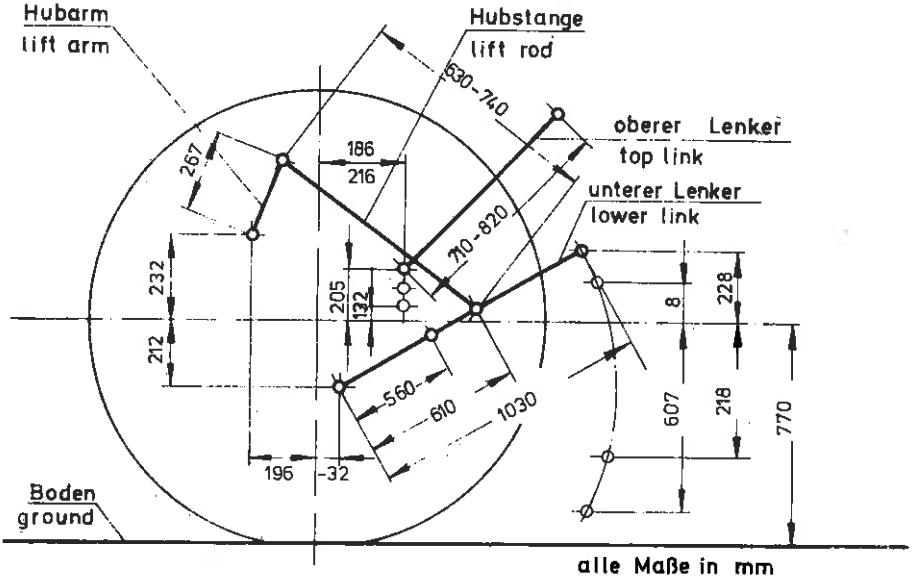
(1) Opening pressure of relief valve in remote circuit	151	bar
Sustained pressure by open relief valve	178	bar
(2) Pump delivery rate at minimum pressure and rated engine speed	36,1	l/min
(3) Pump delivery rate at max. hydraulic power	33,7	l/min
corresponding delivery pressure	155	bar
power	8,7	KW

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POWER LIFT

Dimensions of linkage geometry for the table on page 27



alle Maße in mm
all dimensions in mm

LINKAGE GEOMETRY when connected to the standard frame	Maximum mechanical advantage	Minimum mechanical advantage
Projected length in side view:		
Lower links	1030 mm	1030 mm
Lift arms	267 mm	267 mm
Lift rods	630 mm	740 mm
Top link	815 mm	780 mm
Distance of lift rod connection point from pivot point of lower link	610 mm	560 mm
The following dimensions are given relative to rear axle centre line 770 mm above ground		
Lower link pivot point	32 mm forward, 212 mm below	32 mm forward, 212 mm below
Top link pivot point	186 mm behind, 205 mm above	216 mm behind, 132 mm above
Lift arm pivot point	196 mm forward, 232 mm above	196 mm forward, 232 mm above
Maximum and minimum height of lower link hitch points	228 mm above, 218 mm below	8 mm above, 607 mm below
Height of lower link hitch points above ground when locked in highest transport position	998 mm	778 mm

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LIFTING FORCES

Lifting heights relative to horizontal lower links

mm	-440	-400	-395	-300	-200	-100	- 8	- 6	0
at hitch points maximum mechanical advantage									
daN								3830	3830
minimum mechanical advantage									
daN			2560	2600	2640	2670			2680

Max. force exerted throughout the whole range 3140 daN

Front of tractor does not lift if front axle is ballasted to its maximum permissible load(2ooo kg)

at test frame maximum mechanical advantage									
daN							3300		3290
minimum mechanical advantage									
daN	2450	2450		2430	2370	2310			2230

Max. force exerted throughout the whole range 2340 daN

Force at which front of tractor lifts if front axle is ballasted to its maximum permissible load (2ooo kg) 313o daN

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+100	+200	+220	+265	+300	+400	+440	+500	+510

lift rods 630 mm long, hole no. 2

3580	3450			3330	3210	3140		

lift rods 740 mm long, hole no. 1

2680	2580	2560						

lift rods 630 mm long, hole no. 2, upper top link pivot point

3170	3000			2790	2610		2360	2340

lift rods 740 mm long, hole no. 1, lower top link pivot point

2150	2040		1960					

All values of forces for presssure 184 bar at max. hydraulic power, see page 25; calculated from measurements at max. oil pressure 235 bar

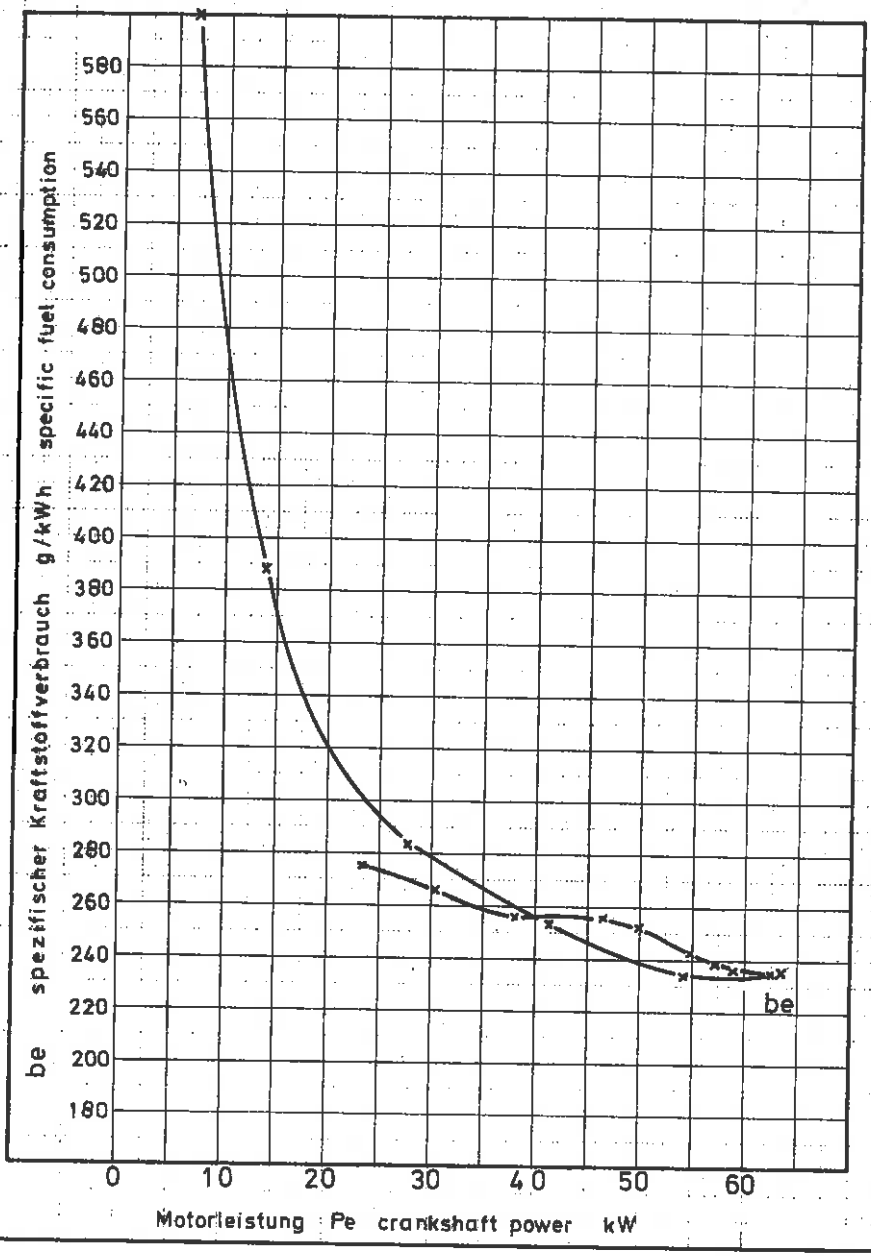
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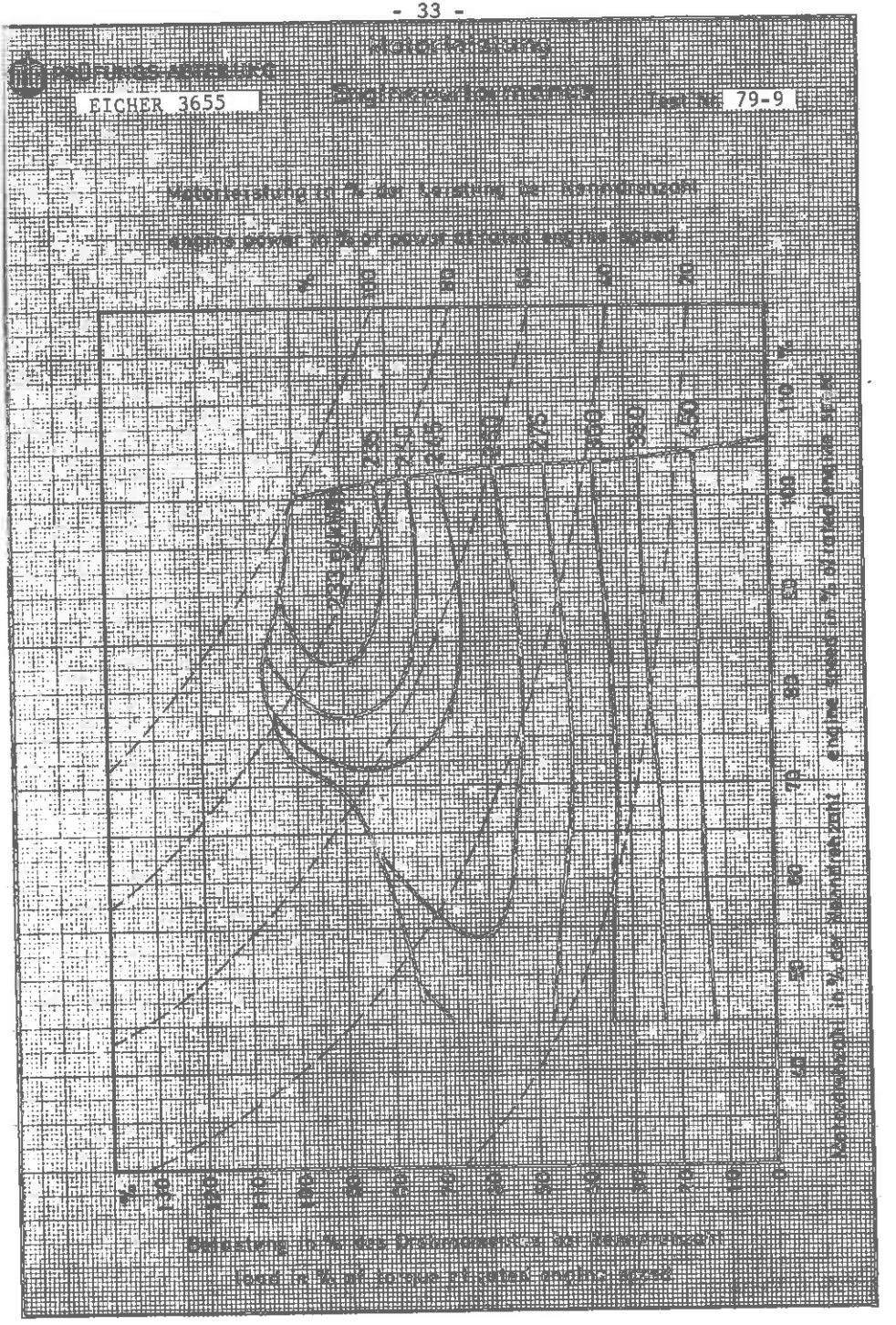
EICHER 3655

Motorleistung

Engine performance

Test Nr. 79-9




Motorleistung
Engine performance
EICHER 3655
Test No. 79-9
Motorleistung in % der Leistung bei NennDrehzahl
Engine power in % of power at rated engine speed
Belastung in % des Drehmoments bei Nennleistung
Load in % of torque at rated engine speed

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