DLG	Report on test in accordance with O.E.C.D. STANDARD CODE	O.E.C.D. No. 575



Agricultural Tractor Eicher 3453

Manufacturer

Gebr. Eicher GmbH, D-8330 Landau/Isar

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.

Performance of tests: May till August 1977

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: 8th December 1977 O.E.C.D. No. 575

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 N = 0,102 kp	or 1 kp = 9,81 N
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 3453

Test No. 77-49

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PRÜFUNGS-ABTEILUNG
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Tractor manufacturer:	GEBR. EICHER GMBH D-8330 Landau/Isar
Submitted for test by:	Manufacturer
Selected by:	Manufacturer with agreement by DLG
Place of running-in:	Landau/Isar
Duration of running-in:	Engine and tractor appr. 30 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	GEBR. EICHER GMBH
Model:	3453
Type:	Wheeled tractor, unit construction, rear wheel driven
Serial no:	139 835

Engine

Make:	PERKINS Engines Company
Model:	A 4.236
Type:	4-stroke DIESEL engine, with direct injection; water cooled
Serial no:	122 344 L
Cylinders:	4, in-line; bore 98,4 mm, stroke 127 mm; displacement 3867 cm³; compression ratio 16,1:1; replaceable dry cylinder liners
Valves:	Overhead
Fuel system:	AC fuel feed pump CAV-distributor injection pump DPA 3241lF 600; manufacturer's production setting 60 mm³/stroke at rated engine speed; injection timing 23° before TDC; CAV-multihole injection nozzles BDLL 150 SY 6382, injection pressure 170 bar; 2 CAV-fuel filters with replaceable cartridges; capacity of fuel tank 96 l
Governor:	Mechanically acting centrifugal variable speed governor, incorporated in injection pump; governed range of engine speed 900 to 2150 rev/min; rated engine speed 2000 rev/min

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Air cleaner:	MASSEY-FERGUSON S.A. dry paper element filter with precleaner; replaceable cartridge; service indicator
Exhaust silencer:	EBERSPÄCHER multi-chamber-reflection type silencer; 213 x 118 mm oval, 482 mm long; at tractor's right hand side; mouth showing upwards; mouth 2520 mm above ground
Lubrication system:	Forced feed from gear type pump; strainer in sump; PERKINS oil filter in full flow with by-pass valve; replaceable cartridge; filter cartridge changing interval at all oil changes; oil capacity 8 l; oil changing interval 150 hours; recommended oil quality: MIL-L-2104 B recommended oil viscosities: winter HD SAE 10W summer HD SAE 20W/20 tropics HD SAE 30
Cooling system:	Pressurized water cooling system with pump; overpressure set at 0,5 bar; thermostat without by-pass; fan with 4 blades, 413 mm diameter; cooling water capacity 13,6 l
Starting system:	Electrical LUCAS-screw-push starter motor: M 50 G - 12V, 3,5 kW; CAV flame glow plug 4BN in intake pipe
Electrical equipment:	12 V, negative earth; LUCAS 3 phase alternator A 13 M; 1 lead acid battery 114 Ah at 20 hours rating

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Transmission

Clutch:	LAMELLEN UND KUPPLUNGSBAU dry dual disc clutch DT 280/280; two independent pedals with pressure point each for travel drive and p.t.o. drive; the first stage of the main pedal actuates the drive clutch and the first stage of the secondary pedal actuates the p.t.o. clutch
Gear box:	MASSEY-FERGUSON S.A. speed change gear with 4 forward speeds and 1 reverse speed; reverse, 1st and 2nd speed sliding gear shifted; 3rd and 4th gear synchronized; group gear with 2 groups, sliding gear shifted; totally 8 forward and 2 reverse speeds; optionally a supplementary creep speed group is available, not fitted on tractor tested
Rear axle and final drive:	MASSEY-FERGUSON S.A. bevel gear drive with crown wheel and pinion; bevel gear differential with lock; pedal operated, self disengaging; planetary final drives
Oil capacity and recommended oil qualities:	Speed change gear and rear axle drive in common with hydraulic system: 30 l transmission oil SAE 80 MIL-L-2105 final drives: 1 l transmission oil each, SAE 90 EP MIL-L-2105
Oil changing interval:	Final drives 300 hours speed change gear and rear axle drive 600 hours or once a year

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Total ratios and speeds

Forward speeds

Group	Gear	Total ratio engine : driving wheel	Nominal travelling speed *) at rated engine speed km/h	Nominal travelling speed *) at standard p.t.o. speed 540 rev/min km/h
slow	1	244,29	2,30	1,94
	2	166,54	3,37	2,84
	3	121,95	4,61	3,87
	4	90,86	6,18	5,20
fast	1	59,71	9,41	7,91
	2	40,71	13,80	11,62
	3	29,81	18,84	15,86
	4	22,21	25,29	21,29

Reverse speeds

slow	R	179,37	3,13	2,64
fast	R	43,85	12,81	10,77

*) Calculated with the INDEX-RADIUS 745 mm as per WdK 154

Power take-off

Independent p.t.o.
at rear of tractor;
driven through the second disc of the dual disc clutch;
operation of clutch s. page 6;
620 mm above ground, in median plane of tractor;
29 x 34,9 x 8,9 mm = 1 3/8", 6 splines
DIN 9611 Form 1; BS 1495; ASAE S 203.7
641 rev/min at rated engine speed;
standard p.t.o.-speed 540 rev/min at 1685 rev/min engine speed;
p.t.o.-speeds may be set by aid of tractormeter;
direction of rotation clockwise, viewed from tractor rear

Power lift

Hydraulic system:

MASSEY-FERGUSON S.A.
hydraulic power lift, unit construction,
open system;
power control, position control, load transfer system, floating position;
single acting ram:
bore 85 mm, stroke 120 mm;
MF-axial-type pump with 30 cm³/rev delivery;
in gear box, driven by the second disc of the dual disc clutch;
MF control valve;
maximum oil pressure 235 bar;
no overpressure relief valve for ram;
optionally 1 additional external ram available, not fitted at tractor tested;
up to 3 oil tappings for double acting or single acting additional control valves available;
hydraulic oil tank in common with gear box,
s. page 6, max. 8 l may be taken off through oil tappings when tractor is travelling,
10 l when tractor is stationary

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Implement linkage:	Three-point linkage, category II (DIN 9674); optional category I; lift rods adjustable from 585 to 650 mm; lifting range above ground with short lift rods from 430 to 1045 mm long lift rods from 225 to 910 mm;
Holed drawbar:	Long bar, fitted on the clevis of lower links; total length 1500 mm; length between the ball joints 825 mm; thickness of the bar 30 mm, width 80 mm; 4 holes between the clevis with 160 mm distance each; no centre hole; with 320 mm distance right and left from this hole range further 2 holes with 160 mm distance each; totally 8 holes; all holes 33 mm diameter; height above ground adjustable by power lift from 305 to 1125 mm, depending on lifting rods length, measured at the surface of the bar; height above ground mechanically lockable from 305 to 880 mm; with lower links in horizontal position distance of holes centre line: to rear axle 930 mm to p.t.o. shaft end 630 mm

Pull attachment

Trailer hitch:	CRAMER model KU 806 S-C; not automatically acting; height above ground adjustable to 820 or 930 mm; diameter of clevis hole 33 mm; distance of clevis hole to rear axle centre 488 mm; permissible vertical load 1000 kg

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Towing hitch: At front of tractor;
height above ground 780 mm

Steering

ZAHNRADFABRIK FRIEDRICHSHAFEN AG
mechanically acting ZF-Gemmer central steering type 7340;
hydraulic steering booster with own oil circuit with 2 l capacity;
PLESSEY gear-type pump with 6 cm^3/rev delivery,
directly driven by engine;
MF-ram, double acting, bore 63 mm,
stroke 102 mm;
acting with elbow lever on tie rods

Brakes

Parking brake: Mechanically acting internal shoe type brake;
acting on 2 brake drums with 355 mm diameter at the rear wheels;
operated by hand lever with ratchet

Service brake: GIRLING LTD
mechanically operated dry disc brake
acting on 2 discs with 187 mm diameter on either differential half shaft;
pedal operated

Steering brakes: Two additional hand levers situated at the left hand side of driver's seat;
acting on service brakes

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Wheels

Steering wheels:	Two pneumatics at front 7,50-20 AS 6 ply; maximum permissible load per tyre 1006 kg at 2,25 bar inflation pressure and 25 km/h; track width from 1240 to 1850 mm, adjustable by extending telescopic half axles in steps of 100 mm: rims 5,50F x 20
Driving wheels:	Two pneumatics at rear 16,9-34 AS 6 ply; diagonal type tyre casing; maximum permissible load per tyre 2156 kg at 1,3 bar inflation pressure and 25 km/h; track width 1540 mm, not adjustable; rims DW 14 x 34
Wheel base:	2320 mm

Seat	BRENDEL SV/H-160 upholstered seat with back rest; adjustable spring with shock absorber; parallel guidance; height of seat platform above ground 840 mm; height of unloaded seat above platform adjustable from 530 to 605 mm in 4 steps; for and aft adjustable about 140 mm
Safety frame	Own make in cooperation with PEKO OECD-tested; approval no. CS 411b from 12th July 1974

Number of grease points 20

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Dimensions

Total length:	3800 mm	with 3-point linkage without ballast
	4020 mm	with 3-point linkage with ballast
Total width:	1965 mm	without ballast
	2105 mm	with ballast
Total height:	2530 mm	to top of frame
	2520 mm	to top of exhaust pipe
Ground clearance:	480 mm	in tracor's median plane below gear box

Weights

Ready for use, as tested

			Without driver	With driver
Without ballast:	front		1090 kg	1095 kg
	rear		1820 kg	1890 kg
	total		2910 kg	2985 kg
Front ballast:	2 front weights	57 kg each		114 kg
Rear ballast:	1 weight per wheel	175 kg each		350 kg
	water in the tyres			586 kg
With ballast:	front		1240 kg	1245 kg
	rear		2720 kg	2790 kg
	total		3960 kg	4035 kg

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Permissible total weights and axle loads

for all available wheel equipment

Tyres front	Tyres rear	Permissible total weight kg	Permissible front axle load kg	Permissible rear axle load kg
7,50-16	16,9-30	5000	1660	3560
6,50-20	18,4-30			
7,50-20	15,5-38			
	16,9-34			

All tyres 6 ply

All front wheels can be put together with all rear wheels

All rear tyres are available as diagonal or radial type

Lighting equipment — Electrical, 12 Volt
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 Ø	1145	640
Side lights *)	160 x 65	1565	215
Rear lights **)	160 x 65	1545	210
Reflectors			
1st pair	125 x 35	1188	195
2nd pair	60 Ø	685	550

*) in combination with direction indicator
**) in combination with direction indicator and stop light

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FUELS AND LUBRICANTS USED IN TESTS

Fuel:	ARAL-DIESEL fuel (DIN 51601)	
	specific gravity at 15°C	
	during engine tests	0,832 kg/l
	during p.t.o. tests	0,828 kg/l
	during drawbar tests	0,833 kg/l
Engine oil:	ESSO SAE 20W/20 MIL-L-2104 B	
Transmission oil:	ESSO transmission oil MIL-L-2105	
	speed change gear, group gear, rear axle and hydraulic system	SAE 80
	final drives	SAE 90 EP

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COMPULSORY TESTS

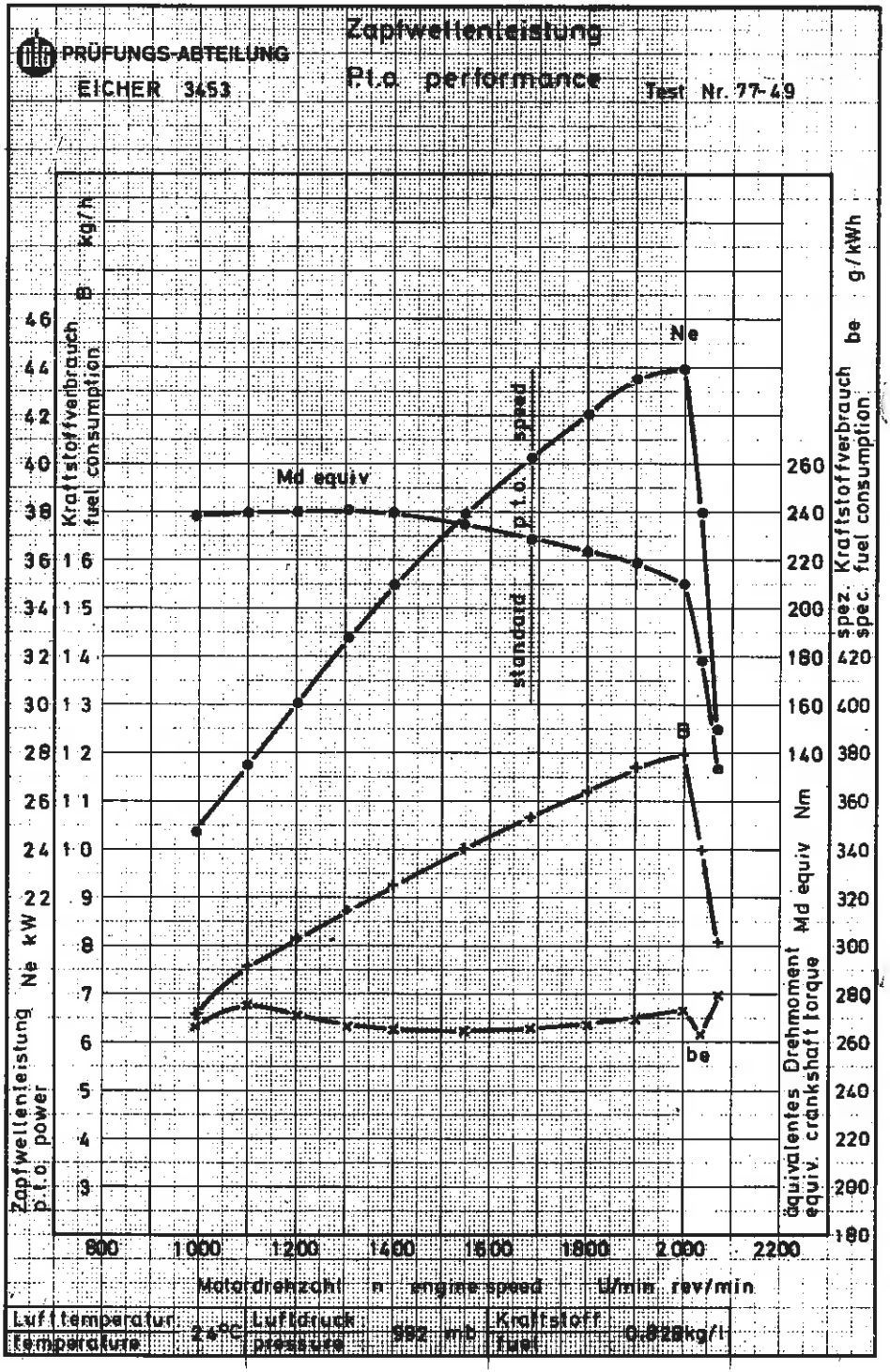
(1) MAIN POWER TAKE-OFF PERFORMANCE

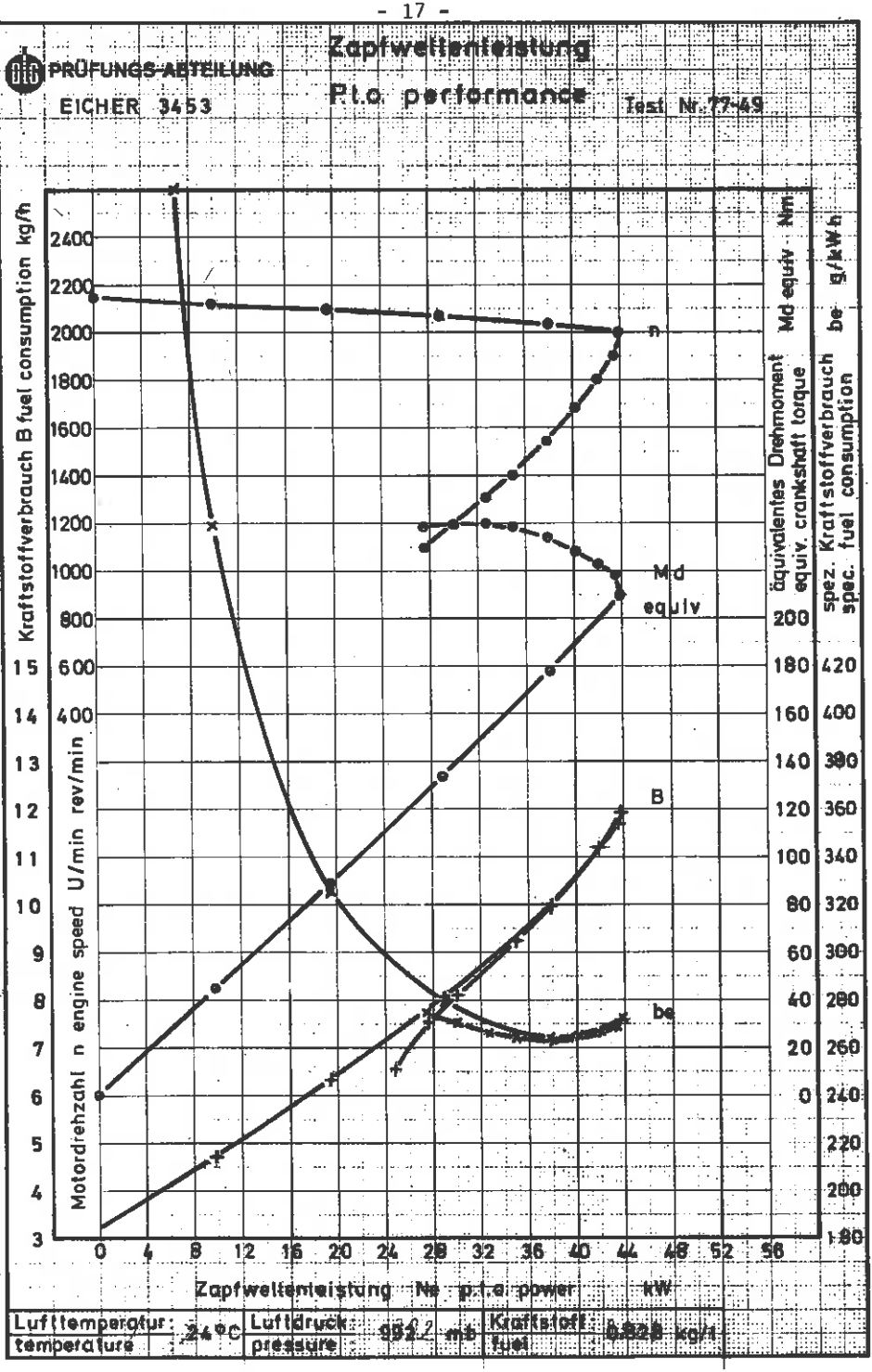
Date of tests: 8th June 1977
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

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						
43.9	2000	641	14.43	11.95	272	3.04
At standard p.t.o. speed (540 rev/min)						
40.2	1685	540	12.87	10.66	265	3.12
At the speed recommended for drawbar work						
43.9	2000	641	14.43	11.95	272	3.04
Part loads						
(i) 85% of the torque at maximum power at 2-hour test						
37.9	2037	653	12.04	9.97	263	3.15
(ii) unloaded						
-	2145	687	3.98	3.29	-	-
(iii) 50% of the load defined in (i)						
19.5	2097	672	7.67	6.35	325	2.55
(iv) maximum power						
43.9	2000	641	14.43	11.95	272	3.04
(v) 25% of the load defined in (i)						
9.9	2119	679	5.71	4.73	479	1.73
(vi) 75% of the load defined in (i)						
28.9	2070	664	9.75	8.08	279	2.97

No load maximum engine speed: 2145 rev/min
Equivalent crankshaft torque at maximum power (2 hours): 209 Nm
Maximum equivalent crankshaft torque: 240 Nm at 1304 rev/min of the engine

Mean atmospheric conditions:	temperature	24 °C
	pressure	992 mbar
	relative humidity	68 %
Maximum temperatures:	coolant	85 °C
	engine oil	114 °C
	fuel	25 °C
	engine air intake	25 °C


PRÜFUNGS-ABTEILUNG
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Zapfwellenleistung
P.t.o. performance
Test Nr. 77-49
Ne
Md equiv
p.t.o. speed
standard
B
be
Zapfwellenleistung Ne kW p.t.o. power
Kraftstoffverbrauch B kg/h fuel consumption
äquivalentes Drehmoment Md equiv Nm equiv. crankshaft torque
spez. Kraftstoffverbrauch be g/kWh spec. fuel consumption
Motordrehzahl n engine speed U/min rev/min
800 1000 1200 1400 1600 1800 2000 2200
Lufttemperatur temperature 24°C
Luftdruck pressure 992 mb
Kraftstoff fuel 0.825kg/l


PRÜFUNGS-ABTEILUNG
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Zapfwellenleistung
P.t.o. performance
Test Nr. 77-49
Kraftstoffverbrauch B fuel consumption kg/h
Motordrehzahl n engine speed U/min rev/min
äquivalentes Drehmoment Md equiv Nm
equiv. crankshaft torque
spez. Kraftstoffverbrauch be
spec. fuel consumption g/kWh
n
Md equiv
B
be
Zapfwellenleistung Ne p.t.o. power kW
Lufttemperatur: 24 °C
temperature
Luftdruck: 992,2 mb
pressure
Kraftstoff: 0,828 kg/l
fuel

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(2) DRAWBAR PERFORMANCE

Date of tests: 29th July till 10th August 1977
Type of track: Concrete

Gear No. and Group	Speed km/h	Power kW	Drawbar pull N	Engine speed rev/min	Slip of wheels %	Specific energy kWh/l
(i) MAXIMUM POWER with ballast height of drawbar above ground 600 mm						
1 slow	2,04	18,5	32710	2081	15,0	2,14
2 slow	2,96	26,8	32600	2046	15,0	2,41
3 slow	3,94	35,0	32020	1997	14,5	2,42
4 slow	5,55	36,4	23580	1999	10,4	2,51
1 fast	8,79	37,7	15460	1998	6,4	2,59
2 fast	13,16	37,4	10230	1993	4,0	2,58
(ii) FIVE-HOUR-TEST at 75% of pull at maximum power in 4th gear of slow group						
4 slow	5,82	28,6	17680	2030	7,4	2,57
(iii) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (i)						
2 slow	-	-	32710	2030	-	-
(iv) MAXIMUM POWER without ballast height of drawbar above ground 735 mm						
2 slow	2,96	22,0	26790	2062	15,0	2,28
3 slow	3,96	29,6	26890	2025	15,0	2,43
4 slow	5,38	35,2	23570	1995	12,9	2,46
1 fast	8,60	37,4	15640	1994	8,2	2,58
2 fast	12,97	37,7	10470	1995	5,3	2,61

Total oil consumption during ten hours duration of tests (ii) and (iii): 31 g/h

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Tyres make and size
front: SEMPERIT 7,50-20 AS FRONT 6 ply
rear: METZELER 16,9-34 AS 6 ply

Tread bar height at the beginning of drawbar tests
91% of the value when new

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 1,3 bar rolling radius of tyres under static load 743 mm						
386	28	80	90	27	67	1000
342	28	80	92	27	65	1000
340	28	82	95	26	67	1000
328	27	80	90	25	76	1000
319	25	81	93	23	82	1000
320	25	80	88	24	80	1000
320	25	84	102	23	90	1002
-	25	84	102	23	90	1002
tyre inflation pressure 1,0 bar rolling radius of tyres under static load 745 mm						
364	22	80	88	22	93	995
340	22	82	95	21	95	995
337	21	80	93	20	98	995
321	21	82	94	21	98	995
317	22	82	95	21	98	995

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

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Test **No. 77 - 49**

(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 7,50-20 AS FRONT 6 ply
rear: 16,9-34 AS 6 ply

Track of wheels front: 1420 mm
rear: 1550 mm

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	3,68	3,63	3,96	3,88
Radius of turning circle	3,50	3,48	3,77	3,73

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	889 mm
Distance forward from rear axle centre	851 mm
Distance right from tractor's median plane	9 mm

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(5) BRAKING PERFORMANCE

A) SERVICE BRAKE

Date of tests: 3rd and 8th August 1977
Type of track: Concrete
Type of decelerometer: MOTO METER-Bremsverzögerungs- und Pedalkraftschreiber

Weight of ballasted tractor: 4035 kg with driver

Cold brakes

		With ballast	Without ballast
Travelling speed	km/h	25,0	25,0
Deceleration	m/s^2	4,4	4,1
Stopping distance	m	8,0	8,6
Force on pedal	N	410	320
Force on pedal to achieve a deceleration of 2,5 m/s^2	N	260	230

Brake fade characteristics (hot tests)

Deceleration	hot/cold	%	100	93
Stopping distance	cold/hot	%	98	93
Force on pedal	cold/hot	%	79	89

B) PARKING BRAKE

Tractor facing up 16%-slope:
Pull on hand brake 220 N, tractor does not roll

Tractor facing down 16%-slope:
Pull on hand brake 220 N, tractor does not roll

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(6) AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 2nd August 1977
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2203

Results of test

Gear: 4 fast
Travelling speed before acceleration: 19,8 km/h
Sound level: 85,5 dB(A)

(7) NOISE AT THE DRIVER'S EAR LEVEL

Date of tests: 1st August 1977
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2607
Type of frequency analyzer: BRÜEL AND KJAER model 1614
(fitted with octave filter)

A safety frame was fitted on tractor
OECD tested, approval no. CS 411 b

Results of tests

Gear	Drawbar pull at which the tractor develops the maximum sound level	Travelling speed nominal	Travelling speed effective	Sound level
	N	km/h	km/h	dB(A)
1 slow	26180	2,30	2,01	91
2 slow	26910	3,37	2,93	92
3 slow	26840	4,61	3,98	93
4 slow*)	23600	6,18	5,39	95
1 fast	15040	9,41	8,64	93,5
2 fast	10210	13,80	12,98	93
3 fast	7170	18,84	18,02	94
4 fast	light load	25,29	26,34	94

*) The 4th slow gear corresponds to the travelling speed nearest to 7,25 km/h

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(8) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

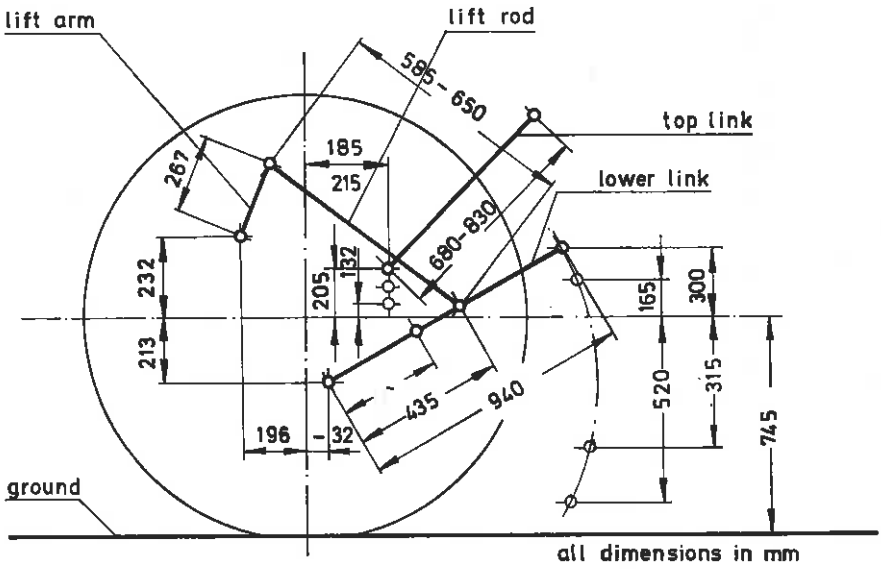
Date of tests: 14th and 15th July 1977

HYDRAULIC PUMP

(1)	Opening pressure of relief valve in remote circuit	172 bar
	Sustained pressure by open relief valve	235 bar
(2)	Pump delivery rate at minimum pressure and maximum engine speed	19,6 l/min
(3)	Pump delivery rate	17,0 l/min
	Delivery pressure	181 bar
	Hydraulic Power	5,1 kW

POWER LIFT

Dimensions of linkage geometry for the table on page 26



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LIFTING FORCES

Lifting heights relative to horizontal lower links

mm	-307	-300	-200	-127	-102	-100	0	+100	+200

at hitch points maximum mechanical advantage

N					15760	15760	16500	17350	18150

minimum mechanical advantage

N	14400	14450	15050			15750	16400	17050	17500

Max. force exerted throughout the whole range 15760 N

Front of tractor does not lift

at test frame maximum mechanical advantage

N	14750	14700	14750			14850	14950	14800	14450

minimum mechanical advantage

N				13050		13200	13250	13250	13250

Max. force exerted throughout the whole range 13900 N

Front of tractor does not lift with maximum allowable front ballast

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+300	+378	+400	+443	+500	+513	+600	+700	+728

lift rods 585 mm long

18550		18900		19400	19550			

lift rods 650 mm long

17900	18200							

lift rods 650 mm long, high top link pivot point

14100		13900	13900					

lift rods 585 mm long, low top link pivot point

12900		12450		11800		11400	11150	11100

All values of forces for pressure at max. hydraulic power 181 bar, see page 23; calculated from measurements at max. oil pressure 235 bar

LINKAGE GEOMETRY when connected to the standard frame	Maximum mechanical advantage	Minimum mechanical advantage
Projected length in side view:		
Lower links	960 mm	960 mm
Lift arms	267 mm	267 mm
Lift rods	650 mm	585 mm
Top link	750 mm	720 mm
Distance of lift rod connection point from pivot point of lower link	435 mm	435 mm
The following dimensions are given relative to rear axle centre line 745 mm above ground		
Lower link pivot point	32 mm forward, 213 mm below	32 mm forward, 213 mm below
Top link pivot point	185 mm behind, 205 mm above	215 mm behind, 132 mm above
Lift arm pivot point	164 mm forward, 232 mm above	164 mm forward, 232 mm above
Maximum and minimum height of lower link hitch points	165 mm above, 520 mm below	300 mm above, 315 mm below
Height of lower link hitch points above ground when locked in highest transport position	910 mm	1045 mm

PRÜFUNGS-ABTEILUNG
EICHER 3453

Test No. 77-49

OPTIONAL TESTS

(1) ENGINE PERFORMANCE

Date of tests: 3rd May 1977
Type of dynamometer: SCHENCK eddy-current dynamometer W 150

Power kW	Engine speed 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					
48.5	2000	14.37	11.95	246	3.38
At standard p.t.o. speed (540 rev/min)					
43.3	1685	12.73	10.59	244	3.41
At the speed recommended for drawbar work					
48.5	2000	14.37	11.95	246	3.38
Part loads					
(i) 85% of the torque at maximum power at 2-hour test					
42.1	2036	12.09	10.06	239	3.48
(ii) unloaded					
-	2135	3.36	2.80	-	-
(iii) 50% of the load defined in (i)					
21.6	2099	7.40	6.15	285	2.92
(iv) maximum power					
48.5	2000	14.37	11.95	246	3.38
(v) 25% of the load defined in (i)					
10.9	2119	5.23	4.35	399	2.09
(vi) 75% of the load defined in (i)					
31.9	2064	9.54	7.94	249	3.34

Optimum fuel consumption: 223 g/kWh at 25,8 kW and 1250 rev/min
No load maximum engine speed: 2135 rev/min
Torque at maximum power (2 hours): 232 Nm
Maximum torque: 259 Nm at 1302 rev/min of the engine

Mean atmospheric conditions:	temperature	24 °C
	pressure	995 mbar
	relative humidity	58 %
Maximum temperatures:	coolant	85 °C
	engine oil	106 °C
	fuel	26 °C
	engine air intake	27 °C

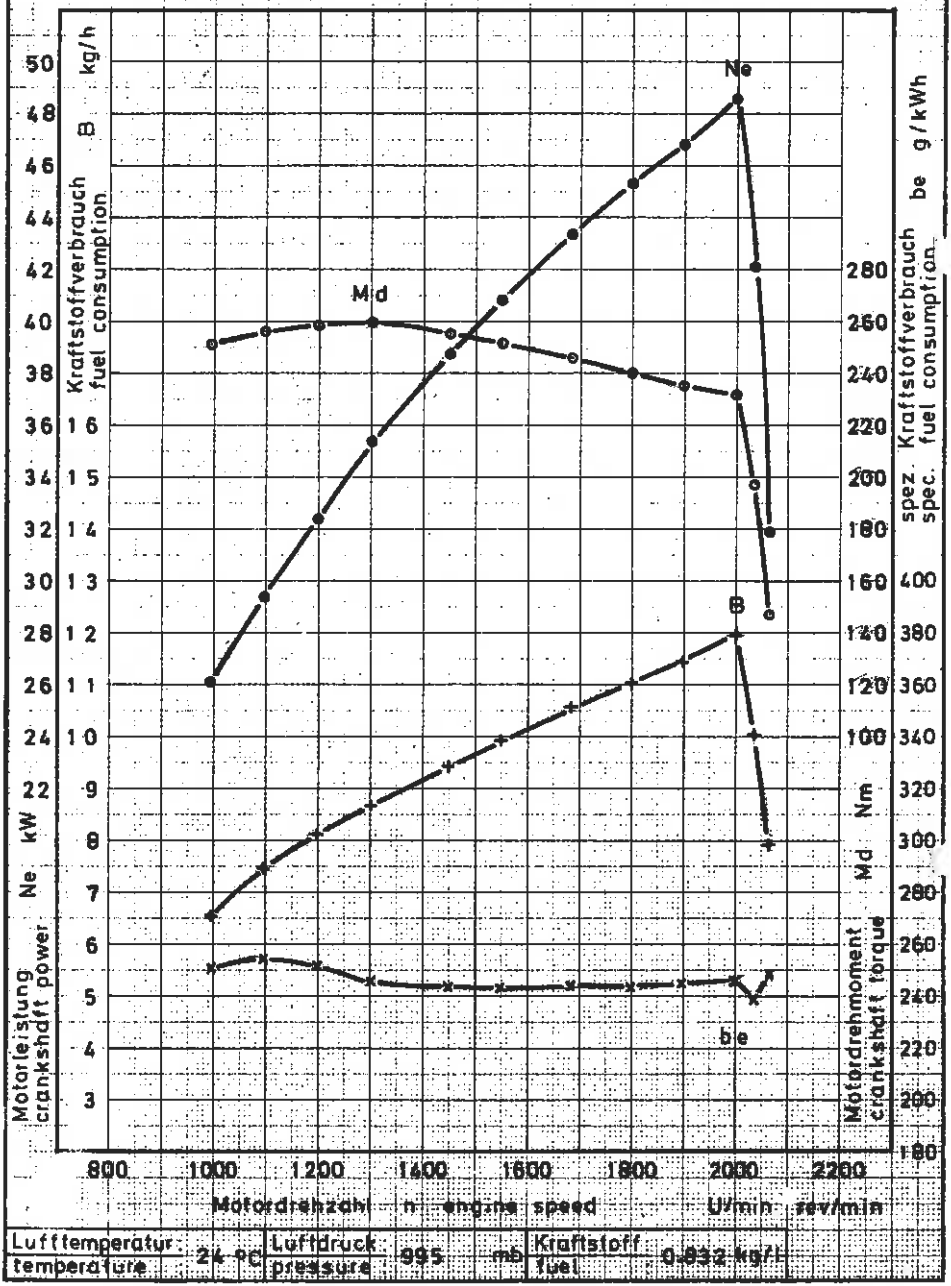
Motorleistung

PRÜFUNGS-ABTEILUNG

EICHER 3453

Engine performance

Test Nr. 77-49



Lufttemperatur temperature	24 °C	Luftdruck pressure	995 mb	Kraftstoff fuel	0,832 kg/l

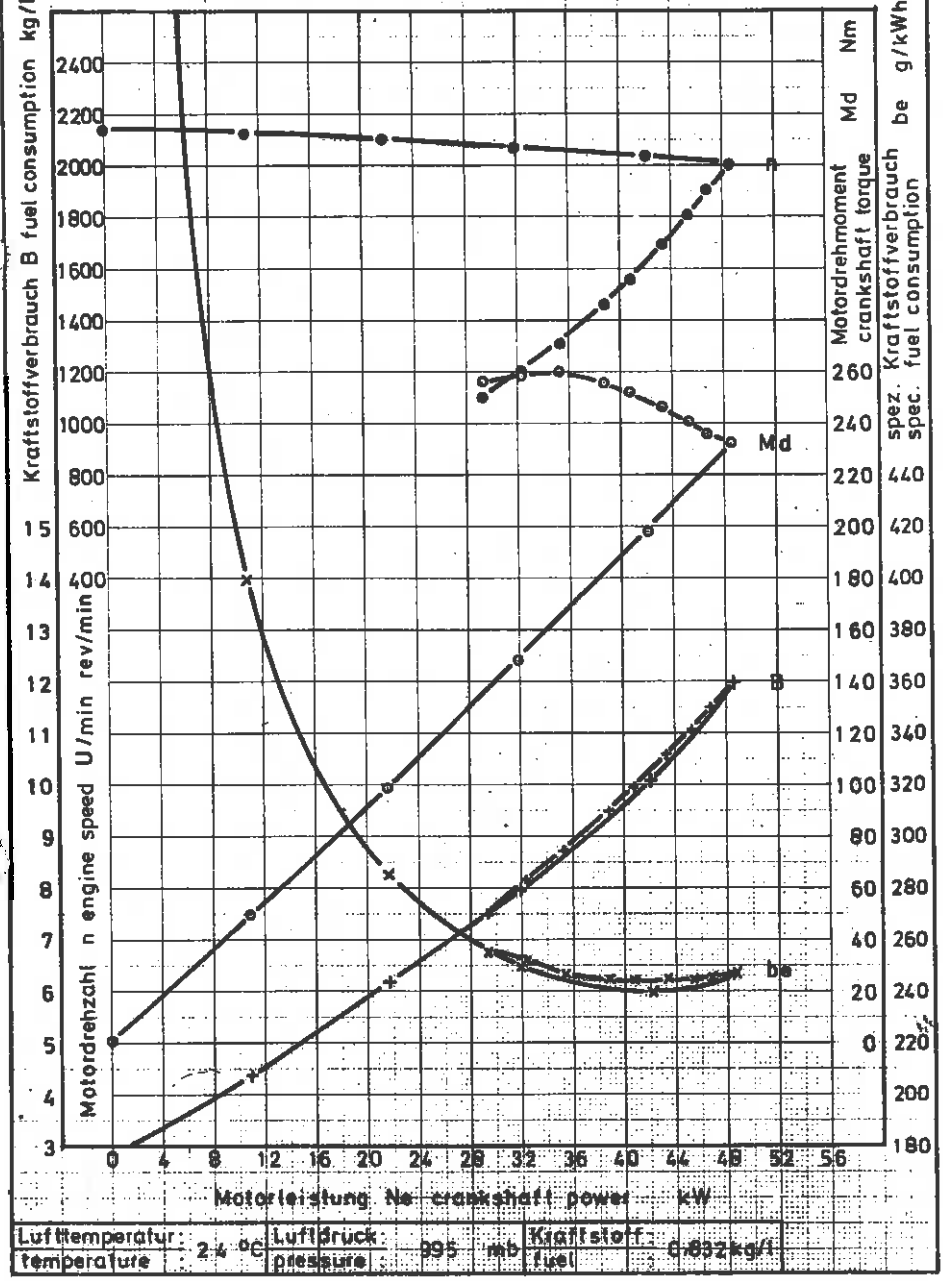
PRÜFUNGS-ABTEILUNG

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Motorleistung

Engine performance

Test Nr. 77-49



Lufttemperatur temperature	24 °C	Luftdruck pressure	995	mb	Kraftstoff fuel	0.832 kg/l	

PRÜFUNGS-ABTEILUNG
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Motorleistung
Engine performance

Test Nr. 77-49

Motorleistung in % der Leistung bei Nenndrehzahl
engine power in % of power at rated engine speed

Motordrehzahl in % der Nenndrehzahl engine speed in % of rated engine speed

Belastung in % des Drehmomentes bei Nenndrehzahl
load in % of torque at rated engine speed

223 g/kWh

Lufttemperatur / temperature	24 °C	Luftdruck / pressure	995 mb	Kraftstoff / fuel	0,832 kg/l

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