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

O.E.C.D. No. 810



Agricultural Tractor DEUTZ D 7807

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

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

Duration of Tests: October 1980 till March 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: 21th August, 1981 OECD No. 810

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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Printed in the Federal Republic of Germany
September 1981; DLG-No. 163

TABLE OF CONTENTS

	Page
SPECIFICATION OF TRACTOR	4 to 12
TEST CONDITIONS	13
COMPULSORY TESTS	
(1) Main power take-off performance	14 to 17
(2) Drawbar performance on a concrete track	18 and 19
(3) Turning space and turning circle	20
(4) Location of centre of gravity	20
(5) Braking	21
(6) Measurement of external noise level	22
(7) Noise measurement at the driver's ear	22
(8) Power lift and hydraulic pump performance	23 and 24
OPTIONAL TESTS	
(9) Engine performance	25 to 28

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

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. 80 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	DEUTZ
Model:	Trade name D 7807, type name D 1017-S
Type:	wheel tractor, unit construction, rear wheel driven
Serial No:	7594 0001

Engine

Make:	DEUTZ
Model:	F4L 913
Type:	4-stroke Diesel-engine, direct injection, air-cooled
Serial No:	6292929
Cylinders:	4, in-line, bore 102 mm, stroke 125 mm, displacement 4086 cm³, compression ratio 17; replaceable ribbed cylinder liners
Valves:	Overhead
Fuel system:	PIERBURG fuel feed pump PE 15 252; BOSCH in-line injection pump: PES 4A85D 410/3 RS 2610, manufacturer's production setting 57,5 $\pm$1 mm³/stroke at rated engine speed and full load; injection timing 27° before TDC; BOSCH multihole injection nozzles DLLA 149S 774, injection pressure 175+8 bar; MANN fuel filter with replaceable cartridge; capacity of fuel tank 92 l
Governor:	BOSCH centrifugal variable speed governor: EP/RSV 325-1150 A8B 2102 L, governed range of engine speed 650 to 2450 rev/min, rated engine speed 2300 rev/min

PRÜFUNGS-ABTEILUNG

DEUTZ D 7807 Test No. 80-120

Air cleaner:	DEUTZ-SICCOPUR dry paper element filter with precleaner and electrically operating maintenance indicator
Exhaust silencer:	ROTH 3-chamber absorption-expansion type silencer, 125 x 60 mm oval, 800 mm long, on the left hand side above engine bonnet; mouth showing upwards, 2370 mm above ground
Lubrication system:	Forced-feed with gear pump, strainer in sump; MANN oil filter in full flow with by-pass valve and replaceable cartridge; oil capacity 9,5 l; recommended oil viscosities: below - 5°C SAE 10W -10°C to + 10°C SAE 20W/20 + 5°C to + 30°C SAE 30 above + 25°C SAE 40 or above - 10°C SAE 20W/40; recommended oil qualities and oil change periods: API-CC all 100 operating hours API-CD all 200 operating hours oil filter change period all 200 operating hours; oil cooler on the right side of engine in cooling-air flow
Cooling system:	Air-cooling with axial blower on the right side of engine, V-belt driven
Starting system:	Electrical BOSCH pre engaged-drive starting motor JD 12V 3 kW, BOSCH flame plug in intake pipe
Electrical equipment:	12 Volt, negative earth; BOSCH 3-phase alternator G1 14V 28A22, 392W; *) 1 lead acid battery 110 Ah at 20 hours rating

*) In the meantime the tractor is fitted with a alternator G1 14V 33A27, 462 W

Transmission

Clutch:	FICHTEL UND SACHS AG dry dual disc clutch DUT 295H 250/295, gearbox drive disc 295 mm dia, pedal operated; p.t.o. drive disc 250 mm dia, hand lever operated
Gear box:	Own make TW 56.20-S collar shifted speed change gear with 4 speeds; collar shifted group gear with 3 forward groups and 1 reverse group; optionally synchronized speed change gear available
Rear axle:	Own make bevel gear drive; bevel gear differential with pedal operated, selfdisengaging lock; spur gear final drives
Front axle:	Not propelled
Gear lubrication:	Speed change gear, group gear, rear axle and final drives in common, 36 l oil capacity recommended oil gear oil SAE 90 MIL-L-2105 or engine oil SAE 20W/20 API-CC or API-CD; oil change period all 1000 operating hours or once a year; without gear oil filter

PRÜFUNGS-ABTEILUNG

DEUTZ D 7807

Test No. 80-120

Total ratios and speeds (tyres 16,9 - 34)

Group	Gear	Total ratio engine : driving wheels	Nominal travelling speed *) at rated engine speed km/h
Forward speeds			
L	1	298,57	2,16
	2	192,50	3,36
	3	137,88	4,68
	4	93,78	6,89
Z	1	124,62	5,18
	2	80,35	8,04
	3	57,55	11,22
	4	39,14	16,50
S	1	68,24	9,47
	2	44,00	14,68
	3	31,52	20,50
	4	21,44	30,14
Reverse speeds			
R	1	92,89	6,95
	2	59,89	10,79
	3	42,90	15,06
	4	29,18	22,14

*) calculated with the radius index 745 mm

Power-take-off Independent p.t.o., driven by the second disc of the dual disc clutch;
at rear of tractor, in tractor's median plane, 693 mm above ground, shaft end 420 mm behind rear axle centre;
35 mm dia, 6 splines ISO 500 / DIN 6911 type 1

2 speeds are preselectable by hand lever:

540 rev/min p.t.o.
613 rev/min at rated engine speed,
standard p.t.o. speed 540 rev/min at engine speed 2025 rev/min

1000 rev/min p.t.o.
1061 rev/min at rated engine speed,
standard p.t.o. speed 1000 rev/min at
engine speed 2167 rev/min

direction of rotation clockwise, viewed from tractor rear

Power lift: DEUTZ-TRANSFERMATIK K45.1
hydraulic power lift in unit construction;
draft control, position control, floating position, top link sensing

Hydraulic system: BOSCH tandem gear pump HY/ZFFS 11/16+11L
directly driven by engine,
delivery 16 cm^3/rev;
DEUTZ control valve,
max. working pressure 175 + 8 bar;
single acting cylinder with 90 mm dia and 152 mm stroke, with overpressure relief valve set to 240 to 310 bar;
1 additional cylinder with 45 mm dia and 200 mm stroke;
with lowering throttle;
oil filter with replaceable cartridge,
filter change interval 500 operating hours;
1 double acting DEUTZ additional control valve with 2 oil tappings;
up to 3 single or double acting additional control valves optionally available

Hydraulic oil: Hydraulic oil reservoir in power lift unit with 14 l capacity;
optionally additional tank with 14 l capacity available;
up to 7 l, with additional oil tank up to 21,5 l, may be taken off when tractor is working stationary or travelling;
recommended oil:
engine oil SAE 20W/20 or SAE 10W
API-CC or API-CD
oil change all 1000 operating hours or once a year

Implement linkage: 3-point linkage, acc. to ISO 730/I, category 2; lift rods adjustable from 620 to 780 mm, lifting range above ground with mean lift rod length of 700 mm: from 430 to 935 mm

Holed bar: Short bar, fitted on clevis of lower links; length between the joint balls 830 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	975 mm
from p.t.o. shaft end	555 mm

height above ground adjustable by power lift in the range from 445 to 950 mm, measured at the surface of the bar, in the height of 630 mm above ground hydraulically-mechanically lockable

Pull attachments

Trailer hitch: CRAMER KU 756, automatical; height above ground adjustable by shifting to 860 or 924 mm; hitch hole 33 mm dia; distance of hitch hole centre to rear axle centre 526 mm; permissible vertical load 1250 kg; a nonautomatical hitch is optionally available

Towing hitch: At front of tractor, 765 mm above ground

Steering

ZAHNRADFABRIK FRIEDRICHSHAFEN AG
hydrostatic steering SERVOSTAT 8451,
oil in common with hydraulic power lift,
supplied by tandem part of the
BOSCH gear pump with 11 cm^3/rev delivery;
1 double acting cylinder, directly acting
on front axle

Brakes

Parking brake: Internal-expanding-shoe brakes with 180 mm dia and 40 mm width on each differential half shaft, operated by pulling handle with ratchet

Service brake: KNOTT
pedal operated muscle power brake with hydraulic transmission,
internal-expanding-shoe brakes
on each differential half shaft, at the outside of the transmission housing;
drums with 254 mm dia and 70 mm width

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

Wheels

Steered wheels: At front, 2 pneumatics 7,50 - 20 6 ply,
maximum permissible load per tyre 875 kg
at 2,25 bar inflation pressure and 30 km/h;
track width adjustable from 1476 to 1976 mm
in steps of 100 mm each by extending
telescopic half axles;
rims 5,50F x 20

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DEUTZ D 7807 Test No. 80-120

Driving wheels:	At rear, 2 pneumatics 16,9 - 34 6 ply diagonal type tyre casing; maximum permissible load per tyre 2015 kg at 1,3 bar inflation pressure and 30 km/h; track width adjustable from 1520 to 2020 mm in steps of 100 mm each by turning wheels and offset lug type rims; rims W15L x 34
Wheel base:	2414 mm
Safety frame	FRITZMEIER overturning protection frame model 901, not OECD-tested
Seat	GRAMMER DS 20 D 3 H upholstered seat with back rest, adjustable spring with shock absorber; height of driver's platform above ground 945 mm; height of unloaded seat in front- and lowermost position 437 mm above platform, on an inclined plane adjustable in longitudinal direction by 230 mm and simultaneously in the height by 100 mm, additional independent height adjustment of 125 mm in 8 steps

Number of grease points 14

Dimensions

Total length:	4019 mm without ballast 4334 mm with ballast
Total width:	1988 mm without ballast 2432 mm with ballast
Total height:	2570 mm to top of safety frame
Ground clearance:	500 mm below transmission housing

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DEUTZ D 7807

Test No. 80-120

Permissible total weights and axle load

for all available wheel equipments

Tyre size front	Tyre size rear	Permissible axle load front kg	Permissible axle load rear kg	Permissible total weights kg
7,50-18 6 ply or 7,50-20 6 ply	9,5-44 8 ply	1620	3890	5000
	12,4-38 6 ply		2960	4580
	13,6-36 6 ply		3230	4850
	13,6-38 6 ply		3320	4940
	16,9-30 6 ply		3800	5000
	16,9-34 6 ply		4000	5000

Lighting equipment Electrical, 12 Volt, as per German legislation

	Dimension mm	Heigth above ground of centre mm	Distance from outside edge of tractor to centre mm
Head lamps	130 Ø	1020	832
Side lamps	85 x 30	1596	258
Rear lamps	85 x 30	1456	268
Reflectors			
1 st pair	75 dia	1190	173
2 nd pair	75 dia	710	540

Running-time meter

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

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

TEST CONDITIONS

Weights (as during drawbar tests)

			without driver	with driver
Without	ballast:	front	995 kg	1000 kg
		rear	1940 kg	2000 kg
		total	2935 kg	3000 kg
Front	ballast:	8 front end weights,	40 kg each	320 kg
Rear	ballast:	11 weights per wheel,	50 kg each	1100 kg
		water in the tyres		585 kg
With	ballast:	front	1375 kg	1380 kg
		rear	3565 kg	3625 kg
		total	4940 kg	5005 kg

Track setting at front 1476 mm, at rear 1520 mm

Fuel and lubricants used in tests

Fuel:	ARAL Diesel-fuel DIN 51601
	specific gravity at 15°C
	at engine test 0,826 kg/l
	at p.t.o. test 0,824 kg/l
	at drawbar test 0,822 kg/l
Engine:	SHELL engine oil ROTELLA T SAE 20W/20
Transmission:	SHELL engine oil ROTELLA T SAE 20W/20
Hydraulic system:	DEUTZER ÖLGESELLSCHAFT engine oil SGHD-B10 SAE 10W

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

COMPULSORY TESTS

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

Date of tests: 17th February 1981
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						
53.7	2300	1062	15.78	12.99	242	3.40
At standard p.t.o. speed						
53.0	2167	1000	15.39	12.68	239	3.45
At the speed recommended for drawbar work						
53.7	2300	1062	15.78	12.99	242	3.40
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						
46.9	2360	1089	13.73	11.31	241	3.41
(ii) unloaded						
-	2453	1132	3.89	3.20	-	-
(iii) 50% of the load defined in (i)						
23.8	2402	1109	8.61	7.09	298	2.76
(iv) maximum power						
53.7	2300	1062	15.78	12.99	242	3.40
(v) 25% of the load defined in (i)						
12.0	2422	1118	6.14	5.06	421	1.95
(vi) 75% of the load defined in (i)						
35.6	2387	1102	11.11	9.15	257	3.20

PRÜFUNGS-ABTEILUNG

DEUTZ D 7807

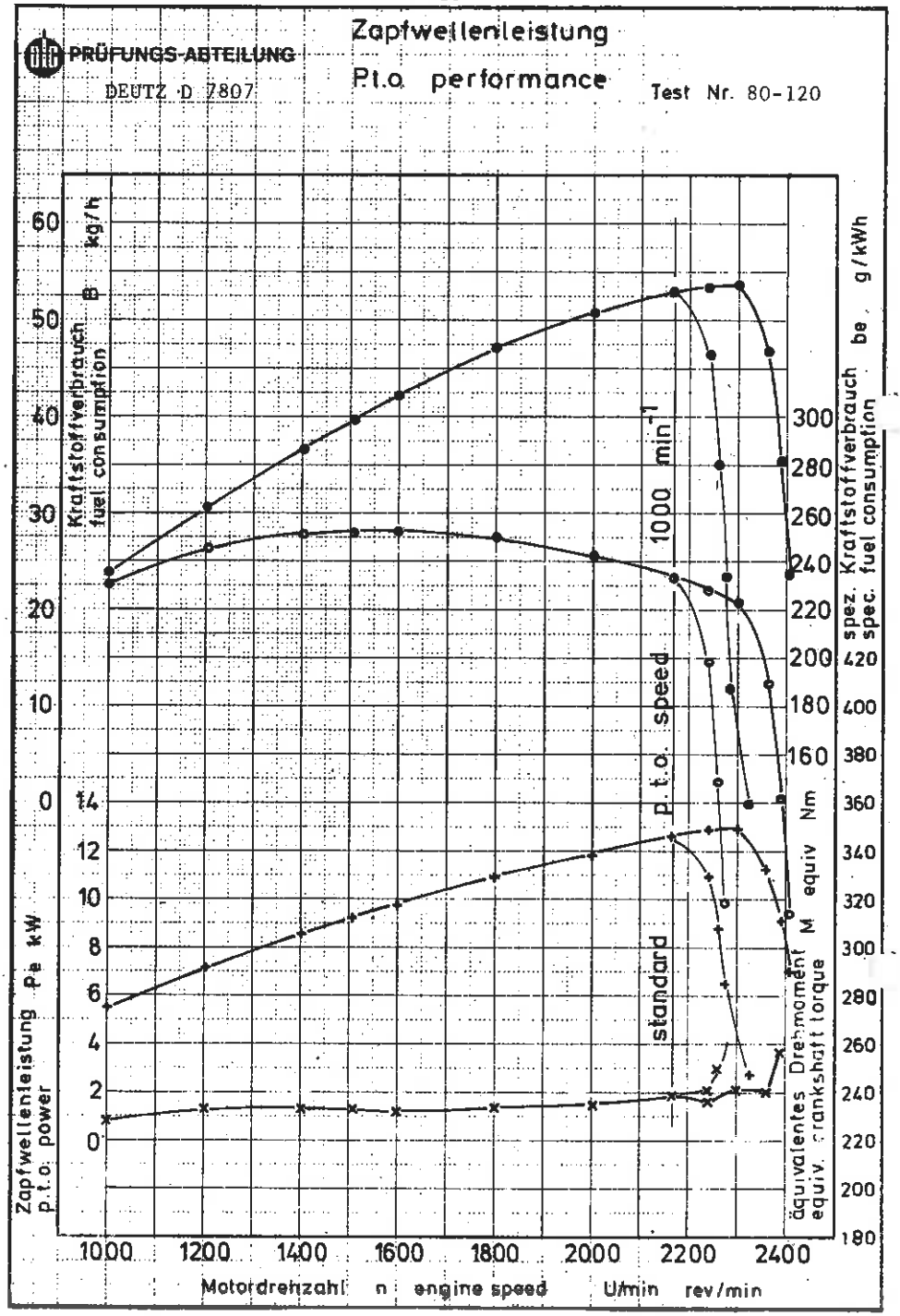
Test No. 80-120

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 standard p.t.o. speed						
46.6	2238	1033	13.34	10.99	236	3.49
(ii) unloaded						
-	2323	1072	3.45	2.84	-	-
(iii) 50% of the load defined in (i)						
23.6	2273	1049	8.16	6.72	285	2.89
(iv) maximum power						
53.0	2167	1000	15.39	12.68	239	3.45
(v) 25% of the load defined in (i)						
11.9	2283	1054	5.83	4.80	405	2.03
(vi) 75% of the load defined in (i)						
35.3	2258	1042	10.71	8.82	250	3.29

Standard specific fuel consumption (g/kWh): 241/298/236/285

No load maximum engine speed: 2453 rev/min
Equivalent crankshaft torque at maximum power (2 hours): 223 Nm
Maximum equivalent crankshaft torque: 253 Nm at 1597 rev/min of the engine

Mean atmospheric conditions:	temperature	21 °C
	pressure	1008 mbar
	relative humidity	32 %
Maximum temperatures:	coolant	-
	engine oil	119 °C
	fuel	23 °C
	engine air intake	22 °C


PRÜFUNGS-ABTEILUNG
DEUTZ D 7807
Zapfwellenleistung
P.t.o. performance
Test Nr. 80-120
Kraftstoffverbrauch B kg/h
fuel consumption
spez. Kraftstoffverbrauch be g/kWh
spec. fuel consumption
Zapfwellenleistung Pe kW
p.t.o. power
äquivalentes Drehmoment M equiv Nm
equiv. crankshaft torque
standard p.t.o. speed 1000 min⁻¹
Motordrehzahl n engine speed U/min rev/min
60
50
40
30
20
10
0
14
12
10
8
6
4
2
0
300
280
260
240
220
200
180
160
420
400
380
360
340
320
300
280
260
240
220
200
180
1000
1200
1400
1600
1800
2000
2200
2400

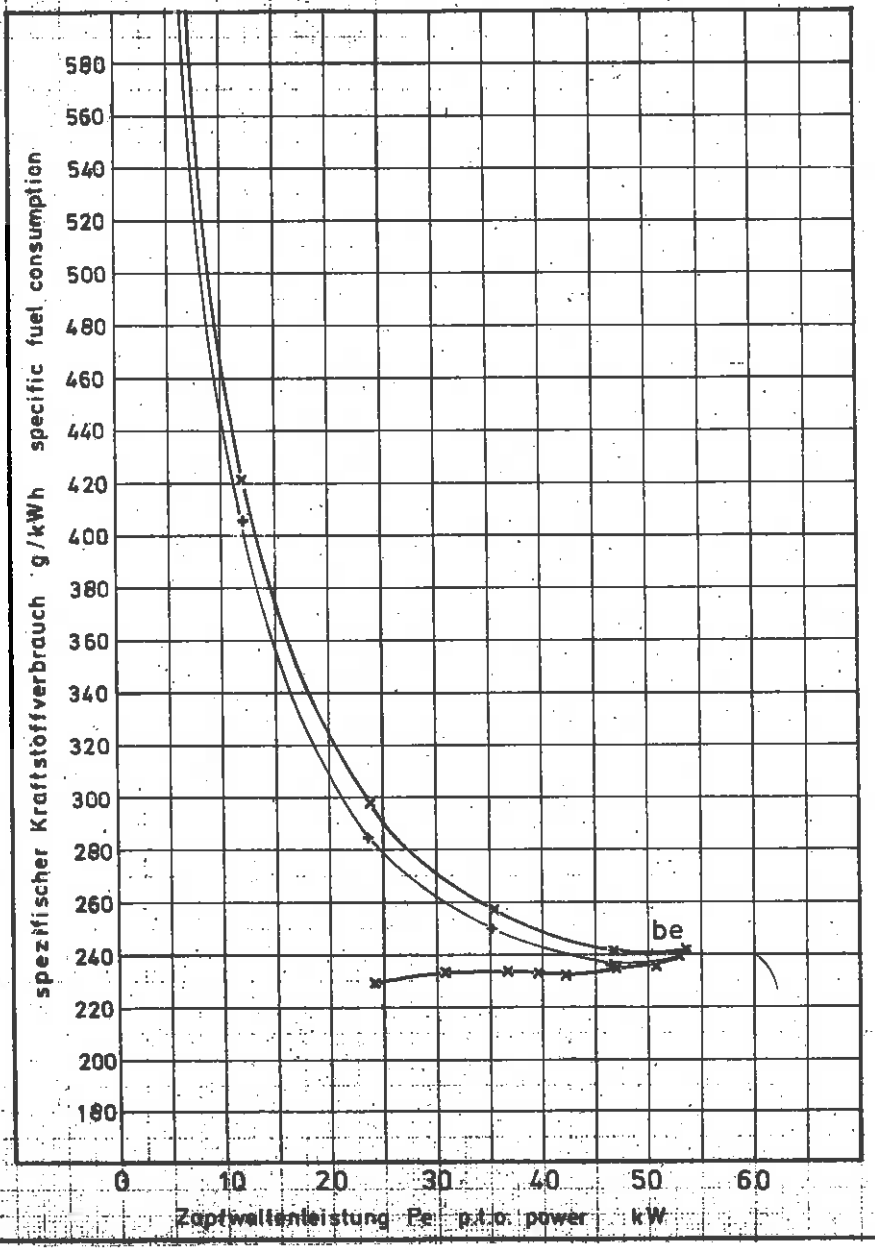
PRÜFUNGS-ABTEILUNG

DEUTZ D 7807

Zapfwellenleistung

P.t.o. performance

Test Nr. 80-120



PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

(2) DRAWBAR PERFORMANCE

Date of tests: 1st December 1980 till 7th January 1981
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 (unballasted) height of drawbar above ground 630 mm					
3 L	4,05	33,1	2941	2383	15,1
1 Z	4,45	36,8	2974	2366	15,0
4 L	5,93	43,8	2658	2297	11,9
2 Z	7,17	45,1	2262	2300	9,1
1 S	8,61	44,5	1860	2301	7,2
3 Z	10,35	44,5	1549	2299	5,9
2 S	13,78	44,1	1153	2300	4,3
(ii) MAXIMUM POWER (ballasted) height of drawbar above ground 550 mm					
1 L	1,89	24,8	4721	2396	15,1
2 L	2,90	38,0	4712	2372	15,0
3 L	4,08	44,4	3916	2300	11,6
1 Z	4,59	45,2	3545	2300	10,0
4 L	6,23	45,9	2653	2297	7,4
2 Z	7,40	46,2	2249	2298	6,1
1 S	8,82	46,0	1876	2301	5,0
3 Z	10,56	46,3	1578	2300	4,1
2 S	13,96	45,6	1176	2301	3,0
(iii) FIVE-HOUR-TEST at 75% of pull at maximum power in 4th L gear					
4 L	6,57	36,3	1990	2367	5,3
(iv) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (ii)					
2 L	2,91	38,2	4720	2367	-

Total oil consumption during ten hours duration of tests (iii) and (iv) 100 g/h

PRÜFUNGS-ABTEILUNG

Test No. 80-120

Tyre size front: 7,50-20 6 ply
rear: 16,9-34 6 ply

Tread bar height at the beginning of drawbar tests 96% of the value when new

Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperatures Fuel °C	Coolant °C	Engine-oil °C	Atmospheric conditions Tempe-rature °C	Relative humidity %	Pressure mbar
tyre inflation pressure 0,8 bar							
314	2,62	10	-	100	0	74	1016
304	2,71	10	-	102	0	71	1016
296	2,77	9	-	108	0	75	1015
286	2,87	9	-	107	0	77	1015
288	2,85	15	-	106	-1	50	1001
291	2,82	10	-	108	-1	67	1000
294	2,79	9	-	109	-2	69	1000
tyre inflation pressure 1,1 bar							
340	2,42	19	-	102	9	75	1006
307	2,68	16	-	102	9	77	1007
292	2,82	16	-	109	9	76	1007
286	2,87	15	-	108	8	78	1007
283	2,91	15	-	107	8	77	1007
281	2,93	17	-	110	4	78	1013
281	2,92	11	-	110	4	92	1013
281	2,93	11	-	109	4	90	1013
283	2,90	10	-	108	4	84	1013
280	2,93	4	-	99	-1	89	1008
-	-	12	-	106	6	81	1009

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

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

(3) TURNING SPACE AND TURNING CIRCLE

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

Track of wheels front: 1476 mm
rear: 1520 mm

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	3,97	3,80	4,48	4,25
Radius of turning circle	3,71	3,54	4,22	3,99

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	898 mm
Distance forward from rear axle centre	802 mm
Distance from tractor's median plane, to the left	3 mm

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

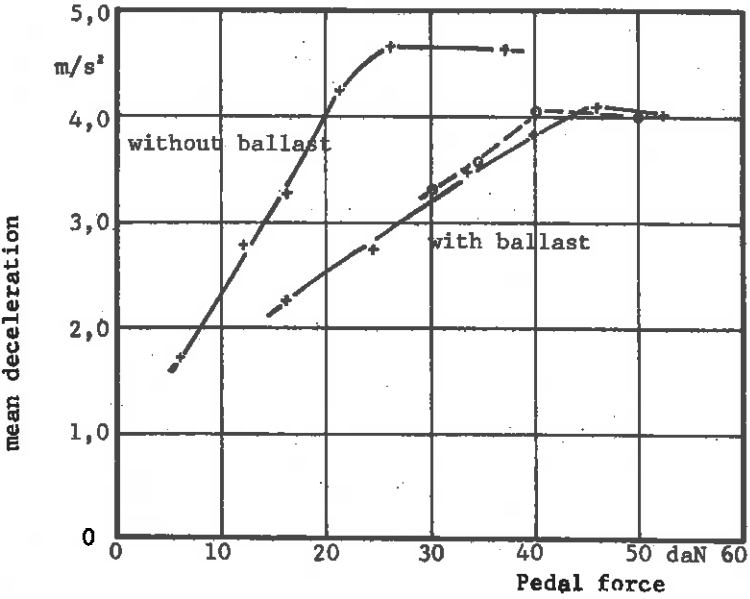
(5) Braking

Date of tests: 16th December 1980

Tractor masses during tests with driver:	front kg	rear kg	total kg
without ballast	1000	2000	3000
with ballast	1620	3380	5000

A) Service brake

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



Speed before application of brakes, without ballast 31,8 km/h
with ballast 30,9 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	24	28	18	21

(6) MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test: 12th December 1980
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2209

Results of test

Gear: 4 S
Travelling speed before acceleration: 23,8 km/h
Sound level: 91,5 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 13th March 1981
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2209
With FRITZMEIER safety frame model 901, without plastic-roof

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	2878	2,16	1,87	95
2 L	2860	3,36	2,87	96
3 L	2874	4,61	4,12	96
1 Z	2857	5,18	4,36	96,5
4 L	2623	6,89	5,98	96,5
2 Z *)	light load	8,04	8,46	94
2 Z *)	2268	8,04	7,17	97
1 S	1820	9,47	8,68	96,5
3 Z	1556	11,22	10,32	97,5
2 S	1150	14,68	13,74	96,5
4 Z	1009	16,50	15,47	98,5
4 S	light load	30,14	31,30	96

*) The 2nd Z gear corresponds to the travelling speed nearest to 7,5 km/h

PRÜFUNGS-ABTEILUNG
DEUTZ D 7807

Test No. 80-120

(8) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date of tests: 23rd October 1980

Power Lift

	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 rear axle daNm	Max. tilt angle of mast over range of lift degrees
At hitch points	430	505	3120	159	-	-
On the frame	430	630	2150	159	3408	13

Temperature of hydraulic fluid at start of test 65°C

Lifting heights relative to horizontal lower links

mm	-185	-135	-100	0	+100	+200	+300	+370	+400	+445
Lifting forces at hitch points										
daN		3210	3230	3280	3260	3190	3130	3120		
Lifting forces at test frame										
daN	2980		2920	2830	2650	2510	2320		2180	2150

Hydraulic Pump Performance

Opening pressure of the relief valve in remote circuit	163 bar
Sustained pressure with relief valve open	177 bar
Pump delivery rate at minimum pressure, the governor control lever being set for max. power	42,0 l/min
Hydraulic power at 90% of relief valve setting	10,0 kW
Corresponding delivery rate	37,9 l/min
Pressure	159 bar
Temperature of hydraulic fluid	65 °C

Tapping point used for test: At rear of tractor

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Test No. 80-120

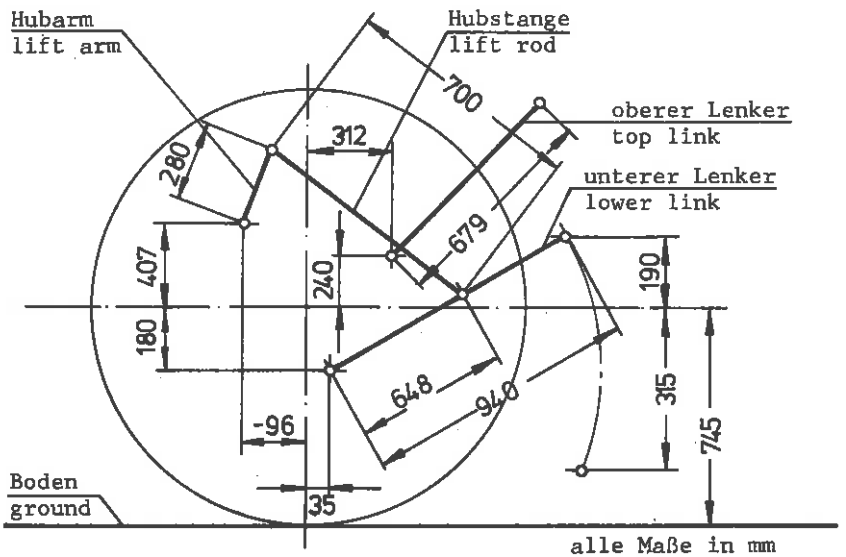
LINKAGE GEOMETRY when connected to the standard frame

Projected length in side view:

Lower links	940 mm
Lift arms	280 mm
Lift rods	700 mm
Top link	679 mm
Distance of lift rod connection point from pivot point of lower link	648 mm

The following dimensions are given relative to the rear wheel centre line, situated 745 mm above ground:

Lower link pivot point	180 mm below,	35 mm behind
Top link pivot point	240 mm above,	312 mm behind
Lift arm pivot point	407 mm above,	96 mm behind
Maximum and minimum height of lower link hitch points	190 mm above,	315 mm below
Height of lower link hitch points when locked in transport position	130 mm below	



alle Maße in mm
all dimensions in mm

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Test No. 80-120

OPTIONAL TESTS

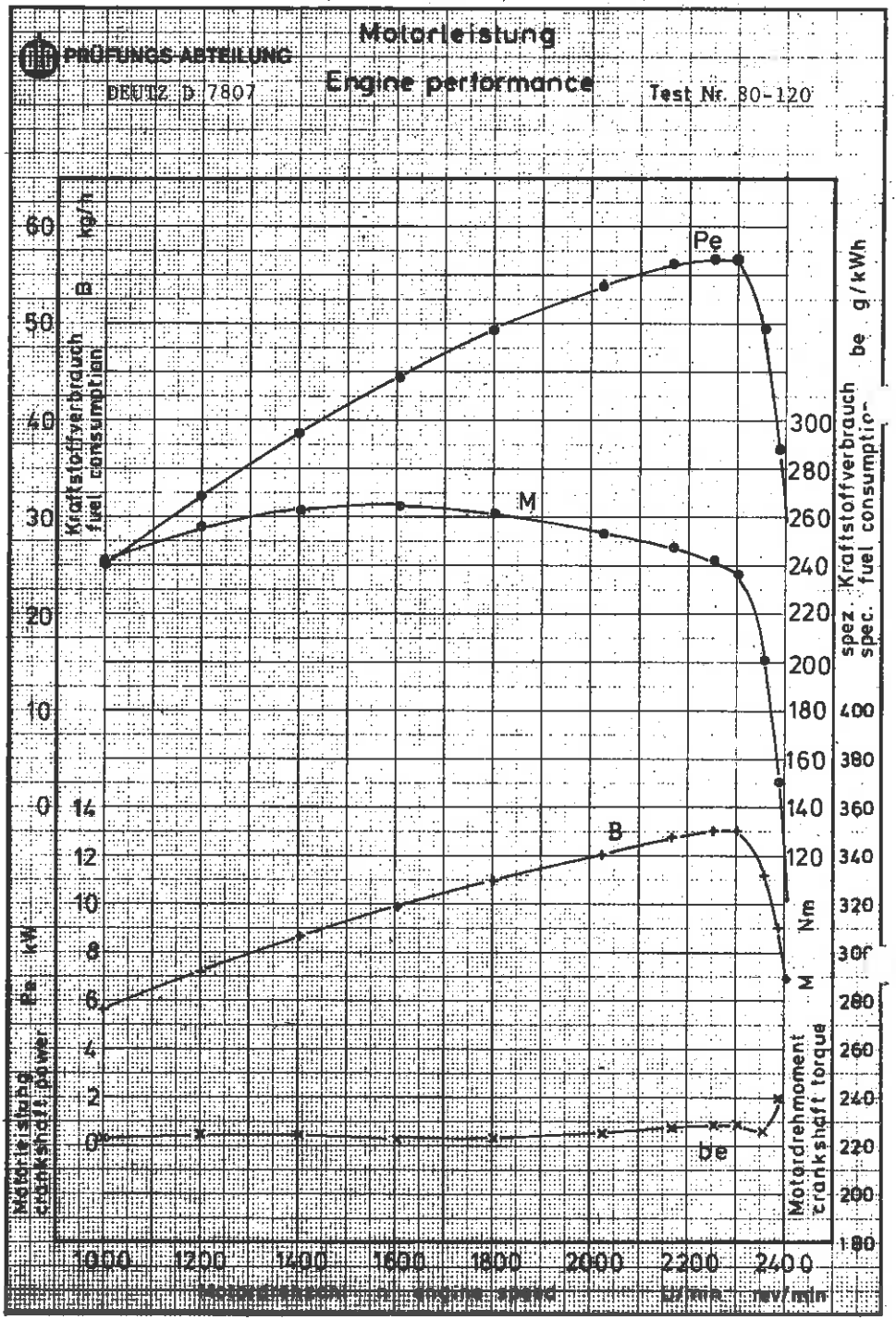
(9) ENGINE PERFORMANCE

Date of tests: 2nd October 1980
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					
56.9	2300	15.78	13.02	229	3.61
At standard p.t.o. speed (1000 rev/min)					
56.2	2166	15.51	12.80	228	3.63
At the speed recommended for drawbar work					
56.9	2300	15.78	13.02	229	3.61
Part loads					
(i) 85% of the torque at maximum power at 2-hour test					
49.5	2352	13.58	11.21	226	3.64
(ii) unloaded					
-	2455	3.47	2.87	-	-
(iii) 50% of the load defined in (i)					
25.3	2401	8.37	6.91	274	3.02
(iv) maximum power					
56.9	2300	15.78	13.02	229	3.61
(v) 25% of the load defined in (i)					
12.7	2418	5.87	4.85	381	2.17
(vi) 75% of the load defined in (i)					
37.6	2383	10.91	9.01	240	3.45

Optimum fuel consumption: 215 g/kWh at 40.6 kW and 1725 rev/min
No load maximum engine speed: 2455 rev/min
Torque at maximum power (2 hours): 236 Nm
Maximum torque: 265 Nm at 1604 rev/min of the engine

Mean atmospheric conditions:	temperature	22 °C
	pressure	1007 mbar
	relative humidity	48 %
Maximum temperatures:	coolant	-
	engine oil	100 °C
	fuel	23 °C
	engine air intake	23 °C


PRÜFUNGS-ABTEILUNG
DEUTZ D 7807
Motorleistung
Engine performance
Test Nr. 80-120
Pe
M
B
be
Nutzleistung Kurbelwelle Pe kW
Kraftstoffverbrauch B kg/h
fuel consumption
Motordrehmoment Kurbelwelle M Nm
crankshaft torque
spez. Kraftstoffverbrauch be g/kWh
spec. fuel consumption
Motordrehzahl n U/min
engine speed rev/min

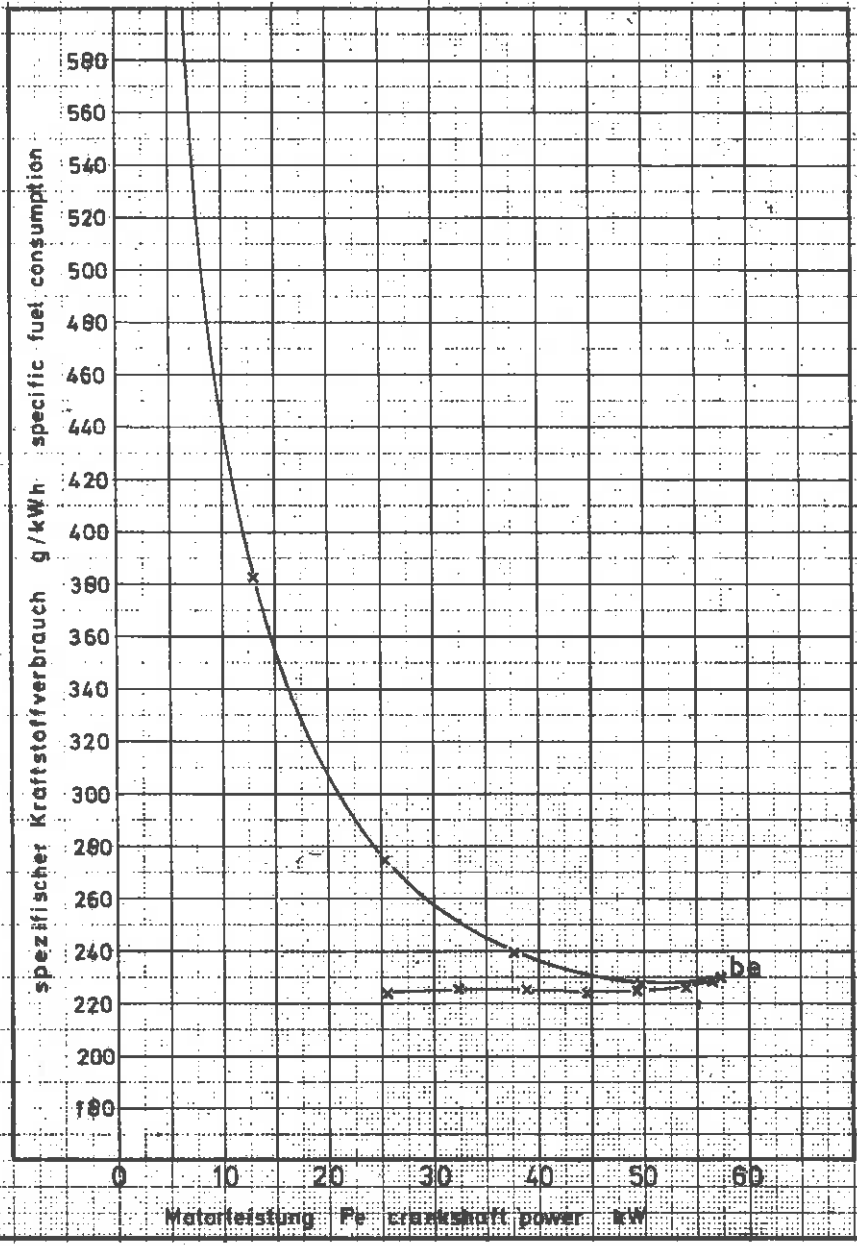
PRÜFUNGS-ABTEILUNG

DEUTZ D 7807

Motorleistung

Engine performance

Test Nr. 80-120



PRÜFUNGS-ABTEILUNG
DEUTZ D 7807
Motorleistung
Engine performance
Test Nr. 80-120
Motorleistung in % der Leistung bei Nenndrehzahl
Engine power in % of power at rated engine speed
215 g/kWh
Belastung in % des Drehmomentes bei Nenndrehzahl
load in % of torque at rated engine speed
Motordrehzahl in % der Nenndrehzahl engine speed in % of rated engine speed

Published
with the support of the Federal Minister for Food, Agriculture and Forestry

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