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

O.E.C.D. No. 822



Agricultural Tractor DEUTZ D 5207 (2 WD) type denomination D 5206 and D 5206-S

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

Deutsche Landwirtschafts-Gesellschaft e. V.
Zimmerweg 16 · D-6000 Frankfurt a. M. 1
Telefon: (06 11) 71 68-0 Telex 04 131 85 dlg-d

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: March till September 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: 19th March 1982 O.E.C.D. No. 822

The tractor is manufactured in 2 variants:

1. As D 5207 (type denomination D 5206) with 4 speed transmission gear and maximum design related speed of 25 km/h.
2. As D 5207 (type denomination D 5206-S) with 4 speed transmission gear and additional 5th speed. The maximum design related speed is 30 km/h

In all other parts both variants are identical.

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			

All rights including the right of translation, reprint and photomechanical copying — also of excerpts — reserved by the DLG.

Printed in the Federal Republic of Germany
April 1982; DLG-No. 169

TABLE OF CONTENTS

	Page
SPECIFICATION OF TRACTOR	4 to 12
TEST CONDITIONS	12 and 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 and 22
(6) Measurement of external noise level	23
(7) Noise measurement at the driver's ear	23
(8) Power lift and hydraulic pump performance	24 and 25
OPTIONAL TESTS	
(9) Engine performance	26 to 29

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

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:	DEUTZ
Trade name:	D 5207
Type denomination:	D 5206 and D 5206-S
Type:	Wheel tractor, unit construction, rear wheel driven
Serial No.:	7557 8238

Engine

Make:	DEUTZ
Model:	F3L 912
Type:	4-stroke Diesel-engine, direct injection, air cooled
Serial No.:	641 8921
Cylinders:	3, in-line, bore 100 mm, stroke 120 mm; displacement 2827 cm^3, compression ratio 17; replaceable ribbed cylinders
Valves:	Overhead
Fuel system:	PIERBURG fuel feed pump PE 15252 BOSCH in-line injection pump PES 3A 80D 410/3 RS 1324; manufacturer's production setting 52,5 mm^3/stroke at rated engine speed and full load; start of pump delivery 28° before TDC; BOSCH multihole injection nozzles DLLA 149 S774, injection pressure 175 + 8 bar; MANN fuel filter with replaceable cartridge; capacity of fuel tank 70 l
Governor:	BOSCH mechanical variable-speed governor EP/RSV 325-1150 A8B 657 DL, governed range 700 to 2410 rev/min; rated engine speed 2300 rev/min

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

Air cleaner:	DEUTZ-SICCOPUR dry paper element filter with precleaner and replaceable cartridge, electrically operating maintenance indicator
Exhaust silencer:	ROTH multichamber absorption-expansion type silencer 125 x 60 mm oval, 800 mm long, on the left hand side above engine bonnet; mouth showing upwards, 2185 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; cartridge change period 200 operating hours, oil capacity 7,5 l recommended oil qualities and oil change periods: API-CC change every 100 operating hours API-CD change every 200 operating hours specified oil viscosities: below - 5°C SAE 10W over -10°C to +10°C SAE 20W/20 over + 5°C to +30°C SAE 30 over +25°C SAE 40 oil cooler inside of engine cooling-air baffle
Cooling system:	Air cooling V-belt driven axial blower
Starting system:	Electrical BOSCH solenoid pre-engaged-drive starting motor JD 12V 3 kW; BOSCH flame glow plug in intake manifold
Electrical equipment:	12 Volt, negative earth; BOSCH 3-phase alternator G1-14V 33A 27, 462 W; 1 lead accid battery, 90 Ah at 20 hours rating

Transmission

Clutch:	LAMELLEN UND KUPPLUNGSBAU GMBH DT 280/250 G dry dual disc clutch; travel drive pedal operated, disc 280 mm dia p.t.o. drive hand lever operated, disc 250 mm dia
Gear box:	DEUTZ TW 50.3-N when tractor type D 5206: synchromesh speed change gear with 4 speeds, 1st and 2nd speed optionally collar shifted available; group gear with 2 collar shifted forward groups (L and S) and 1 sliding gear shifted reverse group (R); group gear optionally with additional creep group available; totally 8 forward and 4 reverse speeds TW 50.3-S when tractor type D 5206-S: apart from additional 5th speed independent from group gear and synchronized, the gear box is identical with model TW 50.3-N; 5th speed only shiftable if S-group is used; totally 9 forward and 4 reverse speeds
Rear axle and final drive:	**DEUTZ** bevel gear drive to intermediate shaft, cylindrical gear transmission from intermediate shaft to bevel gear differential with lock on rear axle; differential lock pedal operated, self-disengaging
Front axle:	Not propelled
Gear lubrication:	Oil capacity for complete gearbox, rear axle included 18 l, at gear box variant with creep group 20 l; recommended oil gear oil SAE 90 API-GL4 or engine oil SAE 20W/20 API-CC or CD Oil change every 1000 operating hours

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

Total ratios and speeds (tyres 14,9 R 28)

Group	Gear	Total ratio engine : driving wheel	Nominal travelling speed at rated engine speed x) km/h
L	1	264,61	2,10
	2	166,42	3,33
	3	113,96	4,87
	4	67,64	8,20
S	1	88,93	6,24
	2	55,93	9,92
	3	38,30	14,49
	4	22,73	24,41
R	1	233,84	2,37
	2	147,07	3,77
	3	100,71	5,51
	4	59,78	9,28
-	5 *)	19,02	29,18

x) calculated with the radius index 640 mm
*) only at variant D 5206-S

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,
597 mm above ground,
404 mm behind rear axle centre line,
35 mm dia, 6 splines ISO 500/DIN 9611 type 1

2 speeds are preselectable by hand lever:

540 rev/min p.t.o.
598 rev/min at rated engine speed,
standard p.t.o. speed 540 rev/min at engine speed 2077 rev/min

1000 rev/min p.t.o.
1077 rev/min at rated engine speed,
standard p.t.o. speed 1000 rev/min at engine speed 2136 rev/min

sense of rotation clockwisely, viewed from tractor rear

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-124

Power lift	DEUTZ K 45, DEUTZ-TRANSFERMATIC-System hydraulic power lift in unit construction; draft- and position control, floating position; top link sensing
Hydraulic system:	Open centre system; PLESSEY gear pump M8 KS 14 directly driven by engine; delivery 36 l/min at rated engine speed; hydraulic oil filter incorporated in power lift unit, filter change period 500 h operating hours
	DEUTZ-control valve; maximum working pressure 175 + 8 bar, single acting cylinder with 90 mm bore and 152 mm stroke; overpressure relief valve in cylinder set to 240 + 70 bar
	1 single acting additional DEUTZ-control valve with oil tap and return pipe at rear of tractor; maximum 3 single or double acting additional control valves available
	hydraulic oil reservoir with 14 l capacity in power lift unit; by oil tap may be taken off 7 l if tractor is standing or travelling
Hydraulic oil:	Recommended engine oil SAE 20W/20 API-CC or API-CD
	oil change at least once a year or every 1000 operating hours

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

Implement linkage: Three point linkage, joint balls according to ISO 730/I category 2, convertible to category 1; lift rods adjustable from 520 to 650 mm; with mean length 585 mm of lift rods lifting range above ground from 268 to 860 mm

Pull attachment

Trailer hitch: DEUTZ
AK 56, non automatical;
height above ground adjustable to 745 mm or by shifting to 802 mm;
coupling pin 32 mm dia;
distance of hitch hole centre:
to rear axle centre line 496 mm
to p.t.o. shaft end 92 mm;
permissible vertical load 1250 kg

automatical trailer hitch optionally available

Swinging drawbar: Optional, not fitted on tractor tested

Drawbar: Short bar, fitted on clevis of lower links of three point linkage;
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 908 mm
from p.t.o. shaft end 504 mm

with lift rods mean length 585 mm:
height above ground adjustable by power lift in the range from 283 to 875 mm;
the drawbar may be mechanically hydraulically fixed in the height of 575 mm above ground

this datas were determined at the surface of the bar

Towing hitch: Height above ground 615 mm

Steering

ZAHNRADFABRIK FRIEDRICHSHAFEN AG
7328
mechanical, acting on front wheels by undivided track rod

Brakes

Parking brake: Internal-expanding-shoe brake, mechanically acting on 1 brake drum on intermediate shaft;
brake drum situated on the right, outside of gear box, 180 mm dia and 30 mm width;
operated by hand lever with ratchet

Service brake: GIRLING
GMPD
pedal operated muscle power brake with mechanical transmission, acting on differential half shafts of rear axle;
dry full-disc brake, self reinforcing;
two brake discs with 193 mm dia each on the left and right, at rear wheels

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

Wheels

Steering wheels: 2 pneumatics at front 7,50-16 6 ply,
maximum permissible load per tyre 745 kg
at 2,25 bar inflation pressure and 30 km/h;
track width adjustable from 1390 to 1890 mm in steps of 100 mm each by extending telescopic half axles;
rims 5.00 F x 16

Driving wheels: 2 pneumatics at rear;
during all tests except braking test:
14.9 R 28 6 ply, radial type tyre casing,
maximum permissible load per tyre 1610 kg
at 1,4 bar inflation pressure and 30 km/h;
track width 1520 mm adjustable to 1620 mm by turning the wheels;
rims W 13 x 28;
during braking test:
2 pneumatics 16.9-26 6 ply, diagonal type tyre casing, max. permissible load per tyre 1780 kg
at 1,3 bar inflation pressure and 30 km/h;
rims DW 14 x 26

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206 ·
D 5206-S

Test No. 80-127

Wheel base: 1995 mm

Safety frame: FRITZMEIER
model 901, OECD-tested, approval No. CS 1158

Seat: GRAMMER
model DS 20D 3H
upholstered seat with back rest, adjustable spring with shock absorber;
height of driver's platform 695 mm above ground,
height of unballasted seat in front- and lowermost position 520 mm above platform;
seat on an inclined plane adjustable in longitudinal direction by 220 mm and simultaneously in the height by 100 mm;
additional independent height adjustment of 120 mm in 8 steps

Number of grease points: 14

Dimensions

Total length:	3569 mm	without ballast
	3889 mm	with ballast
Total width:	1925 mm	without ballast
	2125 mm	with ballast
Total height:	2330 mm	to top of safety frame
Ground clearance:	425 mm	below engine block

Available tyres

Tyre size	
at front	at rear
6.00-16 6 ply	9.5-36 6 ply
6.50-16 6 ply	12.4-32 6 ply
7.50-16 6 ply	13.6-28 6 ply
	14.9-28 6 ply
	16.9-26 6 ply

all tyre sizes at front and at rear may be combined with each other

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

Lighting equipment — Electrical, 12 Volt
in accordance with the German legislation

	Dimensions mm	Height of centre above ground mm	Distance from outside edge of tractor to centre mm
Head lights	130 dia	855	803
Side lights	85 x 30	1370	183
Rear lights	85 x 30	1255	196
Reflectors	75 dia	1010	99

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

TEST CONDITIONS

Track of wheels — At front 1390 mm
at rear 1520 mm

Weights — (As used for drawbar performance test with tyres 14.9 R 28 6 ply on driving wheels)

		Without driver	With driver
Without ballast:	front	785 kg	800 kg
	rear	1475 kg	1535 kg
	total	2260 kg	2335 kg
Front ballast:	12 weights, total		480 kg
Rear ballast:	water in the tyres		390 kg
	8 weights per rear wheel, total		790 kg
With ballast:	front	1405 kg	1420 kg
	rear	2515 kg	2575 kg
	total	3920 kg	3995 kg

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

Fuel and lubricants used in tests

Fuel:	ARAL Diesel fuel DIN 51601	
	specific gravity at 15°C	
	at engine test	0,828 kg/l
	at p.t.o. test	0,829 kg/l
	at drawbar performance test	0,843 kg/l
Engine oil:	SHELL ROTELLA SAE 20W/20	
Gear oil:	ESSOLUBE SAE 90 gearbox inclusive of rear axle	
Hydraulic oil:	SHELL ROTELLA SAE 20W/20	

PRÜFUNGS-ABTEILUNG

DEUTZ D 5206
D 5206-S

Test No. 80-127

COMPULSORY TESTS

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

Date of tests: 24th April 1981
Location of tests: DLG-Testing-Station Groß-Umstadt
Type of dynamometer: SCHENCK hydraulic dynamometer U1-40

Power kW	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption hourly l/h	Fuel consumption hourly kg/h	Fuel consumption specific g/kWh	Specific energy kWh/l
Maximum power						
At 2-hour test						
37.2	2300	598	10.84	8.99	242	3.43
At standard p.t.o. speed						
35.1	2077	540	10.02	8.31	237	3.50
At the speed recommended for drawbar work						
37.2	2300	598	10.84	8.99	242	3.43
Part loads, the governor hand lever in the position corresponding to the maximum power at full load (curve a)						
(i) 85% of the torque at maximum power at 2-hour test						
32.0	2319	603	9.17	7.60	238	3.49
(ii) unloaded						
-	2405	625	2.46	2.04	-	-
(iii) 50% of the load defined in (i)						
16.2	2356	613	5.54	4.59	283	2.93
(iv) maximum power						
37.2	2300	598	10.84	8.99	242	3.43
(v) 25% of the load defined in (i)						
8.2	2382	619	3.95	3.27	399	2.08
(vi) 75% of the load defined in (i)						
24.2	2341	609	7.28	6.04	250	3.32

PRÜFUNGS-ABTEILUNG

DEUTZ D 5206
D 5206-S

Test No. 80-127

Power kW	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption hourly l/h	Fuel consumption hourly 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 (curve b)						
(i) 85% of the torque at maximum power at standard p.t.o. speed						
30.1	2107	548	8.46	7.01	233	3.57
(ii) unloaded						
-	2193	570	1.98	1.64	-	-
(iii) 50% of the load defined in (i)						
15.4	2146	558	5.06	4.20	273	3.03
(iv) maximum power						
35.1	2077	540	10.02	8.31	237	3.50
(v) 25% of the load defined in (i)						
7.8	2168	564	3.52	2.92	377	2.20
(vi) 75% of the load defined in (i)						
22.9	2136	555	6.69	5.55	242	3.43

Standard specific fuel consumption (g/kWh): 238/283/233/273

No load maximum engine speed: 2405 rev/min
Equivalent crankshaft torque at maximum power (2 hours): 154 Nm
Maximum equivalent crankshaft torque: 173 Nm at 1600 rev/min of the engine

Mean atmospheric conditions:	temperature	20 °C
	pressure	995 mbar
	relative humidity	40 %
Maximum temperatures:	coolant	-
	engine oil	111 °C
	fuel	24 °C
	engine air intake	16 °C

Zapfwellenleistung
P.t.o. performance
PRÜFUNGS-ABTEILUNG
Test No.
Pe
Me equiv.
standard
Be
Drehmoment
Torque
Nm
Leistung
Power
kW
PS
Zapfwellenleistung
P.t.o. power
Motordrehzahl
Engine speed
U/min
rev/min

PRÜFUNGS-ABTEILUNG

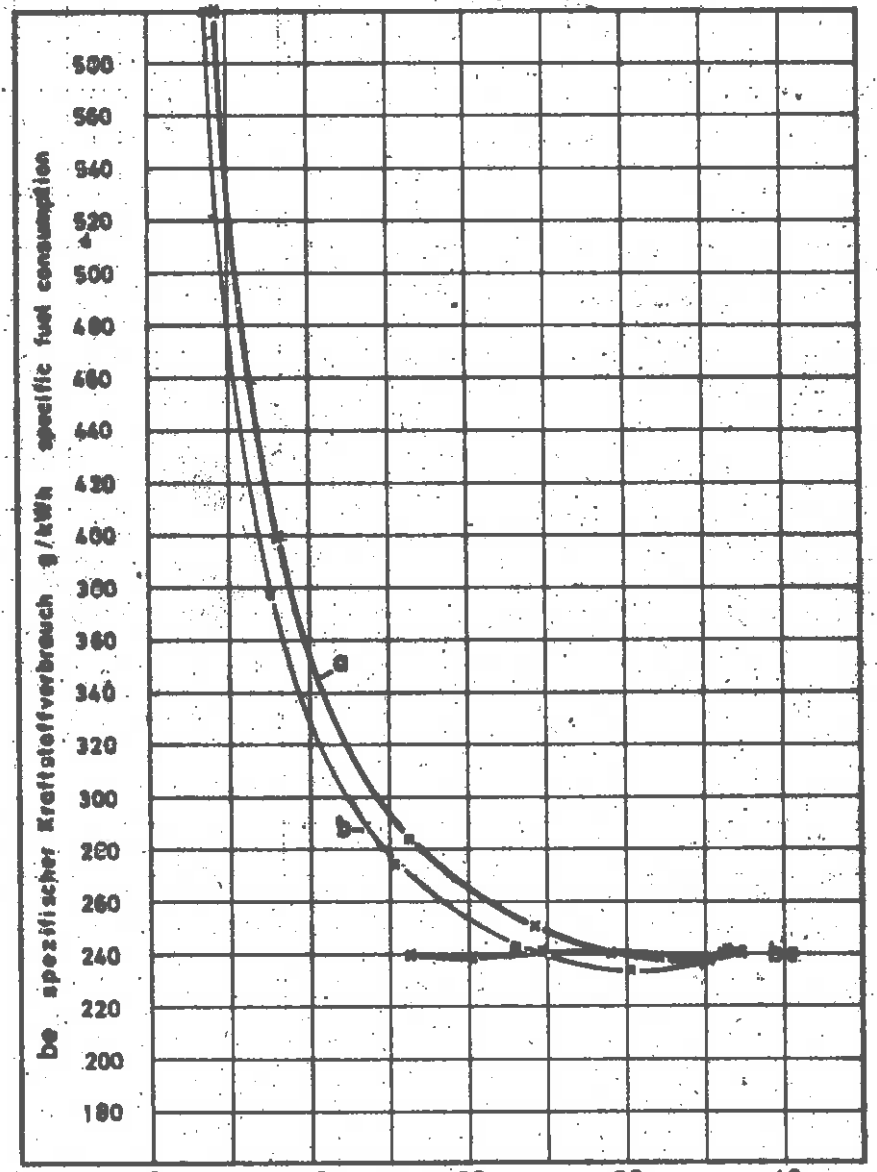
DEUTZ D 5206
D 5206-S

Zapfwellenleistung

P.t.o. performance

Test Nr. 80-127

540 min^{-1} p.t.o.



PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

(2) DRAWBAR PERFORMANCE

Date of test: 16th till 18th September 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 560 mm					
2 L	2,94	17,7	2164	2392	15,0
3 L	4,22	25,5	2172	2364	15,1
1 S	5,34	30,5	2054	2300	14,0
4 L	7,43	30,7	1487	2304	8,7
2 S	9,11	31,9	1259	2302	7,5
3 S	13,69	30,9	813	2302	4,9
(ii) MAXIMUM POWER (ballasted) height of drawbar above ground 650 mm					
1 L	1,84	17,2	3372	2399	15,0
2 L	2,88	26,7	3338	2364	15,0
3 L	4,40	28,6	2342	2297	8,2
1 S	5,76	30,2	1890	2301	6,2
4 L	7,71	30,1	1407	2299	4,5
2 S	9,39	30,4	1167	2298	3,7
3 S	13,88	29,9	775	2300	2,2
(iii) FIVE-HOUR-TEST at 75% of pull at maximum power in 1st S-gear					
1 S	6,07	23,9	1418	2376	4,3
(iv) FIVE-HOUR-TEST at pull corresponding to 15% wheel slip in test (ii)					
2 L	2,61	24,5	3375	2345	-

Total oil consumption during ten hours duration of tests (iii) and (iv) 55 g/h

PRÜFUNGS-ABTEILUNG

Test No. 80-127

Tyre size front: 7.50-16 6 ply
rear: 14.9 R 28 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 Temperature °C	Relative humidity %	Pressure mbar
tyre inflation pressure 0,8 bar							
331	2,54	21	-	91	18	94	1002
306	2,75	20	-	88	17	96	1001
298	2,83	21	-	98	18	96	1001
296	2,85	22	-	100	20	84	1001
285	2,96	22	-	99	20	84	1001
292	2,89	22	-	100	20	82	1001
tyre inflation pressure 1,0 bar							
345	2,45	21	-	89	17	97	1002
313	2,70	21	-	91	16	99	1002
317	2,66	21	-	100	16	99	1002
299	2,82	21	-	102	17	98	1002
301	2,80	21	-	97	17	98	1002
298	2,83	21	-	102	17	94	1002
303	2,78	21	-	98	17	94	1002
301	2,80	22	-	106	21	77	1002
-	-	23	-	91	19	93	1002

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

(3) TURNING SPACE AND TURNING CIRCLE

Wheel equipment	front:	7.50-16	6 ply
	rear:	14.9 R 28	6 ply
Track of wheels	front:	1390 mm	
	rear:	1520 mm	

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	3,54	3,40	4,20	3,95
Radius of turning circle	3,36	3,20	4,02	3,75

(4) LOCATION OF CENTRE OF GRAVITY

Height above ground	777 mm
Distance forward from rear axle centre	684 mm
Distance from tractor's median plane , to the left	2 mm

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206

Test No. 80-127

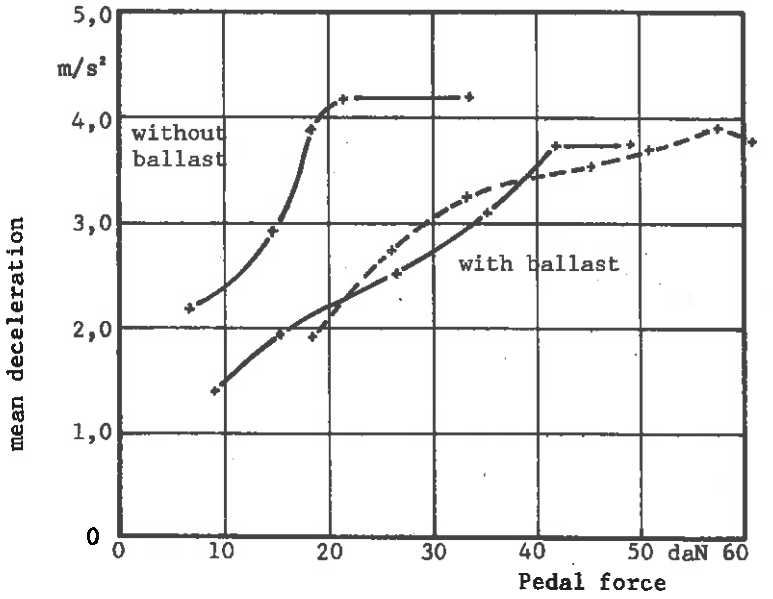
(5) Braking

Date of tests: 7th and 10th September 1981

Tractor masses during tests with driver:	front kg	rear kg	total kg
without ballast	800	1535	2335
with ballast	1550	2450	4000

A) Service brake

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



Speed before application of brakes, without ballast 25,8 km/h
with ballast 25,5 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 2335 kg	
	up	down	up	down
Braking device control force daN	16	20	11	13

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206-S

Test No. 80-127

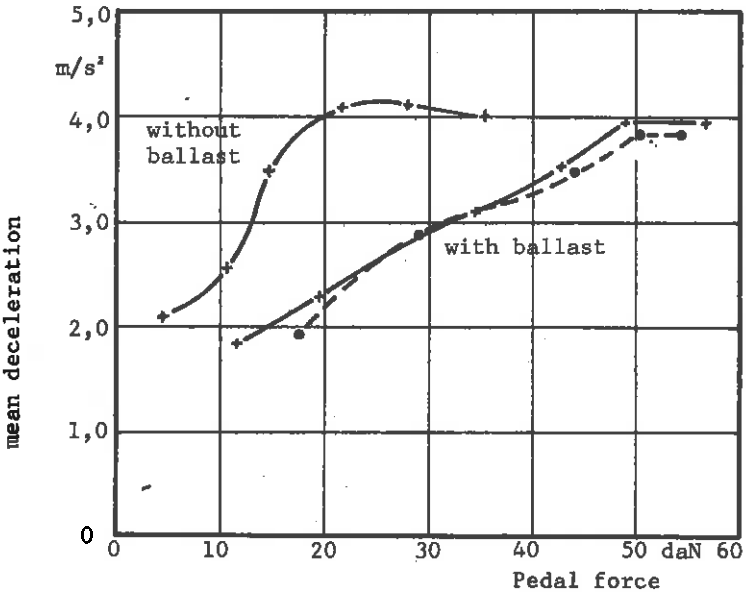
(5) Braking

Date of tests: 7th and 10th September 1981

Tractor masses during tests with driver:	front kg	rear kg	total kg
without ballast	800	1535	2335
with ballast	1490	2510	4000

A) Service brake

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



Speed before application of brakes, without ballast 30,8 km/h
with ballast 30,3 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 2335 kg	
	up	down	up	down
Braking device control force daN	16	20	11	13

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

(6) MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test: 4th September 1981
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2203

Results of test	D 5206	D 5206-S
Gear:	4th S	5th S
Travelling speed before acceleration:	19,1 km/h	22,9 km/h
Sound level:	87,0 dB(A)	87,5 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of tests: 3rd September 1981
Type of track: Concrete
Type of sound level meter: BRÜEL AND KJAER model 2209

The tractor was fitted with FRITZMEIER safety frame

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	1889	2,10	1,87	94,5
2 L	1890	3,33	2,93	96,5
3 L	1957	4,87	4,22	97,5
1 S	1889	6,24	5,50	97,5
4 L *)	1460	8,20	7,27	98,0
4 L *)	light load	8,20	8,70	92,5
2 S	1211	9,92	9,15	98,5
3 S	812	14,49	13,58	97,5
4 S	light load	24,41	25,42	94,5
5 +)	light load	29,18	30,51	94,5

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

+) only at variant D 5206-S

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

Test No. 80-127

(8) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date of tests: 29th April 1981

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	268	592	1700	158	-	-
On the frame	268	744	1160	158	1761	15,5

Temperature of hydraulic fluid at start of test 65°C

Lifting heights relative to horizontal lower links

mm	-249	-207	-200	-100	0	+100	+200	+300	+385	+400	+495
Lifting forces at hitch points											
daN		1700	1700	1770	1790	1790	1770	1790	1830		
Lifting forces at test frame											
daN	1510		1510	1480	1460	1420	1360	1290		1180	1160

Hydraulic Pump Performance

Opening pressure of the relief valve in remote circuit	168 bar
Sustained pressure with relief valve open	180 bar
Pump delivery rate at minimum pressure, the governor control lever being set for max. power	37,3 l/min
Hydraulic power at 90% of relief valve setting	9,6 kW
Corresponding delivery rate	35,6 l/min
Pressure	162 bar
Temperature of hydraulic fluid	65 °C

Tapping point used for test: at rear of tractor

PRÜFUNGS-ABTEILUNG
DEUTZ D 5206
D 5206-S

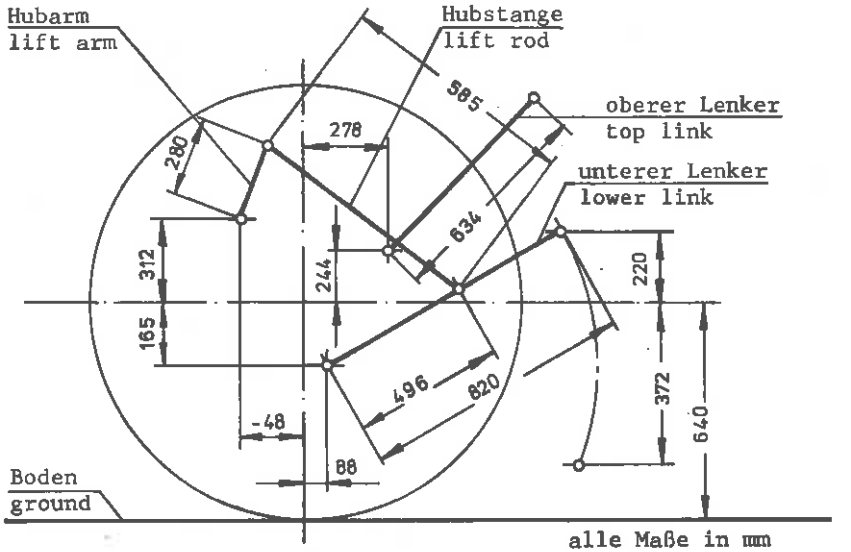
Test No. 80-127

LINKAGE GEOMETRY when connected to the standard frame
Projected length in side view

Lower links	820 mm
Lift arms	280 mm
Lift rods	585 mm
Top link	634 mm
Distance of lift rod connection point from pivot point of lower link	496 mm

The following dimensions are given relative to the rear wheel centre line, situated 640 mm above ground

Lower link pivot point	88 mm behind, 165 mm below
Top link pivot point	278 mm behind, 244 mm above
Lift arm pivot point	48 mm behind, 312 mm above
Maximum and minimum height of lower link hitch points	220 mm above, 372 mm below
Height of lower link hitch points when locked in transport position	80 mm below



alle Maße in mm
all dimensions in mm

PRÜFUNGS-ABTEILUNG

DEUZU D 5206
D 5206-S

Test No. 80-127

OPTIONAL TESTS

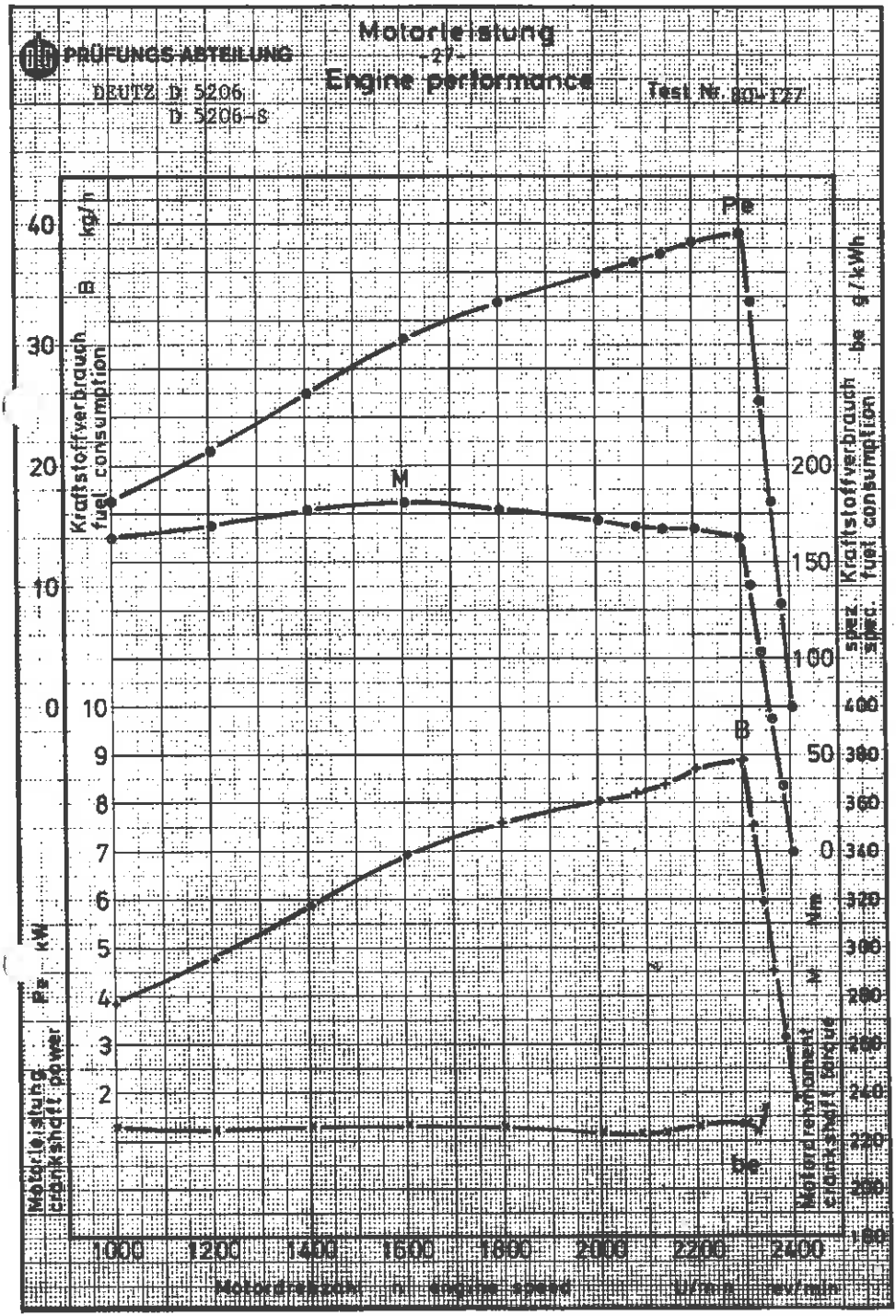
(9) ENGINE PERFORMANCE

Date of tests: 16th and 21st April 1981
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					
39.2	2300	10.77	8.91	227	3.64
At standard p.t.o. speed (540 rev/min)					
36.8	2077	9.95	8.23	224	3.69
At the speed recommended for drawbar work					
39.2	2300	10.77	8.91	227	3.64
Part loads					
(i) 85% of the torque at maximum power at 2-hour test					
33.6	2322	9.12	7.55	224	3.69
(ii) unloaded					
-	2406	2.34	1.93	-	-
(iii) 50% of the load defined in (i)					
17.1	2359	5.46	4.52	265	3.13
(iv) maximum power					
39.2	2300	10.77	8.91	227	3.64
(v) 25% of the load defined in (i)					
8.6	2383	3.82	3.16	367	2.26
(vi) 75% of the load defined in (i)					
25.4	2342	7.21	5.96	235	3.53

Optimum fuel consumption: 214 g/kWh at 21,9 kW and 1495 rev/min
No load maximum engine speed: 2406 rev/min
Torque at maximum power (2 hours): 163 Nm
Maximum torque: 182 Nm at 1604 rev/min of the engine

Mean atmospheric conditions:	temperature	21 °C
	pressure	1001 mbar
	relative humidity	38 %
Maximum temperatures:	coolant	-
	engine oil	105 °C
	fuel	24 °C
	engine air intake	22 °C

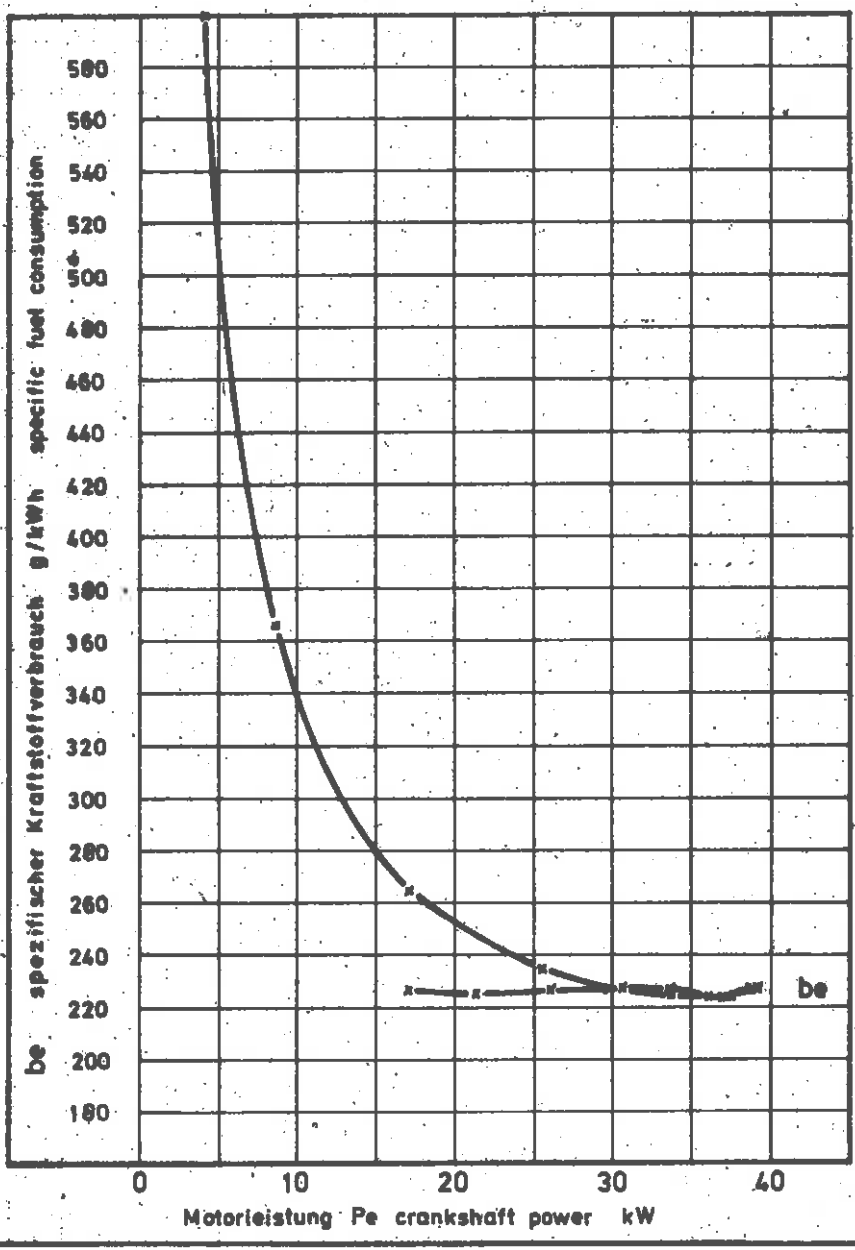

PRÜFUNGS ABTEILUNG
DEUTZ D 5206
D 5206-8
Motorleistung
-27-
Engine performance
Test Nr. 80-127
Pe
M
B
be
Kraftstoffverbrauch B kg/h
fuel consumption
Kraftstoffverbrauch be g/kWh
spez. fuel consumption
Motorleistung Pe kW
crankshaft power
Motordrehmoment M Nm
crankshaft torque
Motordrehzahl n
engine speed
U/min
rev/min

PRÜFUNGS-ABTEILUNG

DEUTZ D 5206
D 5206-S

Motorleistung
-28-
Engine performance

Test Nr. 80-127



Motorleistung

Engine performance

Test Nr. 30-127

Motorkennung in % der Leistung bei Nenndrehzahl

engine power in % of power at rated engine speed

Motordrehmoment in % des Drehmomentes bei Nenndrehzahl

engine torque in % of torque at rated engine speed

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

Deutsche Landwirtschafts-Gesellschaft e.V. (DLG)
Fachbereich Landtechnik — Prüfungsabteilung —
Zimmerweg 16 (DLG-Haus)
D-6000 Frankfurt am Main 1