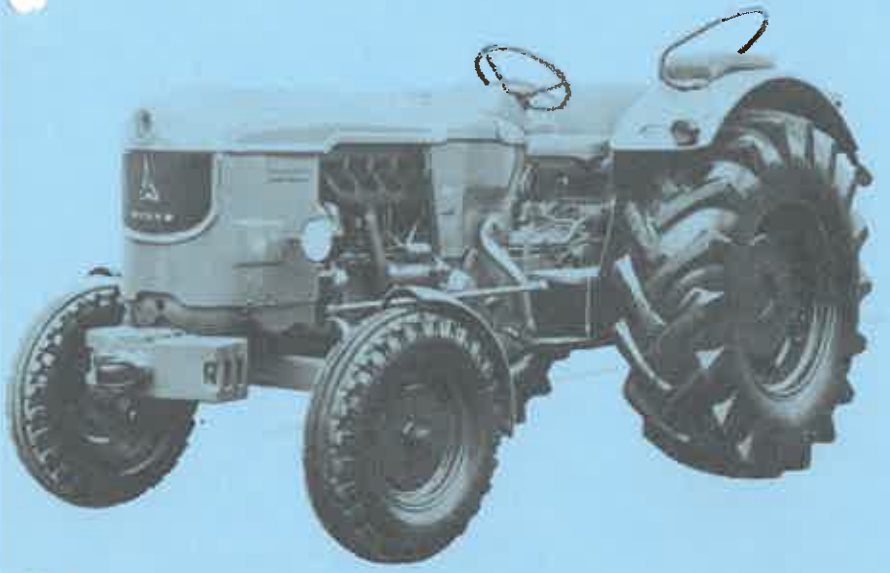
O.E.C.D. Report No.: 236

Report on test in accordance with
O.E.C.D. Test Code for agricultural tractors

DEUTZ D 60 05

Manufactured by: KLÖCKNER-HUMBOLDT-DEUTZ A.G.
5 Köln-Deutz



Date of Tests: October 1967 - March 1968

This report has been approved by the O.E.C.D.
Co-ordinating Centre (C.N.E.E.M.A., France) as being
in accordance with the O.E.C.D.-Tractor Test Code.

Date of Approval: 23.4.1968 Serial No.: 236

DEUTSCHE LANDWIRTSCHAFTS-GESELLSCHAFT e.V.
Schlepper-Prüffeld Darmstadt
Darmstadt - Kranichstein

This Bulletin is based on engineering tests in accordance with the O.E.C.D.-Tractor Test Code. It does not contain an evaluation of the performance of the tractor on practical farm work.

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SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

Tractor manufacturer: Klöckner-Humboldt-Deutz A.G., 5 Köln-Deutz

Submitted for test by: Manufacturer

Selected by: Manufacturer by agreement with Schlepper-Prüffeld Darmstadt

Place of running-in: Köln-Deutz, Darmstadt

Duration of running-in: Engine 70 hours, tractor 70 hours

SPECIFICATION OF TRACTOR

Tractor

Make: Klöckner-Humboldt-Deutz A.G., 5 Köln-Deutz
Model: D 60 05
Type: Diesel-tractor, unit construction
Serial No.: 7895/1267

Engine

Make: Klöckner-Humboldt-Deutz A.G., 5 Köln-Deutz
Model: F 4 L 812 D Type S 3 FN
Type: Air cooled 4-stroke Diesel engine
Serial No.: 4 607 913

Cylinders: 4 cylinders, vertical in line; 95 mm bore, 120 mm stroke; capacity 3400 cm^3; compression ratio 17 : 1 ; overhead valves; replaceable ribbed single cylinders

Fuel system: Fuel: commercially available Diesel oil;
Bosch type PES 4A 75C 410/3 RS 1185 injection pump;
Bosch type DLLA 153 S 308 injection nozzles; injection pressure 175 kp/cm^2 ; injection timing 21° before TDC;
Pierburg fuel feed pump; felt tube filter element, sediment bowl and water trap incorporated in fuel tank; capacity of fuel tank appr. 80 l

Governor: Make: Robert Bosch G.m.b.H., 7 Stuttgart;
centrifugal variable speed type mechanical, incorporated in injection pump; type EP/RSV 325-1150 A8 BV 8619 D;
governed range of engine speed 660 rev/min to 2420 rev/min;
rated speed for p.t.o. work 2300 rev/min
for field work 2300 rev/min
for transportation work 2300 rev/min
for belt work 2300 rev/min

Air cleaner: Main filter
make: Motor-Condensator, 68 Mannheim
oil-bath type, oil capacity 1 l;
pre-cleaner
make: Motor-Condensator, 68 Mannheim
centrifugal type

SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

Lubrication system: Forced feed from gear type pump; metal strainer in sump; screen filter with bypass valve; oil capacity 9,5 l; recommended oil change period 200-240 hours using branded HD-oil Supplement I;
recommended oil in winter HD SAE 10W
in summer HD SAE 20W/20
in tropics HD SAE 30

Cooling system: Air cooled by V-belt driven axial blower

Electrical equipment: Voltage 12 Volt, negative earth

Starting device: Bosch 12 Volt starter motor type JD 12V 3 PS

Generator: Bosch type K (R) 14V 16 A 21

Battery: Lead acid 12 Volt 143 Ah/630 A heavy duty batterie for cold starts

Transmission

Clutch: Make: Fichtel & Sachs A.G., 872 Schweinfurt; dry dual plate clutch type DO 280/280 K, operated by foot pedal

Gerabox: Make: Klöckner-Humboldt-Deutz A.G.,5 Köln-Deutz type TW 55, sliding gear type selecting gear and group gear giving 9 forward speeds and 5 reverse

Rear axle and final drive: Make: Klöckner-Humboldt-Deutz A.G.,5 Köln-Deutz; bevel gear type differential gear with crown wheel and pinion, differential lock fitted, operated by foot pedal, self-disengaging, spur gear final drive

Oil capacity: Selecting gear and final drive appr. 31 l

Total ratios and speeds:

Group gear	Gear No.	Number of engine revolutions for one revolution of the driving wheel	Nominal travelling speed for rated speed of engine km/h	m/s
creeping gear	1.	429,40 : 1	1,5	0,42
	2.	231,20 : 1	2,7	0,75
	3.	130,50 : 1	4,8	1,33
slow stage	1.	188,70 : 1	3,3	0,92
	2.	101,60 : 1	6,2	1,72
	3.	57,36 : 1	11,0	3,05
fast stage	1.	73,91 : 1	8,5	2,36
	2.	39,80 : 1	15,8	4,39
	3.	22,46 : 1	28,0	7,78
rear stage	1.	141,80 : 1	4,4	1,22
	2.	76,37 : 1	8,2	2,28
	3.	43,10 : 1	14,6	4,06

SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

Power take-off	Main p.t.o.proportional engine speed,independent from main clutch, manually engaged.
Location:	At rear of tractor, in vertical centre plane of tractor, 700 mm above ground
Dimensions:	29 x 34,9 x 8,7 mm = $1^3/8$", 6 spline (acc.to DIN 9611 Form A; BS 1495; ASAE S 203.2)
Speed:	615 rev/min at rated engine speed; 540 rev/min standard p.t.o.speed at 2025 rev/min engine speed, may be set by aid of tractormeter.
Direction of rotation:	Clockwise viewed from tractor rear.
	Optionally the tractor may be fitted with different reversible p.t.o. stub shafts. By reversing the stubs either the low standard p.t.o.speed (540 rev/min) or the high speed (1000 rev/min) is engaged. Model A): spline shaft 29 x 34,9 x 8,7 mm = $1^3/8$", 6 spline (acc.to DIN 9611 Form A; BS 1495; ASAE S 203.2) for both speeds. Model B): spline shaft 29 x 34,9 x 8,7 mm = $1^3/8$", 6 spline (acc.to DIN 9611 Form A; BS 1495; ASAE S 203.2) for the standard p.t.o.speed 540 rev/min; and $1^3/8$" involute spline shaft (acc.to ASAE S 204.2) for 1000 rev/min standard p.t.o.speed. Direction of rotation for both models clockwise viewed from tractor rear.
Belt pulley	(not fitted on tractor tested; figures acc. to manufacturers statement)
Location:	At rear of tractor;driving device attached to p.t.o.; manually engaged;
Dimensions:	Dia 320 mm, width 150 mm;
Speed:	1290 rev/min at rated engine speed; linear belt speed 21,57 m/s (acc.to.DIN 9630)
Direction of rotation:	Anticlockwise, viewed from right hand side of tractor.
Power lift	Make: Klöckner-Humboldt-Deutz A.G.,5 Köln-Deutz; life hydraulic power lift with power control by the upper link (Deutz-Transfermatic-System); position control;floating position; single acting ram; Bosch type HY/ZFR 1/11 AL(112/1) gear type pump directly driven from engine; (tractor fitted with hydrostatic steering: Bosch type HY/ZFR 1/14 AL (112/1) gear type pump is fitted); maximum oil pressure 175 kp/cm²; oil capacity appr. 12 l; control valve make Deutz.
Pull attachment	
Implement linkage:	Three-point linkage categorie II (acc.to DIN 9674)controlled by power lift; lifting range from 175 mm to 850 mm above ground with lifting rods long; from 445mm to 1070 mm with lifting rods short.
Drawbar:	Fixed on hydraulically controlled linkage; central hole and 3 holes with 80 mm distance apart either side of central hole (acc.to DIN 9671); vertical adjustment from 175 mm to 1070 mm by power lift and changing length of lift rods; distance of centre hole to the end of p.t.o. 575 mm.

Trailer hitch: At rear of tractor; height above ground 770-835-900 mm and 830-895-960 mm, changed by a pin and reversing hitch;
distance from rear axle 670 mm;

Towing hitch: At front of tractor; height above ground 575 mm or 640 mm;

Steering device: Make: Zahnradfabrik Friedrichshafen AG., 799) Friedrichshafen
ZF-Gemmersteering model 73, type CC 37
(optional: ZF-Column Hydrosteering, model 73,type CC 37)
Steering operated by a hand wheel

Brakes

Parking brake: Mechanically operated by ratchet hand lever, acting as internal shoe type brakes on brake drums on differential shafts;

Foot brake: Mechanically operated by foot pedal, acting as internal shoe type brakes on brake drums on differential shafts;

Steering brake: Operated by divided foot pedal of the foot brake; for normal use both parts are connected by a bolt.

Wheels

Steering wheels: Two at front; 7,50-16 AS front 6 ply pneumatic (acc. to DIN 7808); maximum permissible weight on each tyre 710 kp at 2,5 kp/cm^2; when transporting mounted implements 888 kp; rims 5,50 F x 16; track 1420 mm and 1576 mm, changed by reversing wheels and by extending front axle in steps of 100 mm from 1420 mm to 1920 mm ;

Driving wheels: Two at rear; 18,4/15-30 AS 6 ply pneumatic (acc. to DIN 7807); maximum permissible weight on each tyre 2085 kp at 1,1 kp/cm^2; when transporting mounted implements 2398 kp; rims W 14 L x 30; track 1520 mm and 1823 mm changed by reversing wheels;

Wheel base: 2150 mm

Weights With power lift, three-point linkage, full fuel tank and oil, as tested,

		without driver	with driver
Weight of tractor without ballast:	Front axle load:	919 kp	928 kp
	Rear axle load :	1594 kp	1657 kp
	Total:	2513 kp	2585 kp

Ballast front: 10 front weights = 380 kp

Ballast rear : 12 weights (each 21 kp) per wheel, total = 1463 kp
water in tyres = 470 kp

		without driver	with driver
Weight of tractor with ballast:	Front axle load:	1399 kp	1407 kp
	Rear axle load :	3527 kp	3593 kp
	Total:	4926 kp	5000 kp

Seat Make: Grammer, 845 Amberg, type DS 20/D1; upholstered seat with back rest and arm rests; adjustable spring with damping; height above ground 1265-1310-1295-1340 mm; distance of back rest from drawbar 845 mm - 935 mm; in tractor median plane.

Number of grease points (whole tractor) : 14

Overall dimensions

Overall length:	3670 mm with three-point linkage
Overall width :	1985 mm at 1520 mm track, without ballast weights
Overall height:	1820 mm to top of back rest of co-drivers seat
Maximum ground clearance:	495 mm above centre line of tractor
	485 mm apart median plane

Lighting equipment

	Height above ground of centre mm	Diameter mm	Distance from outside edge of tractor to centre mm
Head lights	980	125	450
Side lights	1385	80	130
Rear lights	1470	80	130
Reflectors	1155	75	100

FUELS AND LUBRICANTS USED IN TESTS

Laboratory tests

Fuel:	Shell Diesel oil, specific gravity at 15°C: 0,842 kg/l (commercially available quality acc.to DIN 51 601)
Engine oil:	Shell Rotella HD 20
Transmission oil:	SAE 90

Track tests

Fuel:	Shell Diesel oil, specific gravity at 15°C: 0,842 kg/l (commercially available quality acc.to DIN 51 601)
Engine oil:	Shell Rotella HD 20
Transmission oil:	SAE 90

SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE

Date and location of tests: 17.-18. October 1967, Darmstadt-Kranichstein

Type of dynamometer: Schenck hydraulic dynamometer

Maximum power

Horsepower (metric) hp	Speed engine rev/min	Speed p.t.o. rev/min	Fuel consumption total l/h	Fuel consumption specific g/hph	hph/l
At maximum power - 2 hours test					
57,1	2300	614	12,05	176	4,74
At standard p.t.o.speed (540 rev/min)					
52,9	2035	540	11,39	179	4,65
At the speed recommended by the manufacturer for drawbar work					
57,1	2300	614	12,05	176	4,74
Fuel consumption at part loads					
(i) 85% of torque at maximum power					
49,1	2335	623	10,40	176	4,73
(ii) unloaded					
-	2435	649	3,32	-	-
(iii) 50% of the load defined in (i)					
25,2	2385	636	7,15	223	3,60
(iv) maximum power					
57,1	2300	614	12,05	176	4,74
(v) 25% of the load defined in (i)					
12,7	2405	642	4,99	327	2,55
(vi) 75% of the load defined in (i)					
37,2	2350	627	8,57	192	4,35

No load maximum engine speed: 2435 rev/min

Torque*) at maximum power: 17,8 kpm

Maximum torque*) 19,5 kpm at 1600 rev/min of the engine

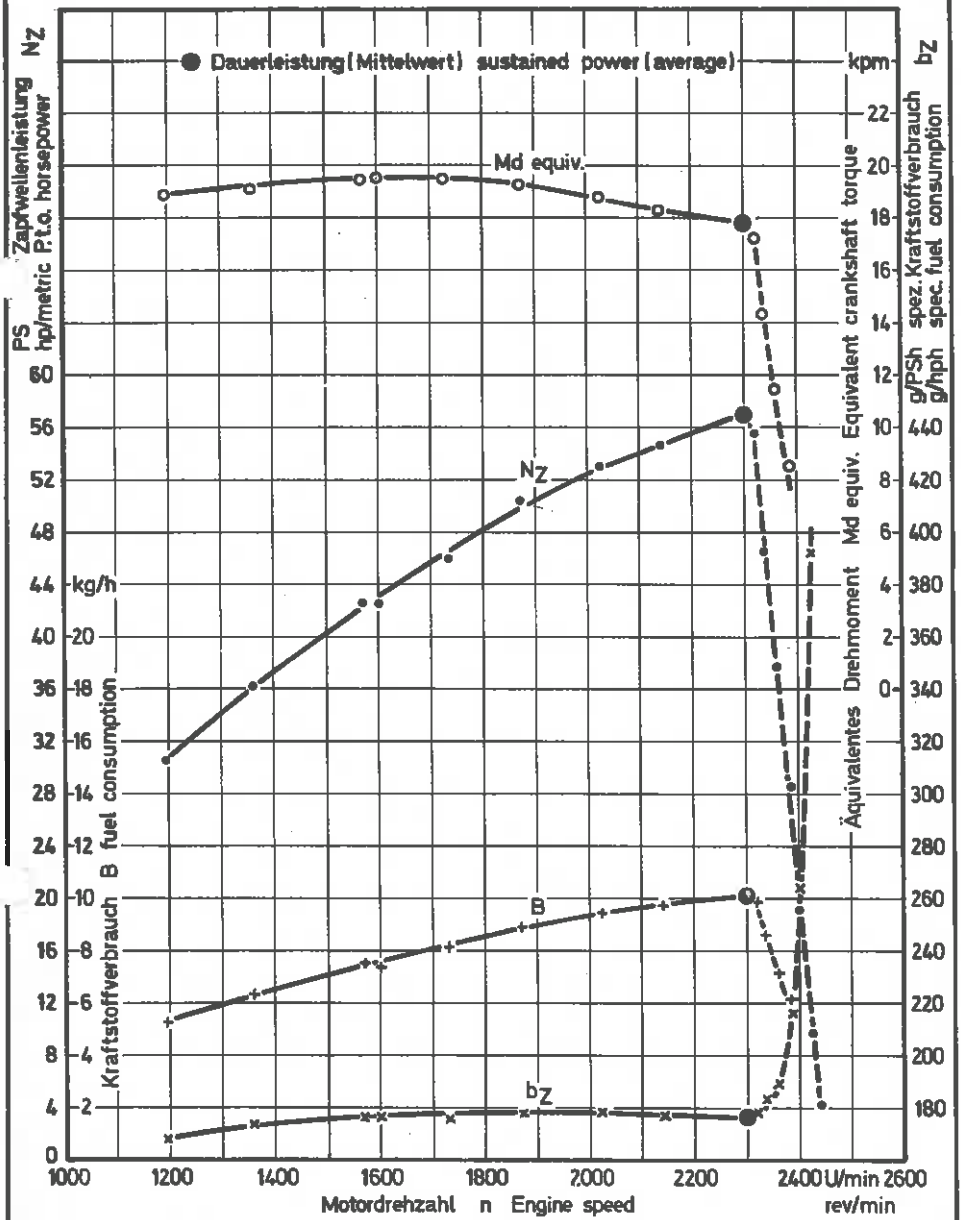
Mean atmospheric conditions: temperature: 21°C
pressure: 738/750 mm Hg
relative humidity: 55/60%

Maximum temperatures: coolant: not recorded
engine oil: 80/85°C
Fuel: 22°C

(*) The torque reported is the equivalent crankshaft torque)

Schlepperprüffeld	Zapfwellenleistung P.t.o. - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F4L812D

Test Nr.: 4027



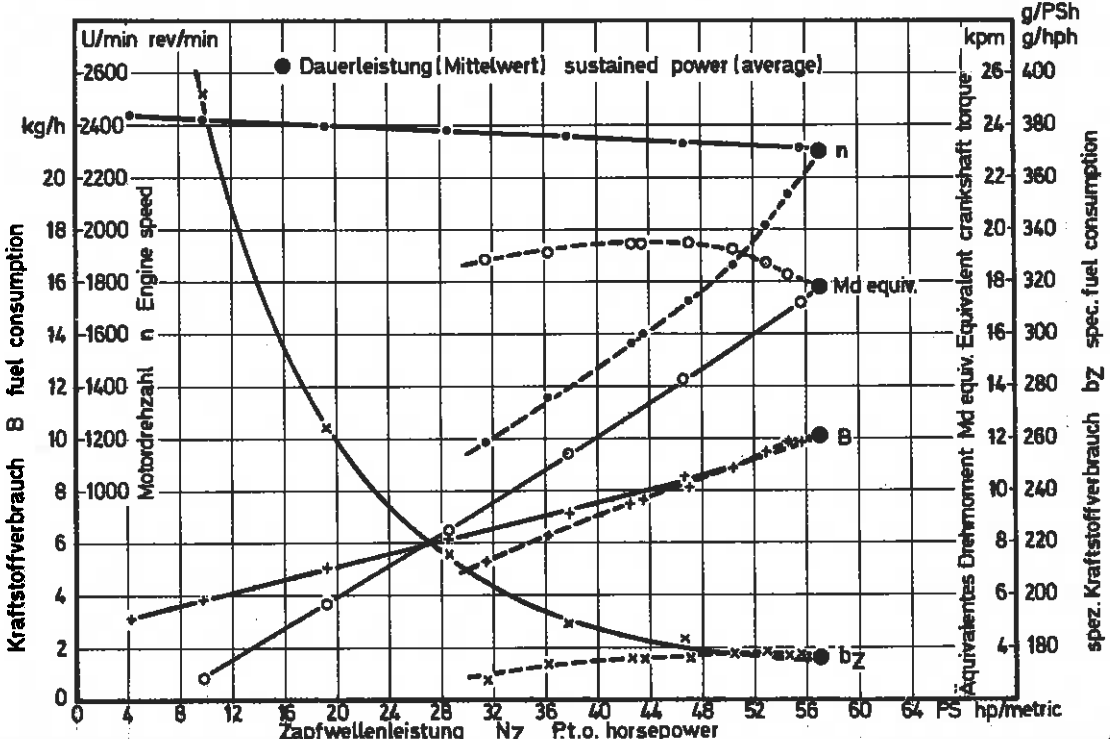
Motor Nr.: 4607913	Motoröl: Shell Rotella HD 20	Versuchstag: 17.10.1967	Versuchsltg.:
Schlepper Nr.: 7895/1267	Lufttemperatur: 23° C	Versuchs Nr.: 118/4027/67	
Kraftstoff: DK 0,842/15° C	Barom. std.: 740 mm QS	Kurvenblatt: 1	Fl.

Schlepperprüffeld

Zapfwellenleistung
P.t.o. - test

Deutz Dieselschlepper
D 60 05
Deutz Dieselmotor F 4 L 812 D

Test Nr.: 4027



Motor Nr.: 4607913	Kraftstoff: DK 0,842 / 15° C	Lufttemperatur: 23° C	Versuchstag: 17. 10. 1967	Versuchsltg:	
Schlepper Nr.: 7895 / 1267	Motoröl: Shell Rotella HD 20	Barom. std.: 740 mm QS	Versuchs Nr.: 11P 4027 / 67	Kurvenblatt: 2	Fl.

(2) DRAWBAR PERFORMANCE

Date of tests: 8.12.1967 - 12. 2. 1968

Type of track: concrete

Height of drawbar above ground: 445 mm

With ballast

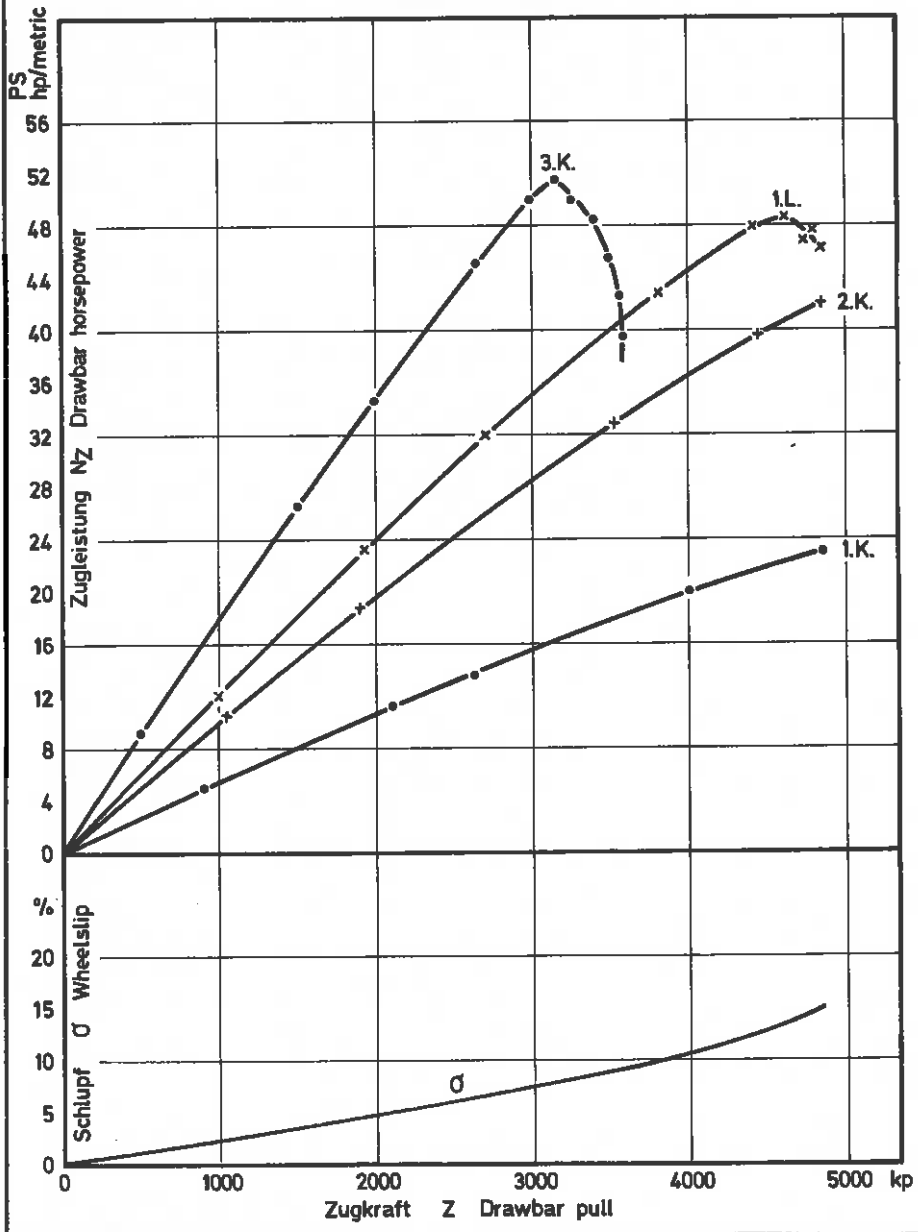
Gear No. and Group	Horse-power (metric) hp	Drawbar pull kp	Engine speed rev/min	Slip of wheels %	Specific work hph/l	Specific fuel consumpt. g/hph	Temperatures Fuel °C	Coolant °C	Engine oil °C	Atmospheric condition Temperature °C	Relative humidity %	Pressure mm Hg
(i) MAXIMUM POWER												
1.K.	23,0	4850	2395	15,1	3,23	261	8	not.rec.	75	7	63	744
2.K.	42,0	4850	2340	15,2	3,93	214	0	not.rec.	70	0	85	745
3.K.	51,5	3150	2300	7,4	4,33	195	3	not.rec.	75	3	78	744
1.L.	48,6	4620	2295	13,7	4,12	206	5	not.rec.	78	5	86	744
2.L.	51,8	2400	2305	5,3	4,35	195	2	not.rec.	78	3	83	744
3.L.	52,0	1332	2300	2,5	4,36	193	8	not.rec.	80	8	85	741
1.S.	52,3	1744	2298	3,7	4,37	192	7	not.rec.	80	7	86	741
2.S.	49,0	860	2300	1,3	4,12	205	6	not.rec.	80	6	88	741
(ii) FIVE-HOUR-TEST AT 75% OF PULL AT MAXIMUM POWER IN 2th GEAR OF SLOW GROUP												
2.L.	40,0	1800	2365	4,9	4,16	202	8	not.rec.	78	8	88	761
(iii) FIVE-HOUR-TEST AT PULL CORRESPONDING TO 15% WHEEL SLIP IN TEST (i)												
2.K.	42,0	4850	2365	15,0	3,93	213	5	not.rec.	75	5	62	761
Without ballast												
(v) MAXIMUM POWER												
3.K.	40,0	2600	2345	15,2	3,95	212	3	not.rec.	72	3	94	752
1.L.	28,0	2600	2385	15,4	3,48	244	3	not.rec.	75	3	92	752
2.L.	47,6	2400	2290	12,0	4,04	210	3	not.rec.	75	3	90	752
3.L.	51,0	1328	2300	5,1	4,29	198	5	not.rec.	78	5	85	756
1.S.	51,4	1750	2300	6,6	4,35	195	3	not.rec.	78	3	94	752
2.S.	49,8	888	2300	3,6	4,19	203	8	not.rec.	80	8	76	756

Total oil consumption during ten hours duration of tests (ii) and (iii) : 38,0 g/h

Schlepperprüffeld	Zugprüfung Drawbar-test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F4 L 812 D

mit Ballast with ballast

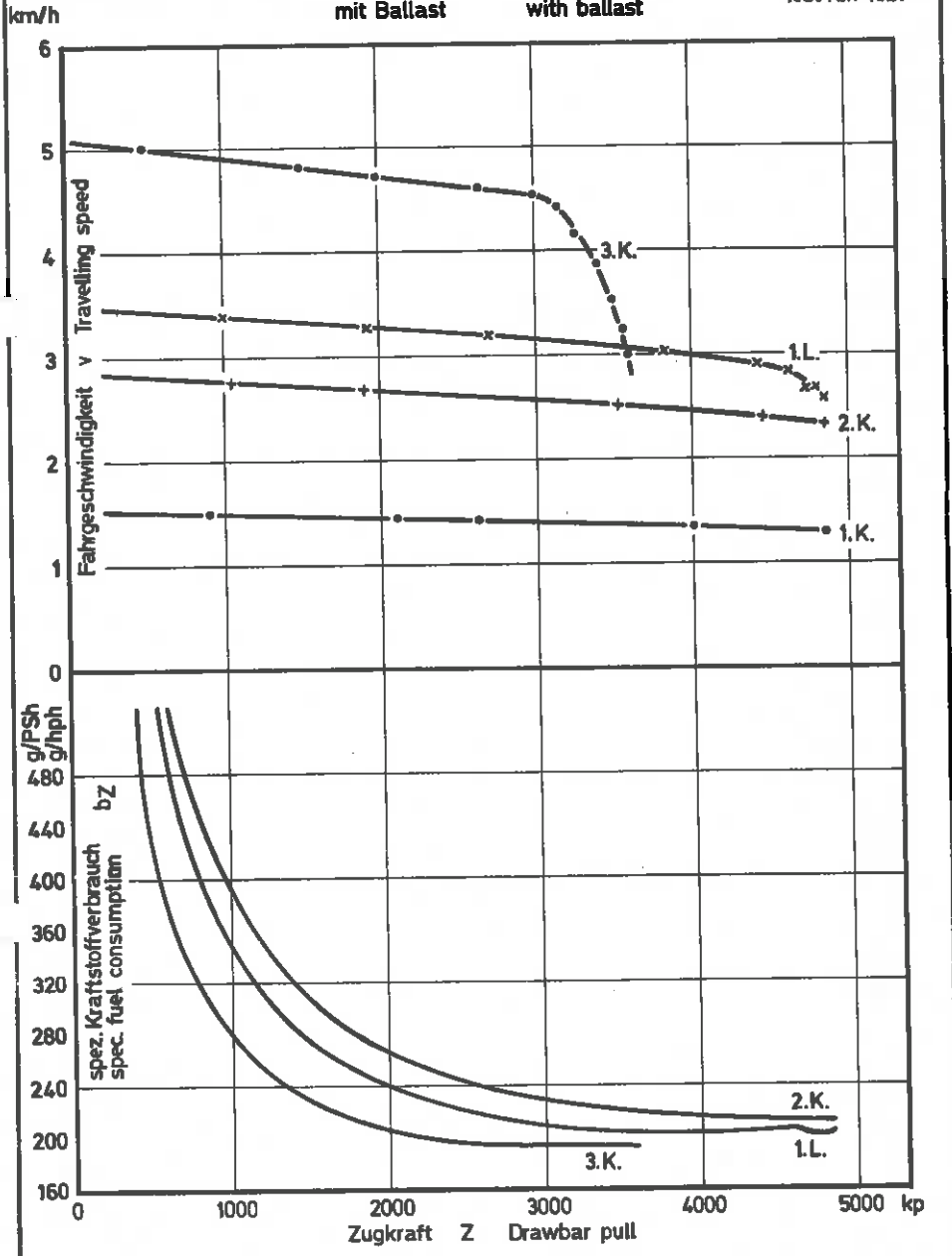
Test Nr.: 4027



Motor Nr.: 4607913	Motoröl: Shell Rotella HD20	Versuchstag: 12. 2. 1968	Versuchsltg.:
Schlepper Nr.: 7895 / 1267	Lufttemperatur: 3° C	Versuchs Nr.: 4027/006/68	
Kraftstoff: DK 0,837/15° C	Barom. std.: 743 mm QS	Kurvenblatt: 3	Fl.

Schlepperprüffeld	Zugprüfung Drawbar - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

Test Nr.: 4027

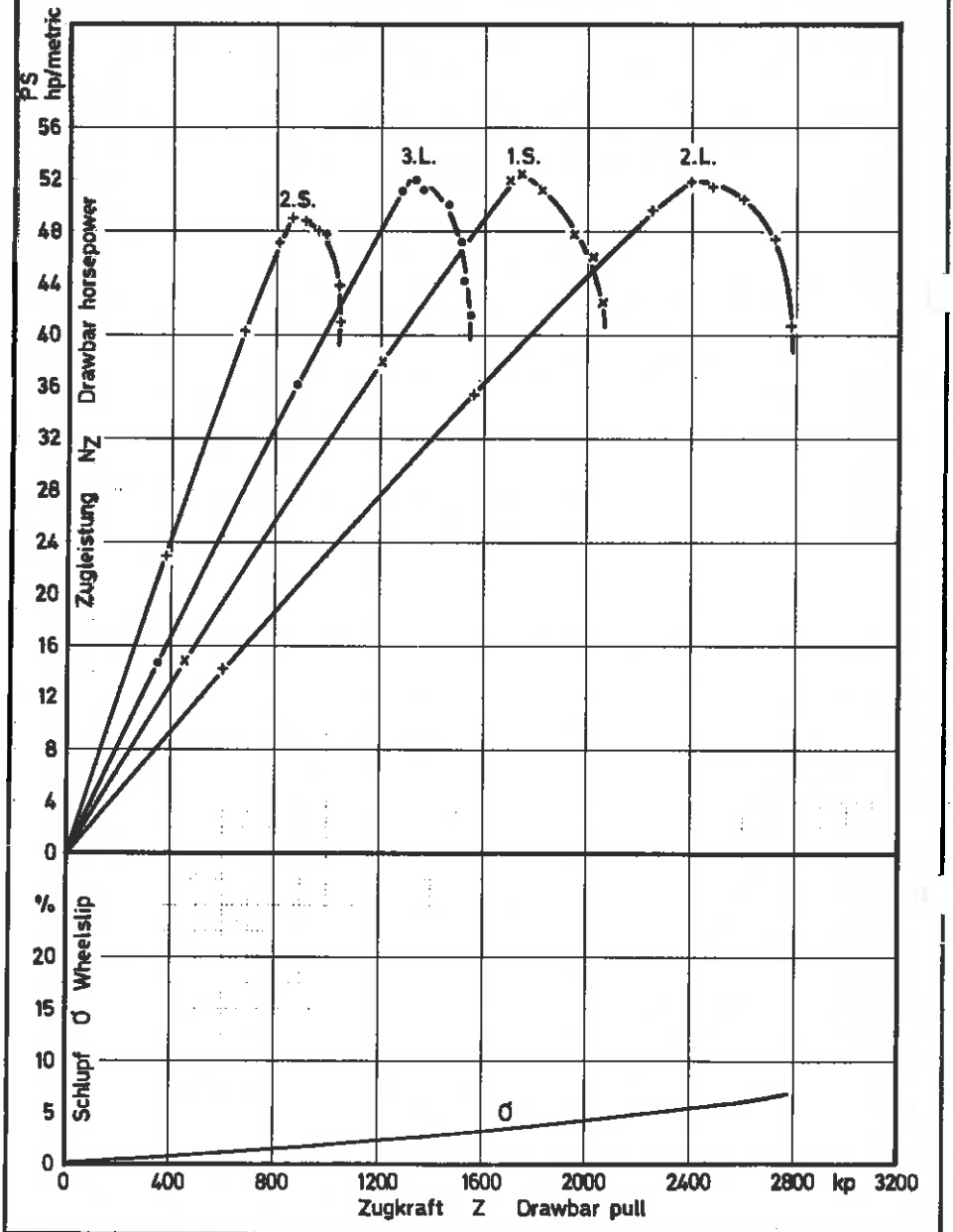


Motor Nr.: 4607913	Motoröl: Shell Rotella HD 20	Versuchstag: 12. 2. 1968	Versuchsltg.:
Schlepper Nr.: 7895 / 1267	Lufttemperatur: 3° C	Versuchs Nr.: 4027 / 006 / 68	
Kraftstoff: DIN 0,837 / 15° C	Barom.std.: 743 mm QS	Kurvenblatt: 4	Fl.

Schlepperprüffeld	Zugprüfung Drawbar - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

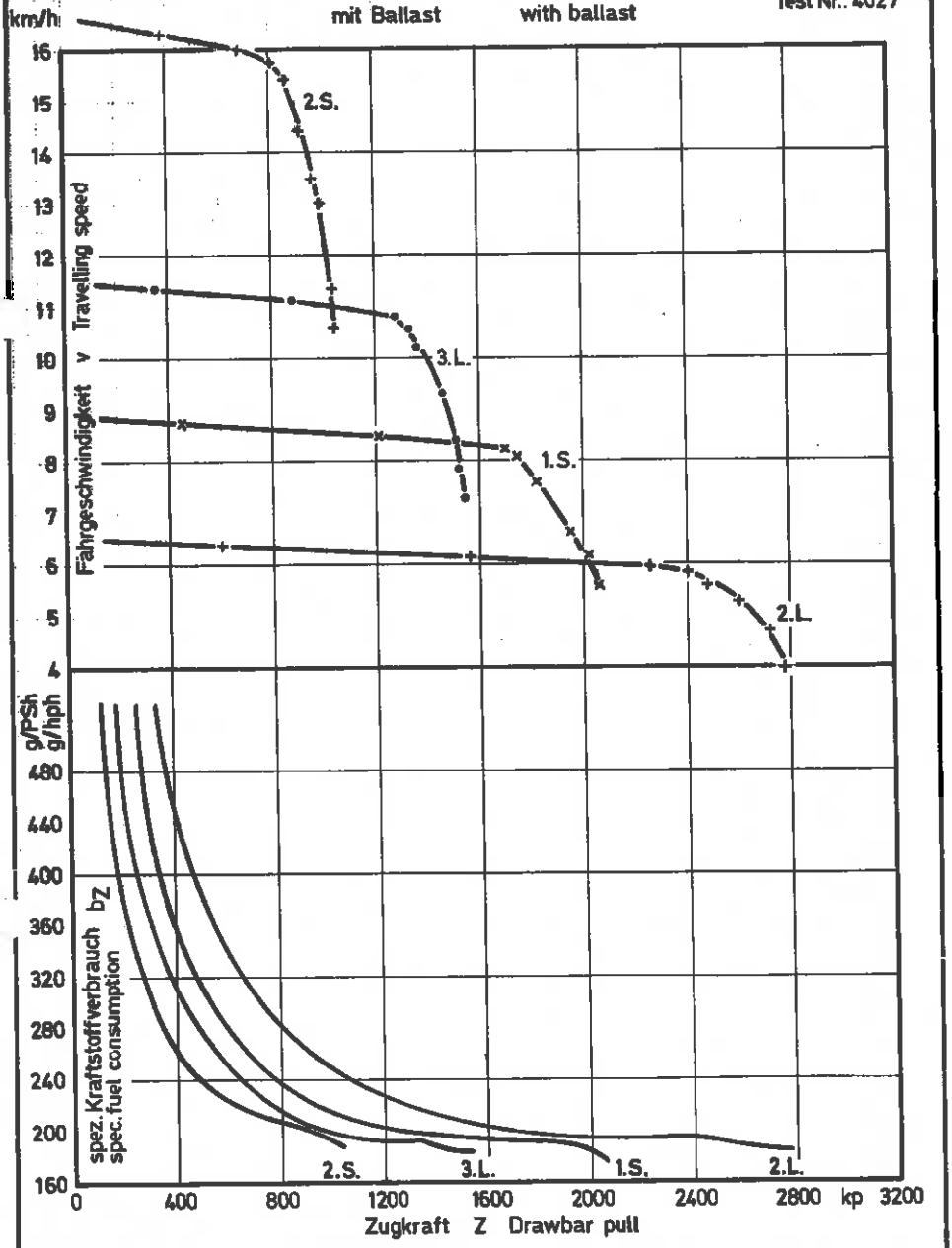
mit Ballast with ballast

Test Nr.: 4027



Motor Nr.: 4607913	Motoröl: Shell Rotella HD 20	Versuchstag: 8. 2. 1968	Versuchsltg.:
Schlepper Nr.: 7895/1267	Lufttemperatur: 3° C	Versuchs Nr.: 4027/005/68	
Kraftstoff: DK 0,837/15°C	Barom.std.: 743 mm QS	Kurvenblatt: 5	Fl.

Schlepperprüffeld	Zugprüfung Drawbar - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

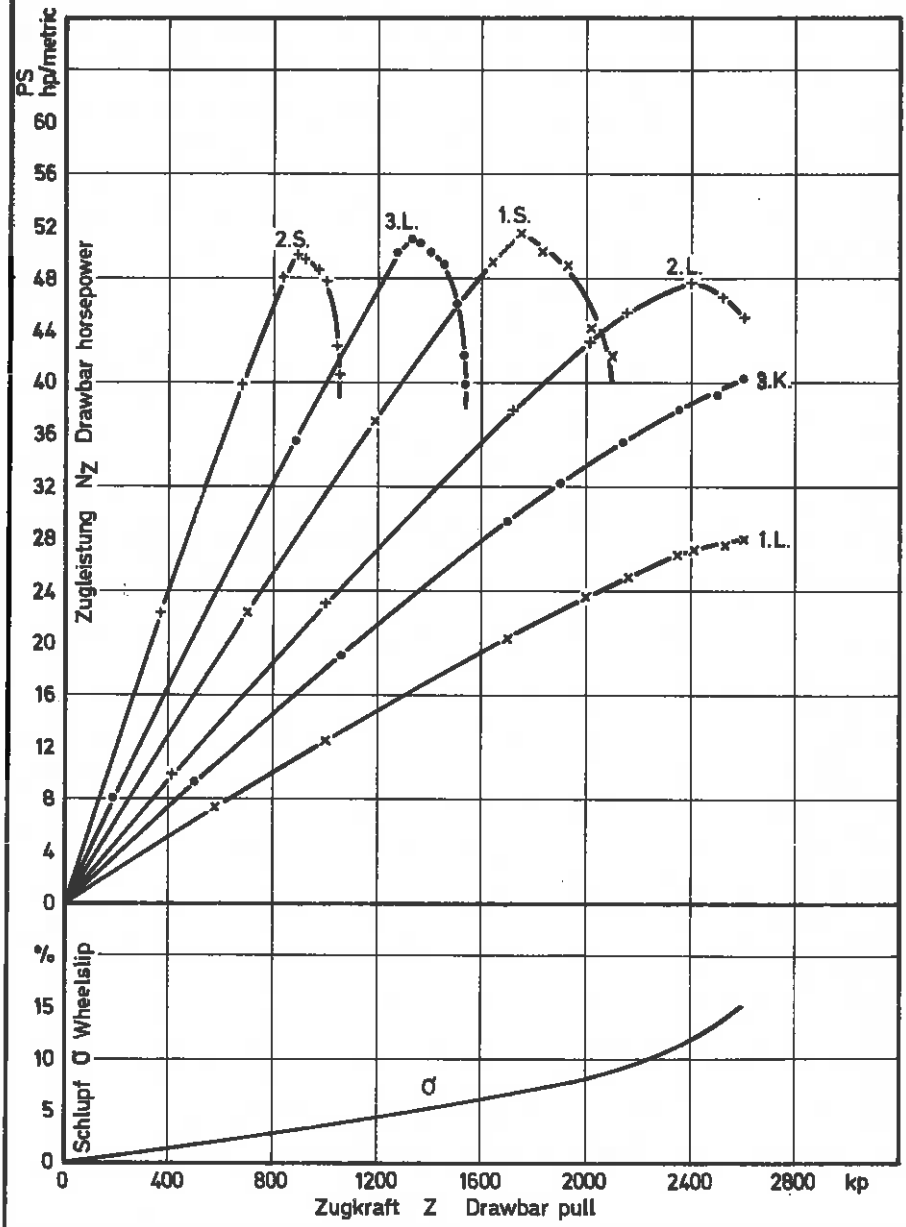


Motor Nr.: 4607913	Motoröl: Shell Rotella HD 20	Versuchstag: 8. 2. 1968	Versuchsltg.:
Schlepper Nr.: 7895/1267	Lufttemperatur: 3° C	Versuchs Nr.: 4027/005/68	
Kraftstoff: DK 0,837/15° C	Barom. std.: 743 mm QS	Kurvenblatt: 6	Fl.

Schlepperprüffeld	Zugprüfung Drawbar-test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

ohne Ballast without ballast

Test Nr.: 4027



Motor Nr.: 4607913	Motoröl: Shell Rotella HD20	Versuchstag: 5.12.1967	Versuchsltg.:
Schlepper Nr.: 7895/1267	Lufttemperatur: 3° C	Versuchs Nr.: 4027/232/67	
Kraftstoff: DK 0,842/15°C	Barom. std.: 752 mm QS	Kurvenblatt: 7	Fl.

(3 and 4) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 7,50-16 AS Front, 6 ply, without ballast
rear: 18,4/15-30 AS, 6 ply, without ballast

Track of wheels front: 1420 mm
rear: 1520 mm

	With brakes		Without brakes	
	left-hand	right-hand	left-hand	right-hand
Radius of turning space	3,50 m	3,45 m	3,80 m	3,75 m
Radius of turning circle	3,30 m	3,30 m	3,65 m	3,60 m

(5) LOCATION OF CENTRE OF GRAVITY

	With ballast	Without ballast
Height above ground	634 mm	745 mm
Distance forward from the vertical plane containing the axis of the rear wheels	606 mm	770 mm
Distance from the medium plane parallel to the longitudinal axis of the tractor bisecting the track	0 mm	0 mm

(6) BRAKE TESTS

A) FOOT BRAKE

Date of test: 2.2.1968

Type of track: concrete

Type of decelerometer: IFK Brake Recorder, August Fischer K.G. 34 Göttingen

Travelling speed of tractor: 28,0 km/h

With cold brakes

		Tractor without ballast	Tractor with ballast
maximum Deceleration	m/s^2	4,3	4,7
Stopping distance	m	11,0	9,8
Force on pedal	kp	44,0	62,0

Brake fade characteristics, hot tests, tractor without ballast

Deceleration:	hot/cold	105%
Stopping distance:	cold/hot	98%
Force on pedal:	cold/hot	92%

B) PARKING BRAKE

Force on the hand lever of the brake, cold brake 80 kp.
No rotation of the rear wheels of the tractor occured when the tractor has been towed.

Force on the hand lever of the brake, hot brake 80 kp.
One hour after applying the brake at hot condition no rotation of the rear wheels of the tractor occured when the tractor has been towed.

(7) MEASUREMENT OF AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 2.2.1968
Type of track: concrete
Type of sound level meter: EZGN, Rohde & Schwarz, 8 München

Results of test

Speed: 3.S.Gear
Travelling speed before acceleration: 21,0 km/h
Sound level: 87,5 dBA

(8) NOISE MEASUREMENT AT THE DRIVERS EAR

Date of test: 29.2.1968
Type of track: concrete
Type of sound level meter: EZGN, Rohde & Schwarz, 8 München
Type of octavfilter: PBO, Rohde & Schwarz, 8 München

No cab fitted on tractor.

Results of tests

Gear	Travelling speed *) nominal km/h	real km/h	Sone
2.L.	6,2	6,0	77
1.L.	3,3	3,0	73

*) The first gear tested corresponds to the travelling speed nearest to 7,25 km/h .

SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

(9) TEST OF POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date and location of tests: 21.11.1967, Darmstadt-Kranichstein
Hydraulic fluid: Shell Rotella HD 20

POWER LIFT

Height above ground in down position hitch point mm	test frame mm	Total vertical movement mm	Maximum force exerted through full lift range kp	Pressure of hydr. oil kp/cm²	Lifting force at front axle load = 0 kp kp
Measured at the hitch points of lower links					
180	-	680	2015	175	2050
450	-	600	2135	175	2050
Measured at the test frame 610 mm to the rear of the hitch points					
180	180	720	1730	175	1260
450	400	645	1630	175	1260

Type of linkage lock for transport: mechanically acting upwards, hydraulically acting downwards

Opening pressure of the cylinder over pressure relief valve: 210-260 kp/cm² (manufacturers figure)

PUMP CHARACTERISTICS

(i) opening prssure of relief valve: 178 kp/cm²
sustained pressure by the open relief valve: 175 kp/cm²

Pump delivery rate at external tapping
(ii) at minimum pressure: 36,4 l/min
(iii) at maximum hydraulic power: 31,6 l/min
maximum hydraulic power: 11,2 hp (metric)
delivery pressure: 160 kp/cm²

SCHLEPPER-PRÜFFELD
Deutz D 60 05

Test No.4027/SPF

OPTIONAL TESTS

(10) ENGINE TEST

Date and location: 11.-12. October 1967, Darmstadt-Kranichstein

Type of dynamometer: Schenck hydraulic dynamometer

Maximum power

Horsepower (metric) hp	Engine speed rev/min	Fuel consumption total l/h	Fuel consumption specific g/hph	hph/l
At maximum power - 2 hours test				
58,4	2300	11,90	170	4,90
At standard p.t.o.speed (540 rev/min)				
54,9	2025	11,30	172	4,85
At the speed recommended by the manufacturer for drawbar work				
58,4	2300	11,90	170	4,90
Fuel consumption at part loads				
(i) 85% of torque at maximum power				
50,6	2340	10,40	172	4,87
(ii) unloaded				
-	2435	3,32	-	-
(iii) 50% of the load defined in (i)				
25,8	2391	6,55	212	3,95
(iv) maximum power				
58,4	2300	11,90	170	4,90
(v) 25% of the load defined in (i)				
13,0	2415	5,14	329	2,54
(vi) 75% of the load defined in (i)				
38,4	2316	8,55	185	4,50

Optimum fuel consumption: 167 g/hph at 39,4 hp and 1575 rev/min

Standard fuel consumption 1/2 (acc.to DIN 9606) : 5,84/10,05 l/h

No load maximum engine speed: 2435 rev/min

Torque at maximum power: 18,2 kpm

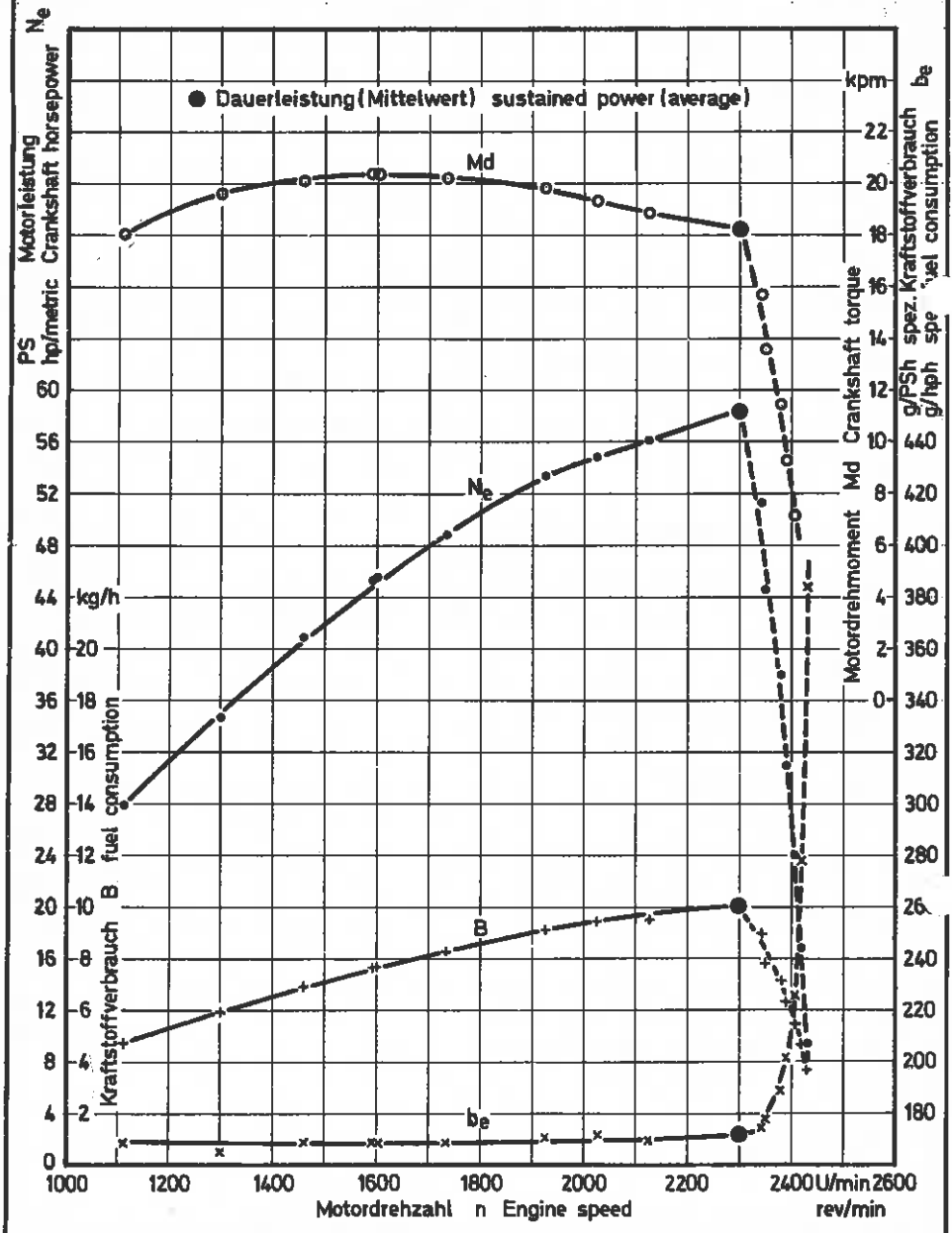
Maximum torque : 20,4 kpm at 1600 rev/min of the engine

Mean atmospheric conditions: temperature: 23/25°C
pressure: 752/750 mm Hg
relative humidity: 60/54%

Maximum temperatures: coolant: not recorded
engine oil: 80/70°C
fuel: 25°C

Schlepperprüffeld	Motorleistung Engine - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

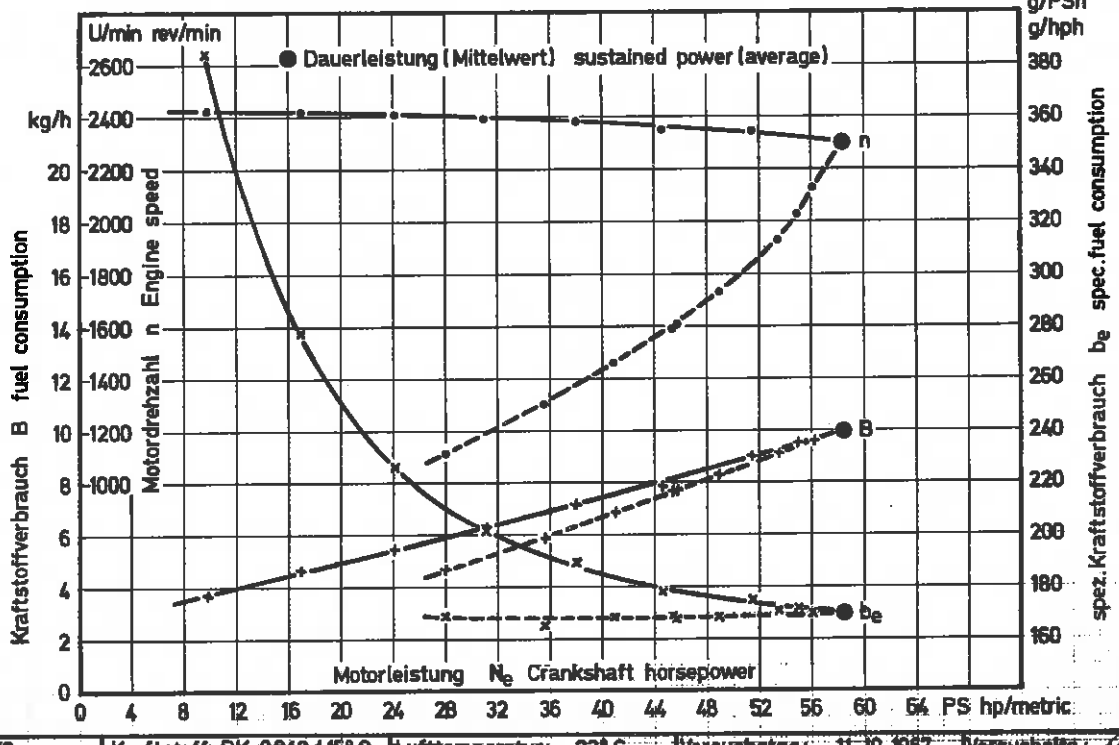
Test Nr.: 4027



Motor Nr.: 4607913	Motoröl: Shell Rotella HD 20	Versuchstag: 11.10.1967	Versuchsltg.:
Schlepper Nr.: 7895/1267	Lufttemperatur: 23° C	Versuchs Nr.: 102/4027/67	
Kraftstoff: DK 0,842/15°C	Barom.std.: 751mm Q.S	Kurvenblatt: 8	Fl.

Schlepperprüffeld	Motorleistung Engine - test	Deutz Dieselschlepper D 60 05 Deutz Dieselmotor F 4 L 812 D

Test Nr.: 4027



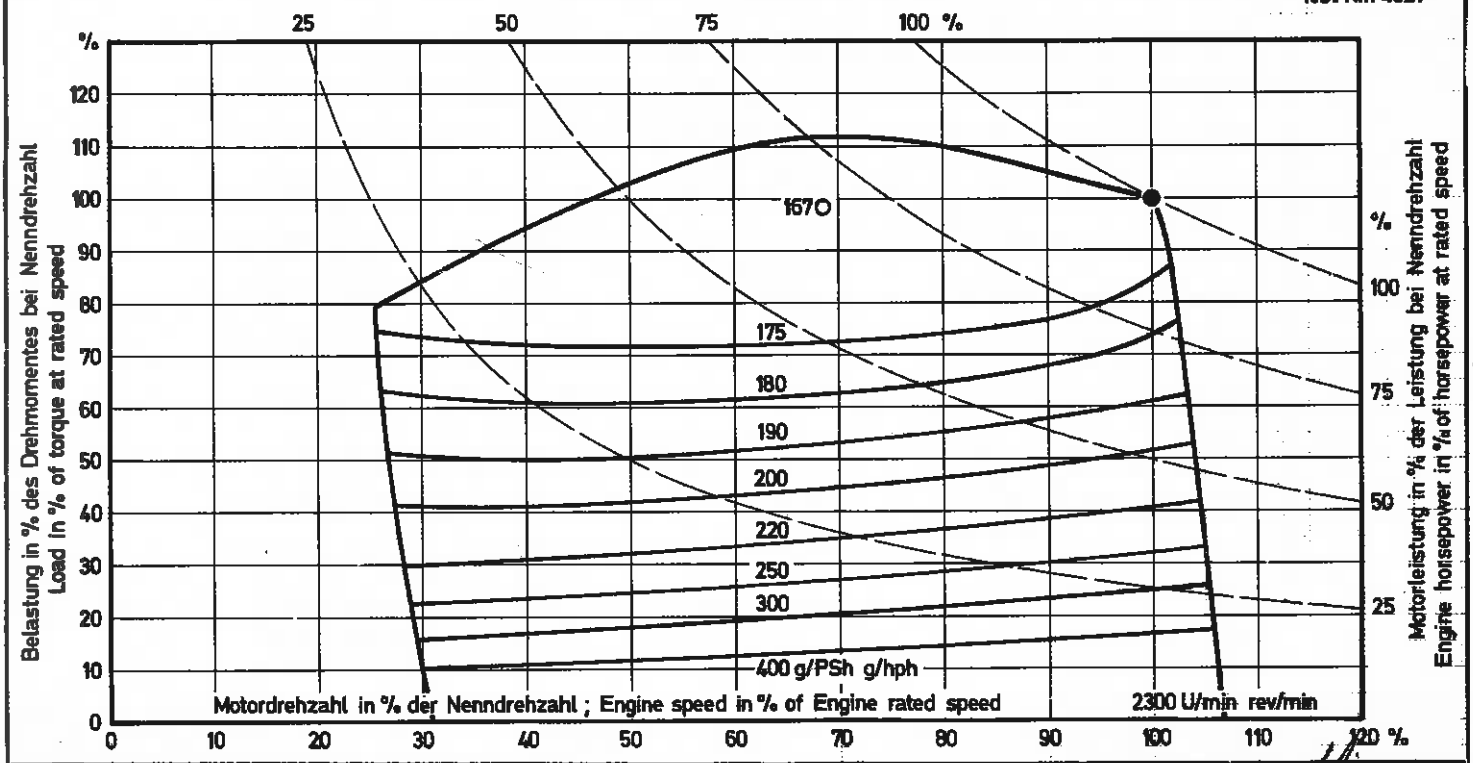
Motor Nr.: 4607913 Schlepper Nr.: 7895 / 1267	Kraftstoff: DK 0,842 / 15° C Motoröl: Shell Rotella HD 20	Lufttemperatur: 23° C Barom.std.: 751 mm QS	Versuchstag: 11. 10. 1967 Versuchs Nr.: 102 / 4027 / 67	Versuchstg.: Kurvenblatt: 9 Ft.	

Schlepperprüffeld

Motorkennfeld
Engine caracteristic field

Deutz Dieselschlepper
D 60 05
Deutz Dieselmotor F 4 L 812 D

Test Nr.: 4027



Motor Nr.: 4607913	Kraftstoff: DK 0,842 / 15° C	Lufttemperatur: 23° C	Versuchstag: 11. 10. 1967	Versuchsltg.:
Schlepper Nr.: 7895 / 1267	Motoröl: She[illegible]tella HD 20	Barom. std.: 751 mm QS	Versuchs Nr.: 10[illegible]027/67	Kurvenblatt: 10 Fl.