



Report on test in accordance with
O.E.C.D. Test Code for Agricultural Tractors

FENDT FARMER 2 S

Manufactured by: XAVER FENDT & CO.
Maschinen- und Schlepperfabrik
8952 Marktoberdorf / Allgäu



Date of Tests: July - October 1969

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

Date of Approval: 21.1.1970 Serial No. 1300

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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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TABLE OF CONTENTS

	Page
Specification of tractor	3 - 9
Fuel and lubricants used in tests	10

COMPULSORY TESTS

(1) Main power take-off performance	
Table with the results	11
Diagrams with the results	12 - 13
(2) Drawbar performance tests on a concrete track	
Table with the results	14 , 17
Diagrams with the results	15,16,18
(3 and 4) Turning space and turning circle	19
(5) Location of centre of gravity	19
(6) Tests of brakes	20
(7) Measuring of ambient noise, emitted by the tractor	21
(8) Measuring of the noise at the driver's ear level	21
(9) Test of power lift and hydraulic pump performance	22

OPTIONAL TESTS

(10) Engine tests	
Table with the results	23
Diagrams with the results	24 - 26



Tractor manufacturer: XAVER FENDT & CO., Maschinen-und Schlepperfabrik
8952 Marktoberdorf/ Allgäu

Submitted for test by: Manufacturer

Selected by: Manufacturer with the agreement of the
DLG testing station

Place of running-in: Marktoberdorf und Gross-Umstadt

Duration of running-in: Engine appr. 40 hours, tractor appr. 20 hours

SPECIFICATION OF TRACTOR

Tractor

Make: X.FENDT & CO., Maschinen-und Schlepperfabrik
8952 Marktoberdorf/ Allgäu

Model: Farmer 2 S

Type: Diesel tractor, unit construction

Serial No.: 138/11/0846

Engine

Make: Motorenwerke Mannheim AG., 68 Mannheim

Model: D 208-3

Type: 4-stroke Diesel engine, water cooled

Serial No.: D 208.3.07886

Cylinders: 3 cylinders vertical in line; 95 mm bore, 105 mm stroke;
capacity : 2233 cm³; compression ratio: 17 : 1; overhead
valves; wet replaceable cylinder liners

Fuel system: Fuel: Commercially available Diesel oil; .
Bosch type PES 3A 75 C 320/3 RS 1165 injection pump;
Bosch type DLL 150 S 393 multihole nozzle; injection
pressure: 180 kp/cm²; injection timing: 28° before TDC;
Solex type PE feed pump; Bosch type FJ/DB 1W 4/1 fuel
filter; capacity of fuel tank: appr. 65 l

Governor: Bosch type EP/RSV 325 1500 A 28305 DR centrifugal type
governor;
governed range of engine speed 650 rev/min to 2480 rev/min;
rated engine speed for p.t.o.-work 2480 rev/min
for field-work 2480 rev/min
for transportation-work 2480 rev/min
for belt-work 2480 rev/min

Air cleaner: Mann & Hummel oil bath type cleaner;
oil capacity appr. 0,7 l



Lubrication system: Forced feed from gear type pump; strainer in sump; Mann & Hummel type W 39 microni filter in full flow; oil capacity 7 l; oil change period 100-120 hours;
recommended oil in winter HD SAE 10
in summer HD SAE 20
in tropics HD SAE 30

Cooling system: Pressurised water cooling, impeller assisted and 4 blade fan 400 mm dia; thermostat for temperature control; cooling water capacity 10 l

Electrical equipment Voltage 12 Volt, negative earth

Starting device: Bosch type JD 12 V 1,8 PS 904 starter motor

Generator: Bosch type EH 14 V 11 A 19 generator

Battery: Bosch lead acid type battery 12 V 66 Ah

Transmission

- Clutch:**
- 1) Make: Voith, 792 Heidenheim
fluid clutch
 - 2) Make: Fichtel & Sachs AG., 872 Schweinfurt
dry type single plate clutch, type G 250 K,
operated by foot pedal

Gearbox: Make: Xaver Fendt & Co., 8952 Marktoberdorf/Allgäu
fully synchronized constant mesh selecting gear and group gear giving 13 forward speeds and 4 reverse (optional: additional transmission for very slow speeds giving further 3 forward speed and 1 reverse; also reversing gear available giving 13 reverse speeds)

Rear axle and final drive: Make: Xaver Fendt & Co., 8952 Marktoberdorf/Allgäu
bevel gear type differential gear with crown wheel and pinion; differential lock fitted, operated by foot pedal, self disengaging; spur gear final drive in portal type rear axle housing

Oil capacity: Fluid clutch 3,8 l; distributor gear 2 l; selecting gear and rear axle drive 24 l; final drives 5 l.
Oil change period: Fluid clutch appr. 5000 hours; all other transmissions firsts change after 200 hours, further change period 1000 hours or every year.



Total ratios and speeds
(2 % slip of fluid clutch included)

Group gear	Selecting gear No.	Number of engine revolutions for one revolution of the driving wheel	Theoretical travelling speed for 2480 rev/min rated engine speed (excluding slip of drive wheels)	
			km/h	m/s
Greeping speeds (optional), forward				
Greeping group	1	1787,64	0,34	0,095
	2	1081,23	0,56	0,156
	3	616,30	0,98	0,274
Normal speeds, forward				
Slow group	1	466,76	1,30	0,36
	2	282,31	2,16	0,60
	3	160,92	3,78	1,05
	4	112,92	5,39	1,50
	5	68,30	8,90	2,47
	6	38,93	15,63	4,34
Fast group	1	364,26	1,66	0,46
	2	220,32	2,77	0,77
	3	125,58	4,84	1,35
	4	88,13	6,90	1,92
	5	53,30	11,42	3,17
	6	30,38	20,04	5,57
Fast road speed		20,81	29,25	8,13
Greeping speeds (optional), reverse				
Greeping group	1.R	1102,86	0,55	0,15
Normal speeds, reverse				
Slow group	1.R	287,95	2,11	0,59
	2.R	69,66	8,73	2,43
Fast group	1.R	224,73	2,70	0,75
	2.R	54,37	11,20	3,11



- Power take off** a) Main p.t.o.: live power take-off, operated by hand wheel, situated below hand steering wheel; two p.t.o. speeds engageable pre-selectable
- Location :** At rear of tractor, in median plane, 620 mm above ground
- Dimensions:** Spline shaft 29 x 34,9 x 8,7 mm = $1\frac{3}{8}$ ", 6 splines (acc.to DIN 6911 Form A; BS 1495; ASAE S 203.5)
- Speed:** 589 rev/min or 1043 rev/min at 2480 rev/min rated engine speed; standard p.t.o. speed 540 rev/min at 2290 rev/min engine speed; standard p.t.o. speed 1000 rev/min at 2380 rev/min engine speed; p.t.o. speed may be controlled by tractormeter. The p.t.o. speeds are reported including a slip of the fluid clutch as measured during p.t.o. tests (1) page 11
- Direction of rotation:** Clockwise, viewed from tractor rear
- b) ground speed p.t.o.; main p.t.o. acc.to a) may be changed by hand lever to ground speed p.t.o.
- Location:** } Same as with main p.t.o. acc.to a)
- Dimensions:** }
- Speed:** Transmission ratio from p.t.o.-shaft to drive wheels = 24,28; travelling distance for 1 revolution of the p.t.o. = 0,17 m
- Direction of rotation:** Clockwise viewed from tractor rear in all forward speeds, anticlockwise in the reverse speeds
- c) p.t.o. for the mover bar drive, independable from main clutch
- Location:** Between the two axles, 1120 mm before the rear axle centre line, 60 mm to the right of the median plane, 540 mm above ground
- Dimensions:** Spline shaft B6 x 26 x 30 mm (acc.to DIN 5462)
- Direction of rotation:** Anticlockwise, tractor fitted with normal transmission; is the tractor fitted with the reversing gear, the direction of rotation may be engaged for clockwise rotation of the shaft
- Belt pulley** (not fitted on tractor tested; figures acc.to manufacturers specification)
- Location:** At rear of tractor; driving device mounted on p.t.o.-shaft by aid of a quickcoupling
- Dimension:** 225 mm diameter, 150 mm width
- Speed:** 1471 rev/min at 2480 rev/min rated engine speed; linear belt speed 17,32 m/s
- Direction of rotation:** Both directions possible by reversing the driving device

Power lift

Make: Xaver Fendt & Co., 8952 Marktoberdorf/Allgäu
hydraulic power lift with power control, position control,
both infinitely variable mixabel, and floating position;
power lift mechanically locked in transport position;
Bosch type HY/ZFR 1/14 CL 104 gear type oil pump, directly
driven by the engine; Bosch type HY/SR 10 control valve +
additional valve for remote control; maximum oil pressure
175 kp/cm²; oil capacity 7,5 l, when front end loader is
fitted 9 l; 1 external tapping

Pull attachment

Implement

linkage:

Three-point implement linkage category II (acc.to DIN 9674),
controlled by power lift;
lift height above ground: from 0 mm to 1000 mm, may be fi
in 465 mm height above ground by means of a mechanic lock

Drawbar:

Fixed on hydraulically controlled implement linkage with
8 holes apart either side of centre line; 4 x 80 mm +
1 x 240 mm + 3 x 80 mm distance of the holes (acc.to DIN
9676); height above ground adjustable from 0 mm to 1000 mm,
fixable in 465 mm height above ground by means of a mecha-
nic lock; distance from centre hole to the end of p.t.o.-
shaft 670 mm

Trailer hitch:

At rear of tractor; height above ground from 480 mm to
880 mm, adjustable by shifting the hitch; distance from
rear axle 473 mm

Towing hitch:

At front of tractor; height above ground 640 mm

Steering device

Make: Zahnradfabrik Friedrichshafen AG., 799 Friedrichshafen
ZF- Gemmer steering or
ZF-Hydro-Column steering

Brakes

Parking brake:

Mechanically operated external band type brake, acting on
brake drums on the differential shafts

Foot brake:

Mechanically operated internal shoe type brake, acting on
brake drums in the rear wheels; brake pedal divided for
steering brake

Steering brake:

Operated by the single parts of the foot brake pedal;
for normal use both parts are coupled by a safety bolt

Wheels

Steering wheels:

Two at front, 7,50 L -15 AS Front, 6 ply pneumatic (acc.
to DIN 7808); maximum permissible weight on each tyre
670 kp at 2,5 kp/cm² inflation pressure, 850 kp when trans-
porting mounted implements; rims 5 1/2 J x 15; track 1278 mm
and 1528 mm changed by extending front axle

Driving wheels:

Two at rear, 14,9/13-30 AS, 6 ply pneumatic (acc.to DIN
7807); maximum permissible weight on each tyre 1585 kp
at 1,3 kp/cm² inflation pressure; 1823 kp when transporting
mounted implements; rims DW 12 x 30; track 1360 mm and
1500 mm (acc.to DIN 9621), changed by reversing wheels

Wheel base:

2078 mm

Weights

With power lift, three-point linkage, safety frame, full fuel tank, cooling water and oil, as tested

	without driver	with driver
Weight of tractor without ballast:		
Front axle load:	850 kp	850 kp
Rear axle load:	1520 kp	1595 kp
Total:	2370 kp	2445 kp

Ballast front: 8 front weights each 36 kp = 288 kp

Ballast rear: 3 wheel weights, 60 kp each, per wheel = 360 kp
water in tyres = 341 kp

	without driver	with driver
Weight of tractor with ballast:		
Front axle load:	1219 kp	1223 kp
Rear axle load:	2150 kp	2217 kp
Total:	3369 kp	3440 kp

Seat

Make: X.FENDT & CO., Maschinen- und Schlepperfabrik
8952 Marktoberdorf/Allgäu
upholstered seat with parallel linkage and hydraulically damped spring, adjustable acc.to operators weight; 20 mm in vertical direction and 80 mm in horizontal direction adjustable; 16 mm to the left of median plane

Number of grease points (whole tractor): 12

Overall dimensions

Overall length: 3626 mm with three-point linkage
Overall width: 1878 mm at 1500 mm track, without ballast weights
Overall height: 1655 mm to top of back rest of attendant's seat
2300 mm with safety frame

Maximum ground clearance: 410 mm in median plane of tractor
380 mm apart median plane

Lighting equipment: Electric 12 Volt, acc.to StVZO (German Govt. regulation)

	Height above ground of centre mm	Dimensions of area mm	Distance from outside edge of tractor to centre mm
Head lights	900	140 x 125	752
Side lights	1340	45 x 30	214
Rear lights	1365	119 x 67	283
Reflectors	1055	124 x 36	247

FUELS AND LUBRICANTS USED IN TESTSLaboratory tests

Fuel: Aral Diesel oil, specific gravity at 15°C: 0,828 kp
(commercially available quality acc. to DIN 51 601)

Engine oil: Mobiloil HD 20
Transmission oil: Mobiloil SAE 80

Track tests

Fuel: Aral Diesel oil, specific gravity at 15°C: 0,828 kp
(commercially available quality acc. to DIN 51 601)

Engine oil: Mobiloil HD 20
Transmission oil: Mobiloil SAE 80



COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE

Date and location of tests: 22.8.1969, Gross-Umstadt

Type of dynamometer: Schenck hydraulic dynamometer U1-40

Maximum power

Horsepower (metric) hp	Speed		Fuel consumption		hph/l
	engine rev/min	p.t.o. rev/min	total l/h	specific g/hph	
<u>At maximum power 2-hour test</u>					
40,2	2480	588	9,65	198	4,18
<u>At standard p.t.o. speed (540 rev/min)</u>					
39,0	2290	540	9,23	196	4,22
<u>At the speed recommended by the manufacturer for drawbar work</u>					
40,2	2480	588	9,65	198	4,18
<u>Fuel consumption at part loads</u>					
<u>(i) 85 % of torque at maximum power</u>					
34,2	2535	601	8,35	202	4,10
<u>(ii) unloaded</u>					
-	2600	629	2,91	-	-
<u>(iii) 50 % of the load defined in (i)</u>					
17,4	2560	614	5,35	253	3,26
<u>(iv) maximum power</u>					
40,2	2480	588	9,65	198	4,18
<u>(v) 25 % of the load defined in (i)</u>					
8,8	2570	620	4,02	379	2,19
<u>(vi) 75 % of the load defined in (i)</u>					
25,8	2540	608	6,79	218	3,80

No load maximum engine speed: 2600 rev/min

Torque*) at maximum power: 11,8 kpm

Maximum torque*) 13,4 kpm at 1740 rev/min of the engine

Mean atmospheric conditions:

temperature: 20°C
pressure: 743 mm Hg
relative humidity: 88 %

Maximum temperatures:

coolant: 77°C
engine oil: 70°C
fuel: 20°C

(*) The torque reported is the equivalent torque on the fluid clutch output shaft)



PRÜFUNGS-ABTEILUNG

Zapfwellenprüfung

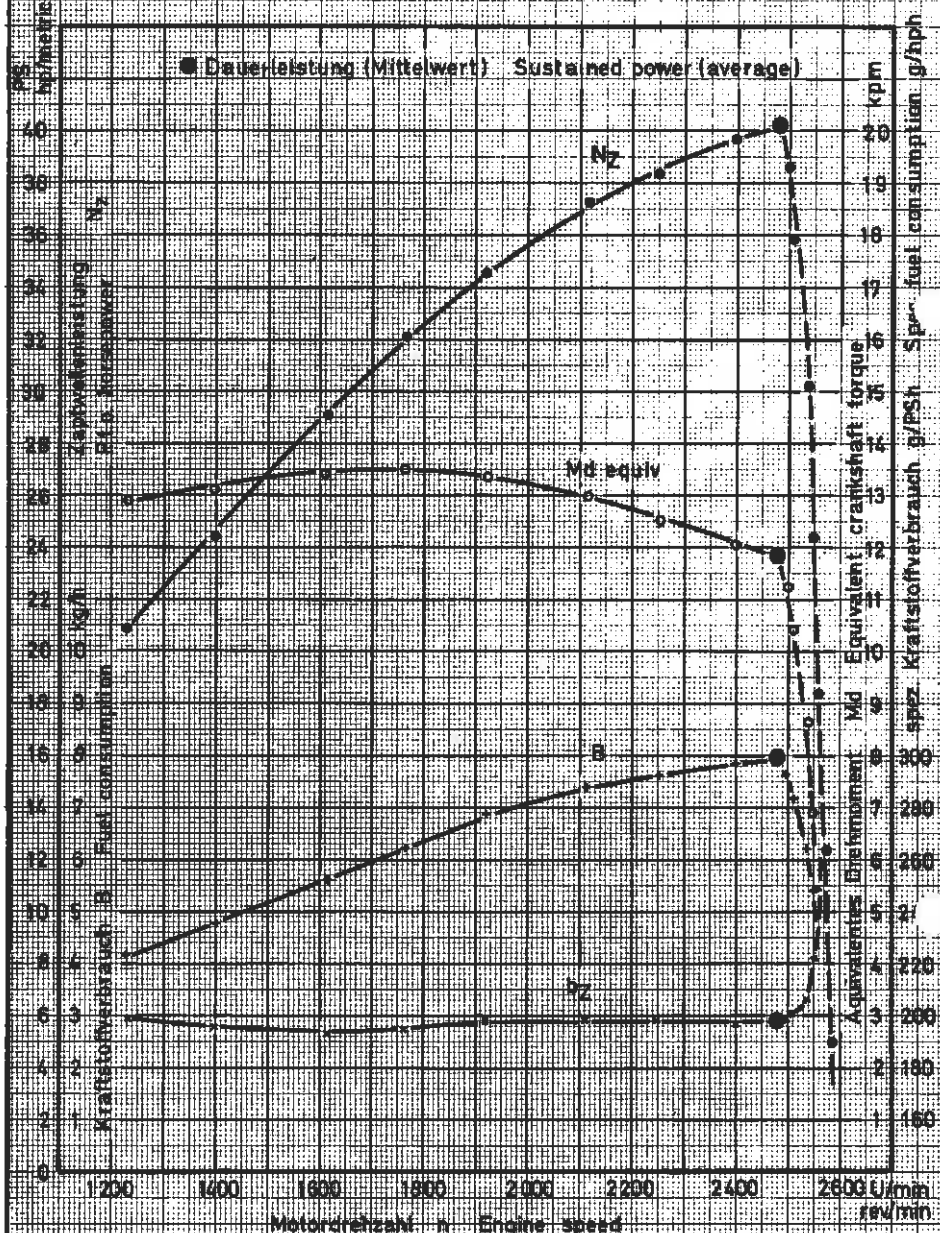
Pt.o. - test

Fendt Dieselschlepper

Farmer 2 S

MWM Dieselmotor D 208

Test Nr.: 69-17



Motor Nr.: D 208 3 01888	Motor: Mabil HD 20	Versuchstag: 21.6.1969	Versuchs-Nr.:
Schlepper Nr.: 336/17/0845	Lufttemp: 20 °C	Versuchs-Nr.: 89/17/190	
Kraftstoff: DKO 828/15 °C	Baromet: 743 mm QS	Kurvenblatt: 1	

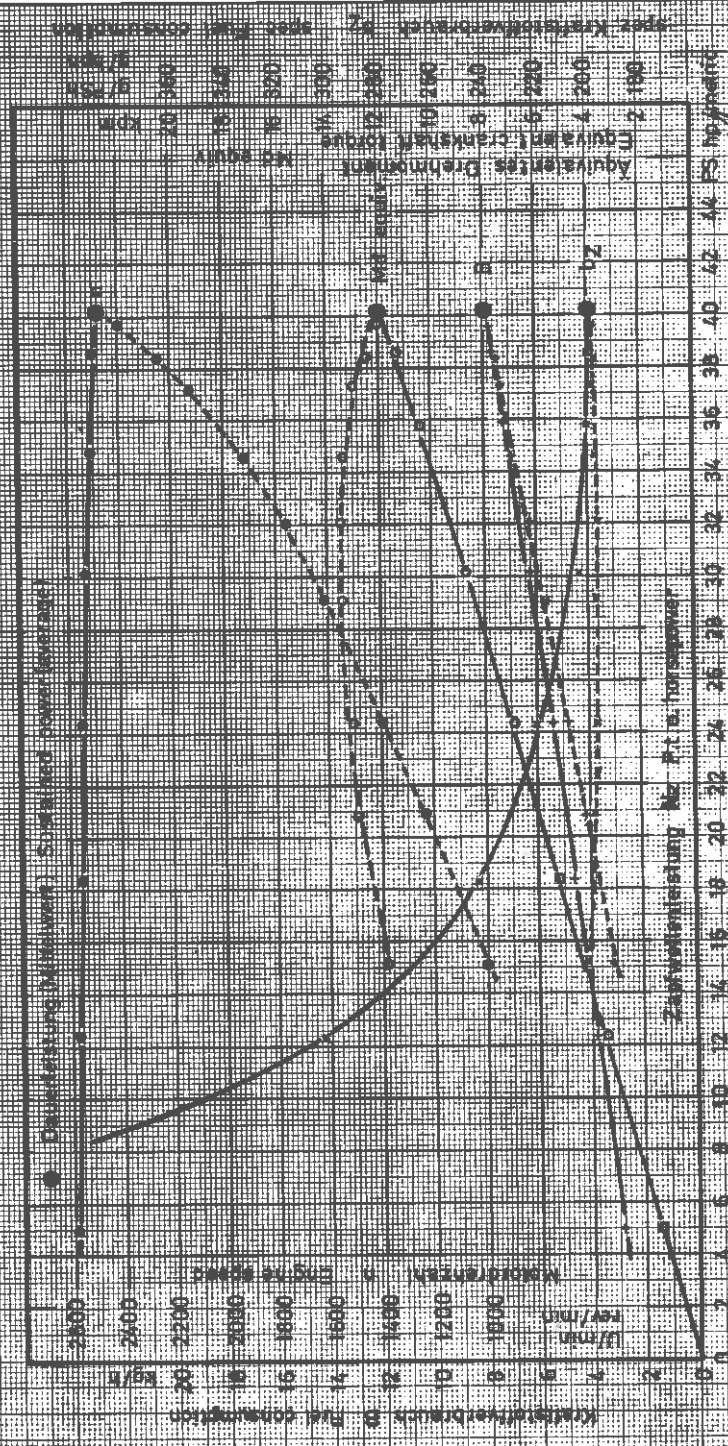
Zapfwellenprüfung

Pt 10 - test

PRÜFUNGSABTEILUNG

Prüf. Dienstschlepp
Fahrer: 25
Werk - Motor: D 208.3

Test Nr.: 68 17



Motor Nr. D 208.307-386 Kraftstoff: DK 0.210/55C Lufttemp.: 20°C
Schlepper Nr.: 0671/0876 Motor: 0.210/55C Mobl. HD 20 Barometer: 743 mm QS
Versuchsdatum: 21.8.1969 Versuchsleiter: 68/17/140
Versuchsort: Kurbeltrieb: 1. Versuch



Fendt Farmer 2 S

(2) DRAWBAR PERFORMANCE

Date of tests: 29.9. - 8.10.169

Type of track: Concrete

Height of drawbar above ground: 679 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/tph	Temperatures		Atmospheric conditions			
							Fuel °C	Coolant Engine °C	oil °C	Temperature °C	Relative humidity %	Pressure mm Hg
(i) MAXIMUM POWER												
1.L.	14,2	3260	2545	13,5	2,66	312	12	80	75	12	93	760
1.S.	18,2	3250	2540	12,7	2,96	278	23	85	80	21	70	756
2.L.	23,4	3280	2535	13,3	3,24	256	22	85	80	22	64	756
2.S.	29,9	3280	2520	13,1	3,43	241	20	85	80	20	70	760
3.L.	34,2	2710	2485	10,4	3,57	234	10	80	75	10	74	755
3.S.	35,6	2150	2480	7,6	3,74	223	10	80	75	10	75	755
4.L.	36,2	1950	2480	6,7	3,80	219	10	80	75	10	76	755
4.S.	31,0	1530	2480	5,4	3,84	217	10	80	75	9	81	755
5.L.	36,6	1160	2480	4,0	3,83	218	10	80	75	9	82	755
5.S.	35,1	880	2480	3,7	3,77	221	12	80	75	10	78	754
6.L	34,9	615	2480	1,8	3,64	229	12	80	75	12	67	751
(ii) FIVE-HOUR-TEST AT 75% OF PULL AT MAXIMUM POWER IN 4th L.GEAR												
4.L.	28,5	1460	2545	5,2	3,68	226	16	80	75	16	90	760
(iii) FIVE-HOUR-TEST AT PULL CORRESPONDING TO 15% WHEEL SLIP IN TEST (i)												
2.S.	29,6	3250	2520	13,2	3,40	244	21	85	80	22	77	760

Engine oil consumption during ten hours duration of tests (ii) and (iii) : 28,5 g/h



PRÜFUNGS-ABTEILUNG

Zugprüfung Drawbar-test

Fendt - Glasschlepper

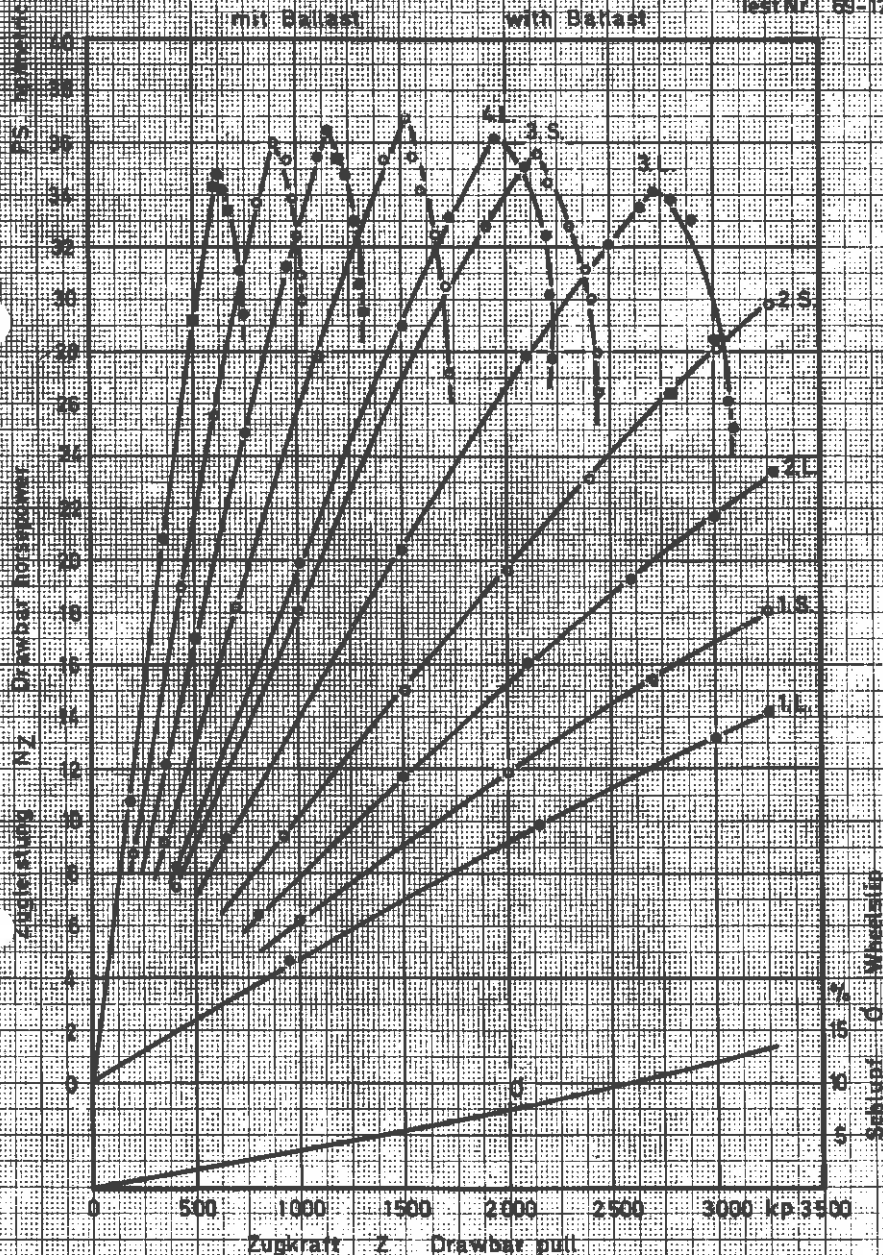
Farmer 2 S

MWM-Motor D 206.3

Test Nr. 69-17

mit Ballast

with Ballast



Motor Nr. D 206.3/07.006	Motoröl: Mobil HD 20	Versuchsrad: 2 u. 6 10.05.69	Versuchsallg.
Schlepper Nr. 138/11/0846	Lufttemp.: 10° C	Versuchs Nr. 69-200/69/17	
Kraftstoff: DK O 832/35° C	Barom. std.: 751 mm Q.S.	Kurvenblatt: 3	

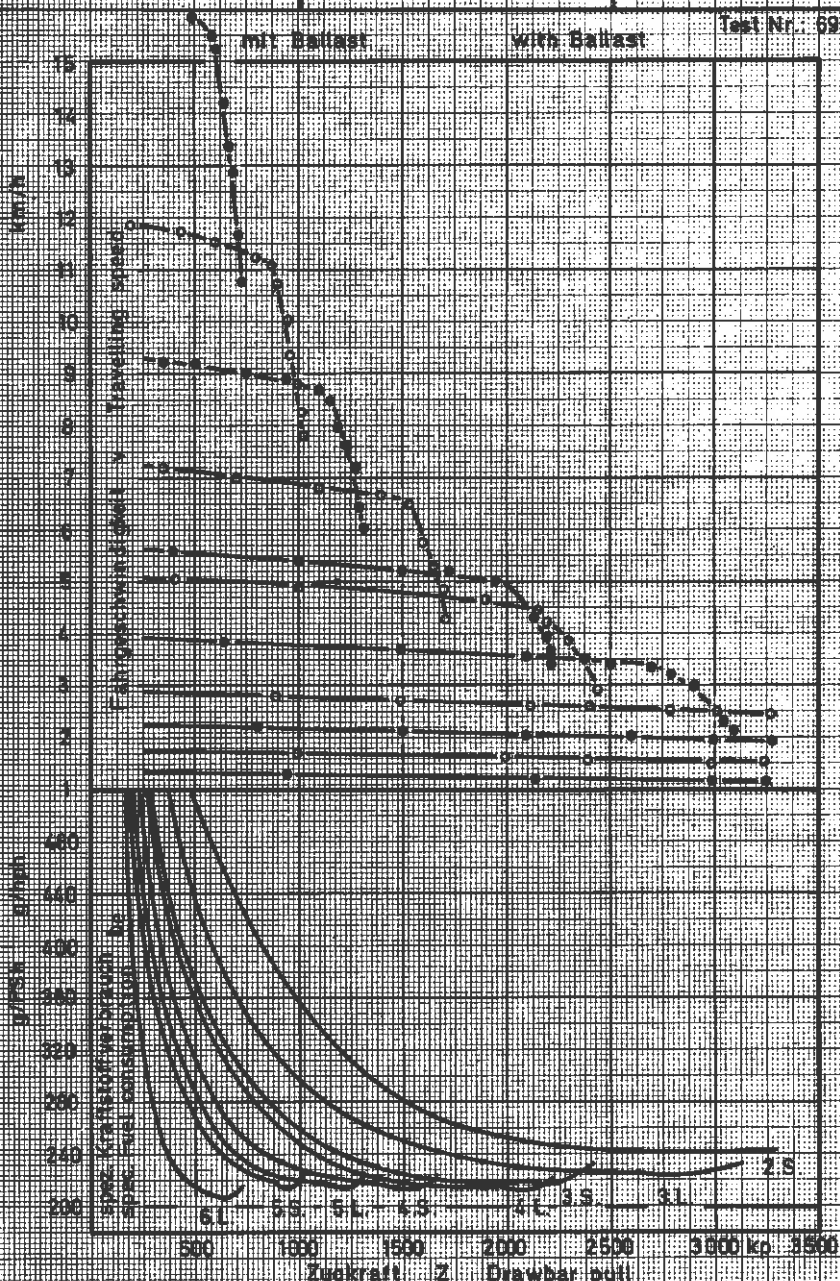


PRÜFUNGS-ABTEILUNG

Zugprüfung Drawbar-test

Fendt-Dieselschlepper
Farmer 2 S
MWM-Motor D 2083

Test Nr. 69-17



Motor-Nr. D 2083/02696	Motoröl: Mobil HD 20	Versuchs-tag: 2. u. 3.10.1989	Versuchs-fg
Schlepper-Nr. 138/11/0845	Lufttemp.: 10°C	Versuchs-Nr. 196-200/69/17	
Kraftstoff: DKC 332/E/C	Barometer: 751 mm QS	Kurvenblatt: 4	

(2) DRAWBAR PERFORMANCE

Date of tests: 29.9. - 8.10.1969

Type of track: Concrete

Height of drawbar above ground: 679 mm

Without 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			Atmospheric conditions		
							Fuel °C	Coolant °C	Engine oil °C	Temperature °C	Relative humidity %	Pressure mm Hg
(v) MAXIMUM POWER												
2.S.	21,6	2280	2540	10,9	3,21	258	20	80	75	20	68	752
3.I.	29,4	2280	2540	10,9	3,53	244	16	77	75	16	88	752
3.S.	33,6	2070	2480	10,3	3,51	237	14	77	70	16	84	752
4.I.	35,2	1930	2480	9,3	3,68	225	15	77	70	14	94	753
4.S.	36,4	1510	2480	6,9	3,78	219	18	80	75	19	72	752
5.I.	36,8	1160	2480	5,3	3,82	217	18	80	75	18	70	752
5.S.	36,5	890	2480	4,4	3,80	219	16	77	75	17	73	752
6.I.	35,5	630	2480	2,5	3,70	224	18	77	77	19	72	752



PRÜFUNGS-ABTEILUNG

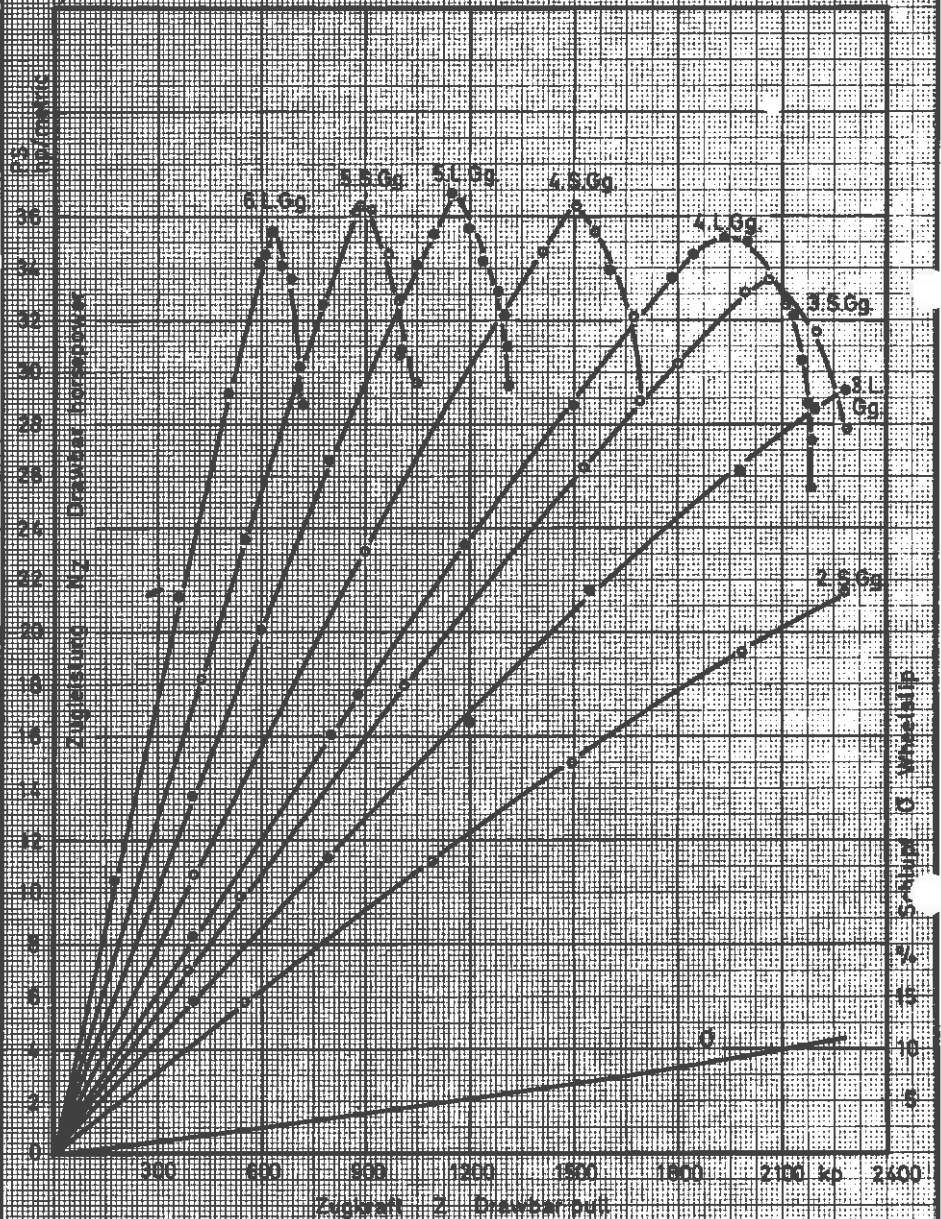
Zugprüfung Drawbar-test

Fendt Dieselschlepper
Farmer 2.5
MWM Dieselmotor D 206

ohne Ballast

without Ballast

Test Nr. 69-17



Motornr. D 206 3.07556	Motortyp. Mobil H.D. 20	Versuchsstag 29.10.1969	Versuchsleit.
Schlepper-Nr. 13871/005	Lufttemp. 12, 20°C	Versuchsnr. 161/168	
Kraftstoff DK O 88/25°C	Barometer 751 mm Q.S.	Kurvenblatt 5	



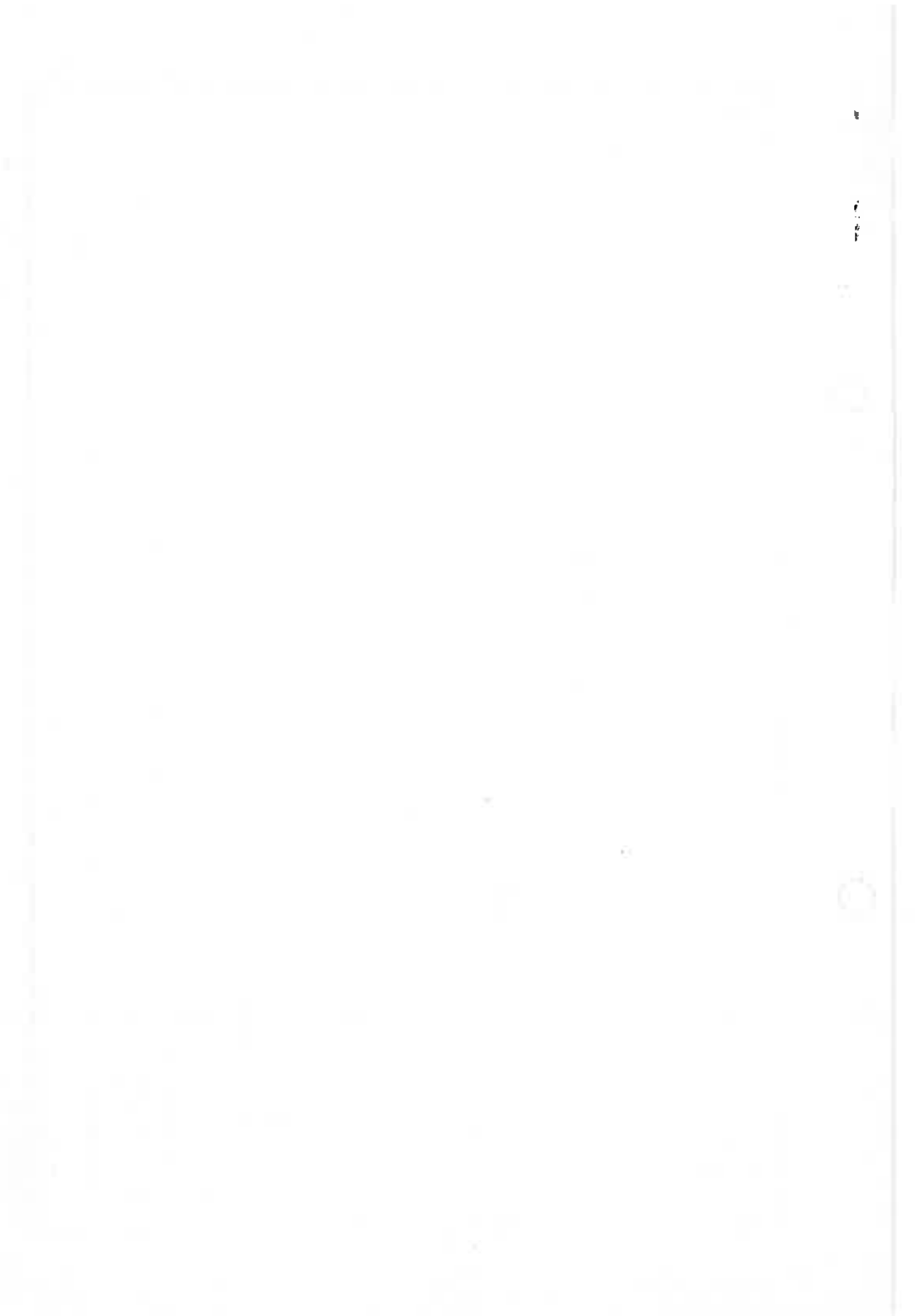
PRÜFUNGS-ABTEILUNG

E r r a t a

O.E.C.D. Report No. 300

On page -19- should be read:

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	3, 65	3, 63	4, 13	4, 25
Radius of turning circle	3, 43	3, 43	3, 95	4, 05





(3 and 4) TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 7,50-15 AS Front, 6 ply, without ballast

rear: 14,9/13-30 AS, 6 ply, without ballast

Track of wheels front: 1528 mm

rear: 1500 mm

	With brakes		Without brakes	
	left-hand m	right-hand m	left-hand m	right-hand m
Radius of turning space	7,30	7,25	8,25	8,50
Radius of turning circle	6,85	6,85	7,90	8,10

(5) LOCATION OF CENTRE OF GRAVITY

	Without ballast mm
Height above ground	994
Distance forward from the vertical plane containing the axis of the rear wheels	724
Distance from the median plane of the tractor	0



(6) BRAKE TESTS

A) FOOT BRAKE

Date of test: 1.10.1969

Type of track: Concrete

Type of decelerometer: Moto-Meter Bremsverzögerungs-und Pedalkraft-
schreiber, Moto Meter Hermann Schlaich
7 Stuttgart N

Travelling speed of tractor: 29,25 km/h

With cold brakes

		Tractor without ballast	Tractor with ballast
Maximum deceleration	m/s ²	5,0	5,0
Stopping distance	m	9,6	9,2
Force on pedal	kp	44	59

Brake fade characteristics, hot test, tractor without ballast

Deceleration: hot/cold 102 %

Stopping distance: cold/hot 107 %

Force on pedal: cold/hot 105 %

B) PARKING BRAKE

Force applied on the brake lever, cold brake 63 kp.

No rotation of the rear-wheels of tractor occurred when the tractor has been towed.

Force applied on the brake lever, hot brake 63 kp.

One hour after the brake has been applied no rotation of the rear-wheels of tractor occurred when the tractor has been towed.



(7) MEASUREMENT OF AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 12.9.1969

Type of track: Concrete

Type of sound level meter: EZGN, Rohde & Schwarz, 8 München

Results of test

Speed: Top gear

Travelling speed before acceleration: 21,9 km/h

Sound level: 85 dBA

(8) NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of test: 9./10. 10. 1969

Type of track: Concrete

Type of sound level meter: EZGN, Rohde & Schwarz, 8 München

Type of octavfilter: PBO, Rohde & Schwarz, 8 München

The tractor was fitted with safety frame, with detachable top with claddings

Results of tests

Gear	Travelling speed *)		Sone
	nominal km/h	real km/h	
without top and claddings			
4.S.	6,90	6,75	74
3.S.	4,84	4,66	71
2.S.	2,74	2,53	69
with top and claddings			
4.S.	6,90	6,75	102
3.S.	4,84	4,66	107
2.S.	2,74	2,53	113

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

(9) TEST OF POWER LIFT AND HYDRAULIK PUMP PERFORMANCE

Date and location of tests: 18.10.1969, Gross-Umstadt

Hydraulic fluid: Engine oil HD SAE 10

POWER LIFT

Lift rods in the centre hole of the lower links

Height above ground in down position hitch point mm	test frame mm	Total verti- cal move- ment mm	Maximum force exerted through full lift range kp	Pressure of hydr. oil kp/cm ²	Linkage load at which unballasted front end of tractor lifts off the ground kp
<u>Measured on the hitch points of lower links</u>					
-142	-	782	1435	178	greater than
270	-	637	1710	178	maximum force
<u>Measured on the test frame 610 mm to the rear of the hitch points</u>					
-142	-134	789	1350	178	1110
270	637	745	1260	178	1110

Type of linkage lock for transport: Mechanic lock

Opening pressure of the cylinder over load relief
valve: No valve fittedPUMP CHARACTERISTICS

- (i) opening pressure of relief valve: 180 kp/cm²
sustained pressure by the open relief valve: 178 kp/cm²
- Pump delivery rate at external tapping
- (ii) at minimum pressure: 36,6 l/min
- (iii) at maximum hydraulic power: 34,5 l/min
maximum hydraulic power: 11,5 hp (metric)
delivery pressure: 150 kp/cm²



(10) ENGINE TESTS

Date and location of tests: 9.7.1969, Gross-Umstadt

Type of dynamometer: Schenck hydraulic dynamometer U1-20

Maximum power

Horsepower (metric) hp	Engine speed rev/min	Fuel consumption total l/h	specific g/hph	hph/l
<u>At maximum power 2-hour test</u>				
45,4	2480	9,50	174	4,78
<u>At standard p.t.o.speed (540 rev/min)</u>				
43,9	2250	9,27	175	4,73
<u>At the speed recommended by the manufacturer for drawbar work</u>				
45,4	2480	9,50	174	4,78
<u>Fuel consumption at part loads</u>				
<u>(i) 85 % of torque at maximum power</u>				
39,0	2509	8,13	172	4,79
<u>(ii) unloaded</u>				
-	2600	1,51	-	-
<u>(iii) 50 % of the load defined in (i)</u>				
19,8	2540	4,97	208	3,98
<u>(iv) maximum power</u>				
45,4	2480	9,50	174	4,78
<u>(v) 25 % of the load defined in (i)</u>				
10,0	2570	3,59	298	2,79
<u>(vi) 75 % of the load defined in (i)</u>				
29,6	2525	6,55	183	4,52

Optimum fuel consumption: 166 g/hph at 27,2 hp and 1600 rev/min

Standard fuel consumption 1/2 (acc.to DIN 9606): 3,7/ 7,3 l/h

No load maximum engine speed: 2600 rev/min

Torque at maximum power: 13,1 kpm

Maximum torque: 14,7 kpm at 1795 rev/min of the engine

Mean atmospheric conditions: temperature: 17°C
pressure: 752 mm Hg
relative humidity: 85 %

Maximum temperatures: coolant: 76°C
engine oil: 80°C
fuel: 24°C

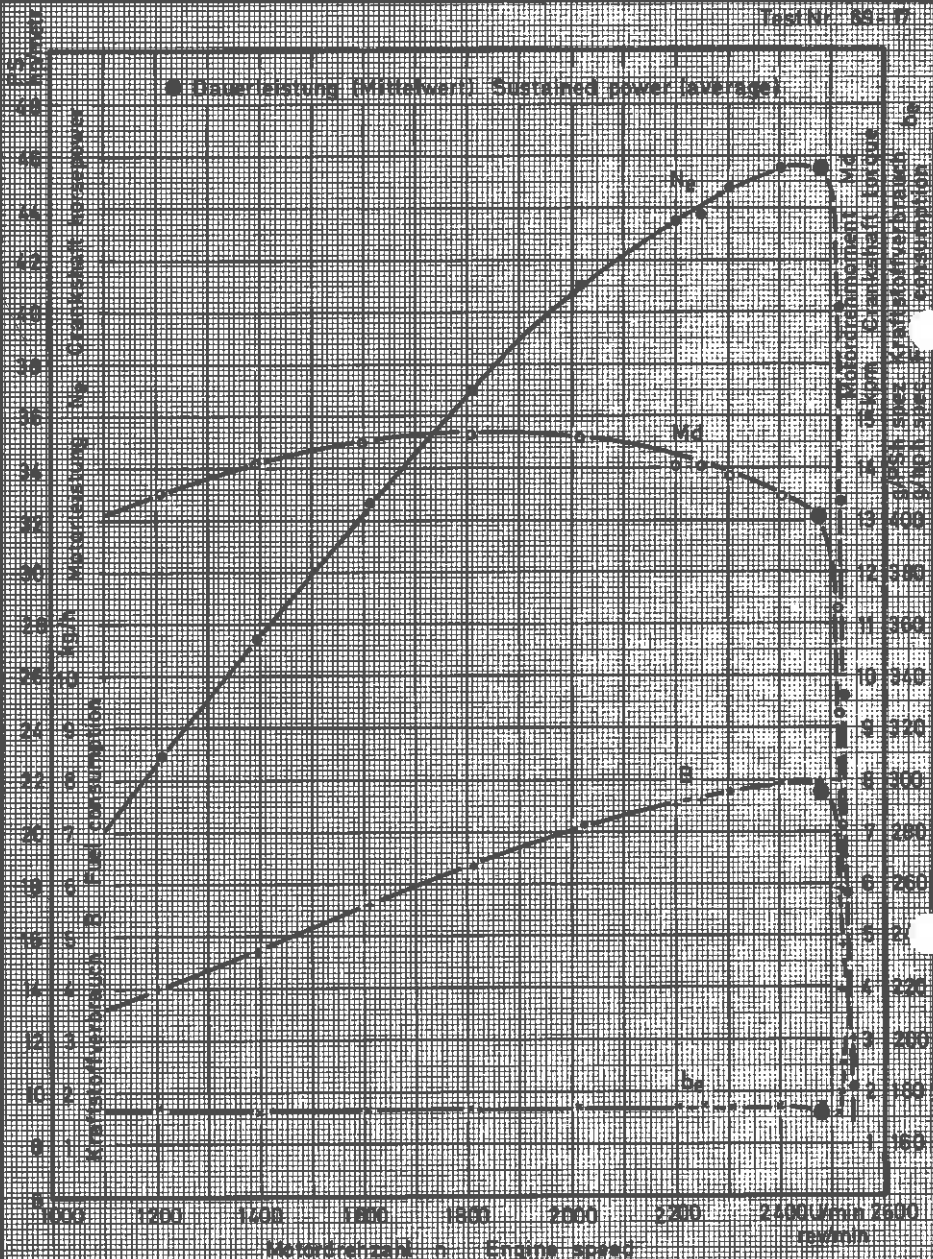


PRÜFUNGS-ABTEILUNG

Motorprüfung Engine - test

Ferdin.-Dieselschlepper
Farmer 2 S
WMW-Motor D 208 3

Test-Nr. 85-17



Motor-Nr. D 208 3/07866 Motor-Mob. HD 20

Schlepper-Nr. 38/1/09441 Umlaufp. 19° C

Kraftstoff: ORG 826/50 C Benzinstd. 74.9 mm D.S.

Versuchstag 9.7.1965

Versuchs-Nr. 85/17/167

Kurvenblatt: 6

Versuchsleiter

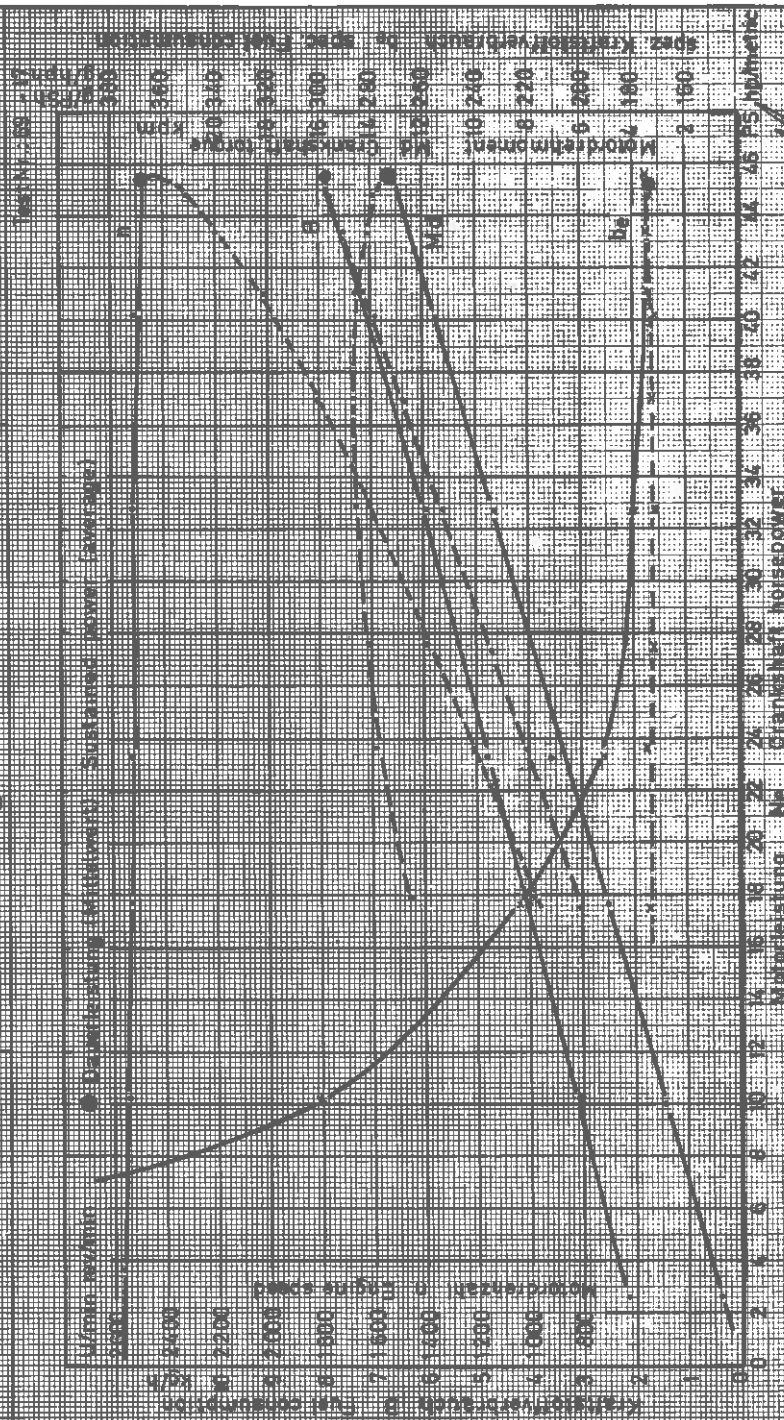
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Industrie-Anwendung

Motorprüfung Engine - test

Recht: Dieselschlepper
Seite 25
Motor: Motor D 200 3



Material: D 200 3/10/89 Kraftstoff: DK 0428/15°C Lufttemp: 19°C
Seriennummer: 3411/0466 Motor: Motor D 200 Bauteil: 245 mm 0.5
Versuchstag: 9.7.1969 Versuch: Nr. 69/17/167
Kraftstoffverbrauch: 150 g/kWh
Kraftstoffverbrauch: 150 g/kWh
Kraftstoffverbrauch: 150 g/kWh



PRÜFUNGSANSTALT

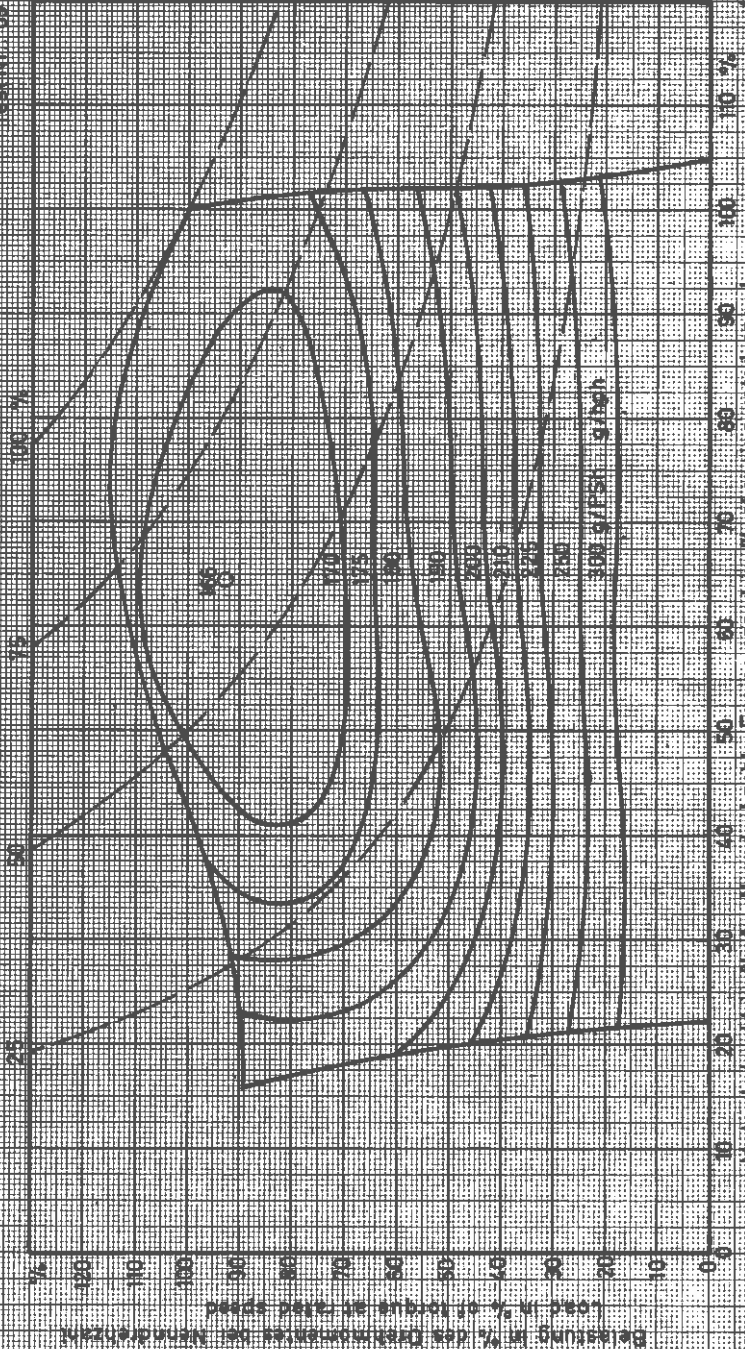
Motorkennfeld

Engine performance characteristics

Forde Dieselmotoren
Typen 1.5

VW-Motor 0 208 3

Test Nr. 08 - 17



Motorleistung in % der Leistung bei Nennzahl
Engine horsepower in % of horsepower at rated speed

Motor Nr. 0 208 3/07886 Kraftstoffdruck 425/15 °C Lufttemp. 15 °C
Schlepp Nr. 138-7119848 Motoröl A HD 20 Barometer 745 mm 0.5 Versuchs Nr. 17/187
Motorleistung in % der Nennleistung, Engine speed in % of engine rated speed
Versuchsdatum 22.10.69 Versuchsstat. 16

Versuchsstat. 16
Kartensicht

