GEPRÜFT

O.E.C.D. Report No.: 316

BUNDESVERSUCHS - UND PRÜFUNGSANSTALT
für landwirtschaftliche Maschinen und Geräte,
Wieselburg

Steyr-Diesel-Tractor Typ 70

Manufactured by: Steyr-Daimler-Puch AG.
Steyr, Austria



Serial No: 316
Date of Approval: 18th March 1970

Test No: 021/69
Date of Test: 30.10.1969

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. Test Code

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 an practical farm work.

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Tractor manufacturer:	STEYR-DAIMLER-PUCH AG., A-4400 Steyr
Submitted for test by:	Manufacturer
Selected by:	Bundesversuchs- und Prüfungsanstalt für landwirtschaftliche Maschinen und Geräte, Wieselburg a.d. Erlauf
Place of running-in:	STEYR-DAIMLER-PUCH AG., Steyr
Duration of running-in:	30 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	STEYR-DAIMLER-PUCH AG., Steyr
Model:	70
Type:	Wheel tractor
Serial No.:	390-1090

Engine

Make:	STEYR-DAIMLER-PUCH AG., Steyr
Model:	STEYR WD 410t
Type:	Direct injection type Diesel, 4-stroke
Serial No.:	410t-1096
Cylinders:	4 cylinders, vertical in line, bore/stroke: 105-115 mm, capacity: 3983 cm^3; compression ratio: 17:1; arrangement of valves: overhead; cast-in cylinders
Fuel system:	Type of fuel feed: by wing unit pump in the Bosch distributor injection pump; fuel filter: strainer in the tank, Bosch duble filter with water trap 50 13400; capacity of fuel tank: appr. 108 l; injection pump: Bosch distributor BOSCH EP/VA4/100H 1200BR 145-1; manufacturer's production setting: injection timing $18^{o} \pm 0,5^{o}$ before TDC; injection nozzle: BOSCH DLL 150 S 427; manufacturer's setting: injection pressure 220 + 5 kp/cm^2; quantity of fuel feed: 49 $\pm$ 1 mm^3/stroke at 2400 rev/min
Governor:	Make: BOSCH Type: hydraulic governor Range of speed: 500 to 2600 rev/min Rated speeds for p.t.o.-work (540 rev/min) 2120 rev/min for field-work ..... 2400 rev/min for transportation-work .... 2400 rev/min for belt-work (1140 rev/min) 2252 rev/min

Air cleaner:	Make: IFE 808-8000 B 68; pre-cleaner: IFE 822-8000; type: oil bath air cleaner; oil capacity: appr. 1,8 l
Lubrication system:	Forced feed from gear type pump; type of filter: oil filter in full flow, throw away filter; oil capacity: appr. 8 l; oil change period: 200 hours recommended oil in summer: HD SAE 30 in winter: HD SAE 20
Cooling system:	Type: water circulation by water pump, sealed cooling system with frost protected longtime filling (-35°C); thermostat; control-eye for coolants control; coolant capacity: appr. 17,5 l; indicate instrument for temperature control
Starting system:	BOSCH type 0 001 359 001, 12V, 4PS starter motor; aids for cold starting: glow filament in the intake manifold

Electrical system:

Voltage:	12
Generator:	BOSCH type 0 101 302 035 14V 16A; 224W; direct current
Battery:	BÄREN acid battery, 12V, 143Ah; DIN 72311

Transmission:

Clutch:	Make: FICHTEL & SACHS; dual dry clutch for travelling gear and engine p.t.o., type KFS 130-dry clutch 310/310, foot pedal operated
Gearbox:	Make: ZF Passau T-318 II Nr.797 Type: group gearbox; 1st and 2nd speed with actuating bolts, locking synchromesh gear for all other speeds; 12 forward speeds, 6 reverse
Rear axle and final drive:	Make: ZP; Type: central axle, bevel gear drive with hypoid-tooth system, acting by planetary gear on rear wheels; differential lock: lockable bevel differential gear in the rear axle
Oil capacity:	Gearbox and rear axle: 40 l; planetary gear: 4 l for each half-axle; change period: 1200 hours

Total ratios and speeds

Group	Gear	Number of engine revolutions for one revolution of driving wheel	Nominal travelling speed for 2400 rev/min rated speed of engine
Normal group (N)	1.	251,28	2,63 km/h
	2.	160,32	4,12
	3.	103,37	6,39
	4.	67,05	9,85
	5.	42,04	15,71
	6.	26,58	24,85
Intermediate group (Z)	1.	309,52	2,13
	2.	197,48	3,34
	3.	127,33	5,19
	4.	82,59	8,00
	5.	51,79	12,75
	6.	32,74	20,18
Intermediate reverse group (R)	1.	256,52	2,57
	2.	163,66	4,04
	3.	105,52	6,26
	4.	68,45	9,65
	5.	42,92	15,39
	6.	27,13	24,34

Power take-off:

Location:	At rear of tractor, in median plane, 600 mm above ground
Dimensions:	29 x 34,9 x 8,7 mm = $1\frac{3}{8}$", 6 splines (DIN 9611 Form A)
Speed:	1st speed 612 rev/min at rated engine speed 2400 rev/min, 2nd speed 1067 rev/min at rated engine speed 2400 rev/min, engine speed 2120 rev/min at standard p.t.o. speed 540 rev/min; may be set by aid of tractormeter
Direction of rotation:	Clockwise viewed from driving end

Belt pulley:

Location:	At rear of tractor; driving device attached to p.t.o.; manually engaged
Dimensions:	280 mm dia, 220 mm width
Speed:	1st speed: linear 696 m/min and 792 rev/min at engine speed 2400 rev/min 2nd speed: linear 1213 m/min and 1380 rev/min at engine speed 2400 rev/min
Engine speed:	1st speed: 2190 rev/min at standard linear speed 636 m/min (10,6 m/s) 2nd speed: 2252 rev/min at standard linear speed 1140 m/min (19 m/s)

Direction of rotation:	Anticlockwise viewed from driving end
Power lift:	Own make; control gear BOSCH HY/SR10H2/175/4; type: oil hydraulic (connection for external tappings); oil capacity: 16 l SHELL TELLUS 23 SAE 10W; vertical lift movement: max. 660 mm to 925 mm above ground
Pull attachments:	
Drawbar:	Fixed on three point implement linkage; height above ground: max. 925 mm, min. 265 mm; method of changing position: adjustable by power lift; distance from rear axle: 985 mm (lower links in horizontal position); position relative to p.t.o.: 650 mm; perforation: 7 holes with 115 mm distance, 32 mm dia
Trailer hitch:	Height above ground: 420/450 and 760/790 mm changing trailer hitch case; distance from rear axle: 440 and 520 mm; position relative to p.t.o.: 115 and 195 mm
Towing hitch:	Height above ground: 625 mm; distance from front axle: 525 mm
Steering:	Make: ZF Friedrichshafen; system: column hydrosteering with hydraulic pump BOSCH HY/ZFR 1/BAR 101 and one's own oil cycle; delivery: 16 l/min; operated by hand wheel; oil capacity: appr. 1,5l SHELL TELLUS 23 SAE 10W
Brakes:	Make: ZF
Foot brake:	Mechanical internal shoe brake acting on rear wheels; operated by foot pedal
Parking brake:	Mechanical internal shoe brake acting on rear wheels; operated by hand lever
Steering brake:	Operated by the single parts of the divided foot brake pedal; at normal use both parts are connected by a pin
Wheels:	
Steering wheels:	Two at front; type of tyres: tractor front wheel tyres; size: 7,50-20 AS Front; ply rating: 6; maximum permissible weight on each tyre: 850 kp at 2,5 kp/cm^2 pressure; track width: 1500 mm; method of changing: at changed wheels 1750 mm (as equipment by request: changeable front axle)
Driving wheels:	Two at rear; type of tyres: tractor driving wheel tyres; size: 16,9/14-34 AS FARMER tractor; ply rating: 6; maximum permissible weight on each tyre: 1870 kp at 1,1 kp/cm^2 pressure;

track width: 1500 mm; method of changing: at changed wheels 1755 mm

Wheel base: 2280 mm

Tractor and ballast weights:
(without driver but with tank full)

Weight without ballast:	Front:	1156 kp
	Rear:	1829 kp
	Total:	2985 kp
Ballast:	Front 8 weights with frame	390 kp
	Rear 5 weights per wheel	263 kp
	water per wheel	250 kp
Weight with full ballast:	Front:	1546 kp
	Rear:	2855 kp
	Total:	4401 kp

Seat: Tilting suspended seat with spring properties tested by BVPA Wieselburg; make: GRAMMER DS 20/S; suspension: helical springs; damping: hydraulically; adjustment: the spring of the seat is adjustable by a screw; axial adjustment: 82 mm

Number of grease points: (Whole tractor): 17

Overall dimensions:

Overall length: 3870 mm (horizontal position of lower links), with front ballast weights 4315 mm

Overall width: 1930 mm, at changed wheels 2150 mm, with ballast weights 2030 mm

Overall height: 2130 mm to top of exhaust pipe

Lighting:

	Height above ground of centre cm	Diameter cm	Distance from outside edge of tractor to centre cm
Head lights	90,5	14 x 7,5	79,5
Side lights	148	8	8
Rear lights	145	8	8
Reflectors	136,5	10 x 5,5	8

FUEL AND LUBRICANTS USED IN TESTS

Laboratory and track tests: Fuel: ELAN Diesel fuel, specific gravity at 15°C: 0,840 kp/l, Cetane No. 46,8 (quality corresponds with DIN 51601)
Engine oil: SHELL ROTELLA T Multigrade
Transmission oil: SHELL SPIRAX 90 E.P.

COMPULSORY TESTS

POWER TAKE-OFF PERFORMANCE

Date and location of tests: 16th April 1969, Wieselburg
Type of dynamometer: Siemens-Schuckert pendulum generator G 273/15

Horsepower (metric) hp	Speed		Fuel consumption		
	engine rev/min	p.t.o. rev/min	total l/h	specific g/hph	specific hph/l
Maximum power - 2 hours test					
66,10	2400	612	14,59	185	4,53
At standard p.t.o. speed (540 rev/min)					
66,10	2120	540	14,20	180	4,65
At standard belt speed (19 m/s)					
66,75	2250	574	14,48	182	4,61
At the speed recommended by the manufacturer for drawbar work					
67,0	2400	612	14,75	185	4,54
Fuel consumption at part loads 85% of torque at maximum power					
58,90	2470	630	13,52	193	4,35
Unloaded					
-	2580	658	4,18	-	-
50% of torque at maximum power					
35,0	2515	641	5,59	230	3,65
Maximum power					
67,0	2400	612	14,75	185	4,54
25% of torque at maximum power					
17,53	2545	649	6,81	326	2,57
75% of torque at maximum power					
52,0	2485	634	12,39	200	4,20

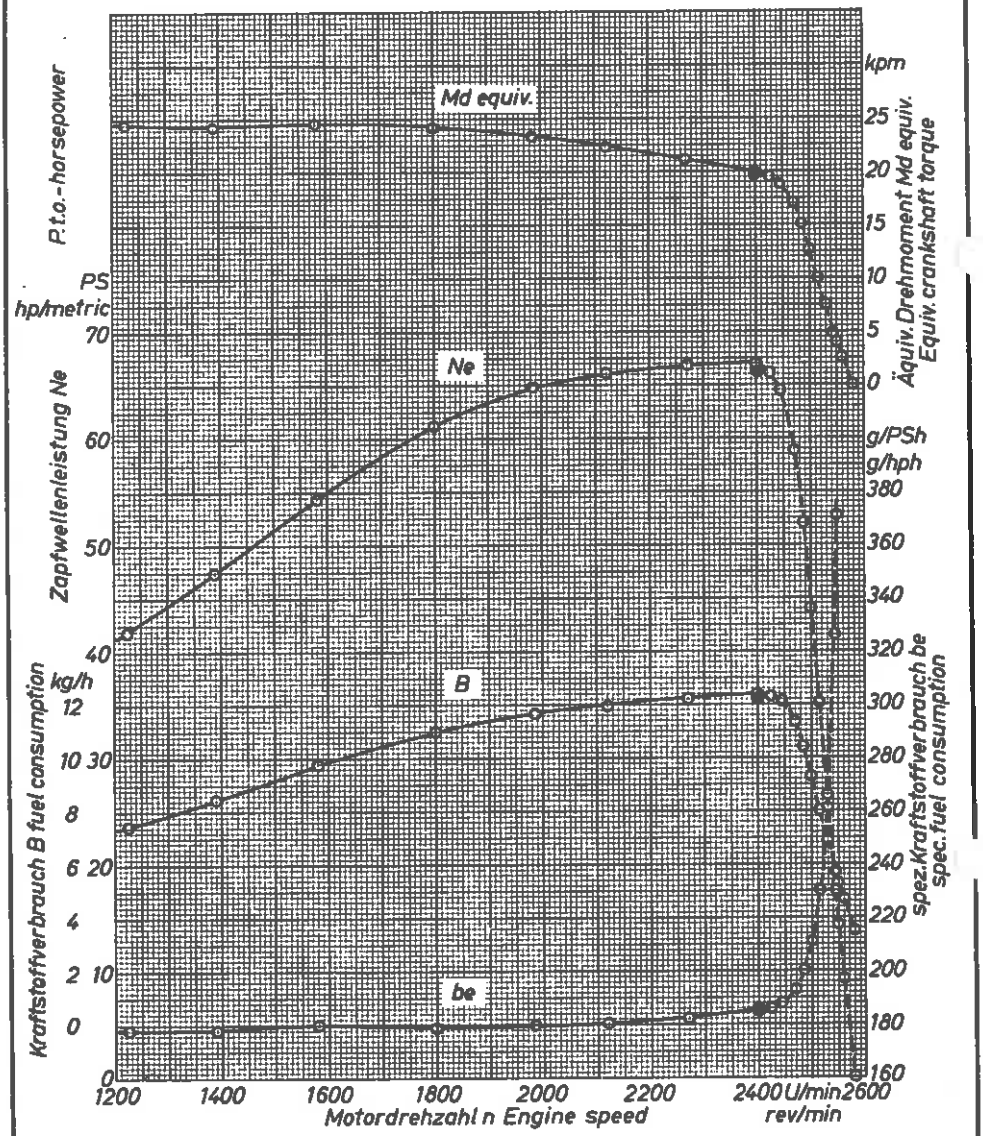
No load maximum engine speed: 2580 rev/min
Equivalent torque at maximum power: 20,0 kpm
Maximum torque: 24,57 kpm at 1580 rev/min of the engine
Mean atmospheric conditions: temperature: 18°C (aspiration temp. 20°C)
pressure: 740 mm Hg
relative humidity: 48 %
Maximum temperature: coolant: 83°C
engine oil: 110°C
fuel: 60°C

BUNDESVERSUCHS-U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Zapfwellenprüfung
P.t.o.-test

Steyr-Dieseltraktor
Typ 70
Mot.Typ Steyr WD 410 T

●Dauerleistung(Mittelwert) sustained power(average)

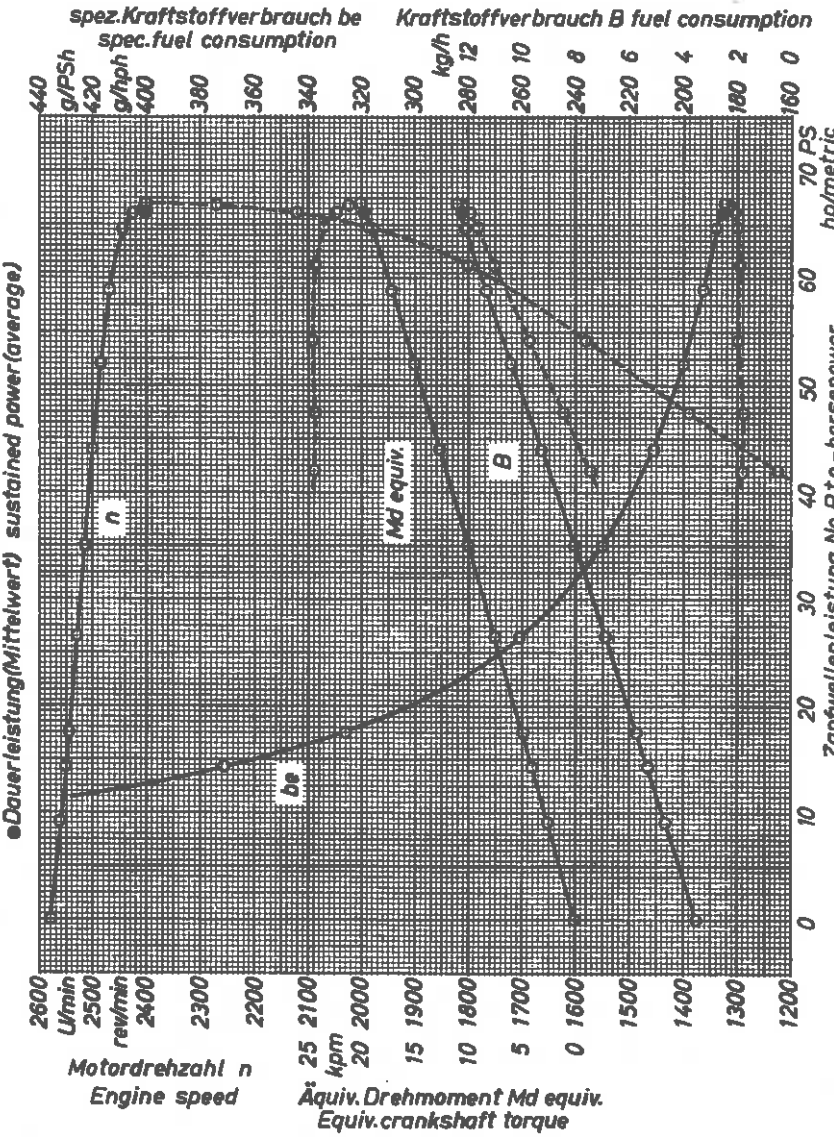


Motor Nr.: 410T-1096	Barometerstand: 740 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 16.4.1969	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 18/20°C	Öltemperatur: 104°C	Versuchs Nr.: 90/Za 82	A. Reither
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 57°C	Kurvenblatt: 1	

BUNDESVERSUCHS- U. PRÜFUNGSAMT FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Zapfwellenprüfung
P.t.o. - test

Steyr - Dieseltraktor
Typ 70
Mot. Typ Steyr WD 410 T



Motor Nr.: 410T-1096	Barometerstand: 740 mm Hg	Kühlwassertemp.: 82°C	Versuchstag: 16.4.1969	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 18/20°C	Öltemperatur: 104°C	Versuchs Nr.: 90/Za 82	A. Reitbauer
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp.: 57°C	Kurvenblatt: 2	

DRAWBAR PERFORMANCE

Date of tests: 14th to 20th October 1969
Type of track: concrete
Height of drawbar above ground: 790 mm with ballast, 830 mm without ballast

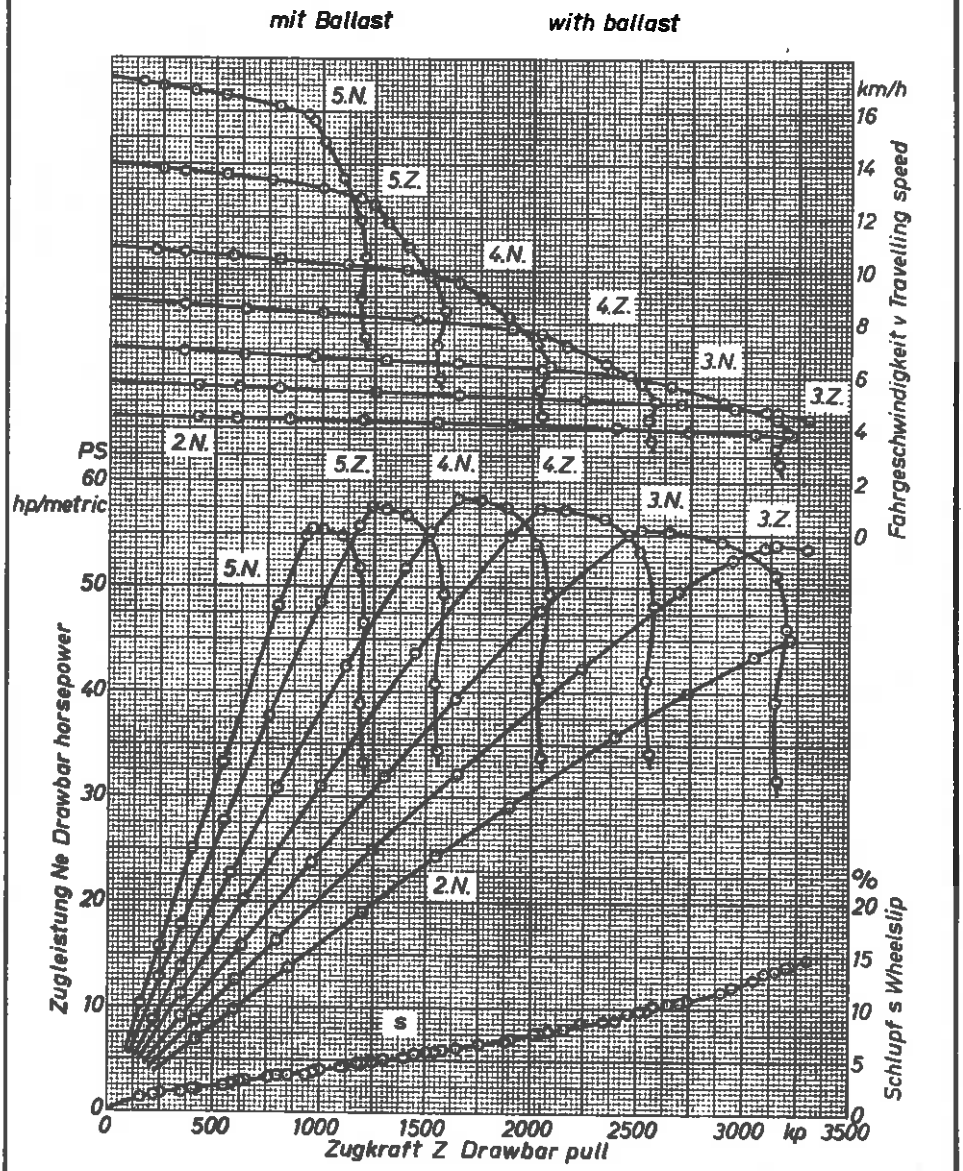
Gear No.	Horse-power (metric) hp	Draw-bar pull kp	Engine speed rev/min	Slip of wheels %	Specific work hph/l	Specific fuel consumpt. g/hph	Temperatures Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions Tempera-ture °C	Relative humidity %	Press. mm/hg
MAXIMUM POWER (ballasted)												
2.N.	45,0	3220	2475	14,15	3,38	248	45	80	80	15	85	747
3.Z.	54,0	3150	2405	13,80	3,67	229	42	82	84	16	80	747
3.N.	55,4	2520	2390	9,77	3,75	224	40	82	84	18	75	747
4.Z.	57,4	2040	2390	7,73	3,91	214	38	82	80	19	70	747
4.N.	58,3	1650	2400	6,10	3,96	212	42	82	82	19	70	747
5.Z.	57,5	1240	2390	4,61	3,90	215	40	81	80	19	65	747
5.N.	55,5	960	2395	3,77	3,79	222	38	78	80	18	70	747
FIVE HOUR TEST at 75% of pull at maximum power (5 km/h)												
3.Z.	46,3	2480	2480	9,10	3,63	231	55	82	100	19	65	747
FIVE HOUR TEST at pull corresponding to 15% wheel slip (4,4 km/h)												
3.Z.	53,7	3300	2300	14,80	3,73	225	58	82	104	18	70	748
MAXIMUM POWER (unballasted)												
3.N.	52,1	2500	2400	14,90	3,57	235	40	82	84	14	75	740
4.Z.	55,8	2020	2400	9,91	3,78	222	45	80	84	16	70	740
4.N.	57,6	1640	2400	8,0	3,92	214	42	80	82	18	65	740
5.Z.	58,0	1260	2400	5,88	3,94	213	40	82	82	20	55	740
5.N.	56,0	970	2400	4,61	3,81	220	40	80	84	20	55	740

Total oil consumption during ten hours duration of test = 642 g

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PROTOKOLL NR. 021/69

Zugprüfung
Drawbar-test

Steyr-Dieseltraktor
Typ 70
Mot. Typ Steyr WD 410 T



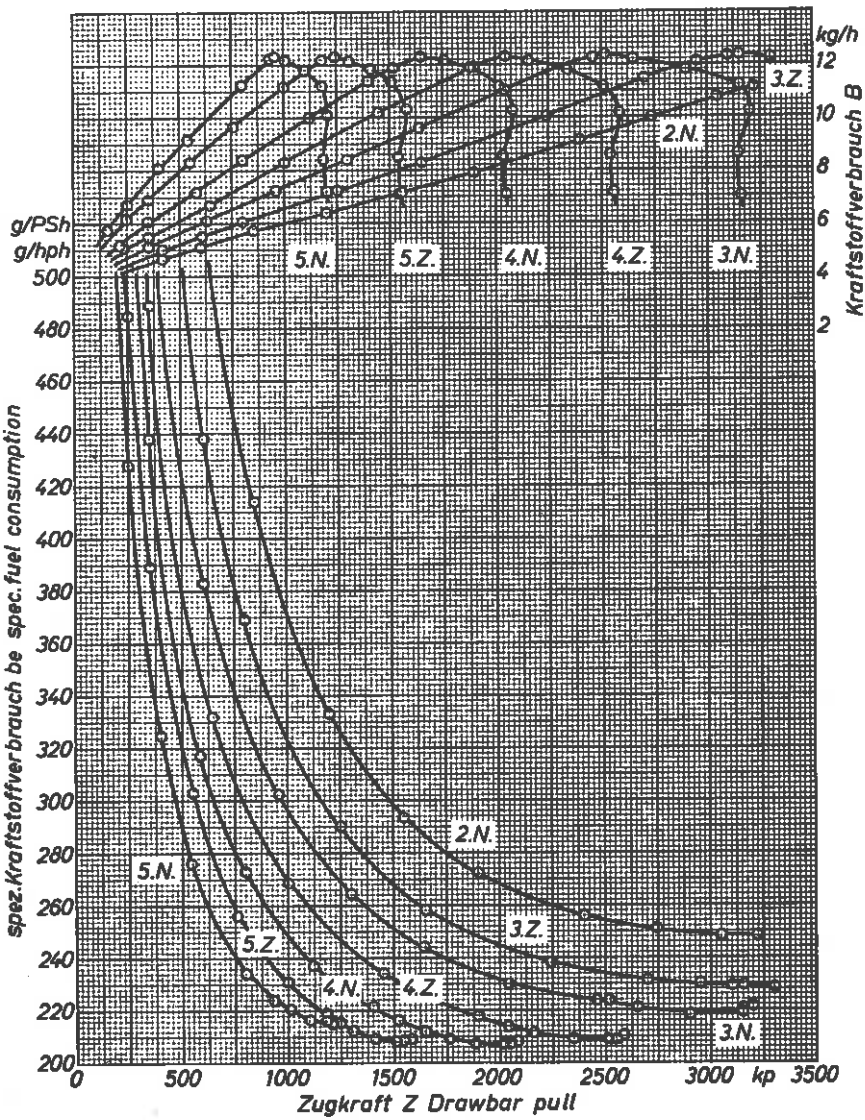
Motor Nr: 410T-1096	Barometerstand: 747 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 16.10.69	Vers-Leitung:
Schlepper Nr: 390-1090	Lufttemperatur: 15-19°C	Öltemperatur: 80-84°C	Versuchs Nr: 90/ZU437-443	
Kraftstoff: 0 840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 42°C	Kurvenblatt: 3	A. Reitlinger

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Zugprüfung
Drawbar-test

Steyr-Dieseltraktor
Typ 70
Mot. Typ Steyr WD 410 T

mit Ballast with ballast



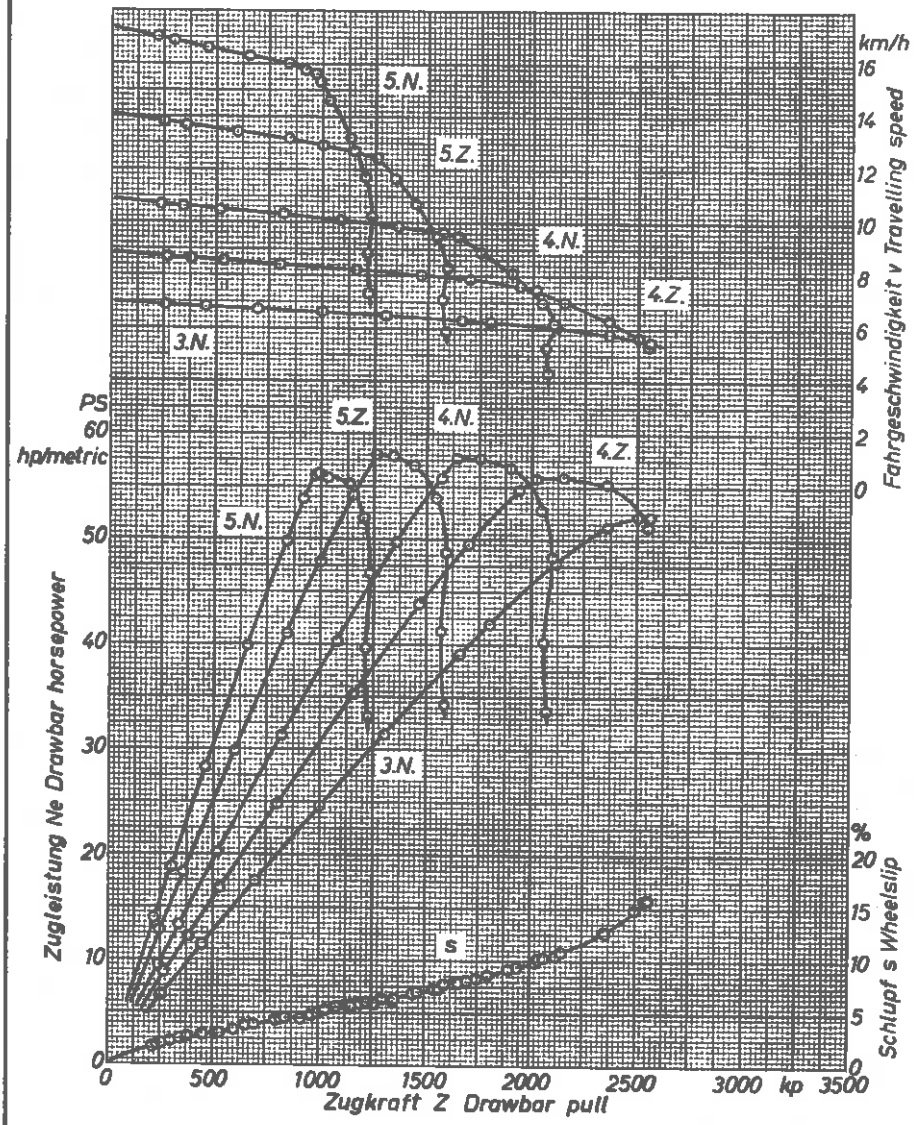
Motor Nr.: 410T-1096	Barometerstand: 747 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 16.10.69	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 15-19°C	Öltemperatur: 80-84°C	Versuchs Nr: 90/Zu 437-443	A. Reidlinger
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 42°C	Kurvenblatt: 4	

BUNDESVERSUCHS-U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE
WIESELBURG A.D. ERLAUF
PROTOKOLL NR. 021/69

Zugprüfung
Drawbar-test

Steyr-Dieseltraktor
Typ 70
Mot.Typ Steyr WD 410 T

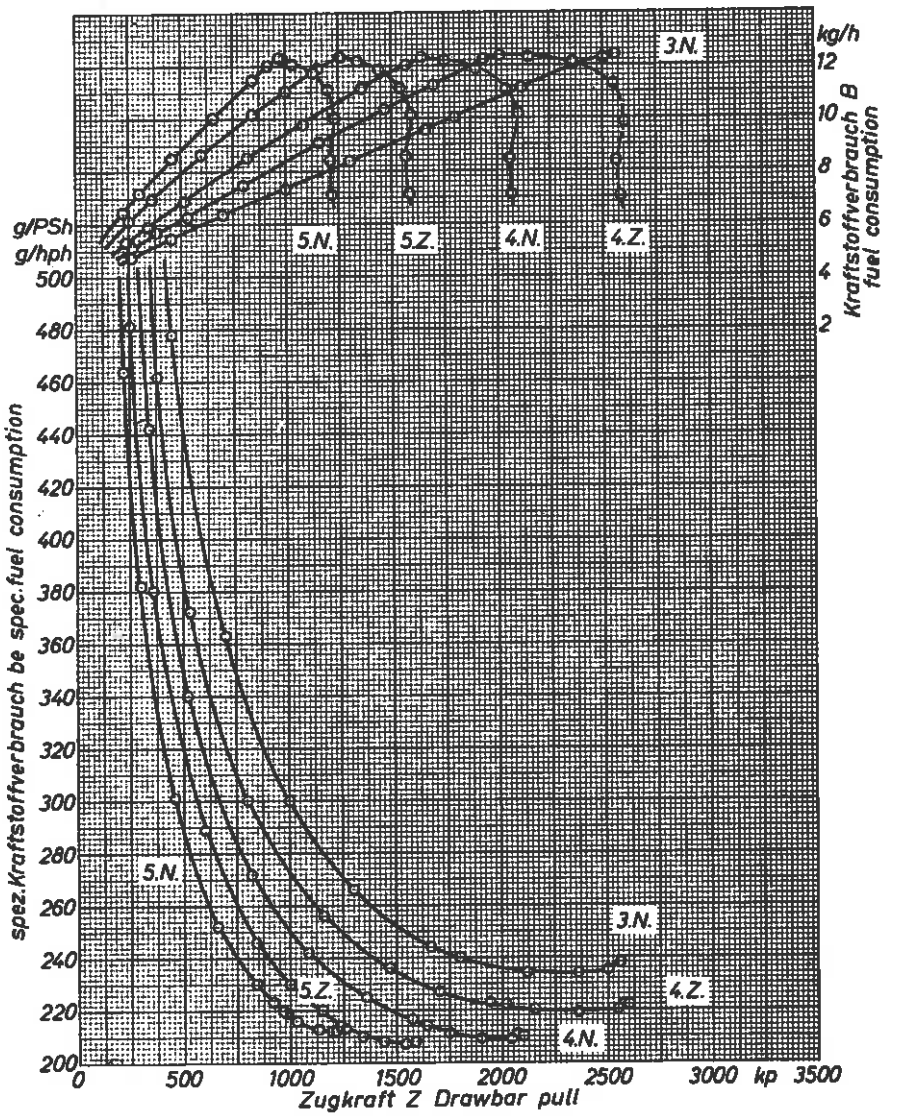
ohne Ballast **without ballast**



Motor-Nr.: 410T-1096	Barometerstand: 740 mm Hg	Kühlwassertemp: 82 °C	Versuchstag: 14.10. 69	Vers.-Leitung:
Schlepper-Nr.: 390-1090	Lufttemperatur: 14-20 °C	Öltemperatur: 82-84 °C	Versuchs Nr: 90/Zu444	448
Kraftstoff: 0,840/15 °C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 42 °C	Kurvenblatt: 5	A. Reiter

BUNDESVERSUCHS-U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69	**Zugprüfung** **Drawbar-test**	Steyr-Dieseltraktor Typ 70 Mot. Typ Steyr WD410T

ohne Ballast *without ballast*



Motor Nr.: 410T-1096	Barometerstand: 740 mm Hg	Kühlwassertemp.: 82°C	Versuchstag: 14.10.69	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 14-20°C	Öltemperatur: 82-84°C	Versuchs Nr.: 90/Zu444-448	A. Reither
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp.: 42°C	Kurvenblatt: 6	

TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 7,50-20 AS Front, 6 ply, without ballast
rear: 16,9/14-34 AS Farmer Tractor, 6 ply, without ballast

Track of wheels front: 1500 mm
rear: 1500 mm

	With brakes		Without brakes	
	right-hand	left-hand	right-hand	left-hand
Radius of turning space	3,71 m	3,86 m	4,27 m	4,47 m
Radius of turning circle	3,61 m	3,76 m	4,17 m	4,37 m

LOCATION OF CENTRE OF GRAVITY

Height above ground	738 mm
Distance forward from the vertical plane containing the axis of the rear wheels	866 mm
Distance from the median plane of the tractor	0 mm

BRAKE TESTS

Date of test: 14th October 1969
Type of track: concrete
Instrument: Recorder for deceleration and force pedal MOTO-METER No. 03382, Tüv-Typ-Prüf.-Nr. 04/Stuttgart
Travelling speed of tractor: 25 km/h

Cold brakes

Results	Tractor without ballast	Tractor with ballast
Maximum deceleration m/s^2	4,6	4,5
Stopping distance m	5,70	7,60
Force on pedal kp	22	27

Brake fade characteristics (hot test)

Tractor without ballast:
Deceleration: hot/cold 98 %
Stopping distance: cold/hot 85 %
Force on pedal: cold/hot 100 %

Efficacy of parking brake

Force on the hand lever of the brake at cold and hot condition wasn't measured, because the service brake and parking brake presents one system and the hand lever fixes the pedal of service brake only. Hereby the rear wheels of the tractor slides by dragging.

MEASUREMENT OF AMBIENT NOISE EMITTED BY THE TRACTOR

Date of test: 15th October 1969
Type of track: concrete (on open land)
Type of sound level meter: Precisions Sound Level Meter Type 2203, Brüel & Kjäer/Copenhagen

Results of tests:

Gear: 6.N.
Travelling speed: 19 km/h
Sound level: 89 dbA

NOISE MEASUREMENT AT THE DRIVER'S EAR

Date of test: 23th October 1969
Type of track: concrete
Type of sound level meter: Precisions Sound Level Meter Type 2203, Brüel & Kjäer/Copenhagen

Tractor without cab

Results of tests:

Gear	Travelling speed km/h	dbA	sones
2.N.	3,92	98,5	
3.Z.	5,00	98,0	
3.N.	6,30	97,5	
4.Z.	7,92	98,5	104
4.N.	9,90	98,0	
5.Z.	13,00	98,0	
5.N.	16,00	98,0	

The first gear tested corresponds to the travelling speed nearest to 7,25 km/h
Sone evolution according to Stevens

POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date and location of test: 27th October 1969, Wieselburg
Hydraulic fluid: SHELL TELLES 23 SAE 10 W

	Vertical movement mm	Maximum force exerted through full range kp	pressure kp/cm^2
Linkage giving maximum mechanical advantage: only one position possible	615	3000	178
At lower hitch points (height above ground in down position) 265 mm on the frame	580	1850	178

Type of linkage lock for transport: mechanically by two retaining clutches, which act on the gudgeons on the both lifting levers

Relief of front axle: with frame about 1670 kp
on the drawbar about 2700 kp

Opening pressure of the cylinder over pressure relief valve: 175 kp/cm^2

Pump characteristics

Opening pressure of the relief valve	175 kp/cm^2
Sustained pressure by the open relief valve	175 kp/cm^2
Pump delivery rate:	
Max. delivery at minimum pressure (at 2000 rev/min)	37 l/min
Nominal delivery	32 l/min
Pressure	170 kp/cm^2
Power (hydraulically) at max. pressure and max. capacity	16 hp
Oil temperature	60°C

Repairs and adjustments during tests: None

Remarks: None

Head of department:
Dipl.Ing.Zehetner

Officer in charge:
A.Reither

The director:
Dipl.Ing.Dr.Scheruga
Hofrat

OPTIONAL TESTS

ENGINE TEST

Date and location of tests: 24th March 1969, Wieselburg
Type of dynamometer: Siemens-Schuckert pendulum generator G 273/15

Horsepower (metric) hp	Speed		Fuel consumption		
	engine rev/min	p.t.o. rev/min	total l/h	specific g/hph	specific hph/l
Maximum power - 2 hours test					
71,70	2400	612	14,71	172	4,87
At standard p.t.o. speed (540 rev/min)					
71,10	2120	540	14,18	167	5,01
At standard belt speed (19 m/s)					
72,0	2252	574	14,40	169	4,97
At the speed recommended by the manufacturer for drawbar work					
72,30	2395	611	14,78	172	4,89
Fuel consumption at part loads					
85% of torque at maximum power					
63,85	2475	631	13,42	176	4,76
Unloaded					
0	2590	661	3,70	0	0
50% of torque at maximum power					
38,40	2520	643	9,15	200	4,20
Maximum power					
72,30	2395	611	14,78	172	4,89
25% of torque at maximum power					
19,50	2550	650	6,29	271	3,10
75% of torque at maximum power					
56,50	2490	635	12,11	180	4,66

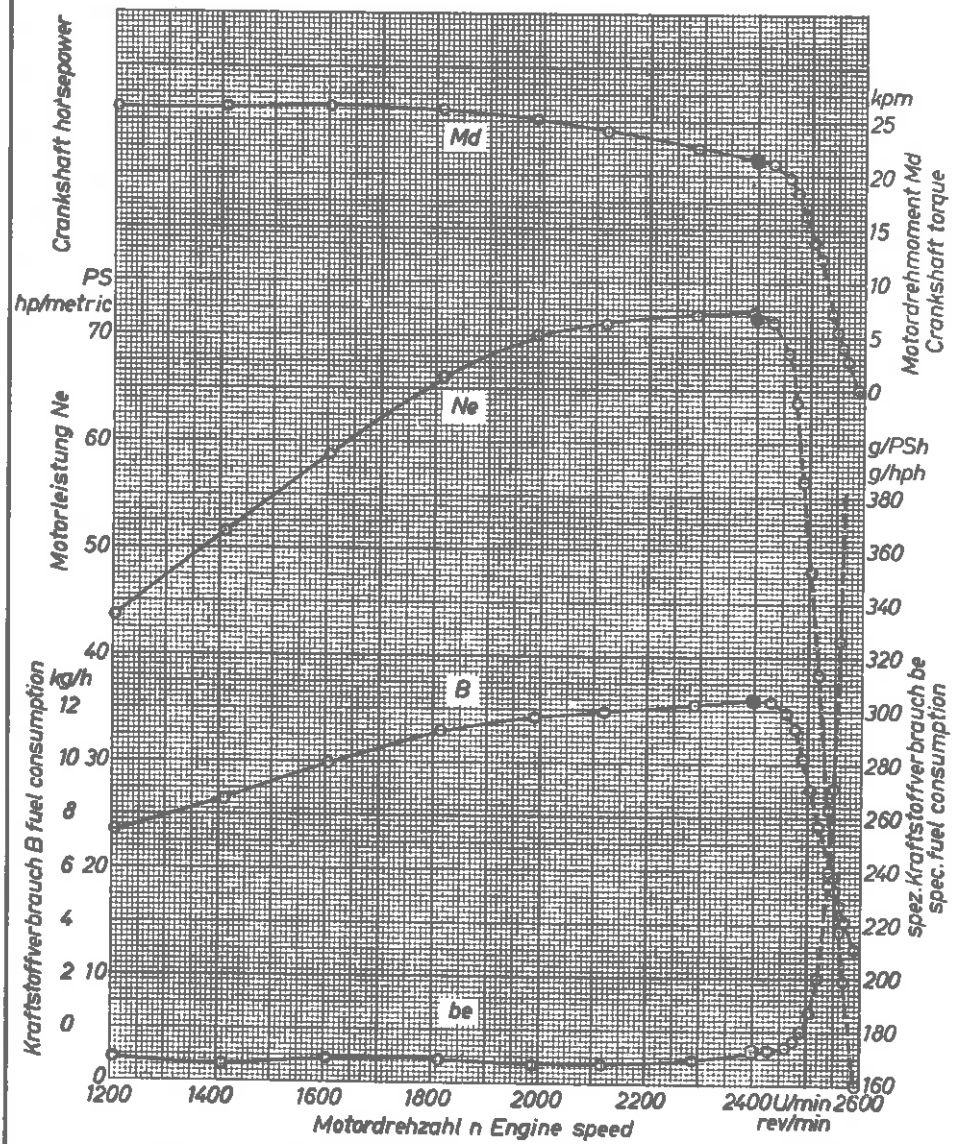
Optimum fuel consumption: 166 g/hph at 51,5 hp and 1410 rev/min
No load maximum engine speed: 2590 rev/min
Torque at maximum power: 21,6 kpm
Maximum torque: 26,2 kpm at 1605 rev/min of the engine
Mean atmospheric conditions: Temperature: 16°C (aspiration temp. 18°C)
Pressure: 738 mm Hg
Relative humidity: 46 %
Maximum temperature: Coolant: 83°C
Engine oil: 110°C
Fuel: 55°C

BUNDESVERSUCHS- U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Motorprüfung
Engine - test

Steyr - Dieseltraktor
Typ 70
Mot. Typ Steyr WD 410 T

●Dauerleistung (Mittelwert) sustained power (average)

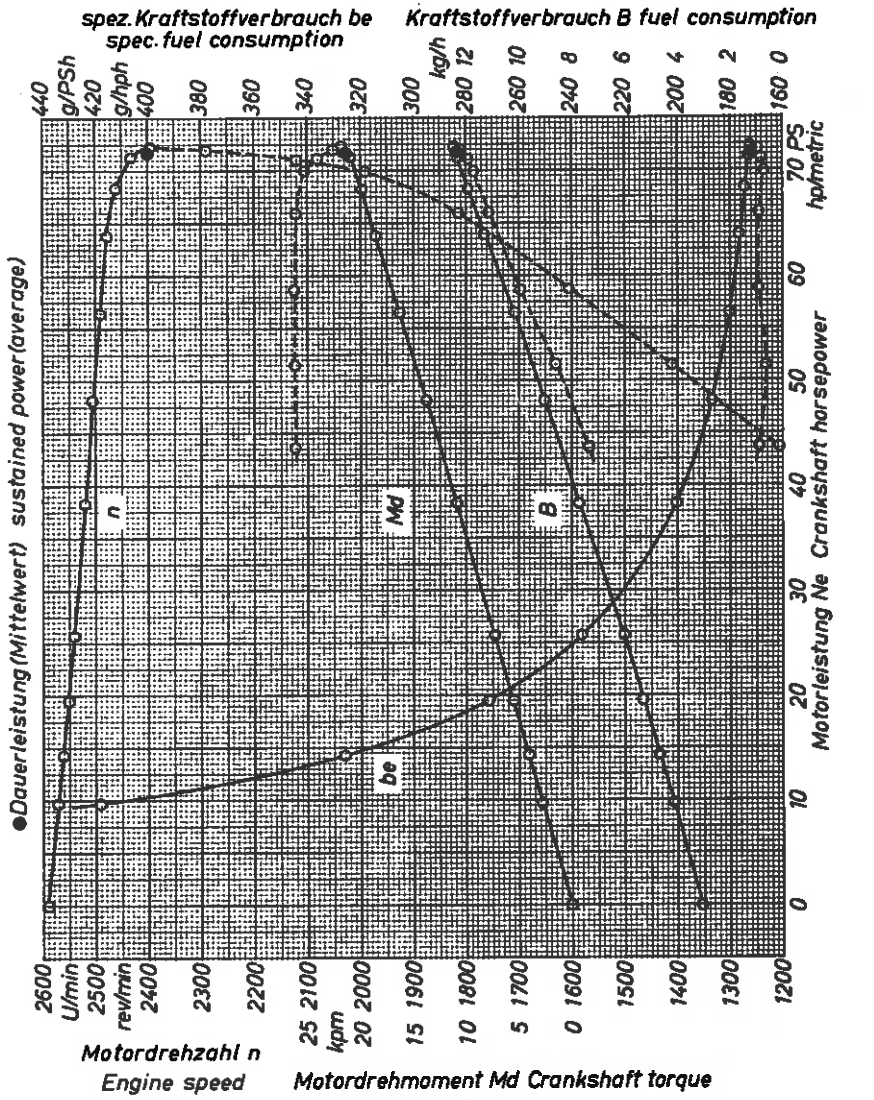


Motor Nr.: 410T-1096	Barometerstand: 738 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 24.3.1969	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 16/19°C	Öltemperatur: 103/108°	Versuchs Nr.: 90/M 118	A. Reitlinger
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 49°C	Kurvenblatt: 7	

BUNDESVERSUCHS-U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Motorprüfung
Engine - test

Steyr - Dieseltraktor
Typ 70
Mot.Typ Steyr WD 410 T



Motor Nr.: 410T-1096	Barometerstand: 738 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 24.3.1969	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 16/19°C	Öltemperatur: 103/108°	Versuchs Nr: 90/M 118	A. Reither
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 49°C	Kurvenblatt: 8	

OPTIONAL TESTS

PERFORMANCE AT THE BELT PULLEY SHAFT

Date and location of tests: 29th October 1969
Type of dynamometer: Siemens-Schuckert pendulum generator G 273/15

Horsepower (metric) hp	Speed		Fuel consumption		
	engine rev/min	p.t.o. rev/min	total l/h	specific g/hph	specific hph/l
Maximum power - 2 hours test					
63,0	2398	611/1378	14,55	194	4,330
At standard p.t.o. speed (540 rev/min)					
62,6	2120	540/1218	14,15	190	4,425
At standard belt speed (19 m/s)					
63,5	2252	574/1295	14,51	192	4,375
At the speed recommended by the manufacturer for drawbar work					
64,0	2395	610/1376	14,70	193	4,355
Fuel consumption at part loads 85% of torque at maximum power					
56,3	2480	632/1425	13,68	204	4,115
Unloaded					
0	2585	659/1485	4,28	-	-
50% of torque at maximum power					
33,5	2520	642/1448	9,78	245	3,425
Maximum power					
64,0	2395	610/1376	14,70	193	4,355
25% of torque at maximum power					
16,7	2550	650/1465	7,03	354	2,375
75% of torque at maximum power					
49,75	2490	635/1430	12,56	212	3,960

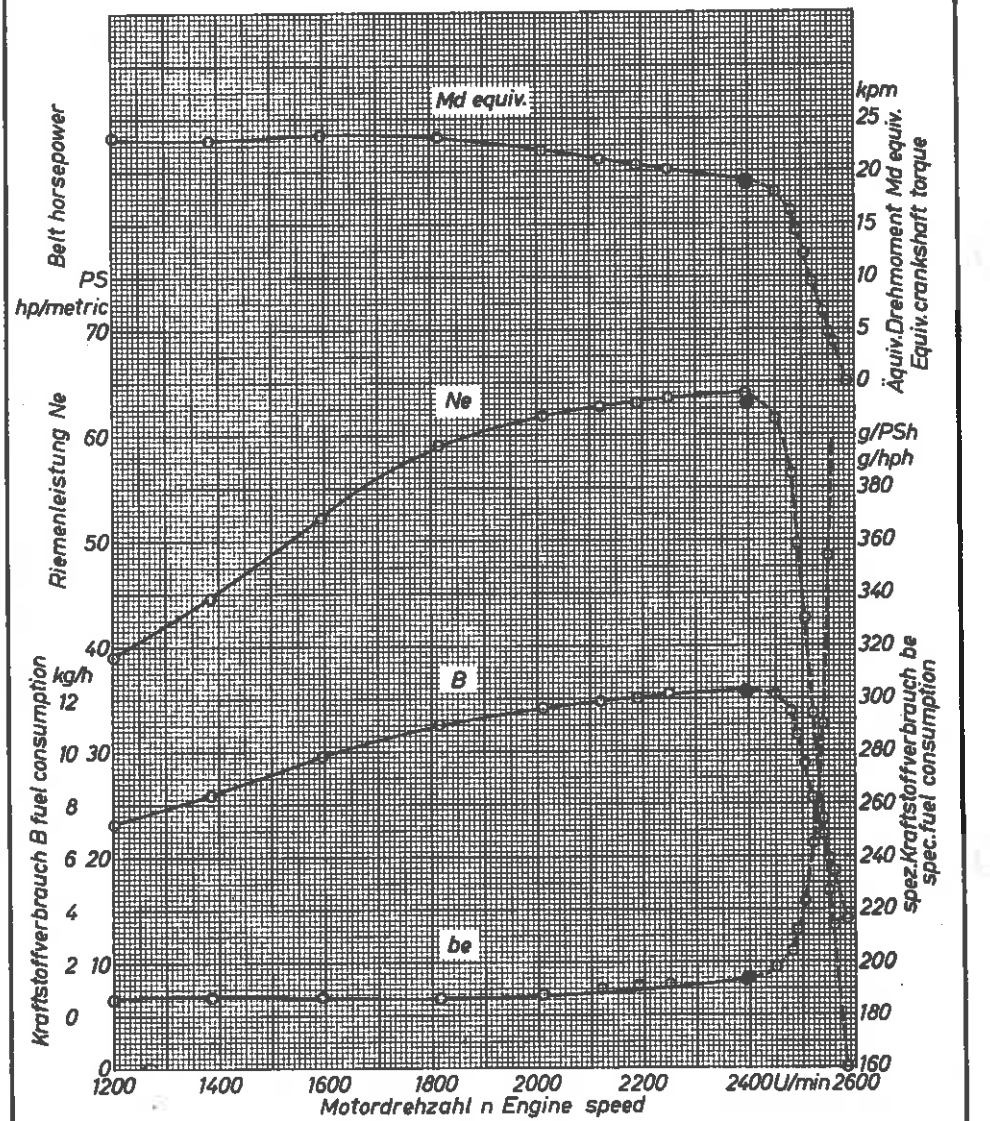
No load maximum engine speed: 2585 rev/min
Equivalent torque at maximum power: 19,15 kpm
Maximum torque: 23,45 kpm at 1595 rev/min of the engine
Mean atmospheric conditions: Temperature: 16°C (aspiration temp. 20°C)
Pressure: 740 mm Hg
Relative humidity: 65 %
Maximum temperature: Coolant: 84°C
Engine oil: 110°C
Fuel: 63°C

BUNDESVERSUCHS- U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Riemenleistung
Belt - test

Steyr-Dieseltraktor
Typ 70
Mot. Typ Steyr WD 410T

●Dauerleistung(Mittelwert) sustained power(average)

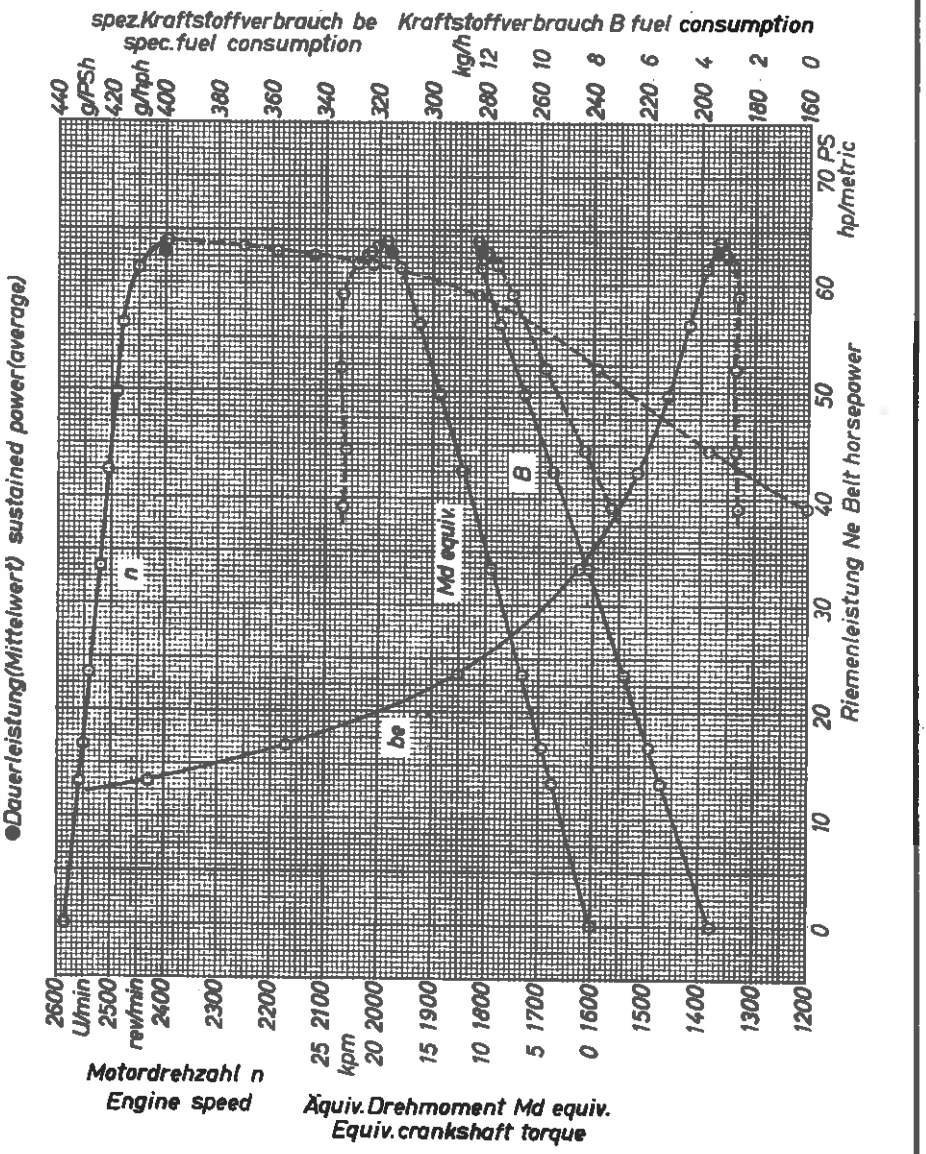


Motor Nr.: 410T-1096	Barometerstand: 740 mm Hg	Kühlwassertemp: 82°C	Versuchstag: 29.10.69	Vers-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 16/18°C	Öltemperatur: 98/106°	Versuchs Nr: 90/R19	A. Reiffen
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp: 55°C	Kurvenblatt: 9	

BUNDESVERSUCHS-U. PRÜFUNGSANST. FÜR LANDW. MASCHINEN U. GERÄTE WIESELBURG A.D. ERLAUF PROTOKOLL NR. 021/69

Riemenleistung
Belt-test

Steyr-Dieseltraktor
Typ 70
Mot.Typ Steyr WD410T



Motor Nr.: 410T-1096	Barometerstand: 740mm Hg	Kühlwassertemp.: 82°C	Versuchstag: 29.10.69	Vers.-Leitung:
Schlepper Nr.: 390-1090	Lufttemperatur: 16/18°C	Öltemperatur: 98/106°	Versuchs Nr.: 90/R 19	A. Reitlun
Kraftstoff: 0,840/15°C	Motoröl: Shell R. SAE 20	Kraftstofftemp.: 55°C	Kurvenblatt: 10	