O.E.C.D. Report No.: 882

Bundesanstalt für Landtechnik

A-3250 Wieselburg, Austria

Diesel-Tractor STEYR 337.10

Trade name:

STEYR 8055



Date of approval 1983 11 24

Date of tests 1983 04 13

This report has been approved by the O.E.C.D. Coordinating Centre (CEMAGREF, France) as being in accordance with the O.E.C.D. Test Code

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:	10 N = 1,02 kp or 1 kp = 9,81 N 1 kN = 1000 N = 102 kp
Powers:	1 kW = 1,36 PS or 1 PS = 0,736 kW
Pressures:	1 bar = 1,02 kp/cm^2 or 1 kp/cm^2 = 0,981 bar 1 MPa = 10 bar 1000 mbar = 750,10 mm Hg

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Tractor manufacturer:	STEYR-DAIMLER-PUCH AG., Steyr, Austria STEYR-HELLAS ABE., Sindos, Greece
Submitted for test by:	Manufacturer
Selected by:	Manufacturer by agreement with BLT-Wieselburg
Place of running in:	Steyr, Austria
Duration of running in:	150 hours

SPECIFICATION OF TRACTOR

Tractor:

Make:	STEYR-DAIMLER-PUCH AG.
Model:	Diesel-Tractor STEYR 337.10 Trade name: STEYR 8055
Type:	Wheel tractor, rear wheel driven, unit construction
Serial No.:	337.10 - 06304

Engine:

Make:	Own make
Model:	WD 311.44
Type:	4 stroke diesel engine with direct injection
Serial No.:	311.44 - 3206
Cylinders:	3, vertical in line Bore/stroke: 100/110 mm Capacity: 2592 cm^3 Compression ratio: 16,2/1 Wet liners
Valves:	Overhead valves
Fuel system:	Capacity of fuel tank: appr. 40 l Fuel feed by gravity
	BOSCH fuel filter Dual filter with water trap and changeable elements, model 0450 134 002 Fuel precleaner FJSJ 1/1 Z
	BOSCH distributor injection pump Model: VA 3/10 H 1200 CR 411 / 0460 303 158 Manufacturers production setting: 48^{+2} mm^3/stroke at 2400 rev/min and full load Injection timing: $16^{\pm1}$ before TDC at 1 mm pump stroke
	Injectors: BOSCH Multi hole injection nozzles DLLA 150 SV 13249 or FRIEDMANN & MAIER Multi hole injection nozzles D 1 LMK 150/55
	Injection pressure: $21,6^{+0,5}_{-0}$ MPa (216^{+5}_{-0} bar)

Governor:

BOSCH variable speed governor
Hydraulically acting, incorporated in injection pump
Range of speed: 600 to 2580 rev/min
Rated speed: 2400 rev/min

Air cleaner:

MANN & HUMMEL 45.114.92.374 or
PUROLATOR LVPO 045 S/6

Dry type with integrated cyclonic pre-cleaner, with visual indication and changeable elements and safety element

Filter element:
Model: MANN & HUMMEL
Typ: C 13 114/4
Model: PUROLATOR
Typ: PM 1096
Model: KNECHT
Typ: AG 73

Safety filter element:
Model: MANN & HUMMEL
Typ: CF 600
Model: PUROLATOR
Typ: AF 3098
Model: KNECHT
Typ: SE 045

Service intervals:
Dust-drain valve service: daily control
Filter-element paper-insert:
changing interval: when control-indication on the filter indication
cleaning interval: 2000 hours or 1 year
changing interval of safety filter element: after 5 main-cleaner paper-insert cleanings or 2 years, resp. if main-cleaner insert was defect

Exhaust silencer:

EBERSPÄCHER
Absorptions-reflexion type, at left side of the engine, 350 mm left of median plane, mouth upwards, 2145 mm above ground, length of silencer 1180 mm, silencer body length: 720 mm, max. dia. of silencer: 110 mm, diameter of exhaust pipe: 45 mm
Model: T 16.47.281.02.0.00 and
337 0054 0023 STEYR replacement number

Lubrication:

Forced lubrication with EATON pump, strainer in sump, paper filter in full flow
Oil capacity: appr. 6,4 l
Changing interval: 200 hours; paper filter: 400 hours

Paper filter: MANN W 940 or
PUROLATOR PC 31 or
KNECHT FO 371/12

Recommended oil viscosity: SAE 20 W/ 40 HD,
SAE 10 W/30 HD in cold environment
(MIL-L-2104 B, MIL-L-46152 B); API CC - CD and
STUO oil (API GL 4)

Cooling system:

Double circuit water cooling with centrifugal pump, pump and 4 blade fan (dia: 420 mm) belt driven
Tubular radiator, longtime filling with frostprotection down to -20°C
Thermostat control, cooling water thermometer
Coolant capacity: appr. 8,5 l
Overpressure: max. 50 kPa (0,5 bar)

Starting system:

Electrically
BOSCH solenoid engaged starter, model: 0001362072 JF 12 V, 2,5 kW
Cold starting aid: BERU or BOSCH
glow plug in intake pipe, BERU model 184 G or BOSCH model A 25000.1088

Electrical system:

Voltage: 12 V, negative earth
Generator: BOSCH, three phase type
model G 1 - 14 V 28 A 22 W, 0 120 339 526
14 V, 28 A, 392 W
Batteries: lead acid type, 1 with 12 V and 88 Ah capacity at 20 hours rating

Transmission:

Clutches:

Clutch: FICHTEL & SACHS
Dual plate dry clutch, model DUT 280 - 280/280, both plates 280 mm dia, independent activated

Main clutch: 280 mm dia, pedal operated
P.t.o. clutch: 280 mm dia, hand lever operated

Gearbox:

Own make, mechanically acting, model 337
Basis model: (as tested)
reversing gear (FORWARD - REVERSE) combined with 4 speed change gear and reduction gear (ROAD - FIELD)
Total: 8 forward and 8 reverse speeds

Normal model: (optional)
2 forward and 1 reverse group gear (FORWARD FAST, FORWARD NORMAL, REVERSE) combined with 4 speed change gear and reduction gear (ROAD - FIELD)
Total: 16 forward and 8 reverse speeds
14 forward and 8 reverse speeds, when 25 km/h model; 2 gears forward are locked,

Crawler gear model: (optional, not tested)
Basis model with crawler gear reduction
Reduction ratio: 3,398
Total: 16 forward and 16 reverse speeds

Rear axle and final drive:

Own make, model 337
Central axle; pinion and bevel gear, lockable bevel gear differential, acting by planetary gears on rear wheels
Differential lock: mechanically acting, foot lever operated, lockable, self disengaging

Front axle:

Own make
Steering axle with steering cylinder

Total ratios and speeds:

Group	Gear No.	Number of engine revolution for one revolution of driving wheel		Nominal travelling speed for rated speed of engine *) km/h	
-	-	field L	road S	field L	road S
forward normal VN	1	374,57	112,08	1,55	5,17
	2	194,99	58,35	2,97	9,92
	3	131,16	39,25	4,41	14,75
	4	79,45	23,78	7,29	24,36
reverse R	1	380,33	113,81	1,52	5,09
	2	197,99	59,24	2,92	9,77
	3	133,18	39,85	4,35	14,53
	4	80,68	24,14	7,18	23,99

Optional: not on tested tractor

forward fast VS	1	304,34	91,07	1,90	6,36
	2	158,43	47,41	3,66	12,21
	3	106,57	31,89	5,43	18,16
	4	64,56 **)	19,32 **)	8,97	29,98

*) Calculated with index radius of 640 mm and test tyre equipment 14,9/13 - 28 AS
**) Two gears forward are locked, totally 14/8 speeds

Oil capacity:

Gearbox and rear axle: appr. 24 l
SAE 80 W, API GL 4 or STUO

Rear axle final drives: appr. 2,6 l for each planetary gear
SAE 80 W, API GL 4 or STUO

General changing interval: 1000 hours or one year

Power take off:

One p.t.o. shaft, at rear of tractor, in median plane, 295 mm behind rear axle, 530 mm above ground (640 mm tyre index radius)
Dimension: ISO R 500, Type I (35 mm, 6 splines)

Proportional to engine speed (independent) p.t.o.:
Driven by p.t.o. clutch (dry plate type), speed selector, p.t.o. shaft

Speeds:
540/ 634 rev/min at 2044/2400 rev/min engine speed
1000/1127 rev/min at 2130/2400 rev/min engine speed

Engine speed resp. p.t.o. speed indication by a needle instrument

Direction of rotation: clockwise viewed from driving end

Power take off: (cont.)

Proportional to ground speed p.t.o.:

Only engageable when reduction gear is on 0 (NEUTRAL = stationary) or L (FIELD) position. Driven by main clutch (dry plate type), group gear, 4 speed change gear, reduction gear (only in position 0 or L (FIELD), sliding gear, p.t.o. shaft.

Driving mode (reduction gear in L position):
Travelling distance for 1 revolution of p.t.o.: 0,125 m with 640 mm tyre index radius
Number of p.t.o. revolutions for 1 revolution of driving wheel: 32,17

Stationary mode (reduction gear on 0 position, tractor not driving):

Speeds at 2400 rev/min rated engine speed (rev/min): 25 km/h model as tested

Group gear:	VN	VS*)	R
Gear No.: 1	206	254	203
2	396	487	390
3	589	724	580
4	972	1196	957
Direction of rotation	clockwise	clockwise	anti-clockwise
	viewed from driving end		

*) VS group optional, not on tested tractor

Middle p.t.o.:

Optional, not on tested tractor
Rearward direction, on the left side of the gearbox, 186,5 mm left hand of median plane of tractor, 90 mm below median plane of rear axle, 267 mm before rear axle
Dimension: ISO R 500, Type I (35 mm, 6 splines)
No power restriction
Driven by p.t.o. clutch

Speed: 1000/1183 rev/min at 2029/2400 rev/min engine speed

Direction of rotation: clockwise viewed from the driving end

Front p.t.o.:

Optional, not on tested tractor
Forward direction, on the left side of the tractor, 260 mm left hand of median plane, 640 mm above ground, 355 mm before front axle
Driven by middle p.t.o. and propellershaft with intermediate bearing
No power restriction
Same speeds rotation of middle p.t.o.
Direction of rotation: anticlockwise viewed from the driving end

Belt pulley:

Optional, not on tested tractor
At rear of tractor, perpendicular transmission on rear p.t.o., all speeds of rear p.t.o. engageable
Dimensions: 250 mm dia, 160 mm width
Number of pulley revolutions for 1 revolution of p.t.o.: 2,23

Power lift:

In the rear:

Own make, open center type
Draught control with two-stage pull adjustment and upper link sensing, position control, floating position
"STEYR SIMPLEMATIK" standard linkage, category I/II, double hole lift arms, in accordance to ISO 730 I
BOSCH gear type pump, directly driven by engine
BOSCH control unit
Own oil supply, capacity: 10 l (11 l with oil tappings)
Recommended oil: SAE 20 W, H-LP 68 DIN 51525 ISO HM
Working cylinder: single acting type, bore/stroke: 75/147 mm
Oil tappings: up to 3 oil circuits with BOSCH control units for single or double acting cylinders
Capacity of tappings: 6 l
Changing interval of filter element: 500 hours
Changing interval of hydraulic oil: 1000 hours
Filter: paper filter element, changeable, for common oil circuit of power lift

Optional (not on tested tractor):
Increased capacity of oil tappings up to 17 l with 11 l supplementary tank

In the front:

Optional (not on tested tractor):
Three point linkage, category II, open system, hydraulic power lift, disintegrated construction
Oil supply from own control unit and common oil supply with power lift in the rear
Single acting cylinder, bore/stroke: 60/250 mm

Holed drawbar:

Fitted in the clevis of the lower links of the three point linkage, category I/II

Dimensions		Category I
Lenght	mm	815
Width	mm	80
Thickness	mm	30
Number of holes (with central hole)		5
Hole diameter	mm	33
Distance between holes	mm	130

Height above ground *)	Min.lift rod length (415 mm)	Max.lift rod length (495 mm)	Vertical movement
Max.mech.advantage Liftarm 192 mm	from 555 to 980 mm	from 365 to 850 mm	425/485 mm
Min.mech.advantage Liftarm 230 mm	from 465 to 985 mm	from 265 to 840 mm	520/575 mm

*) Calculated with tyre index radius of 640 mm

Method of changing: by power lift, lift rod length and changing the lift rod-lift arm coupling point
Distance to rear axle: 870 mm (lower links (800 mm) horizontally)
Distance relative to p.t.o.: 577 mm behind

Pull attachement:

Trailer hitch:

Own make
Fork type
Height above ground: 358/386/685/713 mm
Distance from rear axle: 367 mm
Position relative to p.t.o.: rearwards 72 mm
Diameter of coupling pin: 30,5 mm
Max. vertical load (max.technical load): 15 kN

ROCKINGER model 273 U 130 A (~~~ M 4026)
Fork type
Height above ground: 357/387/736/766 mm
Distance from rear axle: 386 mm
Position relative to p.t.o.: rearwards 91 mm
Diameter of coupling pin: 30,5 mm
Max. vertical load (max.technical load): 15 kN

Own make (long italian equipment)
Fork type
Height above ground: 362/382/695/715 mm
Distance from rear axle: 407 mm
Position relative to p.t.o.: rearwards 112 mm
Diameter of coupling pin: 28 mm
Max. vertical load (max.technical load): 15 kN

or

Own make (short italian equipment)
Height above ground: 364/384/689/709 mm
Distance from rear axle: 327 mm
Position relative to p.t.o.: rearwards 32 mm
Diameter of coupling pin: 28 mm
Max. vertical load (max.technical load): 15 kN

Towing hitch:

Fork type
Height above ground: 510 mm
Distance from front axle: forwards 390/575 mm
Diameter of coupling pin: 31 mm

Steering:

ZF-SCHWÄBISCH GMÜND
Operated by steering wheel acting on front wheels
Hydrostatic steering, model ZF 8491

or

DANFOSS equivalent model OSPC 80 OR
Own oil circuit, gear pump directly driven by engine
Capacity of oil case: 1,75 l
Control interval of oil level: 250 hours
Changing interval of filter in the oil case: 1000 hours

Recommended oil: Automatic Transmission Fluid (ATF Dexron II or ATF M 2 C 33 E/F)
Pump delivery rate at rated engine speed (2400 rev/min): 25.2 l/min
Working pressure: 10,0 MPa (100 bar)
Steering cylinder: one double acting cylinder
Acting piston area: 26,4/21,5 cm^2
Stroke of cylinder: 175 mm
Number of revolutions of steering wheel for the whole steering lock: 6

Brakes:

Service brake:

Own make
Mechanically acting inner brakes(Simplex drum brakes) pedal operated
Brakes acting on the differential shafts, drums: 230 mm dia, 60 mm width

Parking brake:

Mechanically acting on the same drum brakes as service brake
Force transmission: hand lever with ratchet-separate linkage acting on common linkage with service brake

Steering assistance brake:

Operated by divided pedal of service brake, pedals disconnectable by a flap

Trailer braking system:

Optional, not on tested tractor

Wheels:

Front wheels:

2 pneumatics, steering function, diagonal carcass 6,50 - 16 AS front, PR 6; rim: 4,50 E x 16
Maximum permissible load on each tyre:
6030 N (615 kp) at 3,1 bar inflation pressure
12060 N (1230 kp) at 3,9 bar inflation pressure
but with speed limit of 8 km/h for front-implement working

Recommended tyre inflation pressure:

	on street	on field
ballasted:	3,1 bar	3,1 bar
unballasted:	3,1 bar	1,9 bar

Track width: 1197 mm (1357 mm by reversed wheels)

Optional front wheel equipment:
7,50 - 16 AS - Front, PR 6
7,5 L - 15 AS - Front, PR 6

Rear wheels: 2 pneumatics, driving function, diagonal or radial carcass
14,9/13 - 28 AS, 6 PR; rim: DW 12 x 28
Maximum permissible load on each tyre:
15800 N (1610 kp) at 1,4 bar inflation pressure
22100 N (2255 kp) at 1,75 bar inflation pressure
with speed limit of 8 km/h

Track width: 1360 mm (1492 mm by reversed wheels)

Optional rear wheel equipment:
12,4 - 28 AS, PR 6; rim: W 10 x 28
12,4 - 32 AS, PR 6; rim: W 10 x 32
14,9 - 26 AS, PR 6; rim: DW 12 x 26
9,5 - 32 AS, PR 8; rim: W 8 x 32
9,5 - 36 AS, PR 10; rim: W 8 x 36

Wheel base: 1900 mm

Lighting: Unrestricted beam angle of head light in plan view:
92 mrad (5,27°)

	*) Height above ground of centre mm	Dimension mm	**) Distance from outside edge of tractor to centre mm
Head lights	1020	140 x 70	745
Side lights	1280	90 x 40	335
Rear lights	1350	90 x 40	130
Brake lights			
Direction indicators front	1250	90 x 40	335
Direction indicators rear	1390	90 x 40	130
Reflectors	1250 745	113 x 65 80 dia	130 540

*) measured with tyre index radius at rear 640 mm and 355 mm at front
**) with overall width of 1760 mm (measured on the outside edge of the rear wheels)

Number of grease points: 15
Recommended grease: NL GL 2
Multi-purpose grease (lithium-base)

Driver seat: Klepp Elastomat 600
Tested on tractor according to national regulation
Prot.Nr. 119/81
Parallelogram suspension with adjustable spring according to the drivers weight
Hydraulically damping
Horizontal adjustment range: 80 mm
Vertical adjustment range: dependent from the horizontal adjustment

Safety frame: Own make
Model 100.01
Welded and screwed profile steel tube construction with pressed sheet metal roof and windscreen
The fastening of frame on the tractor is made with screws on the rear-axle and in front left and right on a console.
Strength tested according to OECD-Code and to national legislation (identical to OECD-Code)
Austrian Prot.Nr. 176/81
OECD-test report Nr. CSD 0454/2

CONDITIONS DURING TEST

Tractormass:

Tractor without driver but with tanks full and safety frame

	Front	Rear	Total
Without ballast	705 kg	1315 kg	2020 kg
With ballast	891 kg	1930 kg	2821 kg

Ballastmass:

	Number of weights	Total mass (excluding water)	Water
Front	5	151 kg	-
Rear	4 + 2	290 kg	2 x 180 kg
Additional	-	-	-

Track setting and tyre equipment:

1197 mm at front
1360 mm at rear
Front wheel equipment: 6,50 - 16 AS Front, PR 6
Rear wheel equipment: 14,9/13 - 28 AS, PR 6

Overall dimensions:

	Length	Width		Height **)
		max.*)	min.*)	
	mm	mm	mm	mm
With ballast	3440	1900	1760	2208/2145
Without ballast	3252	1900	1760	2208/2145

*) measured on the rear wheel tyre
**) measured on top of exhaust silencer valve/exhaust

Minimum ground clearance:
310 mm under rear axle
365 mm under crankshaft case
370 mm under front ballast
415 mm under front axle
with tyre equipment 6,50 - 16 AS front and
14,9/13 - 28 AS

Fuel and lubricants used in tests:

Fuel:	ELAN Diesel fuel (according to DIN 51601) Specific gravity used for volumetric measurement: 0,839 kg/l at 15°C Viscosity at 20°C: 5 mm^2/s (5 cSt) Cetan no.: 46
Engine oil:	SHELL Rotella X SAE 10 W/30 HD MIL-L-2104 A Viscosity at 100°C: 10 mm^2/s (10 cSt)
Transmission oil:	SHELL SPIRAX 90 HD MIL-L-2105 B Viscosity at 50°C: 112 mm^2/s (112 cSt)
Hydraulic oil:	SHELL Tellus S 68, SAE 20 W Viscosity at 50°C: 40 mm^2/s (40 cSt)

COMPULSORY TEST

1. Main power take-off performance

Date and location of tests: 1983 04 13, Wieselburg, Austria
Type of dynamometer: SCHENK-eddy current brake W 780

Main test on: ISO R 500, Typ I (DIN 9611) - 540 rev/min p.t.o.

Power	Speed		Fuel consumption		
	engine	p.t.o.	hourly	specific	specific
kW	rev/min	rev/min	kg/h 1/h	g/kWh	kWh/l
MAXIMUM POWER					
Maximum power - 2 hours test					
32,90	2400	634	8,52 10,16	259	3,239
Standard p.t.o. speed					
30,78	2044	540	7,77 9,26	252,5	3,322
The speed recommended by the manufacturer for drawbar work					
32,90	2400	634	8,52 10,16	259	3,239
PART LOADS Governor hand lever in position giving maximum power					
(i) 85 % of torque at maximum power					
28,53	2449	647	7,53 8,98	264	3,178
(ii) unloaded					
0	2581	682	2,14 2,56	-	-
(iii) 50 % of the load defined in (i)					
14,64	2513	664	4,66 5,56	318,5	2,635
(iv) maximum power					
32,90	2400	634	8,52 10,16	259	3,239
(v) 25 % of the load defined in (i)					
7,45	2551	674	3,37 4,02	452,5	1,853
(vi) 75 % of the load defined in (i)					
21,71	2483	656	6,06 7,22	279	3,008

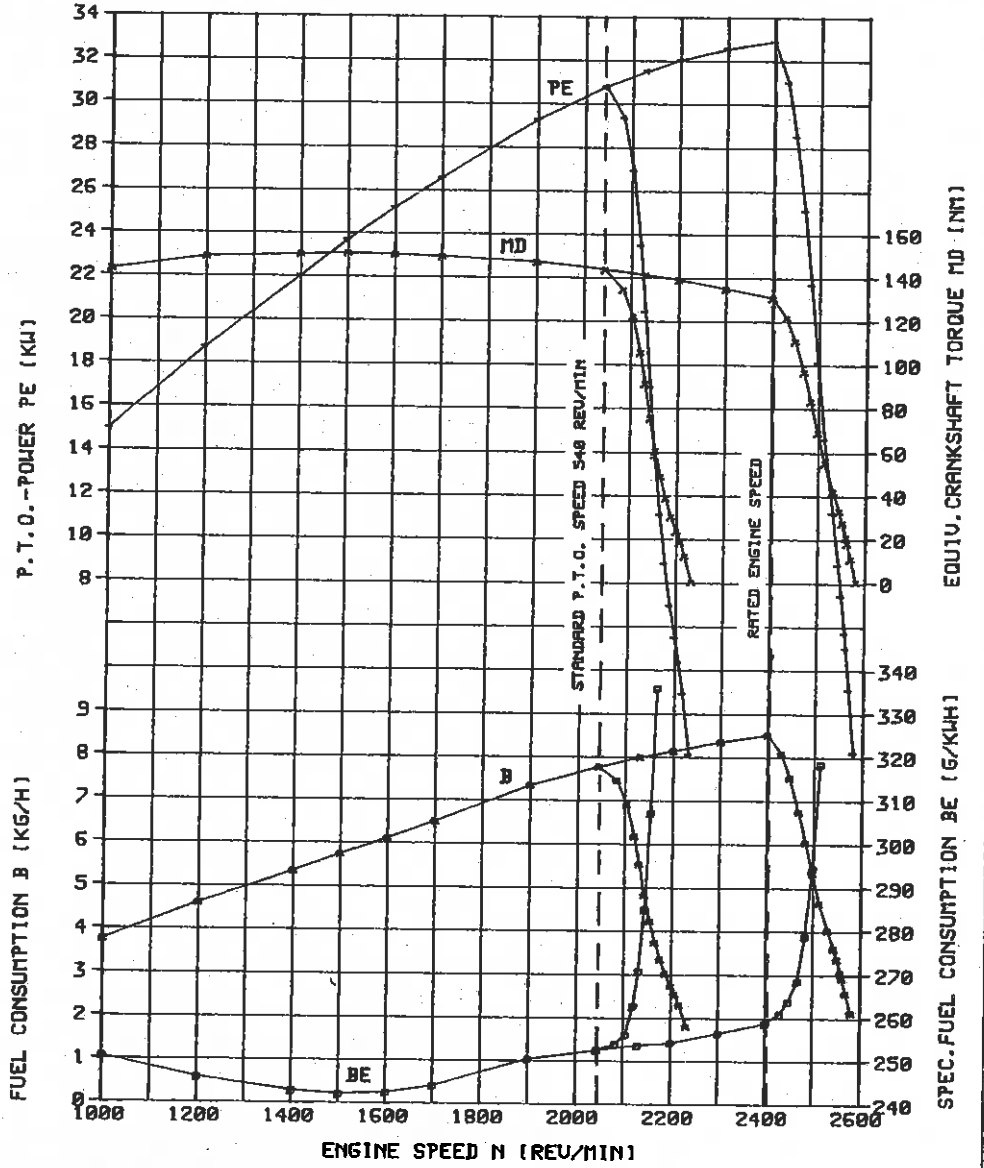
Power	Speed		Fuel consumption		
	engine	p.t.o.	hourly	specific	specific
kW	rev/min	rev/min	kg/h l/h	g/kWh	kWh/l
PART LOADS Governor hand lever in position giving standard p.t.o. speed at full load					
(i) 85 % at torque at standard p.t.o. speed					
26,97	2104	556	6,91 8,23	256	3,276
(ii) unloaded					
0	2233	590	1,82 2,17	-	-
(iii) 50 % of the load defined in (i)					
13,77	2154	569	4,23 5,04	307	2,732
(iv) maximum power at standard p.t.o. speed					
30,78	2044	540	7,77 9,26	252,5	3,322
(v) 25 % of the load defined in (i)					
6,99	2188	578	3,03 3,61	433,5	1,935
(vi) 75 % of the load defined in (i)					
20,46	2131	563	5,54 6,61	271	3,097
STANDARD SPECIFIC FUEL CONSUMPTION: 264/318,5 - 256/307 g/kWh					

No load maximum engine speed: 2581 rev/min
Equivalent crankshaft torque
at maximum power: 130,9 Nm
Maximum equivalent crankshaft torque: 150,75 Nm at 1500 rev/min of engine

Mean atmospheric conditions: temperature: 15°C
pressure: 988 mbar
humidity: 60 %

Maximum temperatures: coolant: 82°C
engine oil: 112°C
fuel: 62°C
air intake: 23°C

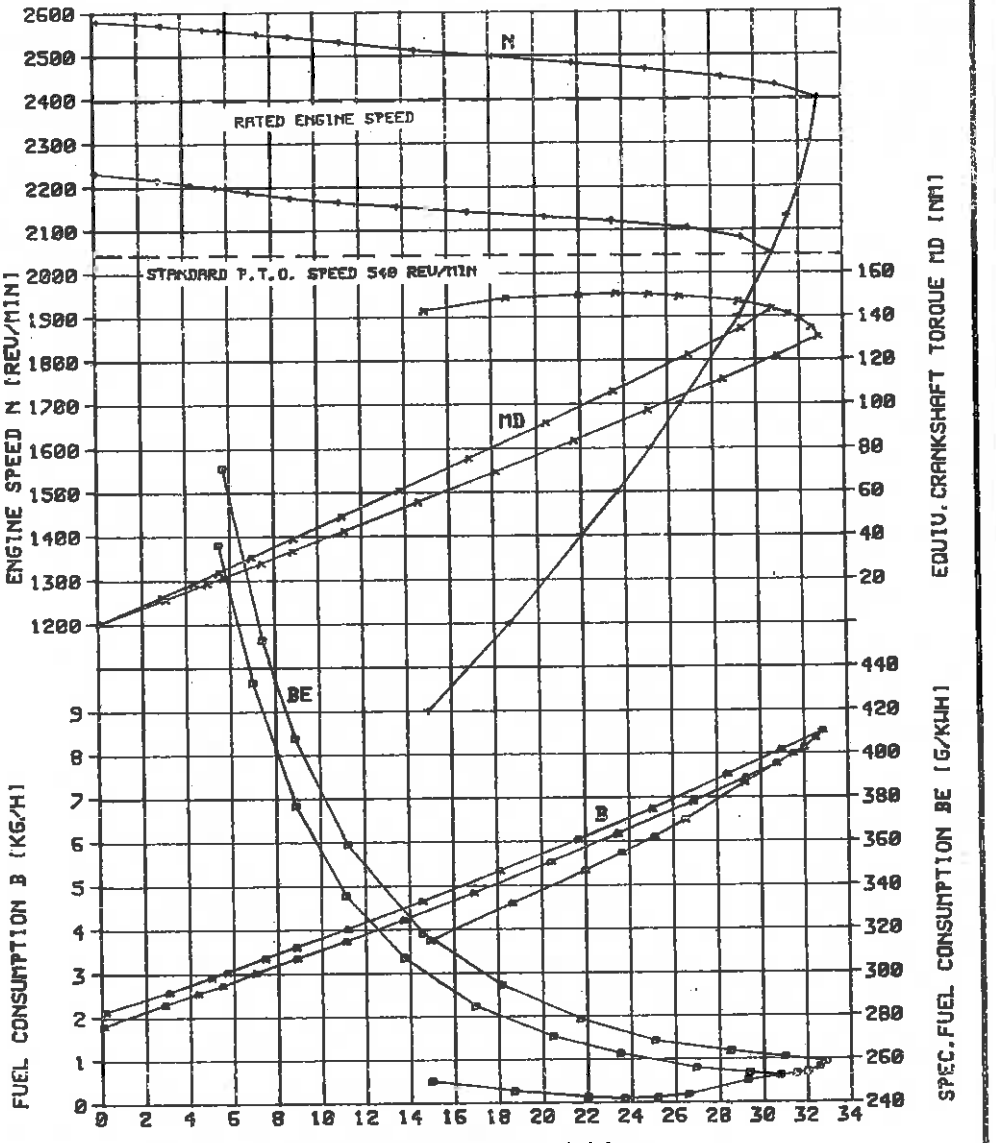
BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF, AUSTRIA PROT.NR.: 146/83	P.T.O.-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



ENGINE SER.NR.: 311.44-3286	ATM.PRESSURE : 988 MBAR	FUEL TEMP.: 62 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-06384	AIR TEMPER. : 23 C	D.OF TESTS: 1983-04-13	
FUEL : 0.839/15 C	COOLANT TEMP.: 82 C	TEST NO. : 139/ZA 135	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 112 C	CURVES NO.: 1	REITHER

DOK.:01000046-DL003:FRU03/4:FRU20-21

BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF, AUSTRIA PROT.NR.: 146/83	P.T.O.-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



ENGINE SER.NR.: 311.44-3286	ATM.PRESSURE : 988 MBAR	FUEL TEMP.: 62 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-06304	AIR TEMPER. : 23 C	D.OF TESTS: 1983-04-13	
FUEL : B.835/15 C	COOLANT TEMP.: 82 C	TEST NO. : 135/2A 135	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 112 C	CURVES NO.: 2	REITHER

DOK.:B100846-DL883;MKU074;MKU28-2t

2. Drawbar performance

Date of tests: 1983 04 26, 05 18, 05 24
Typ of track: concrete
Height of drawbar above ground: 530 mm ballasted, 540 mm unballasted

Gear No.	Speed	Power	Drawbar pull	Engine speed	Slip of wheels	Fuel consumption		Temperatures			Atmosph. conditions		
						specific	specific	Fuel	Coolant	Engine oil	Tempe-rature	rel.hu-midity	Pre-sure
	km/h	kW	N	rev/min	%	kWh/l	g/kWh	°C	°C	°C	°C	%	mbar
(i) Maximum power (ballasted) tyre inflation pressure in the front 1,6 bar, in the rear 1,1 bar													
VN 1L	1,389	9,67	25063	2532	15	-	-	60	75	110	23	57	988
VN 2L	2,614	18,20	25062	2478	15	2,412	348	59	74	110	22	57	988
VN 3L	3,783	26,00	24750	2400	14,6	2,554	328,5	59	75	109	22	58	988
VN 1S	4,577	27,20	21395	2400	11,7	2,672	314	57	74	108	23	58	988
VN 4L	6,720	28,40	15212	2400	8,1	2,789	300,5	57	74	108	22	57	988
VN 2S	9,378	28,30	10862	2400	5,8	2,780	302	56	74	107	22	57	988
VN 3S	14,238	27,08	6848	2400	3,8	2,660	315,5	56	73	107	22	57	988

Gear No.	Speed	Power	Drawbar pull	Engine speed	Slip of wheels	Fuel consumption		Temperatures			Atmosph.conditions		
						specific	specific	Fuel	Coo-lant	Engine oil	Tempe-rature	rel.hu-midity	Pres-sure
	km/h	kW	N	rev/min	%	kWh/l	g/kWh	°C	°C	°C	°C	%	mbar
(ii) Five-hour-test at 75 % of pull at maximum power													
VN 4L	7,041	22,32	11411	2461	6,1	2,678	313	55	75	112	15	75	981
(iii) Five-hour-test at pull corresponding to 15 % wheelslip in test (i)													
VN 2L	2,616	18,17	25006	2480	15	2,437	344	65	82	119	23	63	989
(iv) Maximum power (unballasted) tyre inflation pressure in the front 1,3 bar, in the rear 0,9 bar													
VN 1L	1,406	7,47	19131	2549	15	-	-	58	75	109	18	62	985
VN 2L	2,652	14,09	19133	2504	15	2,310	363	58	76	109	18	62	985
VN 3L	3,874	20,59	19135	2461	15	2,471	339,5	58	75	109	18	63	985
VN 1S	4,493	23,88	19130	2439	15	2,574	326	56	75	109	19	64	985
VN 4L	6,565	27,46	15060	2400	10,5	2,697	311	54	74	109	18	62	985
VN 2S	9,232	28,15	10976	2400	7,6	2,765	303,5	53	74	109	18	64	985
VN 3S	14,110	27,64	7051	2400	5	2,715	309	53	74	109	18	63	985

Total oil consumption during 10 hours duration of tests (ii) and (iii): 31 g/h

3. Turning space and turning circle:

Wheel equipment: front: 6,50 - 16 AS Front, PR 6
rear: 14,9/13 - 28 AS, PR 6

Track of wheels: front: 1197 mm
rear: 1360 mm

Results	With brakes		Without brakes	
	right-hand	left-hand	right-hand	left-hand
	m	m	m	m
Radius of turning space	3,22	3,07	3,67	3,47
Radius of turning circle	3,05	2,90	3,50	3,30

4. Location of centre of gravity:

	mm
Height above ground	790
Distance forward from the vertical plane containing the axis of the rear wheels	645
Distance from the median plane	0

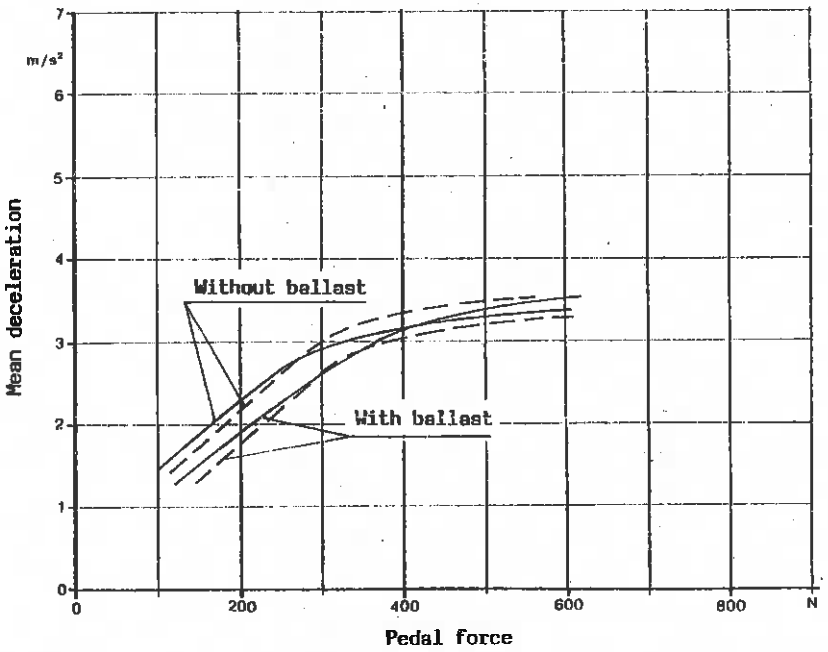
5. Braking:

Date of tests: 13.5.1983
Type of track: concrete
Type of decelerometer: Moto-Meter Nr. 03382 (Kombi-Schreiber)
Tractor masses during brake tests (with driver):

	Front kg	Rear kg	Total kg
Ballasted	897	1999	2896
Unballasted	711	1384	2095

A) Service brake

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



Speed before application of brakes: 25 km/h
The tractor 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 2020 kp	
	up	down	up	down
Braking device control froce	220 N	190 N	280 N	290 N

6. Measurement of ambient noise level:

Date of tests: 6.5.1983
Type of sound level meter: BRÜEL & KJAER 2209 and 2308
Type of track: concrete

Results of tests:
Gear: VN 4 S
Travelling speed before acceleration: 19,5 km/h
Sound level: 85,5 dB(A)

7. Noise measurement at the driver's ear:

Date of tests: 6.5.1983
Type of sound level meter: BRÜEL & KJAER 2209 and 2308
Type of track: concrete
Safety frame with roof and front glass

Results of tests:

Gear	Drawbar pull at which the tractor develops the max. sound level	Measured travelling speed	Sound level
-	N	km/h	dB(A)
VN 1 L	17531	1,33	95,5
VN 2 L	17901	2,51	97
VN 3 L	17729	4,32	97
VN 4 L	15044	7,95	96,5
VN 4 L*)	light load 2464	7,56	95,5
VN 1 S	17656	4,17	96,5
VN 2 S	11230	9,04	98
VN 3 S	7333	13,93	97
VN 4 S	light load 2900	24,0	97,5

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

8. Power lift and hydraulic performance:

Date and location of tests: 1983 06 09, Wieselburg, Austria

Hydraulic fluid:
Make and type: SHELL Tellus 33, SAE 20 W
Viscosity at 50°C: 40 mm^2/s (40 cSt)

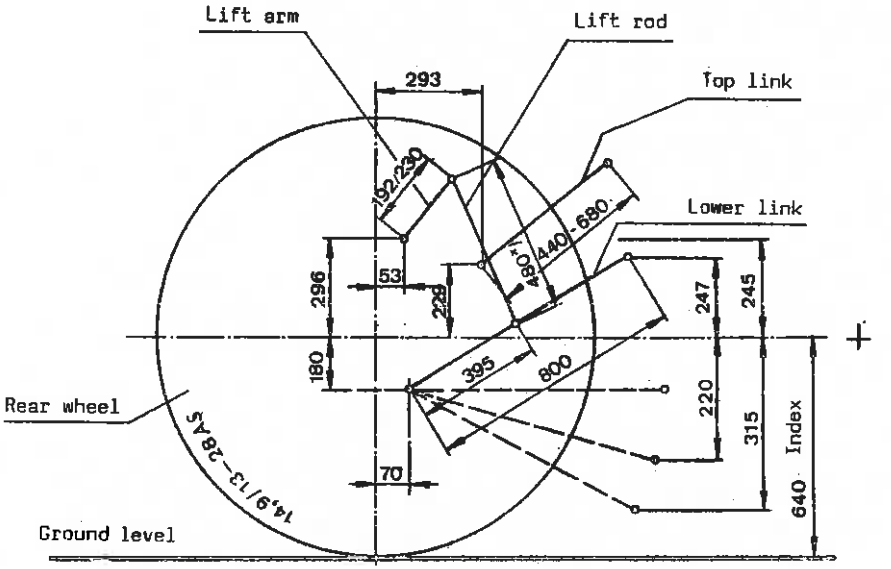
Type of linkage lock for transport: hydraulically by the throttle valve
Opening pressure of the cylinder overpressure safety valve (manufacturers specification): 24,5 MPa (245 bar)

Pump characteristics:

(i) Sustained pressure of the relief valve: 18,6 MPa (186 bar)
Opening pressure of the relief valve: 17,6 MPa (176 bar)

(ii) Pump delivery rate at minimum pressure and rated enginge speed: 35,1 l/min

(iii) Pump delivery rate; 34,4 l/min
Pressure of hydraulic power calculation (90 % of relief valve setting): 16,7 MPa (167 bar)
Calculated hydraulic power: 9,57 kW



*) Left lift rod adjustable from 410 - 495 mm length by a thread, right lift rod adjustable from 415 - 525 mm length by gear and thread.

	*) Height of lower hitch point above ground in down position mm	Vertical movement mm	Max.force exerted through full range kN	Corresponding pressure of hydraulic fluid MPa	Moment about rear axle kNm	Max. lift angle of mast over range of lift (+) degrees
At hitch points	420/325	467/560	17,9/14,6	16,7 (167 bar)	15,6/12,7	
On the frame 460 mm mast height	410/315	467/560	10,0/8,0	16,7 (167 bar)	14,8/11,8	14° from -1° to 0° and to +13°

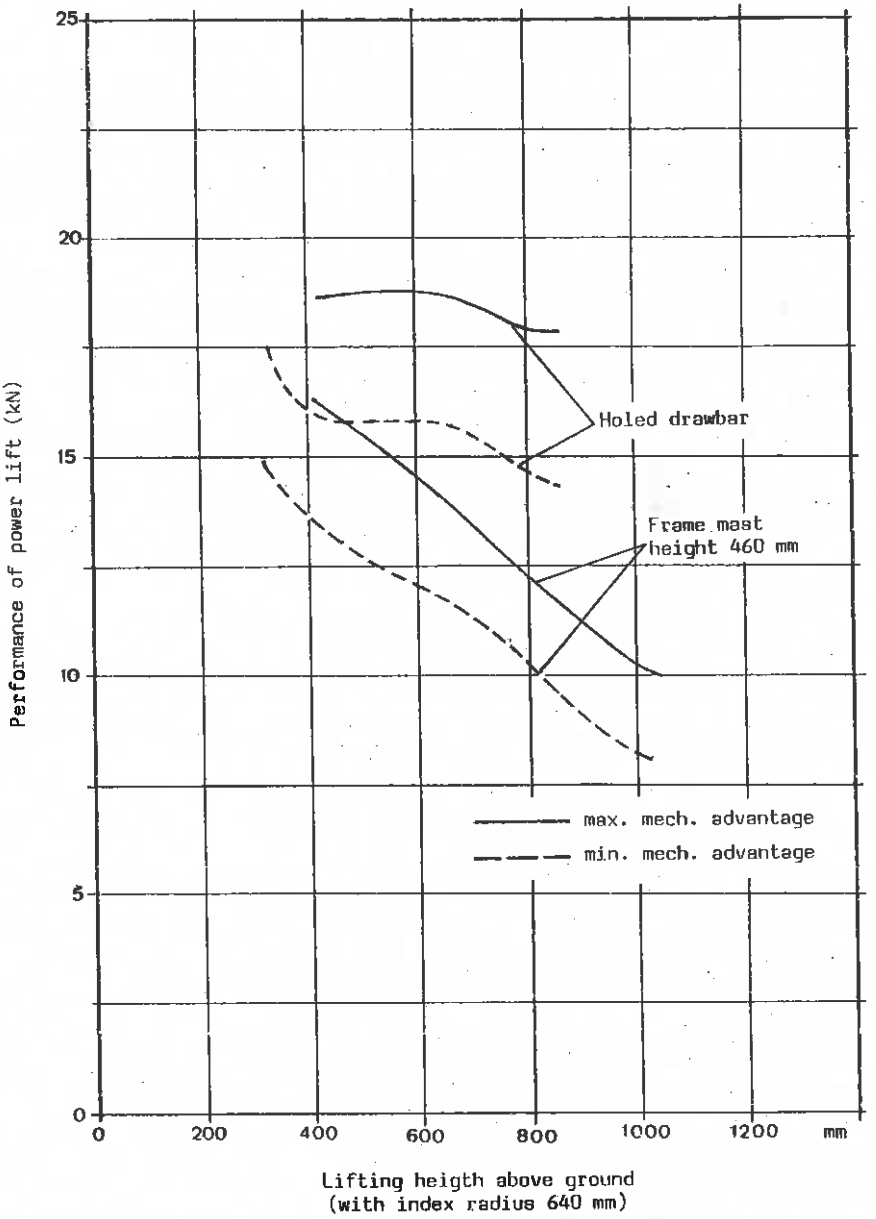
*) Max./min. mechanical advantage

Linkage geometry when connected to the standard frame (mast height 460 mm)

Projected length in side view		Maximum mechanical advantage	Minimum mechanical advantage
Lower links	mm	800	800
Lift arms	mm	192	230
Lift rods	mm	480	480
Top link	mm	580	580
Distance of lift rod connection point from pivot point of lower link	mm	395	395
This dimensions are given relative to the rear wheel centre line, 640 mm above the ground level — Lower link pivot point	mm	70 behind 180 below	70 behind 180 below
Top link pivot point	mm	293 behind 229 above	293 behind 220 above
Lift arm pivot point	mm	53 behind 296 above	53 behind 296 above
Maximum and minimum height of lower link hitch points	mm	247 above to 220 below	245 above to 315 below
Height of lower link hitch points locked in transport position	mm	from 247 above to 220 below	from 245 above to 315 below

Performance of power lift

Lifting heights in relation to a horizontal line through the lower link pivoting point mm		-150	-140	-100	-50	-40	0	+100	+200	+300	+350	+400	+500	+570	+580
Lifting force at the hitch-points kN (Values for the pressure, calculated with 90 % of sustained oil pressure)	max.mech. advantage					18,7	18,8	18,9	18,7	18,2	17,9	17,9			
	min.mech. advantage		17,5	16,5	16,0	15,9	15,8	15,8	15,7	15,0	14,7	14,6			
	Maximum force exerted through whole range: 17,9 / 14,6 kN (1825 kp / 1490 kp)														
	Calculated oil pressure: 16,7 MPa (167 bar)														
Lifting force at the standard frame 460 mm mast height, 610 mm behind lower links hitch-point kN (Values for the pressure, calculated with 90 % of sustained oil pressure)	max.mech. advantage				16,4	16,3	15,9	15,0	13,8	12,7	12,1	11,5	10,4	10,2	10,0
	min.mech. advantage	14,9	14,7	14,1	13,5	13,4	13,1	12,4	11,6	10,7	10,0	9,4	8,4	8,0	
	Maximum force exerted through whole range: 10,0 / 8,0 kN (1020 kp / 815 kp)														
	Calculated oil pressure: 16,7 MPa (167 bar)														


Performance of power lift (kN)
25
20
15
10
5
0
0
200
400
600
800
1000
1200
mm
Holed drawbar
Frame mast
height 460 mm
max. mech. advantage
min. mech. advantage
Lifting heigth above ground
(with index radius 640 mm)

OPTIONAL TESTS

9. Main power take-off performance

Date and location of tests: 1983 04 13, Wieselburg, Austria
Type of dynamometer: SCHENK-eddy-current brake W 780

Main test on: ISO R 500, Type 2 (DIN 9611) - 1000 U/min

Power	Speed		Fuel consumption		
	engine	p.t.o.	hourly	specific	specific
kW	rev/min	rev/min	kg/h l/h	g/kWh	kWh/l
MAXIMUM POWER					
Maximum power - 2 hours test					
33,70	2400	1127	8,53 10,16	253	3,316
Standard p.t.o. speed					
32,30	2130	1000	8,00 9,53	247,5	3,390
The speed recommended by the manufacturer for drawbar work					
33,70	2400	1127	8,53 10,17	253	3,316
PART LOADS Governor hand lever in position giving maximum power					
(i) 85 % of torque at maximum power					
29,21	2450	1150	7,48 8,91	256	3,278
(ii) unloaded					
0	2582	1212	2,10 2,51	-	-
(iii) 50 % of the load defined in (i)					
15,00	2516	1181	4,62 5,51	308	2,723
(iv) maximum power					
33,70	2400	1127	8,53 10,16	253	3,316
(v) 25 % of the load defined in (i)					
7,61	2552	1198	3,32 3,95	436	1,925
(vi) 75 % of the load defined in (i)					
22,21	2484	1166	6,01 7,16	270,5	3,103

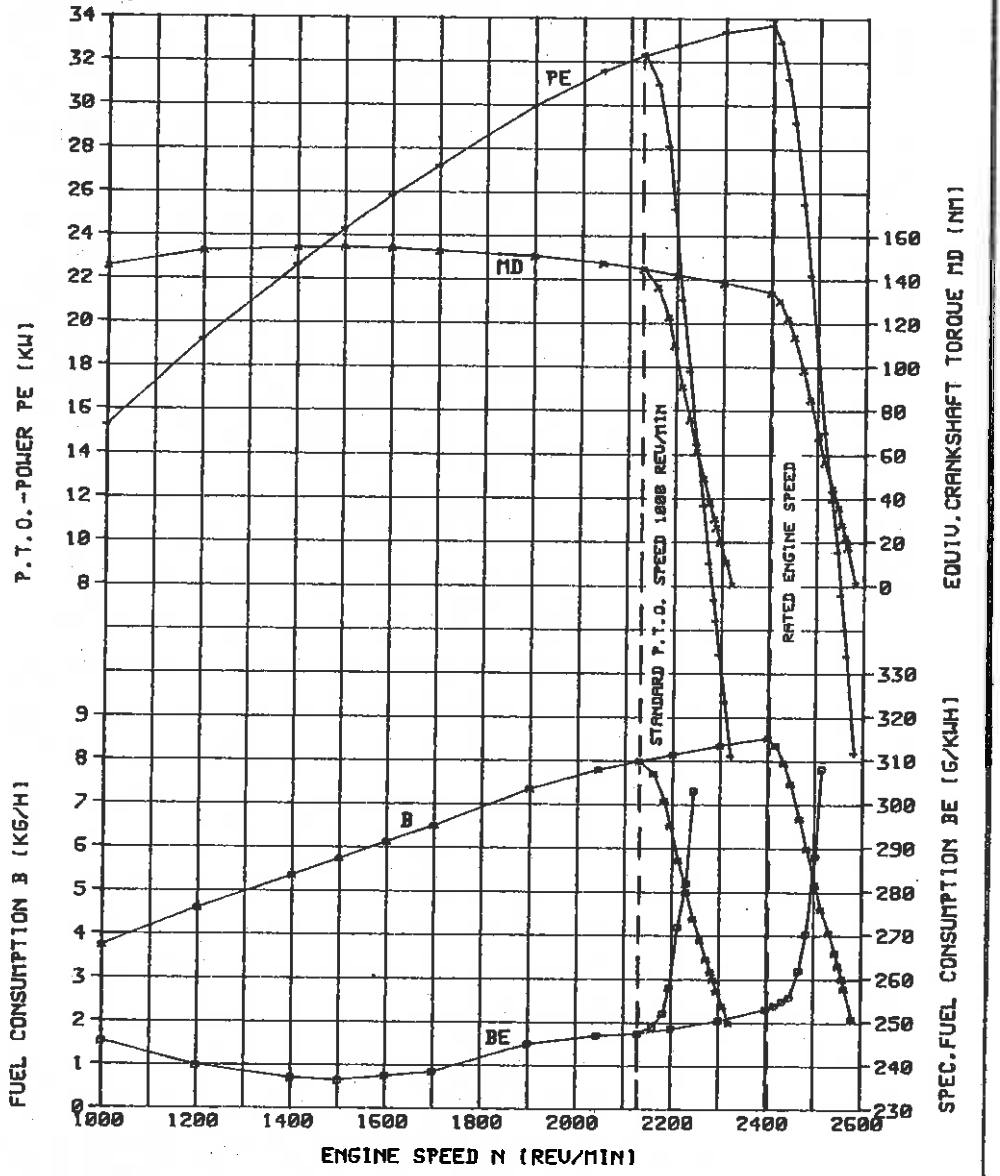
Power	Speed		Fuel consumption		
	engine	p.t.o.	hourly	specific	specific
kW	rev/min	rev/min	kg/h 1/h	g/kWh	kWh/l
PART LOADS Governor hand lever in position giving standard p.t.o. speed at full load					
(i) 85 % at torque at standard p.t.o. speed					
28,14	2183	1025	7,09 8,45	252	3,329
(ii) unloaded					
0	2322	1090	2,00 2,39	-	-
(iii) 50 % of the load defined in (i)					
14,49	2245	1054	4,39 5,23	303	2,769
(iv) maximum power at standard p.t.o. speed					
32,30	2130	1000	7,99 9,53	247,5	3,390
(v) 25 % of the load defined in (i)					
7,40	2283	1072	3,18 3,79	430	1.951
(vi) 75 % of the load defined in (i)					
21,40	2213	1039	5,73 6,83	268	3,131
STANDARD SPECIFIC FUEL CONSUMPTION: 256/308 - 252/303 g/kWh					

No load maximum engine speed: 2582 rev/min
Equivalent crankshaft torque
at maximum power: 134,08 Nm
Maximum equivalent crankshaft torque: 154,6 Nm at 1500 rev/min

Mean atmospheric conditions: temperature: 15°C
pressure: 988 mbar
humidity: 71 %

Maximum temperatures: coolant: 81°C
engine oil: 111°C
fuel: 61°C
air intake: 23°C

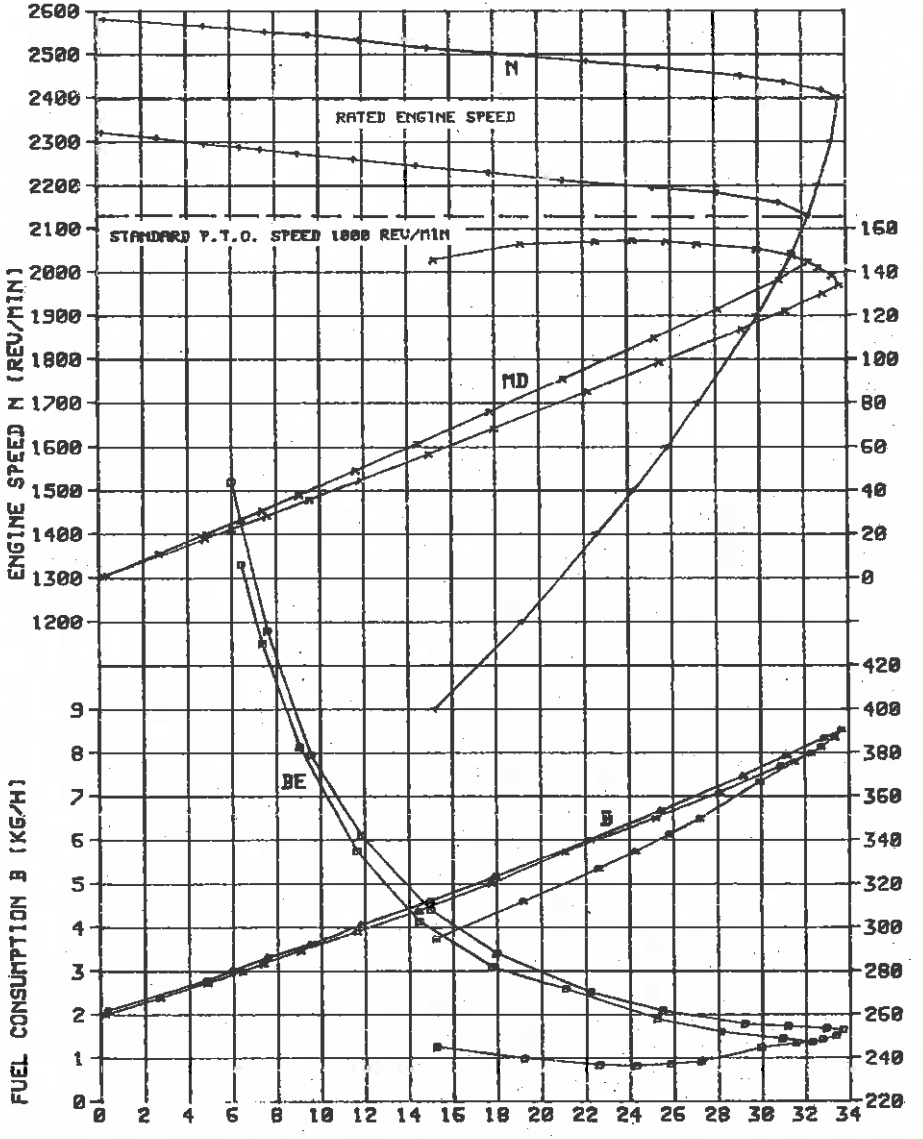
BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF. AUSTRIA PROT.NR.: 146/83	P.T.O.-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



ENGINE SER.NR.: 311.44-3206	ATM.PRESSURE : 988 MBAR	FUEL TEMP.: 61 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-86384	AIR TEMPER. : 23 C	D.OF TESTS: 1983-04-13	
FUEL : 0.839/15 C	COOLANT TEMP.: 81 C	TEST NO. : 139/2A 135	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 111 C	CURVES NO.: 3	REITHER

DOK.:01000846-DL003;AKU074;AKU28-22

BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF, AUSTRIA PROT.NR.: 146/83	P.T.O.-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



ENGINE SER.NR.: 311.44-3206	ATM.PRESSURE : 980 MBAR	FUEL TEMP.: 61 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-86304	AIR TEMPER. : 23 C	D.OF TESTS: 1983-04-13	
FUEL : 0.835/15 C	COOLANT TEMP.: 81 C	TEST NO. : 139/ZA 135	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 111 C	CURVES NO.: 4	REITHER

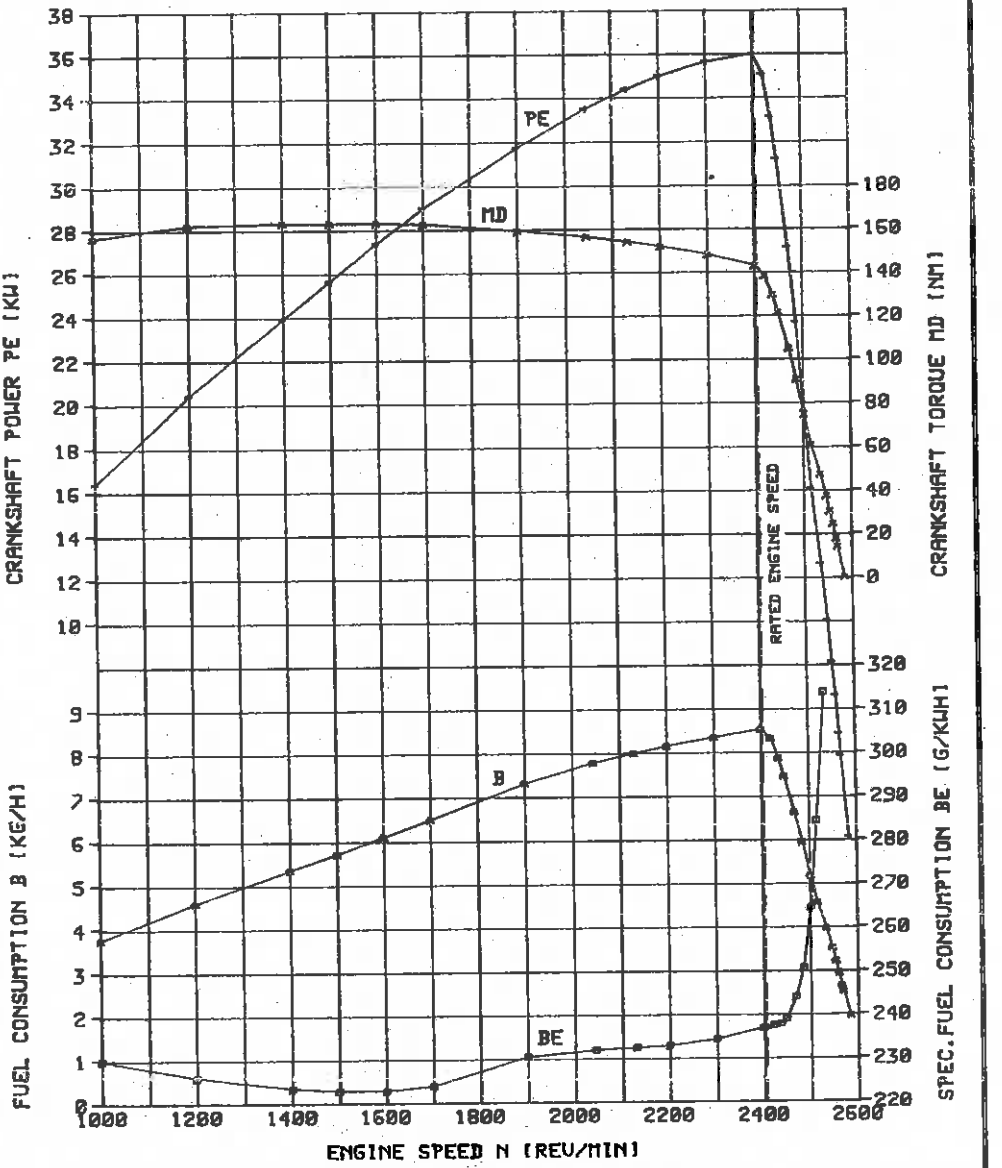
10. Engine performance

Date and location of test: 1983 03 14, Wieselburg, Austria
Type of dynamometer: SCHENK-eddy-current brake W 150

Power	Engine speed	Fuel consumption		
		hourly	specific	specific
kW	rev/min	kg/h l/h	g/kWh	kWh/l
Maximum power - 2 hours test				
36,00	2400	8,53 10,17	237	3,540
Standard p.t.o. speed (1000 - 540 rev/min)				
34,40	2130	8,00 9,53	232,5	3,608
33,52	2044	7,78 9,27	232	3,616
The speed recommended by the manufacturer for drawbar work				
36,00	2400	8,53 10,17	237	3,540
Part loads				
(i) 85 % of torque at maximum power				
31,21	2448	7,46 8,89	239	3,510
(ii) unloaded				
0	2584	1,98 2,36	-	-
(iii) 50 % of the load defined in (i)				
16,10	2516	4,58 5,46	284,5	2,949
(iv) maximum power				
36,00	2400	8,53 10,17	237	3,540
(v) 25 % of the load defined in (i)				
8,17	2554	3,23 3,85	395	2,124
(vi) 75 % of the load defined in (i)				
23,74	2486	5,95 7,09	250,5	3,347

Optimum fuel consumption: 218 g/kWh at 19,04 kW and 1350 rev/min
No load maximum engine speed: 2584 rev/min
Torque at maximum power: 143,24 Nm
Maximum torque: 163,3 Nm at 1500 rev/min of engine
Mean atmospheric conditions: temperature: 15°C
pressure: 993 mbar
relative humidity: 60 %
Maximum temperatures: coolant: 81°C
engine oil: 108°C
fuel: 53°C
engine air intake: 21°C

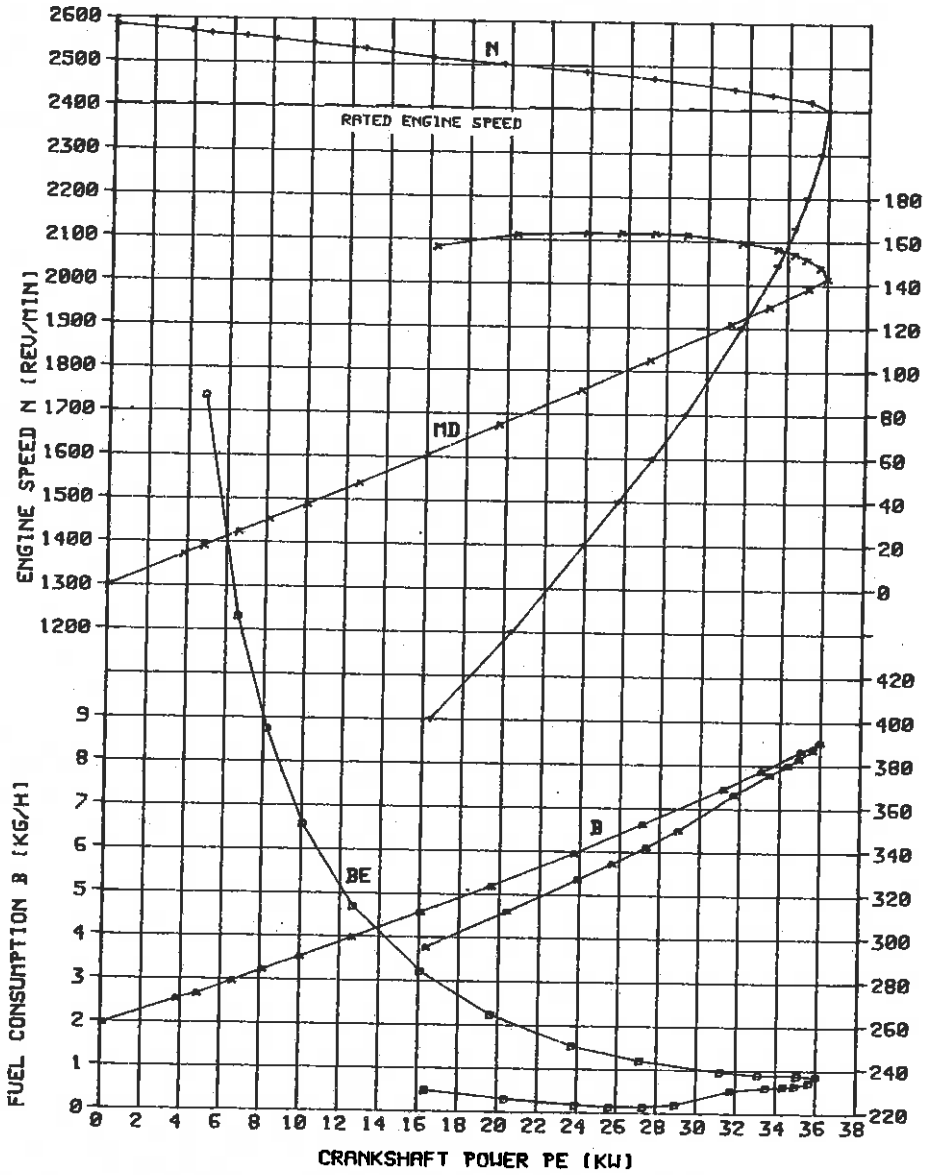
BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF. AUSTRIA PROT.NR.: 146/83	ENGINE-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



ENGINE SER.NR.: 311.44-3206	ATM.PRESSURE : 993 MBAR	FUEL TEMP.: 53 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-06384	AIR TEMPER. : 21 C	D.OF TESTS: 1983-03-14	
FUEL : B.839/15 C	COOLANT TEMP.: 81 C	TEST NO. : 139/K 101	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 100 C	CURVES NO.: 5	REITHER

DOK.:B100846-DL883.HKU874.HKU20-KU

BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF, AUSTRIA PROT.NR.: 146/83	ENGINE-TEST	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44



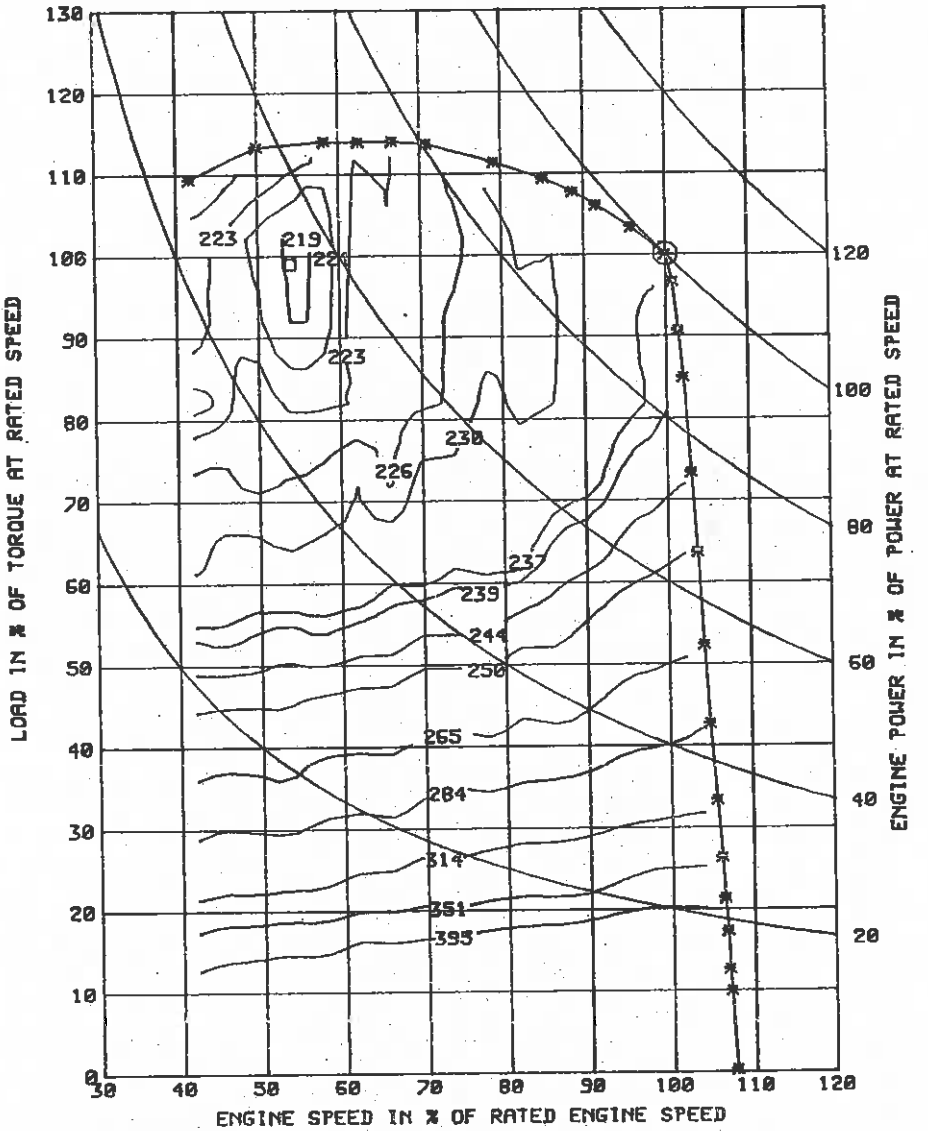
ENGINE SER.NR.: 311.44-3206	ATM.PRESSURE : 993 MBAR	FUEL TEMP.: 53 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-06304	AIR TEMPER. : 21 C	D.OF TESTS: 1983-03-14	
FUEL : 0.839/15 C	COOLANT TEMP.: 81 C	TEST NO. : 139/M 181	
ENGINE OIL : SAE 10W/30MD	OIL TEMP. : 100 C	CURVES NO.: 6	REITHER

DOK.: #100046-DL003.MKU874.MKU26-RU

BUNDESANSTALT FUER LANDTECHNIK WIESELBURG/ERLAUF, AUSTRIA PROT.NR.: 146/83	ENGINE PERFORMANCE CHARACTERISTICS	STEYR-DAIMLER-PUCH TYP 8055 (337.10/25) MOT.TYP WD 311.44

D ....MIN.FUEL CONS. 218.80 G/KWH AT N = 1296. REV/MIN, MD = 141.81 NM, P = 19.2 KW

Ⓐ....N = 2400. REV/MIN, MD = 143. NM, P = 36.0 KW



ENGINE SER.NR.: 311.44-3206	ATM.PRESSURE : 993 MBAR	FUEL TEMP.: 53 C	SIGNATURE
TRAKTOR SER.NR.: 337.10-86384	AIR TEMPER. : 21 C	D.OF TESTS: 1983-03-14	
FUEL : B.839/15 C	COOLANT TEMP.: 81 C	TEST NO. : 139/M 101	
ENGINE OIL : SAE 10W/30HD	OIL TEMP. : 108 C	CURVES NO.: 7	REITHER

EDV-DL883,MRU874.DAT:MRU874N

11. REDUCTION OF POWER DATA TO STANDARD CONDITIONS

According to:

Austrian Standard Ö-Norm V - 5003
German Standard DIN 70020 Teil 6

$$P_{RED} = P_{OECD} \cdot k; \quad \text{where } k = \frac{1013}{B} \cdot \sqrt{\frac{273 + t}{293}}$$

MAIN POWER TAKE OFF PERFORMANCE (page 14, 15 and 27, 28)
ENGINE PERFORMANCE (page 31)

Test conditions:

		540 p.t.o.	1000 p.t.o.	2400 engine
Intake air temperature (°C)	t	23	23	21
Atmospheric pressure	B	988 mbar	988 mbar	993 mbar
Resulting reduction coefficient	k	1,0305	1,0305	1,0219

	P_{OECD}	P_{RED}
MAXIMUM POWER 540 rev/min p.t.o.	32,90 kW (44,74 mHP)	33,90 kW (46,10 mHP)
MAXIMUM POWER 1000 rev/min p.t.o.	33,70 kW (45,83 mHP)	34,73 kW (47,23 mHP)
MAXIMUM POWER 2400 rev/min engine speed	36,00 kW (48,96 mHP)	36,79 kW (50,03 mHP)