STÁTNÍ ZKUŠEBNA ZEMĚDĚLSKÝCH,
POTRAVINÁŘSKÝCH
A LESNICKÝCH STROJŮ

163 04 PRAHA 6, ŘEPY

Report on test in accordance with the O. E. C. D. STANDARD CODE
for the Official Testing of Agricultural Tractors

CODE II

Restricted Code

Date of approval: 21st August 1992

O.E.C.D. No. 1377

Agricultural Tractor
ZETOR 9540 (4WD, 40 km/h)

Manufactured by:
ZETOR s. p.
632 00 Brno, ČSFR

Report No. 10141
Date of test: Nov. 1991-May 1992

TABLE OF CONTENTS

Tractor manufacturer's name and address:	ZETOR s.p., 632 00 Brno, ČSFR
Location of tractor assembly:	Brno, ČSFR
Submitted for test by:	MOTOKOV a.s., Praha, ČSFR
Selected for test by:	The manufacturer
Place of running-in:	Brno, ČSFR
Duration of running-in:	60 hours
Location of test:	SZZPLS Praha 6 - Řepy, ČSFR

I. SPECIFICATIONS OF TRACTOR

TRACTOR

Make:	ZETOR
Model:	9540 version 40 km/h
Type:	Wheeled, unit construction, all wheels drive
Number of driving wheels:	4
Serial No.:	001 043
1st Serial No.:	001 001

ENGINE

Make:	ZBROJOVKA
Model:	Zetor 1001
Type:	4-stroke diesel engine, direct injection, water cooled, turbocharged
Serial No.:	000 131

Cylinders

Number/disposition:	4, in-line, vertical
Bore/stroke:	105 mm/120 mm
Capacity:	4156 cm^3
Compression ratio:	17:1
Arrangement of valves:	Overhead
Cylinder liners:	Wet, replaceable

Supercharging

Make, model and type:	ČZM, K 273060 G 611, exhaust driven
Pressure:	175±5 kPa

Fuel system

Fuel feed system:	Lift pump piston-type, integral with fuel injection pump
Make, model and type of fuel filters:	AUTOBRZDY, 443 741 111 001, one-stage with paper cartridge
Capacity of fuel tank:	105 dm^3
Make, model and type of injection pump:	MOTORPAL, 4M 3150, in-line
Serial No.:	Lw 0012
Manufacturer's production setting of injection pump:	
Flow rate (rated engine speed and full load):	18.81+0.48 dm^3/h
Timing:	$23^{o}+1^{o}$ before TDC
Make, model and type of injection:	MOTORPAL, DOP 150 S 428-4104, 4 holes
Injection pressure:	22.0-0.8 MPa

Governor

Make, model and type:	MOTORPAL, RV 3M 350/1100 3307, centrifugal, variable speed with overpressure corrector
Governed range of engine speed:	700-2460 rev/min
Rated engine speed:	2200 rev/min

Air cleaner

Make, model and type of pre-cleaner:	SANDRIK, PC 500, cyclon type
Location of air intake:	Above bonnet forward of radiator
Make, model and type of main cleaner:	SANDRIK, 9450.31, oil bath
Maintenance indicator:	None

Lubrication system

Type of feed pump:	Gear

Type of filter:	Full flow with replaceable paper element
Number:	1

Cooling system

Type of coolant:	Water and anti-freeze
Type of pump:	Centrifugal, belt driven
Specification of fan:	Axial, belt driven
Number of blades:	8
Fan diameter:	480 mm
Coolant capacity:	19 dm^3
Type of temperature control:	Thermostat
Superpressure system:	40±10 kPa

Starting system

Make, model and type:	PAL, 443 115 144 762, electrical, solenoid engaged
Starter motor power rating:	3.5 kW
Cold starting aid:	None
Safety device:	Gear selector lever to be in neutral position

Electrical system

Voltage:	12 V, negative earth
Generator:	
Make, model and type:	PAL, 443 113 516 653, alternator, belt driven
Power:	770 W
Battery:	
Number:	1
Rating:	180 Ah at 20 hours

Exhaust system

Make, model and type:	ZETOR, 10.014.040, expansion and absorption muffler
Location:	Left-hand side of engine, vertical

TRANSMISSION TO WHEELS

Clutch

Make, model and type:	ZETOR, 78.021.000, dry for transmission only
Number of plates:	1
Diameter of plates:	325 mm
Method of operation:	Hydraulically by pedal

Gear box

Make, model and type:	ZETOR, 10.191.000, mechanical
Arrangement:	Synchromesh gear box with 3 forward and 1 reverse speeds, group gear box with two speed ranges (L and H) and three-speed hydraulically actuated torque multiplier (M1, M2 and M3)
Number of gears:	18 forward and 6 reverse
Available options:	None

Rear axle and final drives

Make, model and type:	ZETOR, 78.154.000,crown wheel and bevel pinion differential and planetary final drives
Differential lock:	
Type:	Mechanical
Method of engagement:	Pneumatically by pedal
Method of disengagement:	Self-disengaging

Front axle and final drives

Make, model and type:	ZETOR, 78.940.104,crown wheel and bevel pinion differential and planetary final drives
Differential lock:	
Type:	Mechanical
Method of engagement:	Automatic
Method of disengagement:	Automatic

Total ratios and travelling speeds

Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed at rated engine speed of 2200 rev/min km/h (*)
1	LM1	331.321	1.99
2		188.976	3.49
3		106.565	6.19
1	LM2	282.043	2.34
2		160.869	4.10
3		90.716	7.27
1	LM3	239.922	2.75
2		136.845	4.82
3		77.168	8.54
1	HM1	84.954	7.76
2		48.455	13.61
3		27.324	24.13
1	HM2	72.319	9.12
2		41.248	15.99
3		23.260	28.35
1	HM3	61.519	10.72
2		35.088	18.79
3		19.787	33.32
R	LM1	202.474	3.26
	LM2	172.360	3.83
	LM3	146.619	4.50
	HM1	51.916	12.70
	HM2	44.195	14.92
	HM3	37.595	17.54

L: Low range, H: High range, M1, M2 and M3: Torque multiplier engaged in position 1, 2 and 3

(*) Calculated with a tyre dynamic radius index of 795 mm (ISO 4251/1-1988).

Number of revolutions of front wheels for one revolution of rear-wheels: 1.4887

POWER TAKE-OFF

Main power take-off

Type: Independent

Method of engagement: Hydraulic clutch operated by hand lever, independent of main drive clutch, wet multiplate

Number of shafts: 1

Method of changing power take-off speeds: Manually by shaft turning

Power take-off proportional to engine speed

Location: At rear of tractor.

P.T.O.	Diameter of power take-off shaft end mm	Number of splines	In conformity with ISO 500/1991
540	34.9	6	Yes
1000	34.9	21	Yes

Height above ground: 676 mm

Distance from the median plane of tractor: 0 mm

Distance behind rear-wheel axis: 480 mm

P.T.O.	P.T.O. speed rev/min	Engine speed rev/min	Ratio of rotation speeds (engine/P.T.O.)	Power restriction kW
540	540	1913	3.5431	38.0
	621	2200		
1000	1000	1950	1.9500	None
	1128	2200		

Direction of rotation (viewed facing driving end): Clockwise

Power take-off proportional to ground speed

P.T.O. and range		Travelling distance for one revolution of P.T.O. shaft m	Number of P.T.O. shaft revolutions for one revol. of (rear) driving wheels
540	L	0.223	22.3531
	H	0.872	5.7316
1000	L	0.123	40.6147
	H	0.480	10.4140

L: Low range, H: High range

Direction of rotation with forward gear engaged (viewed facing driving end):	Clockwise

POWER LIFT

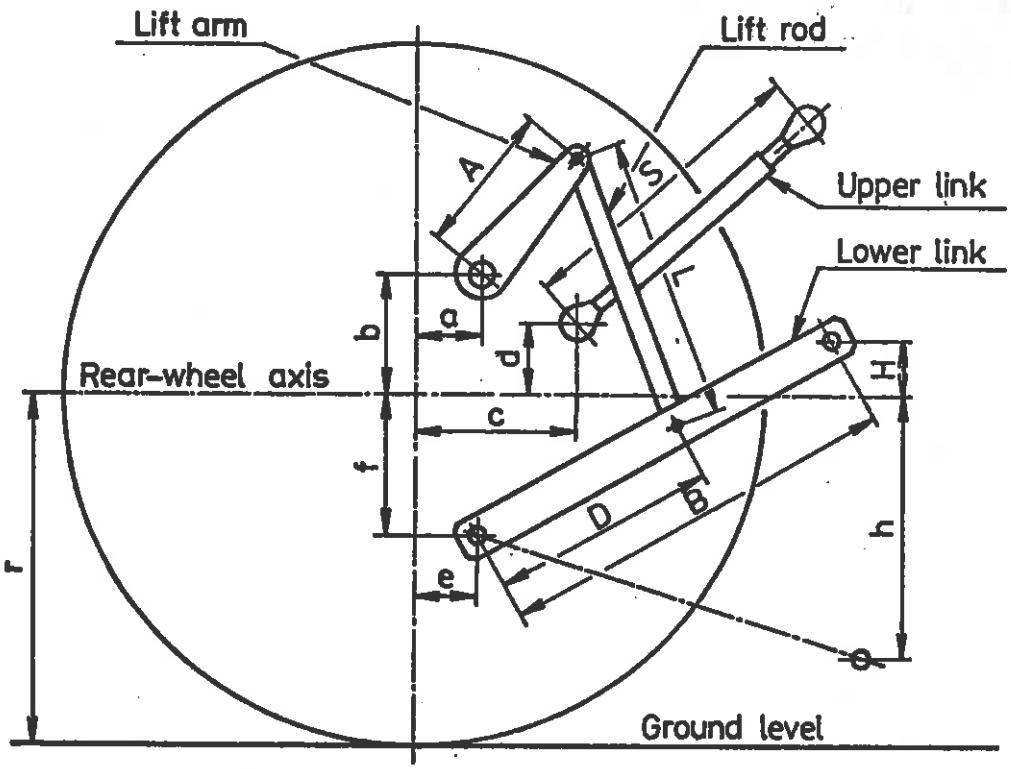
Make, model and type:	ZETOR, 10.940.404, hydraulic with mechanical position, draft or mixed control, top link sensing
Type of hydraulic system:	Open centre
Type and number of cylinders:	1 integral single-acting and 1 external single-acting
Type of linkage lock for transport:	Hydraulic
Relief valve pressure setting:	16.0+2.0 MPa
Opening pressure of cylinder safety valve:	21.0+2.0 MPa
Lift pump type:	Gear
Transmission between pump and engine:	Gear driven from gear box
Type and number of filters:	1 magnetic, 1 screen and 1 full flow filter with replaceable paper cartridge in delivery side of pump of gear box
Site of oil reservoir:	Transmission housing

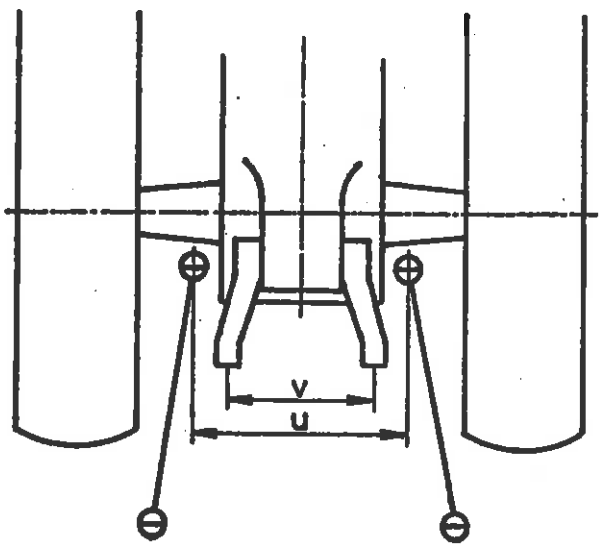
Type, number and location of tapping points:	4 pressure and 1 return, quick release at rear of tractor and 2 pressure and 1 return, quick release at right front corner of cab
Maximum volume of oil available to external cylinders:	10 dm^3

Three-point linkage

Category: 2, in conformity with ISO 730/1-1990

Category adapter: None





Linkage geometry dimensions:

		Dimension or range mm	Settings used in test mm
Lenght of lift arms	(A)	330	330
Length of lower links	(B)	910	910
Distance of lift arm pivot point from :horizontally	(a)	150	150
rear-wheel axis :vertically	(b)	275	275
Horizontal distance between the 2 lower link points	(u)	510	510
Horizontal distance between the 2 lift arm end points	(v)	590	590
Length of upper link	(S)	618 to 870	684
Distance of upper link pivot point from :horizontally	(c)	360	360
rear-wheel axis :vertically	(d)	116, 156, 196, 231	196
Distance of lower link pivot point from :horizontally	(e)	144	144
rear-wheel axis :vertically	(f)	249	249
Distance of lower link pivot points to lift rod pivot points on lower links	(D)	460, 510	510
Length of lift rods	(L)	555 to 685	635
Height of lower hitch points relative to the rear-wheel axis:			
- in low position	(h)	438 to 809	595
- in high position	(H)	-87 to 222	127
Height above ground of lower hitch points when locked in transport position (*)		Any height withing lift range	

(*) Assuming the tyre dynamic radius index r=795 mm of ISO 4251/1-1988

SWINGING DRAWBAR

Type:	Clevis on towing hook
Height above ground:	377 mm
Type of adjustment:	None

Distance of hitch point from rear-wheel axis, horizontally:	880 mm
Distance of hitch point from power take-off shaft end:	
Vertically:	299 mm
Horizontally:	400 mm
Lateral adjustment:	
Right-hand:	0 mm
Left-hand:	0 mm
Diameter drawbar pin hole:	32 mm
Maximum vertical permissible load:	8 kN

TRAILER HITCH

Type:	Clevis
Hole diameter:	32 mm
Height above ground:	691, 791 and 891 mm
Distance of hitch point from rear-wheel axis, horizontally:	828 mm
Distance of hitch point from power take-off shaft end:	
Vertically:	15, 115 and 215 mm
Horizontally:	348 mm
Maximum vertical permissible load:	10 kN

HOLED DRAWBAR

Number of holes:	7
Distance between holes:	80 mm
Hole diameter:	32 mm
Thickness/width of the drawbar:	2x20 mm/90 mm
Height above ground:	
Maximum:	922 mm
Minimum:	200 mm
Horizontal distance to power take-off shaft end:	574 mm

SEMI-TRAILER HITCH

Type:	Towing hook
Hole diameter:	47 mm

Height above ground:	442 mm
Distance of hitch point from rear-wheel axis, horizontally:	660 mm
Distance of hitch point from power take-off shaft end:	
Vertically:	234 mm
Horizontally:	180 mm
Maximum vertical permissible load:	15 kN

FRONT TOWING HITCH

Height above ground:	832 mm
Diameter of pin hole:	28 mm

STEERING

Make, model and type:	ORSTA, LAGB 160-1, hydrostatic
Method of operation:	Independent hydraulic circuit for steering
Pump:	Gear, driven from engine
Ram:	Double-acting cylinder on the front axle
Working pressure:	10.0 MPa

BRAKES

Service brake

On the rear axle:	
Make, model and type:	ZETOR, 78.227.000, wet disc, multiplate, 5 discs each side
Method of operation:	Hydraulically by pedals, coupled or independent
On the front axle:	
Make, model and type:	ZETOR, 78.225.000, dry disc on the drive shaft to the front axle
Method of operation:	Hydraulically by coupled pedals
Trailer braking take-off:	Air brake operated by tractor pedals

Parking brake

Type:	Common with service brake on the rear axle
Method of operation:	Mechanical by hand lever with ratchet

WHEELS

Number:	
Front:	2, steering and driving
Rear:	2, driving
Wheelbase:	2369 mm

Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1560	1830	By changing wheel discs to either side of wheel centre
Rear	1505	1805	Reversing wheels and off-set lug rims

PROTECTIVE STRUCTURE

Make, model and type:	ZETOR, BK 7520, cab with integrated safety frame
Manufacturer's name and address:	ZETOR s.p., 623 00 Brno, ČSFR
Protective device:	Cab, not tiltable
O.E.C.D. approval number:	CSD 1339/3

DRIVER'S SEAT

Make, model and type:	MARS, Zetor 5911-5400, upholstered seat
Type of suspension:	Parallelogram linkage adjustable for driver's weight
Type of damping:	Hydraulic
Range of adjustment:	
Longitudinal:	150 mm
Vertical:	60 mm

MISCELLANEOUS

Additional seat:

Location: Left-hand side of driver

Number of places: 1

LIGHTING

	Height above ground of centre mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights	1035	120x120	200
Sidelights	1710	60x65	720
Rearlights	1795	120x40	770
Reflectors	Not fitted		

II. TEST CONDITIONS

Overall dimensions

Length mm	Width		Height at top of	
	minimum mm	maximum mm	protective structure mm	exhaust silencer mm
4380	2020	2250	2670	2775

Ground clearance
(unballasted tractor): 352 mm

Clearance-limiting part: Semi-trailer hitch

Tractor mass (with cab)

	Without driver kg	With driver kg
Front	1635	1655
Rear	2425	2480
Total	4060	4135

Tyre and track width specifications

	Front	Rear
Tyres:		
Make	BARUM	TAURUS
Dimensions	12.4-24	16.9R38
Ply rating	8	141 A8
Type	diagonal	radial
Maximum load (tyre manufacturer s)	11.32 kN	25.75 kN
Maximum load (tractor manufacturer s)	11.25 kN	17.00 kN
Inflation pressure (tyre manufac.)	230 kPa	160 kPa
Dynamic radius index	540 mm	795 mm
Chosen track width:	1560 mm	1575 mm

Oils and lubrication

Capacity and change interval:

	Capacity dm^3	Oil change h	Filter change h
Engine	10.0	200	200
Gear box	40.0	1800	200
Front axle	3.1	1800	-
Rear axle	Common with gear box		
Final drive (front)	2x1.0	1800	-
Final drive (rear)	Common with gear box		
Hydraulic system	Common with gear box		
Steering	4.5	2400	2400
Air cleaner	2.3	200	-

Specifications:

	Recommended	Used during test
Engine oil: Type Viscosity Classification	 SAE 20W/40 14.0 cSt at 100 °C API SE/CD+	As recommended
Transmission oils: Type Viscosity Classification	 SAE 80W 7.5 cSt at 100 °C API GL-4	As recommended
Steering oil: Type Viscosity Classification	 OH-HM 32 28.8 cSt at 40 °C ISO 6743 HM 32	As recommended

Hydraulic fluid: Same as transmission

Air cleaner filling: Same as engine

Grease:

Number of lubrication points: 20

Fuel

Type: Diesel fuel, in conformity with national standard ČSN 65 6506

Density at 15 °C: 0.836 g/cm^3 for P.T.O. tests
0.835 g/cm^3 for drawbar tests

III. TEST RESULTS

COMPULSORY TESTS RESULTS

1. MAIN POWER TAKE-OFF

Date and location of tests: 13th November 1991, SZZPLS Praha

Type of dynamometer: FROUDE AG 400

Power	Speed		Fuel consumption			Specific energy
	Engine	P.T.O.	Hourly		Specific	
kW	rev/min		kg/h	l/h	g/kWh	kWh/l
1.1 MAXIMUM POWER - TWO-HOUR TEST						
64.4	2151	1103	15.89	19.01	247	3.39
1.2 POWER AT RATED ENGINE SPEED						
64.0	2200	1128	16.01	19.15	250	3.34
1.3 STANDARD POWER TAKE-OFF SPEED 1000 rev/min						
61.7	1950	1000	15.03	17.98	244	3.43
1.4 PART LOADS						
1.4.1 the torque corresponding to maximum power at rated engine speed						
64.0	2200	1128	16.01	19.15	250	3.34
1.4.2 85 % of torque obtained in 1.4.1						
57.5	2324	1192	14.93	17.86	260	3.22
1.4.3 75 % of torque defined in 1.4.2						
43.9	2367	1214	12.46	14.90	284	2.95
1.4.4 50 % of torque defined in 1.4.2						
29.8	2410	1236	10.02	11.99	336	2.49
1.4.5 25 % of torque defined in 1.4.2						
15.1	2436	1249	7.67	9.17	508	1.65
1.4.6 unloaded						
-	2463	1263	5.08	6.08	-	-

Power	Speed		Fuel consumption			Specific energy
	Engine	P.T.O.	Hourly		Specific	
kW	rev/min		kg/h	l/h	g/kWh	kWh/l
1.5 PART LOADS AT STANDARD POWER TAKE-OFF SPEED 1000 rev/min						
1.5.1 the torque corresponding to maximum power						
61.7	1950	1000	15.03	17.98	244	3.43
1.5.2 85 % of torque obtained in 1.5.1						
55.7	2073	1063	13.78	16.48	247	3.38
1.5.3 75 % of torque defined in 1.5.2						
42.8	2124	1089	11.25	13.46	263	3.18
1.5.4 50 % of torque defined in 1.5.2						
29.2	2168	1112	8.88	10.62	304	2.74
1.5.5 25 % of torque defined in 1.5.2						
14.8	2196	1126	6.56	7.85	443	1.89
1.5.6 unloaded						
-	2221	1139	3.97	4.75	-	-

No load maximum engine speed: 2463 rev/min

Torque (equivalent crankshaft) at maximum power at rated engine speed: 277.8 Nm

Torque (equivalent crankshaft) at maximum power: 285.9 Nm

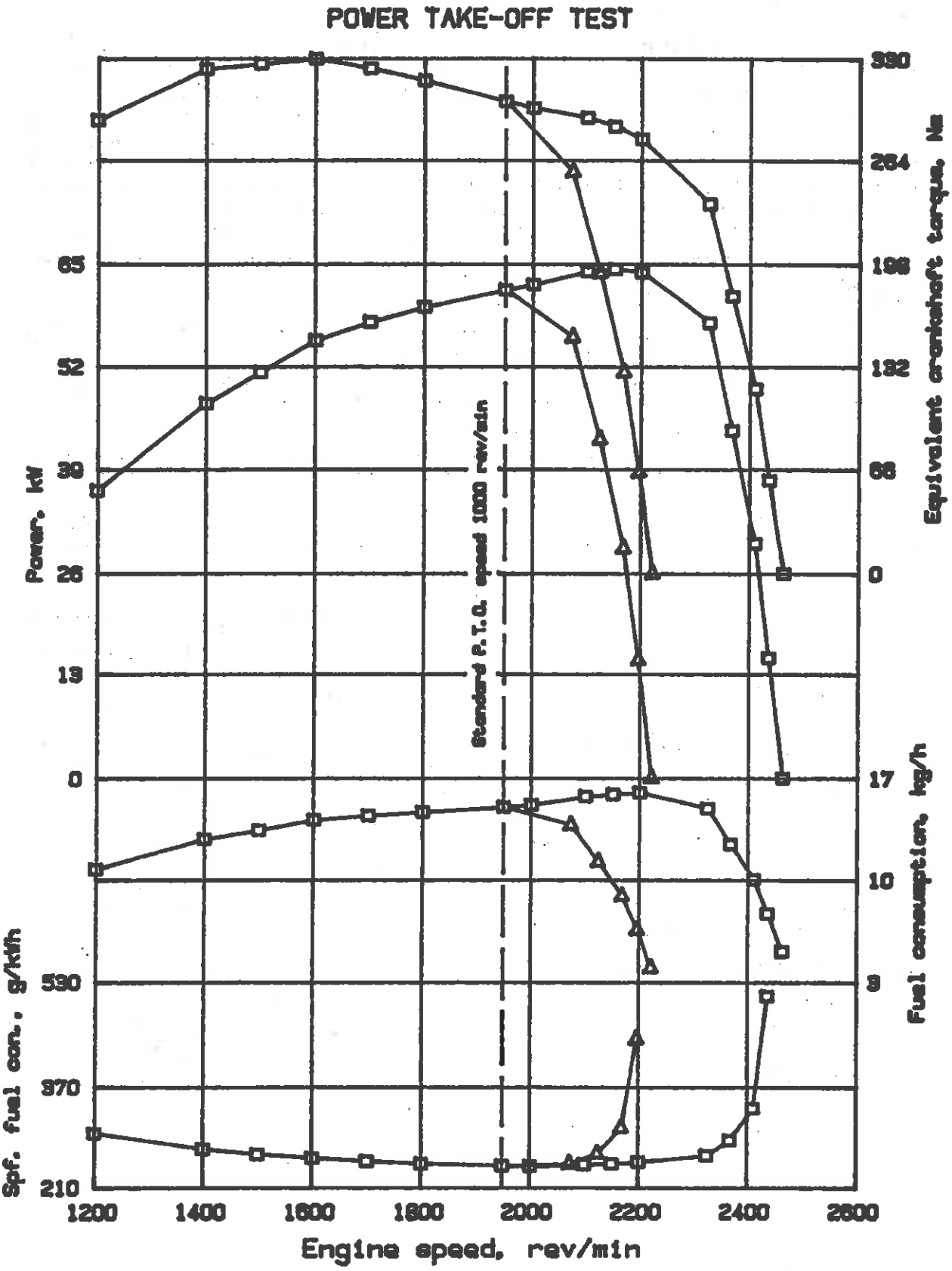
Maximum torque (equivalent crankshaft): 329.8 Nm
(engine speed: 1601 rev/min)

Mean atmospheric conditions:

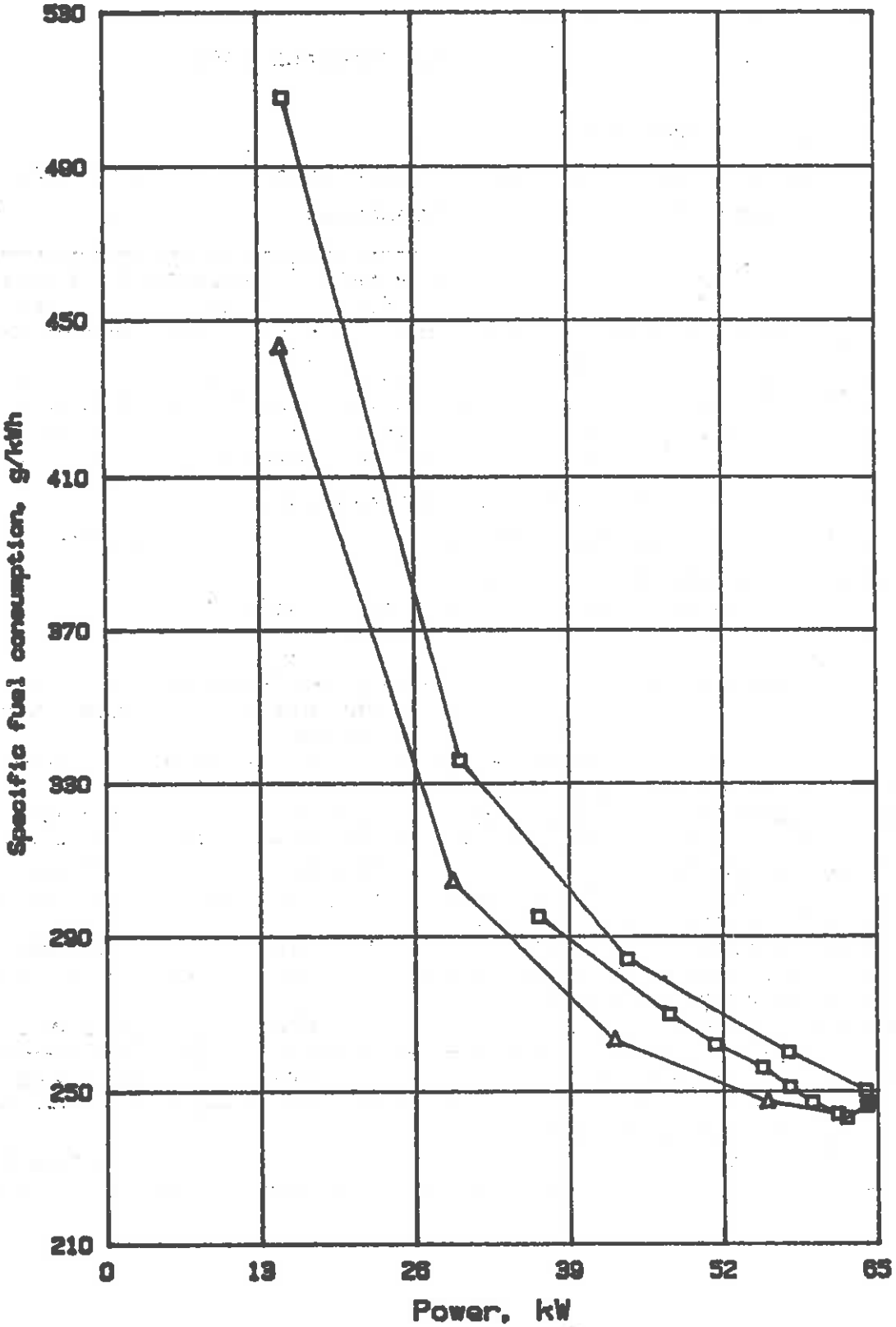
Temperature: 21 °C
Pressure: 98.7 kPa
Relative humidity: 47 %

Maximum temperatures:

Coolant: 80 °C
Engine oil: 108 °C
Fuel: 38 °C
Engine air intake: 27 °C


POWER TAKE-OFF TEST
Power, kW
65
52
39
26
13
0
Standard P.T.O. speed 1000 rev/min
Equivalent crankshaft torque, Nm
330
284
198
132
66
0
Spf. fuel con., g/kWh
330
270
210
Fuel consumption, kg/h
17
10
3
1200
1400
1600
1800
2000
2200
2400
2600
Engine speed, rev/min

POWER TAKE-OFF TEST



2. HYDRAULIC POWER AND LIFTING FORCE

Date of test: 2nd December 1991

2.1 HYDRAULIC POWER TEST

Sustained pressure with relief valve open: 17.0 MPa

Pump delivery rate at minimum pressure: 43.3 l/min

	Flow rate l/min	Pressure MPa	Power kW
At 90 % of the actual relief valve pressure setting	37.3	15.3	9.5
At maximum hydraulic power	40.4	14.5	9.8

Tapping point used for test: External tapping

Temperature of hydraulic fluid: 62 °C

Opening and closing pressure of the unloading valve: Not applicable

2.2 POWER LIFT TEST

	At the hitch point	On the frame
Height of lower hitch points above ground in down position	200 mm	200 mm
Vertical movement	689 mm	835 mm
Maximum corrected force exerted through full range	37.0 kN	33.0 kN
Corresponding pressure of hydraulic fluid	14.5 MPa	14.5 MPa
Moment about rear-wheel axis	39.0 kNm	54.9 kNm
Maximum tilt angle of mast from vertical	-	11 degrees

Lifting heights relative to the horizontal plane including the lower link pivot points												
mm	-393	-346	-300	-200	-100	0	+100	+200	+300	+343	+400	+442
Lifting forces at the hitch points, corrected to 14.5 MPa												
kN	-	37.0	39.8	42.1	43.5	44.8	45.1	46.0	47.0	46.5	-	-
Lifting forces at the test frame, corrected to 14.5 MPa												
kN	34.8	-	35.5	37.2	37.8	38.0	37.3	36.4	35.0	-	34.5	33.0

3. DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

Date of test: 8th May 1992

Type of track: Bituminous-concrete surface

Height of drawbar above ground	Tyre inflation pressure	
	Front	Rear
377 mm	170 kPa	140 kPa

Gear and group	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption
	kW	kN	km/h	rev/min	%	g/kWh
3.1 MAXIMUM POWER IN TESTED GEARS						
2 LM2	36.2	33.7	3.87	2345	15.0	395
2 LM3	41.9	33.6	4.49	2326	15.0	354
3 LM1	48.0	31.1	5.56	2151	10.6	325
3 LM2	50.3	26.3	6.88	2147	7.6	309
1 HM1	50.4	24.5	7.41	2151	6.7	306
3 LM3	50.5	22.1	8.23	2146	5.4	302
1 HM2	51.2	20.6	8.95	2151	4.9	299
1 HM3	50.8	17.5	10.45	2151	3.9	304
2 HM1	49.8	13.3	13.49	2151	3.5	312
3.2 FUEL CONSUMPTION						
3.2.1 in selected gear, at maximum power at rated speed						
1 HM2	50.3	20.1	9.00	2202	4.4	313
3.2.1.1 75 % of pull at maximum power at rated speed						
1 HM2	40.5	15.1	9.66	2337	3.6	348
3.2.1.2 50 % of pull at maximum power at rated speed						
1 HM2	27.9	10.1	9.96	2373	2.2	421
3.2.1.3 next higher gear at reduced engine speed; same pull						
1 HM3	40.4	15.1	9.64	1987	3.5	326
3.2.1.4 next higher gear at reduced engine speed; same pull						
1 HM3	27.9	10.1	9.95	2051	2.2	353
3.2.2 in selected gear nearest to 7.5 km/h at rated speed						
1 HM1	49.7	23.9	7.49	2197	6.5	315
3.2.2.1 75 % of pull at maximum power at rated speed						
1 HM1	40.9	17.9	8.22	2339	4.1	351
3.2.2.2 50 % of pull at maximum power at rated speed						
1 HM1	28.1	12.0	8.43	2374	2.9	414
3.2.2.3 next higher gear at reduced engine speed; same pull						
3 LM3	40.8	17.9	8.21	2121	4.1	339
3.2.2.4 next higher gear at reduced engine speed; same pull						
3 LM3	28.2	12.0	8.47	2175	3.0	398

Specific energy	Temperature			Atmospheric conditions		
	Fuel	Coolant	Engine oil	Tempera-ture	Relative humidity	Pressure
kWh/l	°C	°C	°C	°C	%	kPa
2.11	32	77	99	18	71	100.7
2.36	32	77	99	18	71	100.7
2.57	35	76	100	18	69	100.7
2.71	37	77	101	19	69	100.7
2.72	40	78	100	19	69	100.7
2.76	42	78	103	19	65	100.7
2.79	44	77	102	21	63	100.7
2.75	40	78	101	22	60	100.7
2.68	44	78	102	24	53	100.5
2.67	44	77	100	24	53	100.5
2.40	43	77	101	24	53	100.5
1.98	43	77	101	24	53	100.5
and travelling speed as in 3.2.1.1						
2.56	43	77	103	24	53	100.5
and travelling speed as in 3.2.1.2						
2.36	45	76	104	24	53	100.5
2.65	40	78	103	24	50	100.5
2.38	44	77	101	24	50	100.5
2.02	44	76	101	24	48	100.5
and travelling speed as in 3.2.2.1						
2.46	43	77	101	24	48	100.5
and travelling speed as in 3.2.2.2						
2.10	45	77	102	24	48	100.5

OPTIONAL TEST RESULTS

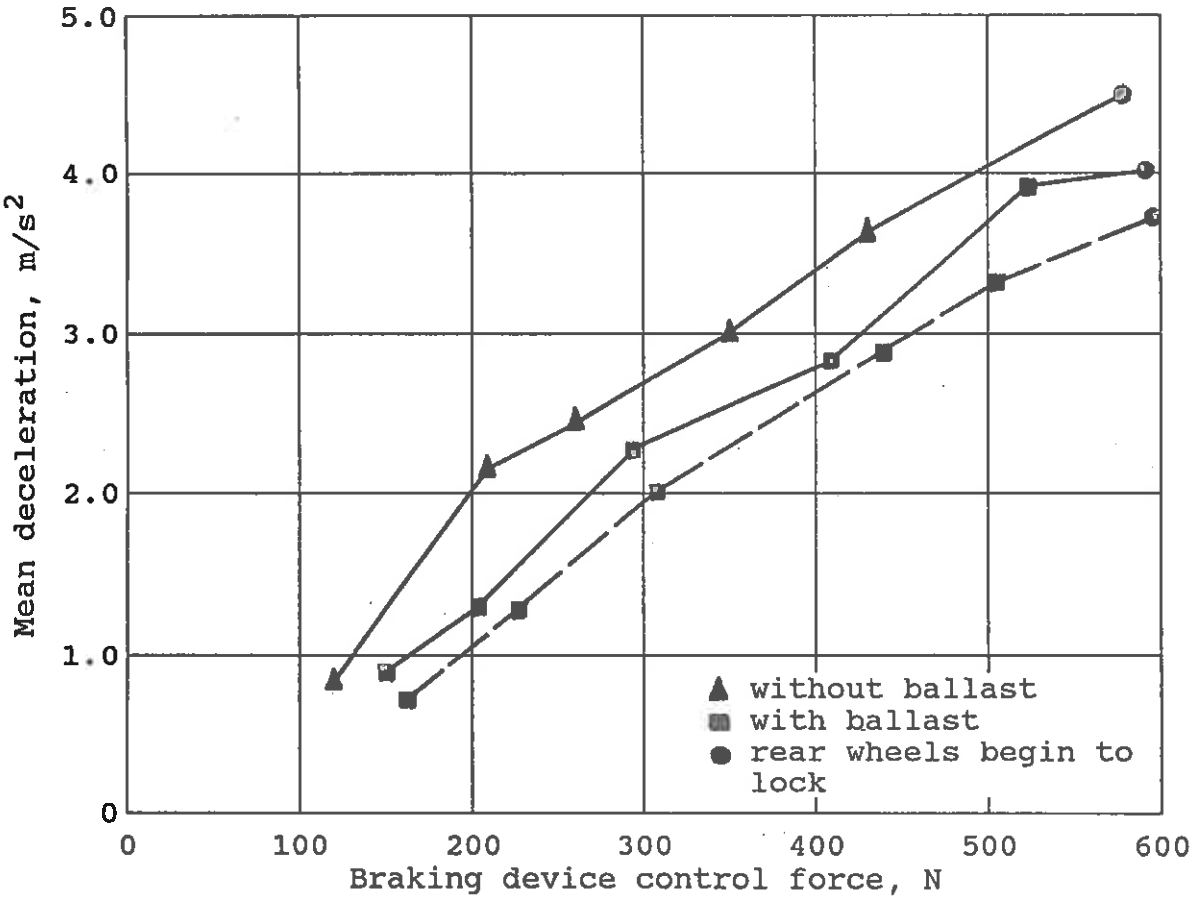
4. BRAKING

Date of test: 3rd March 1992

	Tractor mass (with driver)			Speed before application of brakes
	Front kg	Rear kg	Total kg	km/h
Ballasted	2250	3400	5650	37.1
Unballasted	1655	2480	4135	37.3

4.1 COLD SERVICE BRAKING DEVICE TEST (————————)

4.2 FADE TEST (- - - - - -)



Maximum deviation of tractor from its original course:	Not significant
Abnormal vibration:	None
Brake heating method:	Driven with brakes applied for 1 km at 80 % of maximum speed with a pedal force corresponding to a deceleration of 1 m/s^2

4.3 PARKING BRAKING DEVICE TEST

	Ballasted tractor on 18 % - slope	
	Uphill	Downhill
Braking device control force	157 N	154 N

5. MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test:	30th March 1992
Make and model of sound level meter:	BRÜEL & KJAER, 2231
Type of track:	Bituminous-concrete surface
Gear number:	3 HM3
Travelling speed before acceleration:	28.0 km/h
Sound level:	85.5 dB(A)

6. REPAIRS — None

7. REMARKS — None

SUPPLEMENTARY TEST

8. MEASUREMENT OF EXTERNAL NOISE LEVEL

Exhaust system

Make, model and type:	ZETOR, 10.014.010, exhaust pipe

Location:	Left-hand side of engine, vertical
Test	
Date of test:	30th March 1992
Make and model of sound level meter:	BRÜEL & KJAER, 2231
Type of track:	Bituminous-concrete surface
Gear number:	3 HM3
Travelling speed before acceleration:	28.0 km/h
Sound level:	89.0 dB(A)

Test carried out by: Dipl. Ing. Peter Pernis

Head of the Tractor Department
Dipl. Ing. Peter Pernis

Director
Dipl. Ing. Vladimír Hanzlík