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: 25th June 1993

O.E.C.D. No. 1459



Agricultural Tractor
ZETOR 8520 (2WD)

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

Report No. 10742
Date of test: Nov. 1992 - Mar. 1993

TABLE OF CONTENTS

	Page No.
I. SPECIFICATION OF TRACTOR	3
II. TEST CONDITIONS	16
III. TEST RESULTS	19
COMPULSORY TESTS RESULTS	
1. Main power take-off	19
2. Hydraulic power and lifting force	23
3. Drawbar power and fuel consumption	24
OPTIONAL TEST RESULTS	
4. Braking	27
5. Measurement of external noise level	28
6. Repairs	28
7. Remarks	28
SUPPLEMENTARY TEST	
8. Measurement of external noise level	28

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

I. SPECIFICATIONS OF TRACTOR

TRACTOR

Make:	ZETOR
Model:	8520
Type:	Wheeled, unit construction, rear wheels drive
Number of driving wheels:	2
Serial No.:	000 855
1st Serial No.:	001 001

ENGINE

Make:	ZBROJOVKA
Model:	Zetor 1201
Type:	4-stroke diesel engine, direct injection, water cooled, turbocharged
Serial No.:	000 854

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 272960 U 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, PP 4M 2, in-line
Serial No.:	V 6918
Manufacturer's production setting of injection pump:	
Flow rate (rated engine speed and full load):	17.04+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 hole
Injection pressure:	22.0-0.8 MPa
Governor	
Make, model and type:	MOTORPAL, RV 3M 350/1100, 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:	SANDRIK, 91 050, dry with paper element, integrated cyclon type pre-cleaner
Location of air intake:	Under bonnet forward of radiator
Maintenance indicator:	Warning light on instrument panel

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:	Intake air heating-up and coolant by means of 1000 W/220 V heating element
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:	150 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, 78.153.000,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

Make, model and type:	ZETOR, 78.200.000, telescopic with adjustable track

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	432.231	1.53
2		246.532	2.67
3		139.022	4.74
1	LM2	367.944	1.79
2		209.864	3.14
3		118.345	5.57
1	LM3	312.995	2.11
2		178.523	3.69
3		100.671	6.55
1	HM1	94.325	6.99
2		53.800	12.26
3		30.338	21.73
1	HM2	80.296	8.21
2		45.798	14.40
3		25.826	25.53
1	HM3	68.304	9.65
2		38.959	16.92
3		21.969	30.01
R	LM1	264.141	2.50
	LM2	224.855	2.93
	LM3	191.274	3.45
	HM1	57.643	11.44
	HM2	49.070	13.44
	HM3	41.742	15.80

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).

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	0.171	29.1611
	H	0.785	6.3638
1000	L	0.094	52.9846
	H	0.432	11.5628

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

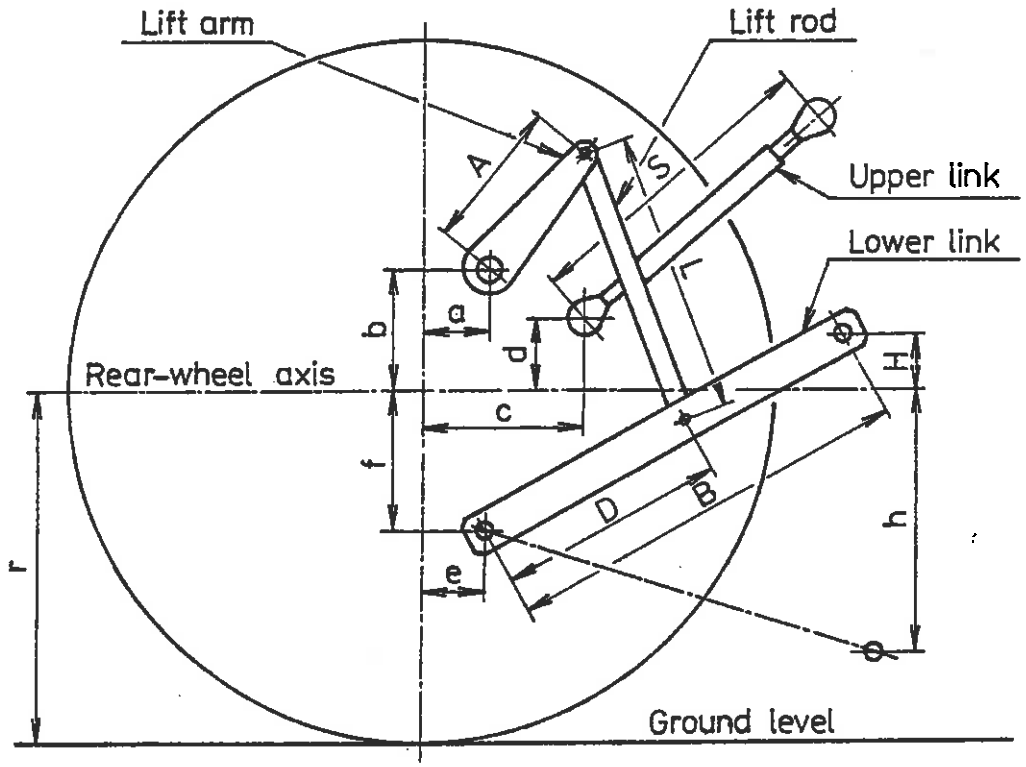
Site of oil reservoir: Transmission housing

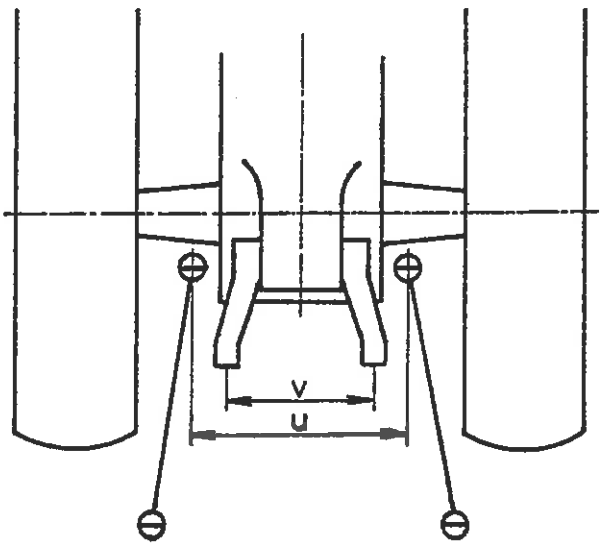
Type, number and location of tapping points:	4 pressure and 1 return, quick release at rear of tractor and 2 pressure and 1 return, quick release at right front corner of cab
Maximum volume of oil available to external cylinders:	10 dm^3

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
Length 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	685
Distance of upper link pivot point from :horizontally	(c)	360	360
rear-wheel axis :vertically	(d)	116, 151, 191, 231	191
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	648
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	131
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:	Automatic clevis
Hole diameter:	35 mm
Height above ground:	691, 791 and 891 mm
Distance of hitch point from rear-wheel axis, horizontally:	863 mm
Distance of hitch point from power take-off shaft end:	
Vertically:	15,.115 and 215 mm
Horizontally:	383 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:	926 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:	814 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 with a gear in the front axle console
Working pressure:	10.0 MPa

BRAKES

Servis brake

Make, model and type:	ZETOR, 78.227.000, wet disc, multiplate, 5 discs each side
Method of operation:	Hydraulically by pedals, coupled or independent
Trailer braking take-off:	Air brake operated by tractor pedals

Parking brake

Type:	Common with service brake
Method of operation:	Mechanical by hand lever with ratchet

WHEELS

Number:

Front: 2, steering

Rear: 2, driving

Wheelbase: 2375 mm

Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1405	1780	By extending of front axle
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, Czech Republic

Protective device: Cab, not tiltable

O.E.C.D. approval number: CSD 1339/2

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	1020	120x120	200
Sidelights	1675	60x65	720
Rearlights	1775	120x40	770
Reflectors	1070	ϕ80	880

II. TEST CONDITIONS

Overall dimensions

Length mm	Width		Height at top of	
	minimum mm	maximum mm	protective structure mm	exhaust silencer mm
4190	1950	2250	2640	2780

Ground clearence
(unballasted tractor): 325 mm

Clearance-limiting part: Semi-trailer hitch

Tractor mass (with cab)

	Without driver kg	With driver kg
Front	1350	1370
Rear	2435	2490
Total	3785	3860

Tyre and track width specifications

	Front	Rear
Tyres:		
Make	BARUM	TAURUS
Dimensions	7.50-20	16.9R38
Ply rating	6	141 A8
Type	diagonal	radial
Maximum load (tyre manufacturer's)	8.75 kN	27.55 kN
Maximum load (tractor manufacturer's)	9.25 kN	20.00 kN
Inflation pressure (tyre manufac.)	300 kPa	160 kPa
Dynamic radius index	430 mm	795 mm
Chosen track width:	1480 mm	1505 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
Rear axle			
Final drive (rear)	Common with gear box		
Hydraulic system			
Steering	4.5	2400	2400

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

Grease:

Number of lubrication points: 18

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: 20th 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						
56.5	2049	1051	14.15	16.93	250	3.34
1.2 POWER AT RATED ENGINE SPEED						
55.6	2200	1128	14.19	16.97	255	3.28
1.3 STANDARD POWER TAKE-OFF SPEED 1000 rev/min						
56.0	1950	1000	13.90	16.63	248	3.37
1.4 PART LOADS 1.4.1 the torque corresponding to maximum power at rated engine speed						
55.6	2200	1128	14.19	16.97	255	3.28
1.4.2 85 % of torque obtained in 1.4.1						
50.0	2328	1194	13.51	16.16	270	3.09
1.4.3 75 % of torque defined in 1.4.2						
38.1	2361	1211	11.43	13.67	300	2.78
1.4.4 50 % of torque defined in 1.4.2						
25.8	2399	1230	9.33	11.16	362	2.31
1.4.5 25 % of torque defined in 1.4.2						
13.0	2420	1241	7.14	8.54	549	1.52
1.4.6 unloaded						
-	2455	1259	4.78	5.72	-	-

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						
56.0	1950	1000	13.90	16.63	248	3.37
1.5.2 85 % of torque obtained in 1.5.1						
51.0	2088	1071	12.95	15.49	254	3.29
1.5.3 75 % of torque defined in 1.5.2						
39.1	2137	1096	10.68	12.78	273	3.06
1.5.4 50 % of torque defined in 1.5.2						
26.5	2174	1115	8.49	10.16	320	2.61
1.5.5 25 % of torque defined in 1.5.2						
13.5	2207	1132	6.33	7.57	469	1.78
1.5.6 unloaded						
-	2237	1147	4.11	4.92	-	-

No load maximum engine speed: 2455 rev/min

Torque (equivalent crankshaft) at maximum power at rated engine speed: 241.3 Nm

Torque (equivalent crankshaft) at maximum power: 263.3 Nm

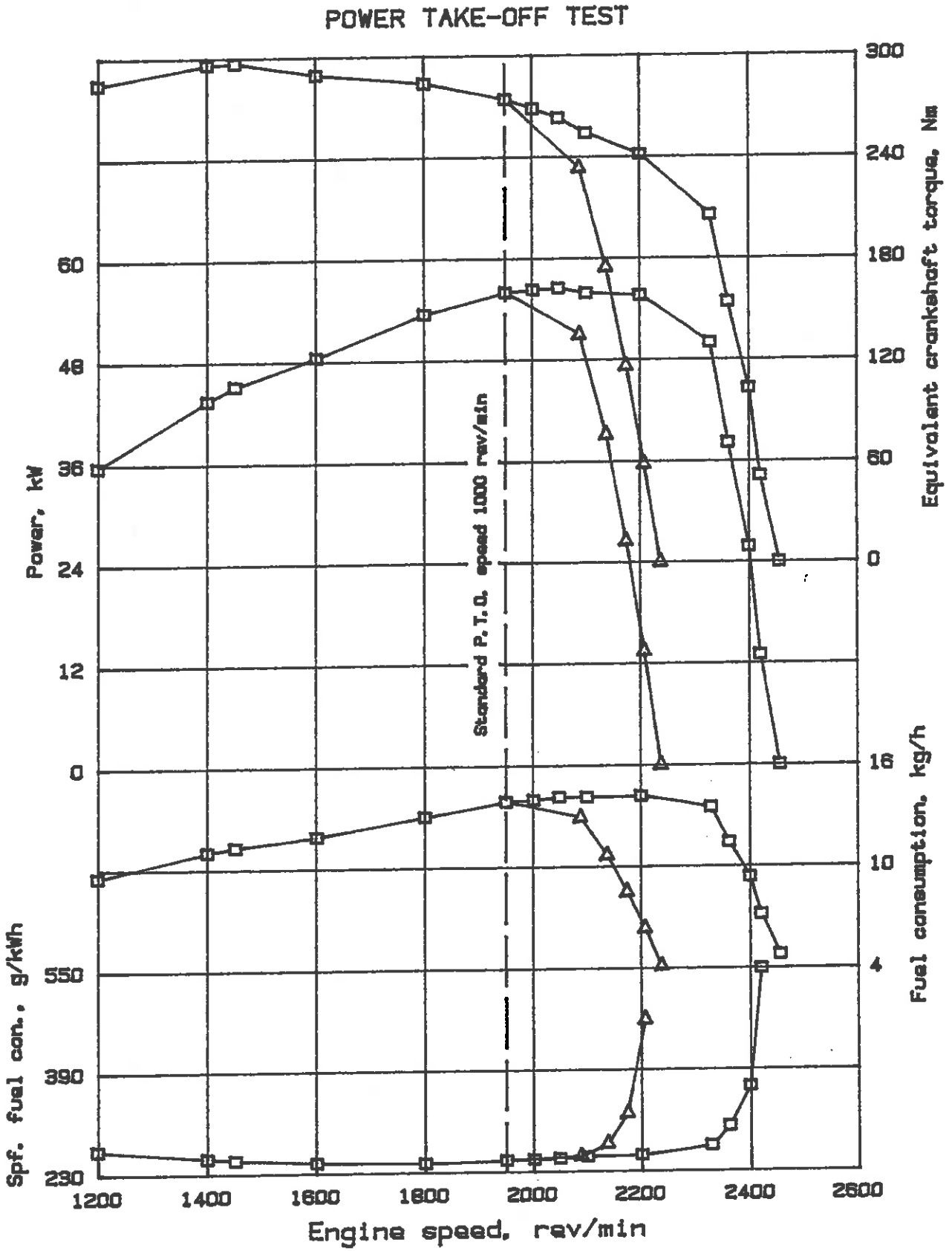
Maximum torque (equivalent crankshaft): 296.8 Nm
(engine speed: 1451 rev/min)

Mean atmospheric conditions:

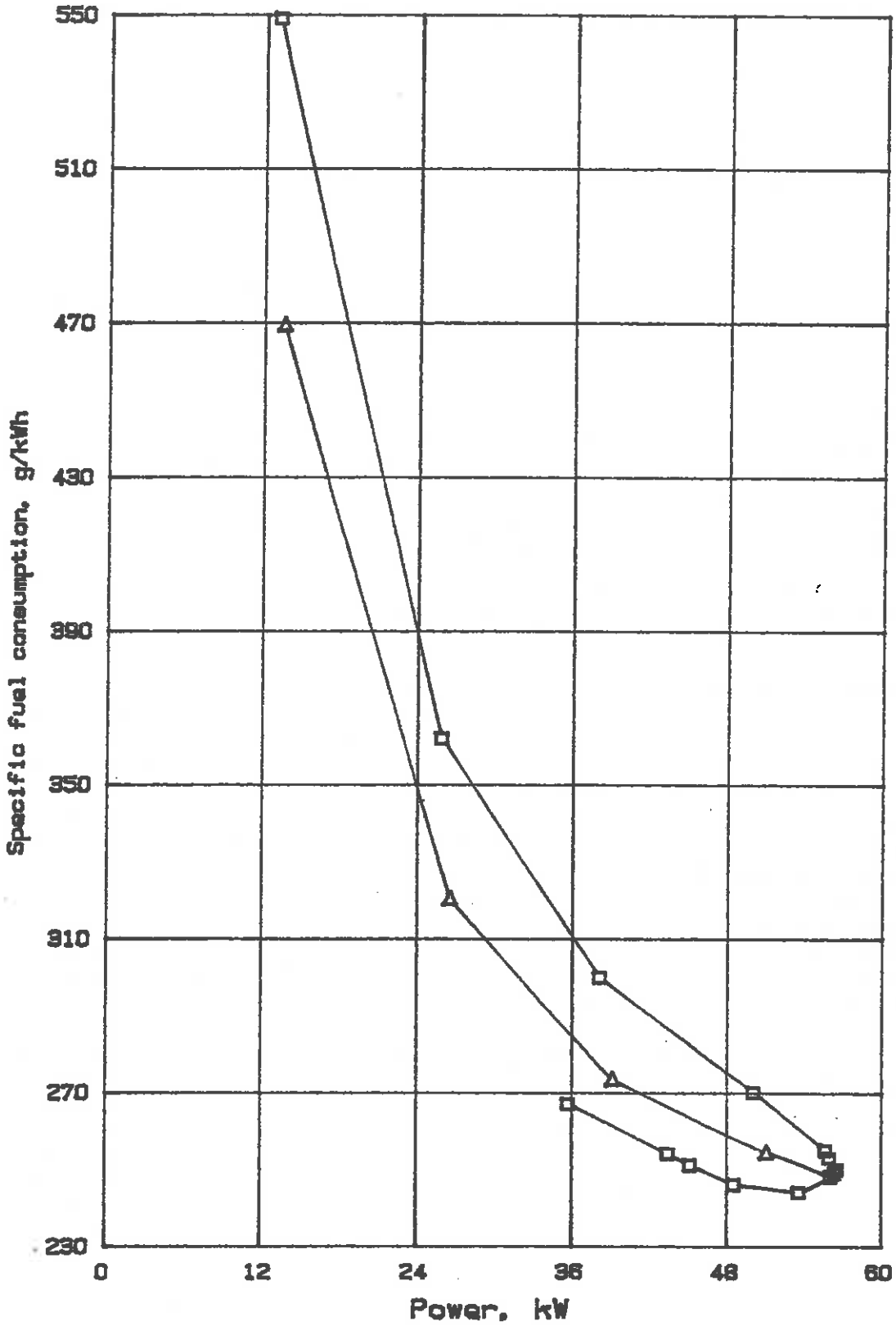
Temperature: 19 °C
Pressure: 100.8 kPa
Relative humidity: 55 %

Maximum temperatures:

Coolant: 80 °C
Engine oil: 109 °C
Fuel: 37 °C
Engine air intake: 25 °C


POWER TAKE-OFF TEST
Power, kW
60
48
36
24
12
0
Standard P.T.O. speed 1000 rev/min
Equivalent crankshaft torque, Nm
300
240
180
120
60
0
Fuel consumption, kg/h
16
10
4
Spf. fuel con., g/kWh
550
390
230
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: 1st February 1992

2.1 HYDRAULIC POWER TEST

Sustained pressure with relief valve open: 16.8 MPa

Pump delivery rate at minimum pressure: 46.7 l/min

	Flow rate l/min	Pressure MPa	Power kW
At 90 % of the actual relief valve pressure setting	31.2	15.1	7.9
At maximum hydraulic power	43.0	14.0	10.0

Tapping point used for test: External tapping

Temperature of hydraulic fluid: 68 °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	690 mm	846 mm
Maximum corrected force exerted through full range	36.2 kN	31.3 kN
Corresponding pressure of hydraulic fluid	14.0 MPa	14.0 MPa
Moment about rear-wheel axis	38.2 kNm	52.1 kNm
Maximum tilt angle of mast from vertical	-	11 degrees

Lifting heights relative to the horizontal plane including the lower link pivot points												
mm	-397	-346	-300	-200	-100	0	+100	+200	+300	+344	+400	+449
Lifting forces at the hitch points, corrected to 14.0 MPa												
kN	-	36.2	38.8	40.9	42.6	43.3	43.5	44.0	44.7	45.2	-	-
Lifting forces at the test frame, corrected to 14.0 MPa												
kN	33.2	-	34.2	35.3	36.1	35.8	34.5	33.4	32.1	-	31.6	31.3

3. DRAWBAR POWER AND FUEL CONSUMPTION (UNBALLASTED TRACTOR)

Date of test: 17th November 1992

Type of track: Bituminous-concrete surface

Height of drawbar above ground	Tyre inflation pressure	
	Front	Rear
377 mm	210 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						
3 LM1	30.9	25.5	4.36	2357	15.0	391
3 LM2	36.8	26.2	5.05	2332	15.1	365
3 LM3	42.0	25.7	5.88	2309	15.0	351
1 HM1	43.3	26.1	5.97	2192	15.0	336
1 HM2	48.3	24.1	7.22	2049	7.2	295
1 HM3	49.4	20.6	8.63	2051	6.0	291
2 HM1	49.6	16.3	10.96	2049	3.9	287
2 HM2	48.5	13.4	13.03	2045	3.2	295
2 HM3	48.2	11.2	15.49	2053	2.3	296
3.2 FUEL CONSUMPTION						
3.2.1 in selected gear, at maximum power at rated speed						
2 HM1	48.7	14.7	11.92	2202	3.5	299
3.2.1.1 75 % of pull at maximum power at rated speed						
2 HM1	39.1	11.0	12.81	2348	2.2	337
3.2.1.2 50 % of pull at maximum power at rated speed						
2 HM1	26.9	7.4	13.10	2378	1.6	400
3.2.1.3 next higher gear at reduced engine speed; same pull						
2 HM2	39.1	11.0	12.79	1988	2.2	293
3.2.1.4 next higher gear at reduced engine speed; same pull						
2 HM2	27.0	7.4	13.15	2046	1.6	343
3.2.2 in selected gear nearest to 7.5 km/h at rated speed						
1 HM2	47.9	22.2	7.76	2198	6.6	304
3.2.2.1 75 % of pull at maximum power at rated speed						
1 HM2	39.5	16.7	8.51	2353	4.1	328
3.2.2.2 50 % of pull at maximum power at rated speed						
1 HM2	26.9	11.1	8.74	2386	2.3	393
3.2.2.3 next higher gear at reduced engine speed; same pull						
1 HM3	39.5	16.8	8.46	1993	4.1	290
3.2.2.4 next higher gear at reduced engine speed; same pull						
1 HM3	27.1	11.1	8.78	2043	2.3	336

Specific energy	Temperature			Atmospheric conditions		
	Fuel	Coolant	Engine oil	Tempera-ture	Relative humidity	Pressure
kWh/l	°C	°C	°C	°C	%	kPa
2.14	19	83	100	7	64	96.7
2.28	21	83	99	6	82	96.7
2.38	21	83	100	6	87	96.7
2.49	22	82	99	6	87	96.7
2.83	25	82	100	6	87	96.7
2.87	23	82	100	6	87	96.7
2.91	25	81	101	6	89	96.7
2.83	26	81	101	6	89	96.7
2.82	26	81	100	5	86	96.6
2.79	24	83	100	6	89	96.7
2.48	20	83	98	5	88	97.1
2.09	21	82	99	5	88	97.1
and travelling speed as in 3.2.1.1						
2.85	24	81	98	5	88	97.1
and travelling speed as in 3.2.1.2						
2.44	23	81	97	5	88	97.1
2.75	23	82	100	6	87	96.7
2.55	22	83	99	5	88	97.1
2.12	22	82	99	5	88	97.1
and travelling speed as in 3.2.2.1						
2.88	23	81	97	5	88	97.1
and travelling speed as in 3.2.2.2						
2.49	22	81	96	5	88	97.1

OPTIONAL TEST RESULTS

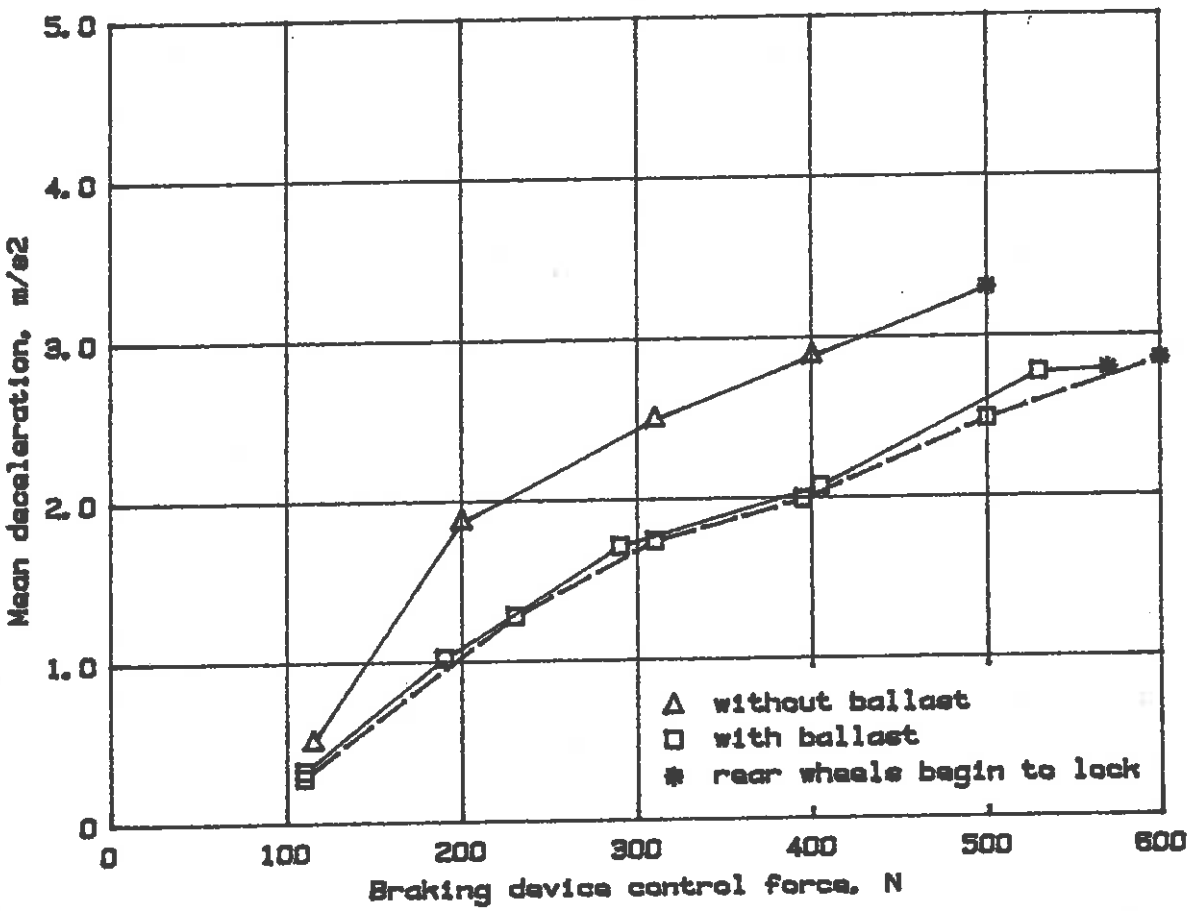
4. BRAKING

Date of test: 23rd and 24th March 1993

	Tractor mass (with driver)			Speed before application of brakes
	Front kg	Rear kg	Total kg	km/h
Ballasted	1850	4000	5850	31.1
Unballasted	1370	2490	3860	32.5

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	200 N	180 N

5. MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of test:	22nd March 1993
Make and model of sound level meter:	BRÜEL & KJAER, 2231
Type of track:	Bituminous-concrete surface
Gear number:	3 HM3
Travelling speed before acceleration:	24.4 km/h
Sound level:	84.0 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:	22nd March 1993
Make and model of sound level meter:	BRÜEL & KJAER, 2231
Type of track:	Bituminous-concrete surface
Gear number:	3 HM3
Travelling speed before acceleration:	24.4 km/h
Sound level:	87.0 dB(A)

Test carried out by: Dipl. Ing. Peter Pernis

Head of the Tractor Department
Dipl. Ing. Peter Pernis

Director
Dipl. Ing. Vladimír Hanzlík