COMITATO PER L'OMOLOGAZIONE
DELLE MACCHINE AGRICOLE

O.E.C.D. Approval No. 1146/1412
Restricted Code

TEST IN ACCORDANCE WITH THE OECD RESTRICTED STANDARD CODE FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS

TRACTOR:

Make:	**LANDINI**
Model:	**R 14500 (TL 24 N/G)**
Type:	**2 WD**
Make:	**MASSEY FERGUSON**
Model:	**1134-2 (TL 24 N/F)**
Type:	**2 WD**



Manufactured by: MASSEY FERGUSON S.p.A. - Landini Division
Works of FABBRICO (Reggio Emilia) - Italy

Date and location of tests: March-June 1987 - Turin (Italy)

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

Date of approval: 10th June 1988

The LANDINI R 14500 tractor and the MASSEY FERGUSON MF 1134-2 tractor being mechanically similar, the tests have not been repeated and the approval number is valid for both models of tractor.

CONSIGLIO NAZIONALE DELLE RICERCHE
ISTITUTO PER LA MECCANIZZAZIONE AGRICOLA
TORINO - Italy

This bulletin is based on engineering test in accordance with O.E.C.D. Tractor Restricted Code. It does not contain an evaluation of performance of the tractor on pratical farm work.

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:	1 N = 0.10197 kg	or 1 kg	= 9.80665 N
Powers:	1 kW = 1.35962 metric hp	or 1 metric hp	= 0.73550 kW
Pressures:	1 bar = 1.01972 kg/cm^2	or 1 kg/cm^2	= 0.980665 bar
Torques:	1 mN = 0.10196 mkg	or 1 mkg	= 9.80665 mN

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PERFORMANCE CURVES

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Power take-off test	
Curves of power, torque, hourly and specific fuel consumption/crankshaft speed	1
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Manufacturer's name and address:	MASSEY FERGUSON S.p.A. - Landini Division Via G. Matteotti, 19 FABBRICO - Reggio Emilia - Italy
Submitted for test by:	Manufacturer with the agreement of Istituto per la Meccanizzazione Agricola - Torino (Italy)
Selected by:	Manufacturer with agreement by Istituto per la Meccanizzazione Agricola - Torino (Italy)
Place of running-in:	Istituto per la Meccanizzazione Agricola - Torino (Italy)
Duration of running-in:	Engine and tractor appr. 60 hours
Location of test:	Istituto per la Meccanizzazione Agricola - Torino (Italy)

SPECIFICATION OF TRACTOR:

Tractor:

Make:	LANDINI	MASSEY FERGUSON
Model:	R 14500 (TL 24 N/G)	1134-2 (TL 24 N/F)
Type:	2 WD - Wheel tractor unit construction, rear wheel drive	
Serial No.:	2425 V 05005	
1st serial No.:	2425 V 00001	

Engine:

Make:	PERKINS
Model:	AT6. 3544
Type:	4-stroke Diesel engine, direct injection, water cooled
Serial No.:	TU31004V774691N
Cylinders:	6 cylinders, vertical, in-line, 98.48 mm bore × 127 mm stroke, capacity 5800 cm^3 compression ratio 15.5 : 1, overhead in-line valves, replaceable cast-iron dry cylinder liners.
Superchargin:	GARRET 2674404
Fuel system:	Forced feed; DELCO diaphragm-type fuel pump; 2 CAV paper filters, type 2FAS 584 B70 replaceable cartridge element; capacity of fuel tank 180 litres; CAV model DPA 3269 F 910 injection pump, serial No. 8269591; manufacturer's production setting 32.0 to 33.0 l/h at rated engine speed and full load. Injection timing 28° + 1 before TDC. CAV multihole injectors, model BDLL, serial No. 150 S 6737; injector pressure 205.9 ± 5 bar.
Governor:	CAV centrifugal variable speed governor, mechanical type, incorporated in fuel injection pump, governed range engine speed 750 to 2690 rev/min; rated engine speed 2400 rev/min.

Air cleaner:	DONALDSON main cleaner, model FHG 10-0143 dry type; DONALDSON pre-cleaner cap type, P13-3138 model. Air inlet under bonnet in front on engine. Maintenance indicator: thermometer.
Lubrication system:	Forced feed from gear-type pump; one screen type filter installed on pump suction and two, PERKINS 0410985 model, replaceable cartridge type filters installed on the pressure line to the engine, oil capacity including filters 19 litres; recommended oil change period: 100 hours, cartridge change period: 200 hours, recommended oil: SAE 20 W - 40 classification satisfied MILL-L 2104 C specification.
Cooling system:	Water cooled from centrifugal pump 0.69 bar with thermostatic control; 508 mm dia, 6 blades, belt driven fan: cooling water capacity 26 litres. Temperature visual control with thermometer Superpressure system: none.
Starting system:	Electrical LUCAS M 50 G, 12 V 2.9 kW; starting motor pinion coupling solenoid operated. Cold starting aid: CAV make, 4 NB «thermostart» model. Safety device: operable only when the clutch pedal is fully depressed.

Eletrical system

Voltage:	12 V, negative earth.
Generator:	Alternator LUCAS make, 18 ACR, A 115 - 14 V - 45 A type; 500 W power.
Battery:	One POWER PART make, 655 model, lead acid type; capacity 125 Ah at 20 hours rating.
EXHAUST SILENCER:	Own make, DGM-SA 932 model, oval shape 220 x 145 mm, interference type with internal perforated pipe; length 650 mm. Vertical position on engine right side, maximum height above ground 3150 mm
TRANSMISSION TO WHEELS:	
Clutch:	LUK make, independent dry dual disc clutch; 330 mm dia plates; driving part pedal operated; p.t.o. part hand pedal operated.
Gearbox:	Own make, mechanical type constant mesh gear with total 12 forward and 4 reverse speeds; the transmission consists of two mechanical in series gear groups: the first with four speeds fully synchronized, the second with four positions to select the gear ratios (low, normal, high provided by easy shifting sleeves and reverse); each group is operated by own lever.
Real axle and final drive:	Own make, mechanical type with gleason crown wheel and pinion; bevel gear type differential with hydraulic differential locking, pedal operated, and self-disengaging lock; epicyclic straight teeth gear final drive.

Oil capacity: Gear box, rear axle and final drive: 77 l.
Oil changing period: every 1500 operating hours.
Filter: make MF; filter changing period: 1500 hours.
Recommended oil: LOT OTRAS/A (SAE, 15W30, MF1135, no-squawk).

Front axle: Own make, CAT 300.

Total ratios and travelling speed (tyres 20.8 R 38 and pressure 1.6 bar)

Gear	Group	Number of engine revolutions for one revolution of the driving wheel	Nominal travelling speed (*) from rated engine speed (2400 rev/min) km/h
I	Low	323.462	2.39
II		259.135	2.98
III		206.047	3.75
IV		160.086	4.83
I	Medium	130.207	5.94
II		104.318	7.41
III		82.937	9.32
IV		64.449	12.00
I	High	55.037	14.05
II		44.103	17.53
III		35.057	22.05
IV		27.229	28.39
I	Reverse	126.004	6.14
II		100.968	7.66
III		80.256	9.63
IV		62.378	12.39

(*) Calculated with a tyres dynamic radius index of 855 mm (ISO 4251/1 - 1984).

POWER TAKE OFF

Main:

Indipendent, p.t.o. driven by dry dual disc cluch; two shafts, hand lever operated.
Position: rear of tractor, in median plane; height above ground 840 mm (with tyre 20.8 R 38).
Method of changing p.t.o. shaft ends: unscrewing 4 nuts, taking it out and replacing it with another one, changing speeds; preselectable by hand lever.

Proportional engine speed p.t.o.:

— 540 rev/min p.t.o.: distance behind rear axle 580 mm; diameter of p.t.o. shaft end 44.4 mm; 6 splines, not in conformity with ISO 500/1979; no power restriction; 622 rev/min at rated engine speed; standard p.t.o. speed 540 rev/min at engine speed 2084 rev/min; p.t.o. shaft rotates clockwisely, viewed from tractor rear.
Ratio of rotation speed:

$$\frac{\text{engine speed}}{\text{p.t.o. speed}} = \frac{2400}{622} = 3.359$$

— 1000 rev/min p.t.o.: distance behind rear axle 595 mm; diameter of p.t.o. shaft end 44,4 mm; 6 splines, according to ISO 500/1979; no power restriction; 1148 rev/min at rated engine speed; standard p.t.o. speed 1000 rev/min at engine speed 2091 rev/min; p.t.o. shaft rotates clockwisely, viewed from tractor rear.
Ratio of rotation speed:

$$\frac{\text{engine speed}}{\text{p.t.o. speed}} = \frac{2400}{1048} = 2.091$$

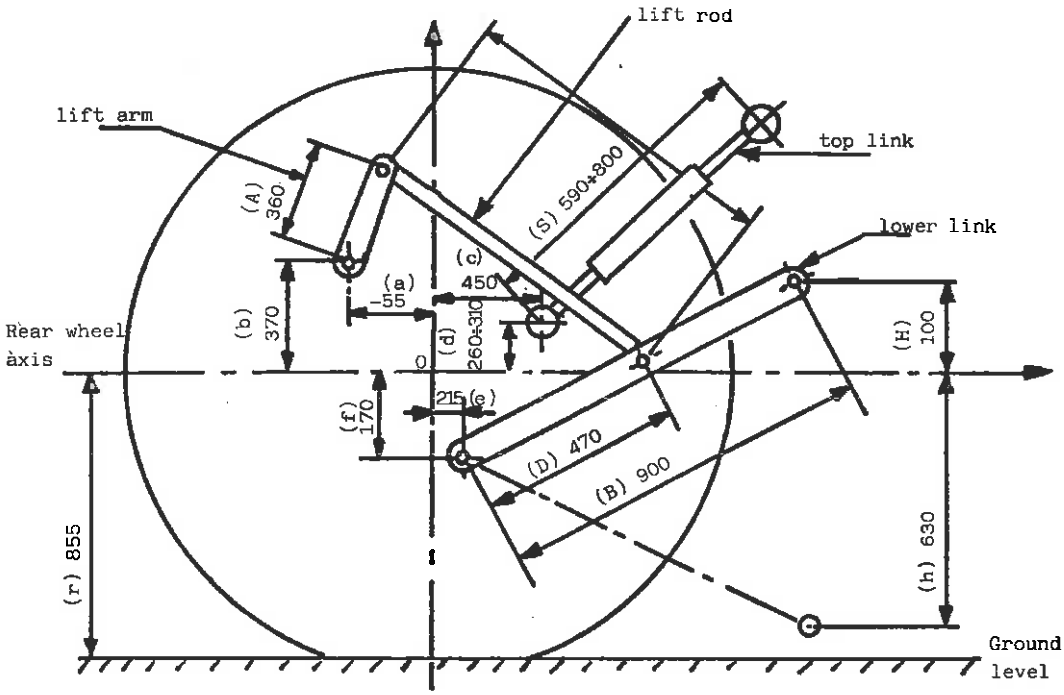
POWER LIFT:

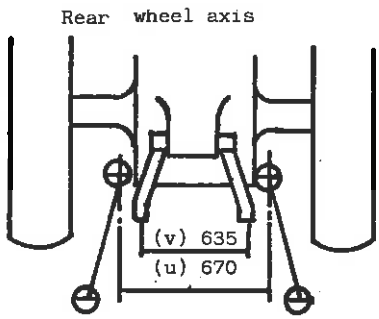
Own make; hydraulic power lift in unit construction, draught control, position control, floating position; feeding system from live gear pump directly driven by engine independently from the p.t.o. shaft; delivery 63.6 l/min at rated engine speed 2400.
One wire mesh filter installed on pump suction and one replaceable cartridge filter on the return line. Filter changing period: every 600 operating hours. Maximum working pressure 166 ÷ 181.5 bar. Two single-acting ram cylinders with 80 mm bore and 225 mm stroke. Relief valve pressure setting: 170 bar. There are no cylinder safety valves.
Type of linkage lock for transport: hydraulic. Oil capacity 77 litres. Site of oil reservoir differential cast housing. Number six tapping points on the rear part of tractor. Maximum volume of oil available to external cylinders 15 litres. Raccomanded oil: LOT OTRAS/A classification satisfied MILL-L 2104 A specification; oil changing period: every 1500 operating hours.

Implement linkage:

three point linkage, joint balls category 2/3 according to I.S.O. STANDARD 730/II; dimensions see on pag. 8.

POWER LIFT





State setting of hydraulic power lift for test

— Rear tyres (size 20.8 R 38) radius index		(r): 855 mm	
— Front tyres (size 11.0-16) radius index		(r'): 440 mm	
— Length of lift arms		(A): 360 mm	
— Length of lower links		(B): 900 mm	
— Distance of lift arm pivot point from rear wheel centre line	horizontally	(a): —55	mm
	vertically	(b): 370 mm	
— Horizontal distance between the 2 lower link points		(u): 670 mm	
— Horizontal distance between the 2 lift arm end points		(v): 635 mm	
— Length of upper link		(S): from 590 to 800 mm	
— distance of upper link pivot point from rear wheel centre line	horizontally	(c): 450 mm	
	vertically	(d): 260 mm	
— Distance of lower link pivot points from rear wheel centre	horizontally	(e): 215	mm
	vertically	(f): 170 mm	
— Distance of lower link pivot points to lift rod pivot points on lower links		(D): 470 mm	
— Length of lift rods		(L): from 685 to 815 mm	
— Height of lower hitch points:			
- in low position		(h): 630 mm	
- in high position relative to the rear wheel centre line, situated 855 mm above the ground level		(H): 100 mm	
— Height of lower link hitch points when locked in transport position		1010	mm

SWINGING DRAWBAR:

Own make; clevis type sliding on a drilled guide. Vertical height with tyres 20.8 R 38, to centre of clevis: maximum 610 mm minimum 485 mm above ground; adjustments obtained changing the setting of the drawbar on the drilled guide; clevis coupling pin diameter 28 mm; distance of hitch point from rear axle: 930 mm forward.
Position relative to p.t.o.:
— 350 mm behind
— from 230 mm below to 355 mm below
Lateral adjustements: 3 position (one in the middle and one for each side at 280 mm).
Pivot position relative to rear wheels 920 mm.
Maximum vertical load: not according to italian legislation.

HITCH:

Own make; clevis type; height above ground (with tyres 20.8 R 38) 640-720-900 and 990 mm, chargeable by sliding on drilled guides; hitch hole 28 mm dia; distance of hitch hole to rear axle center 660 mm; position relative to p.t.o.: vertical 200 and 120 mm below; 60 and 150 mm above; 80 mm horizontal, to rear.
Maximum vertical load 1500 kg according to italian legislation (with tyres 20.8 R 38; 8 ply).

HOLED DRAWBAR:

fitted on hitch points of lower links; number 9 holes; distance between holes 80 mm, 33 mm dia holes, 32 mm thickness 80 mm width, height above ground min 305 mm, max 990 mm (with tyres 20.8 R 38); horizontal distance to p.t.o. shaft end 930 mm.

STEERING:

Own make, hydrostatic control, with indipendent hydraulic circuit DANFOSS make, OSPB 100; gear pump delivery 26.4 l/min, one double acting cylinder directly acting on the front wheel, transversaly mounted, bore 57 mm, stroke 205 mm, piston rod 25 mm dia; working pressure 117 ± 1 bar.
Oil capacity 4.5 litres. Oil filter make: MF.
Recommended oil LOT HS, specification (GM DEXTRON II D) viscosity 3.5° at 50° C.
Oil changing period every 1200 operating hours, filter changing.

BRAKES:

Service brake:

GIRLING make, multiple disc oil bath brake type, 222.25 x 187.96 mm dia, 4.75 ÷ 4.9 mm thickness; hydraulically acting on rear differential half shaft; operated by two independent pedals locked together for road drive.
Hidraulic trailler braking take off available as optional, only for market where it is homologated.

Parking brake:

GIRLING make, multiple disc oil both brake type; 222.25 x 87.96 mm dia, 4.75 ÷ 4.9 mm thickness, mechanically acting on rear differential half shaft; operated by hand lever.

Steering brake:

divided pedal of service brake, for normal use locked together.

WHEELS:

Steering wheels:

at front, two radial tyres MICHELIN 11.0-16, 8 ply; maximum permissible load per tyre 1320 kg at 2.5 bar inflation pressure and max 30 km/h speed; track width continous adjustment from 1600 mm to 2000 mm by 100 mm steps extending axle.

Driving wheels:

at rear; two radial type tyres KLEBER 20.8 R 38, 8 ply; maximum permissible load per tyre 3090 kg at 1.5 bar inflation pressure and max 30 km/h speed; track width continuos adjustment from 1800 mm to 2386 mm rotating the wheels on discs (rail system).

Possible combinations of tyres:

Tyre size	
at front	at rear
11.0 - 16 8 ply	18.4 R 38 8 ply
	20.8 R 38 8 ply
	23.1 R 34 8 ply

Wheelbase: 2840 mm

Structure: Cab

LANDINI CS1:
Approval number: CSD 050/10 for
LANDINI R 14500 (TL 24 N/G) 2 WD

MASSEY FERGUSON CS2:
CSD 050/14 for
MASSEY FERGUSON 1134-2 (TL 24 N/F) 2 WD

Mounted by 4 silent blocks on tractor; main frame is composed by tubes and stamped sheet-metal.
Noise reductioin materials:
— roof: ABS and Acusticell with perforated vinyl;
— platform: Autokell J 1060, Acusticell and water-proof PVC.
— fenders: multiprene Polilatex T50;
Engine-water heat excharger heating-system, 3 steps blower for fresh and warm air.
Assembly and mounting bolts: see Report CSD N° 0050/1,2,3,4 a (C)
Glasses: tempered glass 5 mm: TEMPERGLASS DARGLASS
— DGM 4752 VT and DGM 9472; AROSIO - DGM 11258 VT and DGM 11257.

Structure: Frame

LANDINI TS 4
Approval number: CSD 0233/10 for
LANDINI R 14500 (TL 24 N/G) 2 WD

MASSEY FERGUSON TS 5
CSD 0233/14 for
MASSEY FERGUSON 1134-2 (TL 24 N/F) 2 WD

Seat:

Driver's seat:

GRAMMER make, LS 95 H/90 AR model, upholstered seat with back rest, double acting hydrtaulic damper suspension; height of unloaded seat above driver's platform adjustable from 60 mm to 120 mm in a continuos way, longitudinal adjustment 150 mm;

Passenger seat:

Grammer make, mounted on front part of mudguard, left side; available as optional, only for those markets that allow it.

Number of grease points: 16.

OVERALL DIMENSIONS (tyres size 11.00-16 front and 20.8 R 38 rear)

	Length	Width		Height to top of	
		mini	maxi	exhaust silencer	safety cab or frame
	m	m	m	m	m
With ballast	4.98	2.33	2.91	3,15	2,91
Without ballast	4.66	2.33	2.91	3,15	2,91

Ground clearance: 510 mm below hitch pivot point of swinging drawbar.

Lighting equipment: Electrical 12 V, in accordance with Italian legislation.

	Height above ground of centre with tyres: 11.0 - 16 front 20.8 R 38 rear	Size	Distance from outside edge of tractor to centre (°)
	mm	mm	mm
Headlights	1160	200 × 120	535
Side lights	1830	75 × 60	263
Rear lights	1800	80 × 60	275
Reflectors: 1st pair	1710	80	320
2nd pair	740	80	805

(°) Track setting: 1800 mm at front
1900 mm at rear

TEST CONDITIONS

Track setting: 1800 mm at front
1900 mm at rear

Weights: Tractor (with safety cab, standard tank fuel, without driver).

	Front kg	Rear kg	Total kg
Without ballast	1560	3670	5230
With ballast	2240	5200	7440

Ballasts:

	Weight		Water (kg)
	Number	Total mass (kg)	
Front wheels Front weight	— 14 + support	— 600	— —
Rear wheels	6	510	1100
Additional	—	—	—

Fuel and lubricants used in test

Fuel: Esso Diesel oil; specific gravity: 0.831 kg/l at 15 °C; cetane number: not recorded.

Engine oil
Type: LAND OIL MDL 3/20
Viscosity: SAE 20W - 40
Classification: MIL-L 2104 C

Transmission oil and hydraulic oil
Type: LAND OIL LOT OTRAS/B
Viscosity: SAE 15W - 30
Classification: MF 1135 no squawk

Steering oil:
Type: LAND OIL LOT/MS
Viscosity: 3.5 Cst at 50 °C
Classification: GM DEXTRON II D

COMPULSORY TESTS RESULTS

(1) MAIN POWER-TAKE-OFF PERFORMANCE

Date and Location of tests: 26/03/1987, I.M.A., TORINO, ITALY
Type of dynamometer:
PARASITIC CURRENTS, BORGHI & SAVERI FA 300-30 SP

Power	SPEED		FUEL CONSUMPTION			Specific energy
	Engine	p.t.o.	Hourly		Specific	
kW	rev/min	rev/min	l/h	kg/h	g/kWh	kWh/1
MAXIMUM POWER - 2 - hour test						
96.80	2400	1148	32.58	27.08	280	2.97
Power at rated engine speed						
96.80	2400	1148	32.58	27.08	280	2.97
Standard power-take-off speed (1000±25 rev/min)						
90.61	2090	1000	28.69	23.84	263	3.16
PART LOADS						
(1) the torque corresponding to maximum power at rated engine speed						
96.70	2400	1148	32.45	26.97	279	2.98
(2) 85% of torque obtained in (1)						
85.87	2508	1200	30.72	25.53	297	2.80
(3) 75% of torque defined in (2)						
66.03	2571	1230	26.05	21.65	328	2.53
(4) 50% of torque defined in (2)						
44.65	2608	1248	21.06	17.50	392	2.12
(5) 25% of torque defined in (2)						
22.55	2633	1260	16.51	13.72	608	1.37
(6) unloaded						
—	2665	1275	—	—	—	—

PART LOADS AT STANDARD POWER-TAKE-OFF SPEED (1000 ± 25 rev/min)

Power	SPEED		FUEL CONSUMPTION			Specific energy
	Engine	p.t.o.	Hourly		Specific	
kW	rev/min	rev/min	l/h	kg/h	g/kWh	kWh/l
(1) the torque corresponding to maximum power available						
91.11	2090	1000	28.69	23.84	262	3.18
(2) 85% of torque obtained in (1)						
81.03	2186	1046	25.98	21.59	266	3.12
(3) 75% of torque defined in (2)						
62.63	2253	1078	21.66	18.00	287	2.89
(4) 50% of torque defined in (2)						
42.60	2299	1100	17.33	14.40	338	2.46
(5) 25% of torque defined in (2)						
21.59	2330	1115	12.88	10.70	496	1.68
(6) unloaded						
—	2375	1136	—	—	—	—

STANDARD SPECIFIC CONSUMPTION: 297/392/266/338 (g/kWh)

No load maximum engine speed : 2665 rev/min

Torque at maximum power (2 hours) : 385.2 N/m

Maximum torque : 486.8 Nm at 1500 rev/min of the engine

Mean atmospheric conditions : Temperature 21.0 °C
Pressure 990.6 bar
Relative Humidity 53%

Maximum Temperature : Coolant 90.0 °C
Engine oil 112.0 °C
Fuel 29.0 °C
Engine air intake 24.0 °C

(2) DRAWBAR PERFORMANCE

Date and location of tests: 1st April 1987 Torino
Type of track: concrete
Height of drawbar above ground: 610 mm

Tyre size: — front: 11.0-16; 8 ply; inflation pressure: 2.5
— rear: 20.8 R 38; 8 ply; inflation pressure: 1.5

Gear no. and group	Driving speed	Power	Drawbar pull	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperatures			Atmospheric conditions		
								Fuel	Coolant	Engine oil	Temperature	Relative humidity	Pressure
	km/h	kW	daN	rev/min	%	g/kWh	kWh/l	°C	°C	°C	°C	%	mbar
1 - MAXIMUM POWER IN TESTED GEARS													
I Medium	5.59	59.21	3815	2566	14.6	386	2.15	22.0	90	108	6.0	46	983.3
II Medium	6.86	72.71	3815	2525	14.5	340	2.44	22.0	90	109	7.0	44	983.3
III Medium	8.88	85.88	3481	2430	8.6	319	2.61	23.0	90	110	7.0	43	982.6
VI Medium	11.75	86.73	2658	2406	5.2	311	2.67	23.0	90	111	7.0	42	982.6
I High	13.80	87.22	2275	2400	4.6	309	2.69	23.0	90	112	7.5	40	982.0
II High	17.38	85.68	1775	2401	3.8	314	2.65	24.0	90	112	8.0	39	982.0
2 - FUEL CONSUMPTION a) SELECTED GEAR (speed closest to 7,5 km/h)													
II Medium	6.86	72.71	3815	2525	14.5	340	2.44	23.0	90	109	8.0	38	981.3
1) 75% OF PULL AT MAXIMUM POWER													
II Medium Normal	7.60	60.46	2864	2570	7.1	359	2.32	23.0	90	110	8.0	37	981.3
2) 50% OF PULL AT MAXIMUM POWER													
II Medium	7.93	42.03	1907	2607	4.2	444	1.87	23.0	90	111	8.5	38	981.3
HIGHEST GEAR SAME PULL AS IN 1) REDUCED ENGINE SPEED													
III Medium	7.54	59.55	2844	2015	6.5	286	2.91	24.0	90	110	8.5	38	981.3
HIGHEST GEAR SAME PULL AS IN 2) REDUCED ENGINE SPEED													
III Medium	7.93	41.88	1902	2081	4.8	321	2.59	24.0	90	109	8.5	37	980.6
b) SELECTED GEAR (Maximum power)													
I High	13.73	87.34	2290	2399	5.1	308	2.69	24.0	90	112	8.5	38	980.6
1) 75% OF PULL AT MAXIMUM POWER													
I High	14.75	70.32	1716	2539	3.6	330	2.52	24.0	90	111	8.5	38	980.6
2) 50% OF PULL AT MAXIMUM POWER													
II High	15.22	48.51	1147	2585	2.4	402	2.07	23.0	90	110	8.5	37	980.0
HIGHEST GEAR SAME PULL AS IN 1) REDUCED ENGINE SPEED													
II High	14.80	70.56	1716	2044	3.8	276	3.01	23.0	90	109	8.0	37	980.0
HIGHEST GEAR SAME PULL AS IN 2) REDUCED ENGINE SPEED													
II High	15.21	48.67	1152	2074	2.6	318	2.62	22.0	90	109	8.0	38	980.0

(3) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE:

Date and location of tests: 10th September 1987 - I.M.A. - Torino (Italy)

POWER LIFT

	Height of lower hitch point above ground in down position (*)	Vertical movement	Maximum force exerted through full range	Corresponding pressure of hydraulic fluid	Moment about rear axle	Maximum tilt angle of mast over range of lift
	mm	mm	daN	bar	daNm	degrees
At the hitch points	225	730	3980	167	—	—
On the frame	225	790	3825	167	6598	13°

Temperature of hydraulic fluid at start of test: 65 °C

(*) The minimum height of lower hitch point above ground in down position with the maximum available lenght of lift rods is 225 mm.

Lifting heights relative to the horizontal plane including the lower link pivot points

mm	—460	—400	—300	—200	—100	—50	0	+50	+100	+200	+250	+270	+330

Lifting forces at hitch points

mm	3980	4150	4390	4640	4865	4970	5050	5170	5255	5405	5470	5490	—

Lifting forces at test frame

mm	4145	4130	4100	4060	4015	4000	3990	3985	3970	3905	3865	—	3825

HYDRAULIC PUMP PERFORMANCE:

— Sustained pressure with relief valve open:	181.4 bar
— Pump delivery rate at mimimum pressure:	62 l/min
— Hydraulic pressure corresponding to 90% of the minimum setting of the opening pressure of the relief valve	163.3 bar
— Delivery:	58.5 l/min
— Power:	15.6 kW
— Flow rate hydraulic pressure corresponding to maximum hydraulic power:	
— Pressure:	135 bar
— Delivery:	18.75 l/min
— Power:	4.14 kW
— Temperature of hydraulic fluid:	65 °C
— Tapping point used for test: auxiliary service connection	

(4) - REPAIRS AND ADJUSTMENT DURING TEST = none

(5) - REMARKS = none

TEST CARRIED OUT BY:

W. Faccio

M. Giangualano

HEAD OF I.M.A.
TEST DEPARTMENT

R. Gioia

DIRECTOR OF I.M.A.

L. Lisa

Turin, 10th December 1987

LANDINI R 14500 (2 W.D.)
MASSEY FERGUSON MF 1134-2 (2 W.D.)

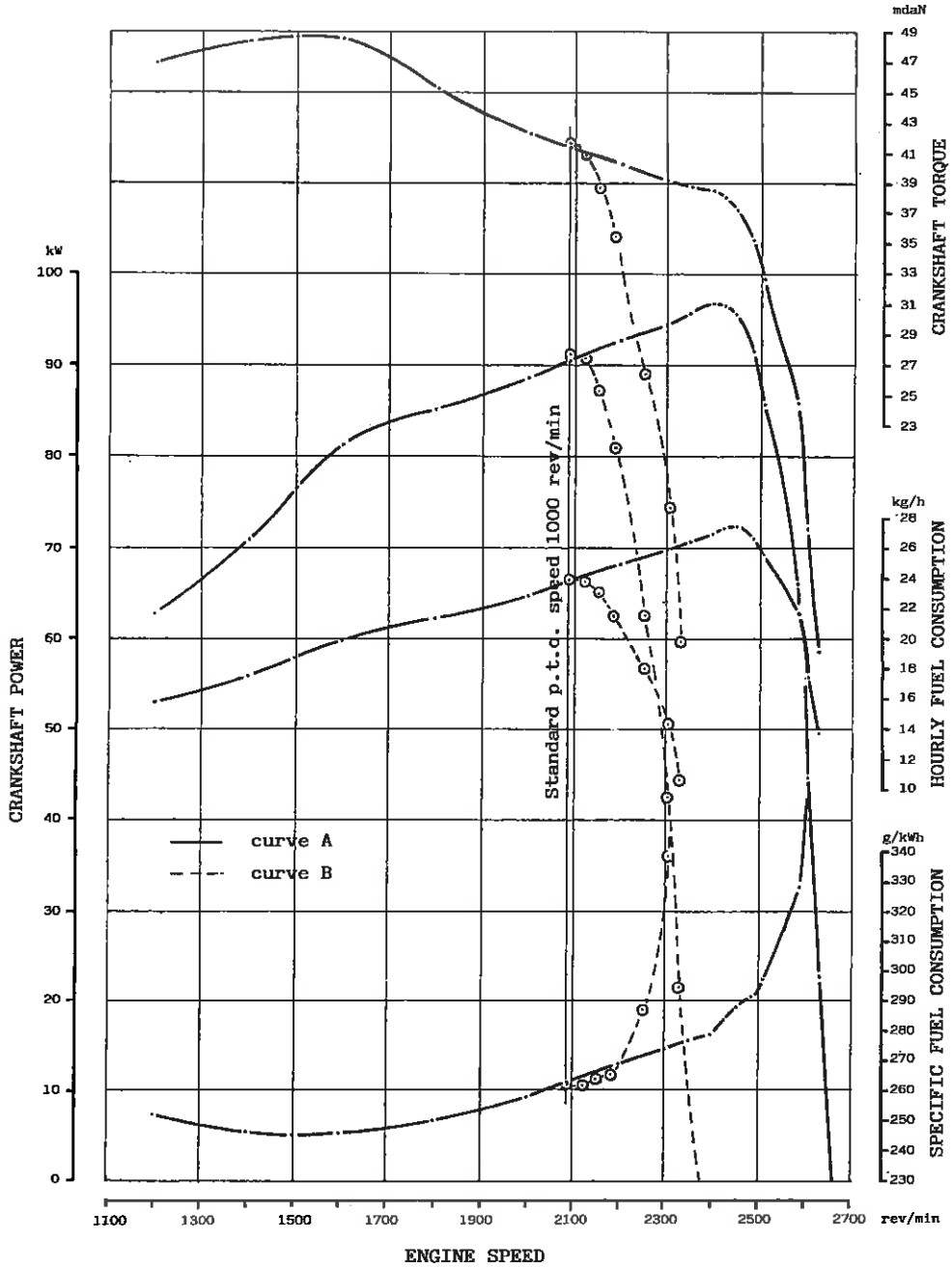


FIG. 1 – POWER TAKE-OFF TEST

LANDINI R 14500 (2 W.D.)
MASSEY FERGUSON MF 1134-2 (2 W.D.)

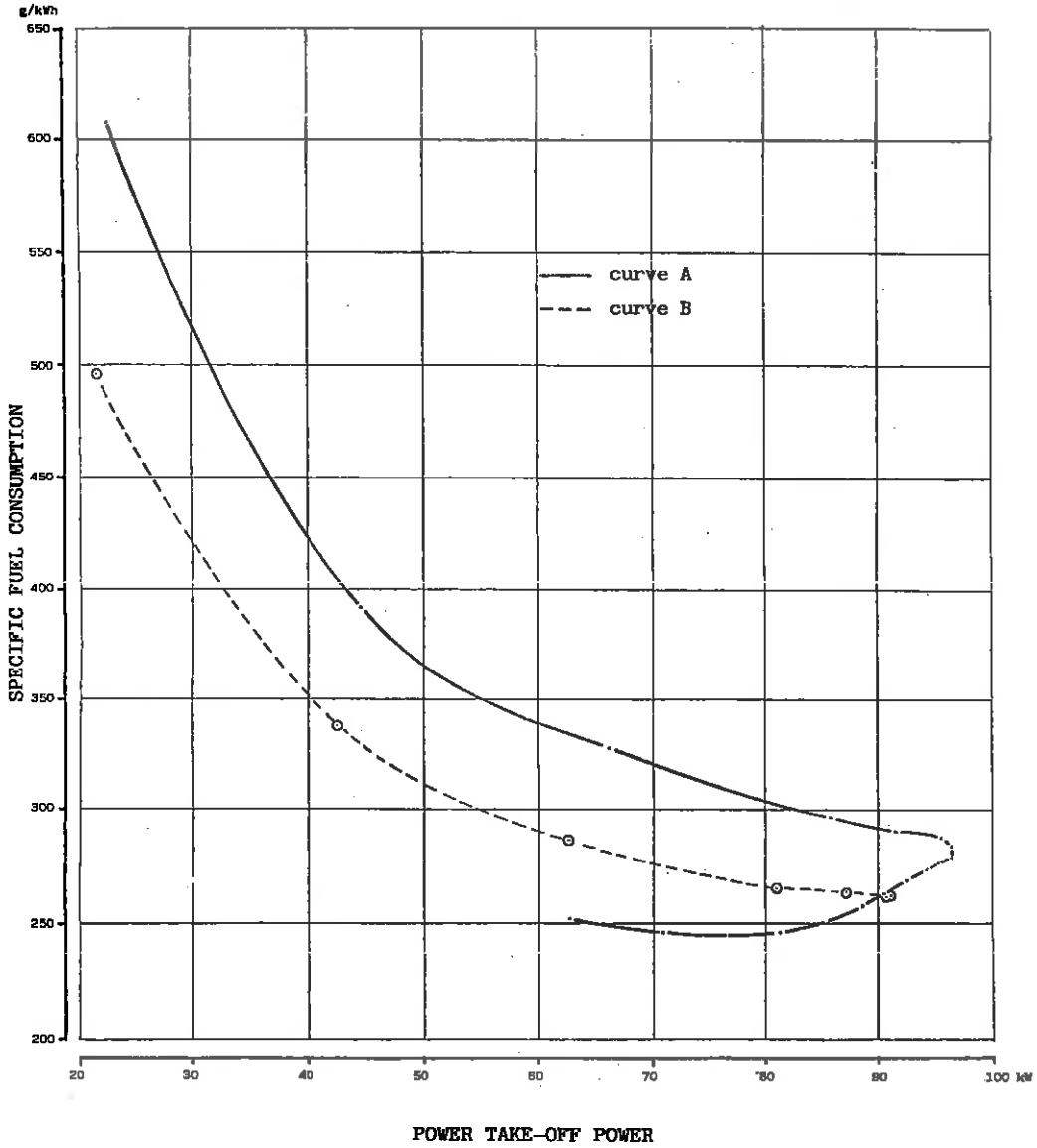


Fig. 2 - POWER TAKE-OFF TEST