Consiglio Nazionale delle Ricerche
ISTITUTO PER LA MECCANIZZAZIONE AGRICOLA
Strada delle Cacce, 73 - 10135 TORINO (Italy)

OECD Approval No. 1689/1-2 FULL CODE
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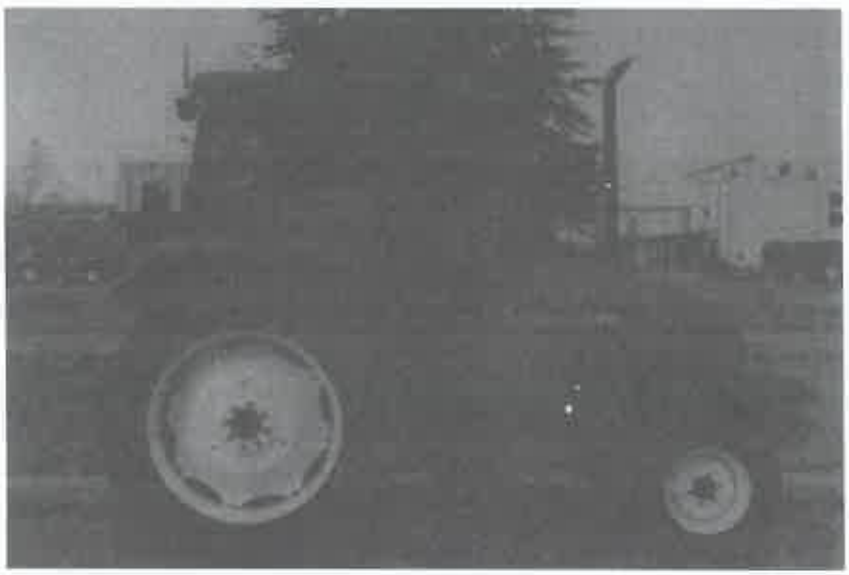
TEST IN ACCORDANCE WITH THE OECD FULL
CODE FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS

TRACTORS: Make: **NEW HOLLAND ITALIA**

Models: **FIAT L 60** Approval number: 1689/1 FULL CODE
with 12 x 12 Mechanical Transmission (30 km/h version)

Models: **FORD 4635** Approval number: 1689/2 FULL CODE
with 12 x 12 Mechanical Transmission (30 km/h version)

Type: 2 WD



Manufactured by: NEW HOLLAND ITALIA S.p.A. - MODENA (Italy)

Date and location of the tests: February ÷ April 1997 - TORINO (Italy)

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

PRELIMINARY REMARK

The NEW HOLLAND ITALIA FIAT L60 (2 WD) and the NEW HOLLAND ITALIA FORD 4635 (2 WD) tractors are technically identical in all main respects, except with regard to the following items:

- model designation;
- colour;

Therefore, tests have not been repeated, and approval number is valid for both tractor models.
All tests were carried out on the NEW HOLLAND ITALIA FIAT L60 (2 WD) tractor equipped with safety cab.

This bulletin is based on engineering tests in accordance with O.E.C.D. Full Code (Code I).
It does not contain an evaluation of performance of the tractor on practical farm work.

The NEW HOLLAND ITALIA FIAT L60 (2 WD) and the NEW HOLLAND ITALIA FORD 4635 (2 WD) tractors are manufactured in following variants:

1. with 12 x 12 Mechanical Transmission (30 km/h version) - (4x3 gear units and one reverse group) and equipped with safety cab;

2. with 12 x 12 Mechanical Transmission (30 km/h version) - (4x3 gear units and one reverse group) and equipped with 2 post safety frame folding or not folding;

3. with 12 x 4 Mechanical Transmission (30 km/h version) - (4x3 forward gear units and 4x1 rear gear units) and equipped with safety cab;

4. with 12 x 4 Mechanical Transmission (30 km/h version) - (4x3 forward gear units and 4x1 rear gear units) and equipped with 2 post safety frame folding or not folding;

5. with 20 x 12 Mechanical Transmission (30 km/h version) - (4x3 gear units and one reverse group plus 4x2 gear units responsible of the 8 forward creeper gears) and equipped with safety cab; when the reverse group is engaged the 8 creeper gears are automatically forbidden reducing to 12 the number of reverse speeds;

6. with 20 x 12 Mechanical Transmission (30 km/h version) - (4x3 gear units and one reverse group plus 4x2 gear units responsible of the 8 forward creeper gears) and equipped with 2 post safety frame folding or not folding; when the reverse group is engaged the 8 creeper gears are automatically forbidden reducing to 12 the number of reverse speeds;

7. with 24 x 12 HI-LO Transmission (30 km/h version) - (4x3 gear units plus one reduction gear HI-LO and one reverse group) and equipped with safety cab; when the reverse group is engaged the position HI is automatically forbidden reducing to 12 the number of reverse speeds;

8. with 24 x 12 HI-LO Transmission (30 km/h version) - (4x3 gear units plus one reduction gear HI-LO and one reverse group) and equipped with 2 post safety frame folding or not folding; when the reverse group is engaged the position HI is automatically forbidden reducing to 12 the number of reverse speeds;

Tests have been carried out on tractor with the first variant.

In this report all performance characteristics are given corresponding to the International System of Units.

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Curves of specific fuel consumption/crankshaft power p.t.o.	2

- Tractor manufacturer's name and address:	NEW HOLLAND ITALIA Viale delle Nazioni, 55 41100 MODENA - Italy
- Location of tractor assembly:	Plant of JESI (AN) - ITALY
- Submitted for test by:	The Manufacturer
- Selected for test by:	Manufacturer with the agreement of I.M.A.
- Place of running-in:	MODENA (MO) - ITALY
- Duration of running-in:	Appr. 50 hours
- Location of test :	I.M.A. - Torino - Italy

1 SPECIFICATIONS OF TRACTOR

1.1 IDENTIFICATION

- Make/Model/Type:	NEW HOLLAND ITALIA, L 60 (2 WD), wheeled tractor, unit construction, all wheels drive tractors
- Number of driving wheels:	2
- Serial N°:	001047469
- 1st serial N°:	001044539

1.2 ENGINE

- Make/Model/Type:	NEW HOLLAND ITALIA, FIAT 8035.05 (*), water cooled, 4 stroke, Diesel engine, direct injection, naturally aspirated
- Serial N°:	820688

1.2.1 Cylinders

- Number/disposition:	3, vertical, in-line
- Bore/stroke:	104 x 115 mm
- Capacity:	2931 cm^3
- Compression ratio:	17 : 1
- Arrangement of valves:	overhead
- Cylinder liners:	dry

1.2.2 Supercharging

- Make/Model/Type:	none
- Pressure:	---

(*) The engine manufacturer is going to change the model denomination of the engine from FIAT 8035.05 to IVECO 8035.05 maintaining the same technical characteristics and test performances

1.2.3 Fuel system

- Fuel feed system:	AC CORONA fuel feed pump
- Make/Model/type of fuel filter(s):	n° 1, NEW HOLLAND make, with replaceable cartridge and n° 1 mesh filter inside the fuel feed pump (a sediment filter with replaceable cartridge placed before the fuel feed pump is given as option)
- Capacity of fuel tank:	115 dm^3 on the left side under the protective structure
- Make/Model/Type of injection pump:	BOSCH VE3/11 F 1250 L 163, rotary injection pump
- Serial N°:	none
- Manufacturer's production setting of injection pump:	
- flow rate:	56.4 mm^3/stroke at rated speed and full load corresponding 12.69 dm^3/h (55±2 mm^3/stroke given by the manufacturer)
- timing:	6.0°±1° before TDC
- Make/Model/Type of injectors:	BOSCH DLLA 136 S multihole injection nozzles; as option OMAP OLL 136 S multihole injection nozzles, CAV BDLL 136 S multihole injection nozzles or STANADYNE DLL 136 S multihole injection nozzles
- Injection pressure:	22.6 ± 1 MPa for all injectors
- Make/Model/Type of carburettor:	none

1.2.4 Governor

- Make/Model/Type:	BOSCH make, centrifugal variable speed governor,mechanical type, incorporated in the fuel injection pump
- Governed range of engine speed:	from 720 to 2745 rev/min
- Rated engine speed:	2500 rev/min

1.2.5 Air cleaner

- Pre-cleaner:	none
• Make/Model/Type:	---
• Location of air intake:	---
- Main cleaner:	
• Make/Model/Type:	DONALDSON make, NEW HOLLAND ITALIA drawing n. 5157064, dry paper element filter with two replaceable cartridge elements; DONALDSON make, 1930537 type for the internal one and 1930536 type for the external one (as option DONALDSON make, NEW HOLLAND ITALIA drawing n. 5145693, dry paper element filter with two replaceable cartridge elements or DONALDSON make, NEW HOLLAND ITALIA drawing n. 8323083, dry paper element filter with two replaceable cartridge elements;)
• Location of air intake:	on front of the radiator under the bonnet cowling
- Maintenance indicator:	with the warning lamp on the dashboard

1.2.6 Lubrication system

- Type of feed pump:	forced feed by means of gear pump.
- Type of filter(s):	replaceable cartridge type, installed on the pressure line of the engine and wire mesh type, installed on the pump suction line.
- Number of filters:	1

1.2.7 Cooling System

- Type of coolant:	water
- Type of pump:	impeller pump
- Specification of fan:	propeller fan driven by engine shaft
- Number of fan blades:	4
- Fan diameter:	430 mm
- Coolant capacity:	14 dm^3 (12 dm^3 for the tractor equipped with the safety frame)
- Type of temperature control:	a temperature gauge, with display on the dashboard, alerts the operator to potential problems
- Superpressure system:	radiator cap

1.2.8 Starting system

- Make/Model/Type:	BOSCH, 4807375, electromagnetic engagement (as option, MAGNETI MARELLI, 4755109, electromagnetic engagement)
- Starter motor power rating:	3.5 kW for both type
- Cold starting aid:	LUCAS make, thermostart model with variable resistance (as option, "start-pilot" device)
- Safety device:	tractor doesn't start unless the clutch pedal is depressed

1.2.9 Electrical system

- Voltage:	12 V, negative earth
- Generator:	
• Make/Model/Type:	MAGNETI MARELLI, AA 125R, 12 V 65A, Alternator for the tractor equipped with the safety cab and MAGNETI MARELLI, AA 125R, 12 V 45A, Alternator for the tractor equipped with the safety frame
• Power:	780 W for the tractor equipped with the safety cab and 540 W for the tractor equipped with the safety frame
- Battery:	1 lead acid type
• Rating:	100 Ah at 20 hours or as option 132 Ah at 20 hours

1.2.10 Exhaust system

- Make/Model/Type:	NEW HOLLAND ITALIA, drawing n. 5169710, DGM SA 3757, interference type with internal perforated pipe (as option, NEW HOLLAND ITALIA, drawing n. 5167695, DGM SA 3758, interference type with internal perforated pipe and an air displacement device)
- Location:	on the left hand side of engine, under the bonnet cowling, with the vertical exhaust pipe above the bonnet cowling

1.3 TRANSMISSION

1.3.1 Clutch

- Make/Model/Type:	LUK, drawing n. 5167922, dual disk dry clutch, one for travelling and one for PTO engagement; the two discs are composed by organic material.
- Number of plates:	2
- Diameter of plates	280 mm
- Method of operation:	Mechanically operated by pedal, for travelling and by lever, for PTO engagement.
As option:	
- Make/Model/Type:	LUK, drawing n. 5167926, independent single disc dry clutch, used only for travelling, composed by organic material and one independent multiplate wet discs, used for PTO engagement composed by organic material.
- Number of plates:	1 for clutch used for travelling and 5 for clutch used for PTO engagement
- Diameter of plates	127 mm
- Method of operation:	Mechanically operated by pedal, for travelling and hydraulically operated by button, for PTO engagement.

1.3.2 Gearbox

- Make/Model/Type:	Own make, drawing n. 5170519, mechanical syncromesh speed change gears, fitted on the tested tractor;
• Arrangement:	four speeds forward with three ranges and one reverse group;
• Number of gears:	12 forward and 12 reverse
- Available options:	
- Make/Model/Type:	Own make, drawing n. 5170545, mechanical syncromesh speed change gears;
• Arrangement:	four speeds forward with three ranges and four reverse speeds with one range;
• Number of gears:	12 forward and 4 reverse
- Make/Model/Type:	Own make, drawing n. 5170535, mechanical syncromesh speed change gears.
- Arrangement:	four speeds forward with three ranges, one reduction gear (HI-LO) and one reverse group; when the reverse group is engaged the position HI is automatically forbidden reducing to 12 the number of reverse speeds.
- Number of gears:	24 forward and 12 reverse
- Make/Model/Type:	Own make, drawing n. 5170527, mechanical syncromesh speed change gears.
• Arrangement:	four speeds forward with five ranges - two of these are responsible of the creeper gears engagement -, and one reverse group; when the reverse group is engaged the 8 creeper gears are automatically forbidden reducing to 12 the number of reverse speeds;
- Number of gears:	20 forward and 12 reverse

1.3.3 Rear axle and final drives

- Make/Model/Type:	Own make, drawing n. 5171124, bevel gear differential and epyciclic final drives
- Differential lock	
• Make/Model/Type:	Own make, mechanical engagement
• Method of engagement:	pushing pedal
• Method of disengagement:	pushing brake pedals
As option:	
- Differential lock	
• Make/Model/Type:	Own make, electrohydraulic engagement
• Method of engagement:	by means of a button placed on the dashboard with three positions (left, middle and right); the button should be placed in the middle or right position;
• Method of disengagement:	by means of the same button used for the differential lock engagement; it may be released manually, bringing the button back to the left position or automatically, using the brakes while the button is in the middle position or pressing the lift-o-matic control when the button is in the right position.

1.3.4 Front axle

- Make/Model/Type:	Own make, drawing n. LK-21339, centrally pivoted, telescoping inverted "U" shape section

1.3.5 Total ratios and travelling speeds

NEW HOLLAND ITALIA FIAT L 60 with 12 x 12 Mechanical Transmission (fitted on the tested tractor)

Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (**) at rated engine speed (2500 rev/min) km/h
I	Low	362.442	1.81
II		249.372	2.63
III		172.984	3.79
IV		120.756	5.42
I	Medium	155.179	4.22
II		106.768	6.13
III		74.063	8.84
IV		51.701	12.67
I	High	65.914	9.94
II		45.351	14.44
III		31.459	20.82
IV		21.961	29.83
I	Reverse Low	369.779	1.77
II		254.420	2.58
III		176.485	3.71
IV		123.200	5.31
I	Reverse Medium	158.320	4.14
II		108.930	6.01
III		75.562	8.67
IV		52.748	12.41
I	Reverse High	67.248	9.74
II		46.269	14.16
III		32.096	20.41
IV		22.405	29.23

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 30 tyres: 695 mm (ISO 4251/1 - 1992).

NEW HOLLAND ITALIA FIAT L 60 with 12 x 4 Mechanical Transmission

Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (**) at rated engine speed (2500 rev/min) km/h
I	Low	362.442	1.81
II		249.372	2.63
III		172.984	3.79
IV		120.756	5.42
I	Medium	155.179	4.22
II		106.768	6.13
III		74.063	8.84
IV		51.701	12.67
I	High	65.914	9.94
II		45.351	14.44
III		31.459	20.82
IV		21.961	29.83
I	Reverse	139.304	4.70
II		95.846	6.83
III		66.486	9.85
IV		46.412	14.11

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 30 tyres: 695 mm (ISO 4251/1 - 1992).

NEW HOLLAND ITALIA FIAT L 60 with 24 x 12 HI-LO Transmission

Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (**) at rated engine speed (2500 rev/min) km/h
I LO	Low	412.781	1.59
I HI		362.442	1.81
II LO		284.007	2.31
II HI		249.372	2.63
III LO		197.009	3.32
III HI		172.984	3.79
IV LO		137.527	4.76
IV HI		120.756	5.42
I LO	Medium	176.731	3.71
I HI		155.179	4.22
II LO		121.597	5.39
II HI		106.768	6.13
III LO		84.349	7.77
III HI		74.063	8.84
IV LO		58.882	11.12
IV HI		51.701	11.67
I LO	High	75.069	8.72
I HI		65.914	9.94
II LO		51.660	12.68
II HI		45.361	14.44
III LO		35.828	18.28
III HI		31.459	20.82
IV LO		25.011	26.19
IV HI		21.961	29.83
I	Reverse Low	368.637	1.78
II		253.635	2.58
III		175.941	3.72
IV		122.820	5.33
I	Reverse Medium	157.831	4.15
II		108.593	6.03
III		75.329	8.66
IV		52.585	12.46
I	Reverse High	67.041	9.77
II		46.126	14.20
III		31.997	20.47
IV		22.338	29.37

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 30 tyres: 695 mm (ISO 4251/1 - 1992).

NEW HOLLAND ITALIA FIAT L 60 with 20 x 12 Mechanical Transmission

Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (**) at rated engine speed (2500 rev/min) km/h
I	Low	2001.950	0.33
II		1377.410	0.48
III		955.475	0.69
IV		666.995	0.98
I	Medium Low	857.131	0.76
II		589.735	1.11
III		409.085	1.60
IV		285.573	2.29
I	Medium	362.442	1.81
II		249.372	2.63
III		172.864	3.79
IV		120.756	5.42
I	Medium High	155.179	4.22
II		106.768	6.13
III		74.063	8.84
IV		51.701	12.67

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Gear	Group	Number of engine revolutions for one revolution of the driving wheels	Nominal travelling speed (**) at rated engine speed (2500 rev/min) km/h
I	High	65.914	9.94
II		45.351	14.44
III		31.459	20.82
IV		21.961	29.83
I	Reverse Low	381.518	1.72
II		262.497	2.49
III		182.088	3.60
IV		127.111	5.15
I	Reverse Medium	163.346	4.01
II		112.388	5.83
III		77.961	8.40
IV		54.423	12.04
I	Reverse High	69.383	9.44
II		47.738	13.72
III		33.115	19.78
IV		23.117	28.33

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 30 tyres: 695 mm (ISO 4251/1 - 1992).

1.4 POWER TAKE OFF

1.4.1 Main power take-off

- Type: two sistems are available - fully independent mechanical or hydraulic system. The first one is fitted on the tested tractor. Both systems are equipped with ground speed.
- Method of engagement: the engagement or disengagement of the power take off is operated, in case of mechanical system, that is the one fitted on the tested tractor, by means of a lever, mechanically driven by the 2nd plate of the main clutch, made of organic material; in case of hydraulic system, by means of a knob, hydraulically acting on a multiplate wet discs clutch; in both systems a second lever at the right hand side of the seat is responsible of the choice between engine synchronized speed and ground speed. There are 3 speed ground, determined mechanically by engine drive PTO control.
- Number of shafts: 1
- Method of changing power take-off shaft ends and speeds: in the mechanical system, that is the one fitted on the tested tractor, shaft ends may be changed removing three bolts, swopping shaft and replacing bolts; in the hydraulic system, shaft ends may be changed removing a simple circlip that retains it. Speed selection by means of a lever at the right hand side of the seat.

1.4.1.1Main power take-off

540 rev/min

- Location: at rear of tractor, in tractor's median plane

- Diameter of power take-off shaft end:	35 mm
- Number of splines:	6, in conformity with ISO 500/1991 type 1
- Height above ground:	680 mm
- Distance from the median plane of the tractor:	0 mm
- Distance behind rear-wheel axis:	530 mm
- PTO speed at rated engine speed:	614 rev/min
- Engine speed at standard power take-off speed:	2198 rev/min
- Ratio of rotation speeds (engine speed/p.t.o. speed):	4.0714
- Power restriction and maximum torque:	-----
- Direction of rotation (viewed from behind tractor):	clockwise

750 rev/min

- Location:	at rear of tractor, in tractor's median plane
- Diameter of power take-off shaft end:	35 mm
- Number of splines:	6 or 21, not in conformity with ISO 500/1991
- Height above ground:	680 mm
- Distance from the median plane of the tractor:	0 mm
- Distance behind rear-wheel axis:	530 mm
- PTO speed at rated engine speed:	787 rev/min
- Engine speed at standard power take-off speed:	2382 rev/min
- Ratio of rotation speeds (engine speed/p.t.o. speed):	3.176
- Power restriction and maximum torque:	-----
- Direction of rotation (viewed from behind tractor):	clockwise

1000 rev/min

- Location:	at rear of tractor, in tractor's median plane
- Diameter of power take-off shaft end:	35 mm
- Number of splines:	21, in conformity with ISO 500/1991 type 3
- Height above ground:	680 mm
- Distance from the median plane of the tractor:	0 mm
- Distance behind rear-wheel axis:	530 mm
- PTO speed at rated engine speed:	1050 rev/min
- Engine speed at standard power take-off speed:	2381 rev/min
- Ratio of rotation speeds (engine speed/p.t.o. speed):	2.381
- Power restriction and maximum torque:	-----
- Direction of rotation (viewed from behind tractor):	clockwise

1.4.1.2 Power take-off proportional to ground speed

540 rev/min

- Location:	at rear of tractor, in tractor's median plane
- Travelling distance for one revolution of power take-off shaft:	0.53 m
- Number of power take-off shaft revolutions for one revolution of rear wheels:	8.9
- Direction of rotation (viewed from behind tractor):	clockwise

750 rev/min

- Location:	at rear of tractor, in tractor's median plane
- Travelling distance for one revolution of power take-off shaft:	0.42 m
- Number of power take-off shaft revolutions for one revolution of rear wheels:	11.5
- Direction of rotation (viewed from behind tractor):	clockwise

1000 rev/min

- Location:	at rear of tractor, in tractor's median plane
- Travelling distance for one revolution of power take-off shaft:	0.31 m
- Number of power take-off shaft revolutions for one revolution of rear wheels:	15.2
- Power restriction and maximum torque:	-----
- Direction of rotation (viewed from behind tractor):	clockwise

1.5 POWER LIFT

1.5.1 Rear power lift

- Make/Model/Type:	Own make, draught, position, position float and combined draught and position control operated by two independent levers; there is a lift-o-matic device to raise and to low in a fast way the lower links.
- Type of hydraulic system:	open centre system
- Type and number of cylinders:	1, single acting, internal.
- Type of linkage lock for transport:	lift-o-matic device
- Relief valve pressure setting:	19 $\pm$ 1 MPa
- Opening pressure of anti-shock valve:	21 $\pm$ 0.5 MPa
- Opening pressure of cylinder safety valve:	none

- Lift pump type:	hydraulic NEW HOLLAND C 42 rotary pump (with a pump delivery rate of 44,5 l/min), driven by engine shaft; as option, hydraulic NEW HOLLAND C 31 rotary pump (with a pump delivery rate of 34,5 l/min), driven by engine shaft. The NEW HOLLAND C 31 pump was the one mounted on the tested tractor
- Transmission between pump and engine:	mechanical
- Type and number of filters:	1, replaceable paper cartridge;
- Site of oil reservoir:	in common with transmissione and rear axle
- Type, number and location of tapping points:	3 ways distributor at rear of tractor
- Maximum volume of oil available to external cylinders:	10 dm^3

1.5.2 Front power lift (available as option and not present on the tested tractor)

1.6 THREE POINT LINKAGE

1.6.1 Rear three point linkage

Category:	1st or 2nd, implement attachment with three point linkage and lower links, in conformity with I.S.O. STANDARD 730/I-1994
Category adapter:	none

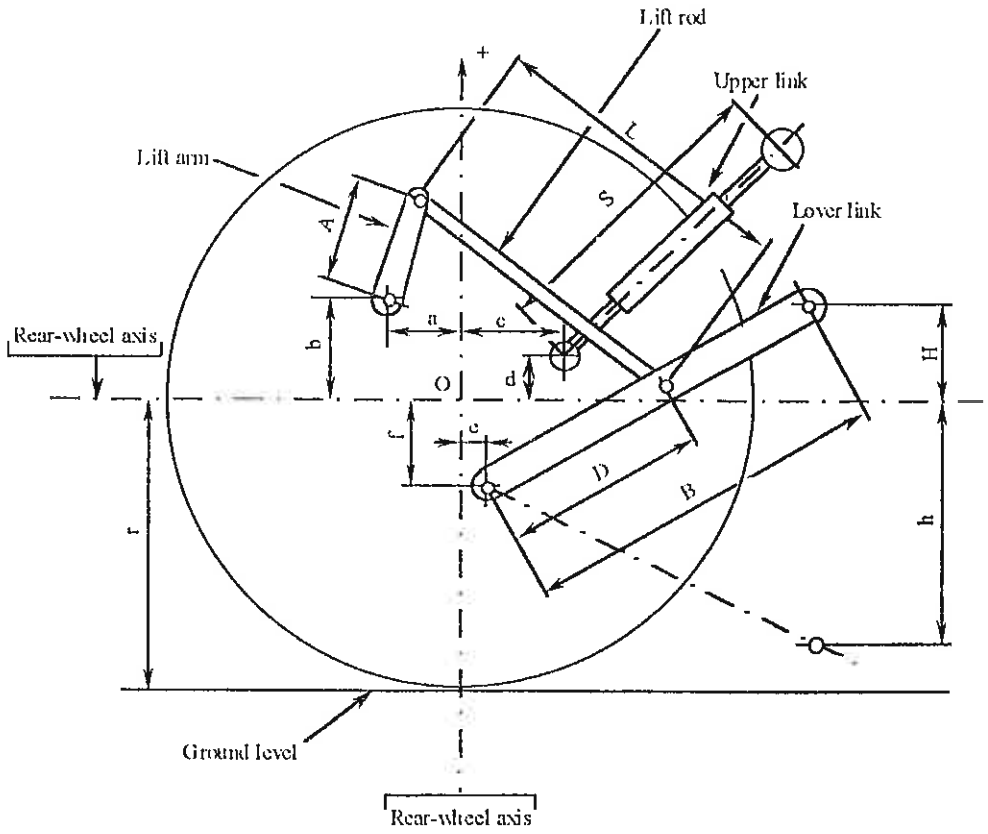


Figure 1.1

Lift test - Rear linkage geometry

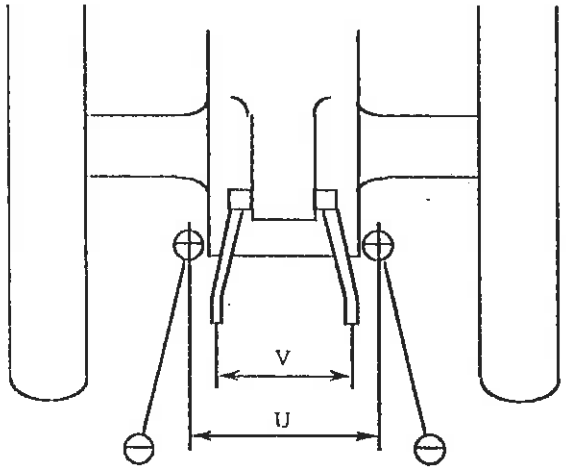


Figure 1.2

Lift test - Rear linkage geometry

		Dimension or range mm	Settings used in test mm
Length of lift arms	(A)	255	255
Length of lower links	(B)	880	880
Distance of lift arm pivot point from rear wheel axis: - horizontally	(a)	135 rearward	135rearward
- vertically	(b)	285	285
Horizontal distance between the 2 lower link points	(u)	450-475	450-475
Horizontal distance between the 2 lift arm end points	(v)	510	510
Length of upper link	(S)	from 585 to 875	620
Distance of upper link pivot point from rear wheel axis: - horizontally	(c)	400	400
- vertically	(d)	235-285	285
Distance of lower link pivot point from rear wheel axis: - horizontally	(e)	135	135
- vertically	(f)	230	230
Distance of lower link pivot points to lift rod pivot points on lower links	(D)	430	430
Length of lift rods	(L)	from 510 to 640	590
Heigth of lower hitch points relative to the rear wheel axis: - in low position	(h)	495	495
- in high position	(H)	180	180
Height above ground of lower hitch points when locked in transport position (*)		875	-

(*) Assuming r = 695 mm tyre dynamic radius index of ISO 4251/1-1992

Table 1.1 - Dimension of rear linkage geometry
(when connected to the standard frame)

1.7 SWINGING DRAWBAR

- Type:	own make, DGM-GA 1086 A 6t V0
- Height above ground	
• Minimum:	380 mm
• Maximum:	490 mm
- Type of adjustment:	overturning the drawbar to position the fork uppermost or downmost
- Distance of hitch point from rear-wheel axis, horizontally:	860 to 930 mm
- Distance of hitch point from PTO shaft end:	
• Vertically:	190 to 300 mm
• Horizontally:	330 - 400 mm
- Lateral adjustment (centre of clevis):	
• Right hand:	210 mm
• Left hand:	210 mm
- Distance of pivot point from rear-wheel axis, horizontally:	210 mm
- Diameter drawbar pin hole:	33 mm
- Maximum vertical permissible load:	0 kN

1.8 TRAILER HITCH

- Type:	own make, DGM-GA 1087 C 6t V1.5
- Hole diameter:	28 mm
- Height above ground:	
- min:	455 mm
- max:	940 mm
- Distance of hitch point from rear wheel axis, horizontally:	700 mm
- Distance of hitch point from power take-off shaft end:	
- vertically:	275 mm below, 210 mm above
- horizontally:	170 mm
- Maximum vertical permissible load:	14.7 kN

1.9 HOLED DRAWBAR

(available as option and not present on the tested tractor)

1.10 STEERING

- Make/Model/Type:	DANFOSS make, ORBITROL OSPC 100 OR model, hydrostatic type
- Method of operation:	
- pump:	hydrostatic steering with NEW HOLLAND A25 XRP hydraulic gear pump or BOSCH 0.510.525.350 hydraulic gear pump
- rams:	one double acting rams acting directly on front axle;
- Working pressure:	14.5 MPa

1.11 BRAKES

1.11.1 Service brake

- Make/Model: Own make, drawing n. 5172405
- Type: oil bath disc, total 2 discs at rear (1 for wheel), mounted on differential shaft. Rear disc 259 mm dia, FRENDO ABEX HDT 303 lining material
- Method of operation: hydraulically actuated with 2 pedals
- Trailer braking take-off: hydraulic or pneumatic traler braking systems

1.11.2 Parking brake:

- Type: fully independent of service brake, 4 oil bath sectors, mounted on the secondary shaft of the gear box, FRENDO ABEX 40 A lining material
- Method of operation: mechanical by hand lever

1.12 WHEELS

Steering wheels

- Number: 2
- Location: at front

Driving wheels

- Number: 2
- Location: at rear

- Wheelbase: 2342 mm

- Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1400	2170	Adjusting the telescopic beam and alternating wheel rims
Rear	1420	2205	Changing the position of the rims in respect to the disc

1.13 PROTECTIVE STRUCTURE

- Make/Model/Type: NEW HOLLAND make, SLTV 3 model, not tiltable cab type
- Manufacture's name and address: NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device: cab, not tiltable
- OECD approval number: CSD 1404/10 for the FIAT version and CSD 1404/20 for the FORD version
- Date of approval: 9th October 1995

As option:

- Make/Model/Type: NEW HOLLAND make, 35/L/1 model, not tiltable Rear Roll Bar type

- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, not tiltable
- OECD approval number:	CSS 0349/10 for the FIAT version and CSS 0349/20 for the FORD version
- Date of approval:	25th October 1995
- Make/Model/Type:	NEW HOLLAND make, 35/L/A model, folding Rear Roll Bar type
- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, folding
- OECD approval number:	CSD 1406/10 for the FIAT version and CSD 1406/20 for the FORD version
- Date of approval:	9th October 1995
- Make/Model/Type:	NEW HOLLAND make, 35/L/B model, NON folding Rear Roll Bar type
- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, NON folding
- OECD approval number:	CSD 1406/30 for the FIAT version and CSD 1406/40 for the FORD version
- Date of approval:	9th October 1995
- Make/Model/Type:	NEW HOLLAND make, 35/L/3 model, not tiltable Rear Roll Bar type
- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, not tiltable
- OECD approval number:	CSD 1412/59÷60 for the FIAT version and CSD 1412/79÷80 for the FORD version
- Date of approval:	12TH February 1997
- Make/Model/Type:	NEW HOLLAND make, 35/L/C model, folding Rear Roll Bar type
- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, folding
- OECD approval number:	CSD 1411/59÷60 for the FIAT version and CSD 1411/79÷80 for the FORD version
- Date of approval:	12TH February 1997
- Make/Model/Type:	NEW HOLLAND make, 35/L/D model, NON folding Rear Roll Bar type
- Manufacture's name and address:	NEW HOLLAND ITALIA S.p.A., Viale delle Nazioni, 55 41100 MODENA (MO) - Italy
- Protective device:	Rear Roll Bar, NON folding
- OECD approval number:	CSD 1411/139÷140 for the FIAT version and CSD 1411/159÷160 for the FORD version
- Date of approval:	12TH February 1997

1.14 SEAT

1.14.1 Driver's seat

- Make/Model/Type:	GRAMMER make, DS 85H/3A model, upholstered seat with back rest, is mounted on tractor equipped with safety cab
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	210 mm
- vertical:	60 mm

1.14.2 Optional driver's seat

- Make/Model/Type:	GRAMMER make, LS 95H1/90A model, upholstered seat with back rest, is mounted on tractor equipped with safety cab
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	170 mm
- vertical:	60 mm
- Make/Model/Type:	GRAMMER make, MSG 95A/20 model, upholstered seat with back rest, is mounted on tractor equipped with safety cab
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	170 mm
- vertical:	60 mm
- Make/Model/Type:	GRAMMER make, DS 44/2H model, upholstered seat with back rest, is mounted on tractor equipped with all above mentioned Rear Roll Bar frame.
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	150 mm
- vertical:	60 mm
- Make/Model/Type:	GRAMMER make, DS 85H/3A model, upholstered seat with back rest, is mounted on tractors equipped with Rear Roll Bar frames except for the 35/L/3 model.
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	210 mm
- vertical:	60 mm
- Make/Model/Type:	GRAMMER make, DELUXE DS 85H/3A model, upholstered seat with back rest, is mounted on tractors equipped with the 35/L/3 model, not tiltable Rear Roll Bar.
- Type of suspension:	adjustable spring
- Type of damping:	shock absorber
- Range of adjustment:	
- longitudinal:	210 mm
- vertical:	60 mm

1.14.3 Passenger seat

- Location:	on left hand side of the driver's seat
- Number of places:	1

1.15 LIGHTING

	Height above ground of centre (*) mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights:	1130	165 x 105	210
Sidelights	1635	110 x 35	780
Rearlights	1550	75 x 70	725
Reflectors	560	Ø 55	395

(*) with tyres: 7.50 - 16 front - 480/70 R 30 rear

2. TEST CONDITIONS

2.1 OVERALL DIMENSIONS (with tyres 7.50 - 16 front and 480/70 R 30 rear)

	Length	Width		Height at top of	
		minimum	maximum	protective structure	exhaust silencer
	mm	mm	mm	mm	mm
Ballasted	4210	2120	2520	2500	2730
Unballasted	3910	2120	2520	2500	2730

2.2 GROUND CLEARANCE

(unballasted tractor): 400 mm

- Clearance-limiting part: front axle below the central pivot point

2.3 TRACTOR MASS

Mass (with safety cab and full fuel tank):

	Ballasted		Unballasted	
	Without driver kg	With driver kg	Without driver kg	With driver kg
Front	1720	1740	1130	1150
Rear	2220	2275	2040	2095
Total	3940	4015	3170	3245

2.4 BALLAST

	Weights		Water (kg)
	Number	Total mass (kg)	
Front wheels	-	-	-
Front weight	10 + support	470	-
Rear wheels	6	300	-
Optional	1	1185	-

The optional ballasts have been used in order to carry out optional drawbar tests in the condition of the following maximum admittable load on the axles:
Front axle: 2200 kg - Rear axle: 3500 kg - Total: 5200 kg

2.5 TYRES AND TRACK WIDTH SPECIFICATIONS

	Front	Rear
Tyres:		
- dimensions	7.50 - 16	480/70 R 30
- ply rating	10 ply	141 A8
- type	radial	radial
- maximum load (tyre manufacturer')	9.61 kN	25.25 kN
- maximum load (tractor manufacturer's)	10.79 kN	17.16 kN
- inflaction pressure (tyre manufacturer's)	420 kPa	160 kPa
- dynamic radius index	375 mm	695 mm
Chosen track width:	1500 mm	1640 mm

Tyre matching			
At front		At rear	
6.00 - 16	8 ply	14.9 R 30	129 A8
6.00 - 16	8 ply	16.9 R 28	126 A8
6.00 - 16	8 ply	420/70 R 30	134 A8
7.50 - 16	10 ply	16.9 R 28	136 A8
7.50 - 16	10 ply	16.9 R 30	137 A8
7.50 - 16	10 ply	13.6 R 36	127 A8
7.50 - 16	10 ply	12.4 R 36	124 A8
7.50 - 16	10 ply	480/70 R 30	141 A8

2.6 OILS AND LUBRICANTS

2.6.1 Capacity and change interval

	Capacity dm^3	Oil change h	Filter change h
- Engine with filter	10.7	300	300
- Gear box with power lifts, rear axle, final drive and hydraulic system	55.0	1200	300
- Steering system	2.0	1200	300

2.6.2 Specifications (SAE, API, MIL-L, ISO)

	Recommended	Used during test
Engine oil - Type: - Viscosity: - Classification:	AMBRA SUPER GOLD 15W-40 12.50 cSt API SE - CD	As recommended
Hydraulic fluid - Type: - Viscosity: - Classification	AMBRA MULTI G 11.50 cSt API GL 4	As recommended
Rear axle, final drives and gear box - Type: - Viscosity: - Classification:	AMBRA MULTI G 11.50 cSt API GL 4	As recommended
Steering oil - Type: - Viscosity: - Classification:	AMBRA MULTI G 11.50 cSt API GL 4	As recommended

2.6.3	Grease:	AMBRA GR9, NLGI2 international specification
	- Number of lubrication points:	12

2.7 FUEL

- Type:	ERG DIESEL oil, in conformity with national standard.
- Density at 15 °C:	0.830 g/cm^3

3. COMPULSORY TEST RESULTS

3.1 Main power take-off

- Date and location of tests: 7th February 1997, 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		kg/h	l/h	g/kWh	kWh/l
3.1.1 MAXIMUM POWER - TWO HOUR TEST						
38,86	2502	1051	10,53	12,69	271	3,06
3.1.2 POWER AT RATED ENGINE SPEED						
38,86	2502	1051	10,53	12,69	271	3,06
3.1.3 STANDARD POWER TAKE OFF SPEED (1000 ± 25 rev/min)						
37,52	2383	1001	10,10	12,17	269	3,08
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
38,86	2502	1051	10,53	12,69	271	3,06
3.1.4.2 85% of torque obtained in 3.1.4.1						
34,91	2645	1111	9,32	11,23	267	3,11
3.1.4.3 75% of torque defined in 3.1.4.2						
26,60	2681	1126	7,38	8,89	277	2,99
3.1.4.4 50% of torque defined in 3.1.4.2						
17,79	2695	1132	5,73	6,90	322	2,58
3.1.4.5 25% of torque defined in 3.1.4.2						
9,04	2721	1143	4,19	5,05	464	1,79
3.1.4.6 unloaded						
-	2745	1153	3,15	3,80	-	-
3.1.5 PART LOADS AT STANDARD POWER TAKE OFF SPEED (1000 rev/min)						
3.1.5.1 the torque corresponding to maximum power						
37,52	2383	1001	10,10	12,17	269	3,08
3.1.5.2 85% of torque obtained in 3.1.5.1						
33,30	2491	1046	8,62	10,39	259	3,21
3.1.5.3 75% of torque defined in 3.1.5.2						
25,37	2536	1065	6,82	8,22	269	3,09
3.1.5.4 50% of torque defined in 3.1.5.2						
17,11	2560	1075	5,45	6,57	318	2,61
3.1.5.5 25% of torque defined in 3.1.5.2						
8,72	2591	1088	3,94	4,75	452	1,84
3.1.5.6 unloaded						
-	2621	1101	2,81	3,39	-	-

- No load maximum engine speed: 2745 rev/min
- Torque (equivalent crankshaft) at maximum power:
  - at rated engine speed 148.3 Nm
  - at standard power take-off speed 150.3 Nm
- Maximum torque (equivalent crankshaft) 186.6 Nm
  (engine speed: 1493 rev/min)

Mean atmospheric conditions	
Temperature:	22 °C
Pressure:	98.5 kPa
Relative humidity:	55 %
Maximum temperatures	
Coolant:	85.0 °C
Engine oil:	118.0 °C
Fuel:	45.0 °C
Engine air intake:	27.0 °C

3.2 HYDRAULIC POWER AND LIFTING FORCE

- Date of tests: 08th March 1997

3.2.1 Hydraulic Power Test

- Sustained pressure with relief valve open: 19.0 MPa
- Pump delivery rate at minimum pressure: 32.0 l/min

	Flow rate l/min	Power kW	Pressure MPa
Flow rate corresponding to a hydraulic pressure equivalent to 90% of the actual relief valve pressure setting and corresponding hydraulic power	30.0	8.6	17.1
Flow rate and hydraulic pressure corresponding to maximum hydraulic power	30.0	8.8	17.5

- Tapping point used for test: at rear of tractor
- Temperature of hydraulic fluid: 65 °C
- Opening pressure of the unloading valve: --- MPa
- Closing pressure of the unloading valve: --- MPa

3.2.2 POWER LIFT TEST

Rear power lift linkage settings for test - see Table 1.1 and figg. 1.1 ÷ 1.2

	at the hitch point		on the frame	
Height of lower hitch points above ground in down position	200	mm	200	mm
Vertical movement	625 (*) 675 (+)	mm mm	625 (*) 735 (+)	mm mm
Maximum corrected force exerted through full range	16.13	kN	18.90	kN
Corresponding pressure of hydraulic fluid	17.1	MPa	17.1	MPa
Moment about rear-wheel axis	16.37	kNm	30.71	kNm
Maximum tilt angle of mast from the vertical	- degrees		6 degrees	

(*) with lifting forces (+) without lifting forces

Lifting heights relative to the horizontal plane including the lower pivot points										
mm	- 265	- 200	- 100	- 50	0	50	100	200	300	360
Lifting forces										
at the hitch points kN	16.13	18.33	20.25	20.92	21.52	21.97	22.39	22.61	23.38	17.63
Corresponding pressure: 17.1 MPa										
at the frame kN	21.36	21.82	21.73	21.50	21.24	21.04	20.65	19.82	19.01	18.53
Corresponding pressure: 17.1 MPa										

3.3 DRAWBAR PERFORMANCE

Date of tests: 21st April ÷ 24th April 1997
Type of track: asphalt
Tyre size - front: 7.50 - 16 10 ply
- rear: 480/70 R 30 141 A8

	Height of hitch above ground	Tyre inflaction pressure	
		Front	Rear
Unballasted	760 mm	420 kPa	160 kPa
Ballasted	755 mm	420 kPa	160 kPa

Gear no. and group		Driving speed km/h	Power kW	Drawbar pull daN	Engine speed rev/min	Wheel slip %	Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperature			Atmospheric conditions		
									Fuel °C	Coolant °C	Engine oil °C	Tempe rature °C	Relative humidity %	Pres sure kPa
3.3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)														
III	Low	3.44	24.27	2540	2657	14.7	346	2.40	32	87	116	19	28	99.9
I	Medium	3.81	26.74	2530	2650	15.1	342	2.43	33	87	116	19	28	99.9
IV	Low	4.86	31.23	2314	2499	10.6	333	2.49	31	87	115	19	28	99.9
II	Medium	5.65	32.02	2040	2495	7.9	325	2.55	29	88	113	19	28	99.9
III	Medium	8.40	31.82	1363	2501	5.3	327	2.54	32	88	116	19	28	99.9
I	High	9.46	32.45	1236	2502	5.1	318	2.61	31	88	117	19	28	99.9
IV	Medium	12.27	30.75	902	2503	3.5	337	2.46	34	88	118	19	28	99.9
3.3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)														
I	Low	1.62	15.38	3413	2645	15.1	-	-	27	88	110	15	35	99.3
II	Low	2.35	22.27	3413	2630	14.9	-	-	27	88	107	15	35	99.3
III	Low	3.36	30.15	3236	2502	11.4	352	2.36	27	87	110	14	35	99.3
I	Medium	3.95	31.75	2893	2506	6.5	335	2.48	26	88	110	13	35	99.3
IV	Low	5.27	31.98	2187	2504	3.0	327	2.54	28	88	115	13	35	99.3
II	Medium	5.72	32.87	2069	2506	6.9	317	2.61	22	87	113	12	40	99.3

Gear no. and group	Driving speed km/h	Power kW	Drawbar pull daN	Engine speed rev/min	Wheel slip %	Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperature			Atmospheric conditions		
								Fuel °C	Coolant °C	Engine oil °C	Tempe rature °C	Relative humidity %	Pres sure kPa
III Medium	8.43	32.60	1393	2495	4.4	324	2.56	20	87	110	11	45	99.3
I High	9.55	32.90	1241	2500	3.8	318	2.61	20	86	108	10	48	99.3
IV Medium	12.26	31.05	912	2496	3.0	341	2.44	20	86	108	10	50	99.3
3.3.3 FIVE-HOUR TESTS													
3.3.3.1 FIVE HOUR TEST at 75% of pull at maximum power													
III Medium	8.88	25.76	1044	2600	3.3	325	2.55	37	88	111	23	45	98.7
3.3.3.2 FIVE HOUR TEST at pull corresponding to 15% wheelslip - with 420 kg as additional ballast													
II Low	2.35	22.91	3511	2630	-	-	-	27	88	112	13	26	97.9

Oil consumption during ten hours tests 3.3.3.1 and 3.3.3.2: 70 g/h

Tests 3.3.3.2 was carried out with additional ballast; so, the not quoted figures are irrelevant

3.4 TURNING AREA AND TURNIG CIRCLE (front wheel disengaged)

Wheel equipment: front: 7.50 - 16 (10 ply) rear: 480/70 R 34 (143 A8)
Track width: front: 1500 rear: 1640

	With brakes		Without brakes	
	Right-hand m	Left-hand m	Right-hand m	Left-hand m
Radius of turning area	3.79	3.74	4.10	4.11
Radius of turning circle	3.65	3.60	3.96	3.97

3.5 LOCATION OF CENTRE OF GRAVITY

Height above ground	830 mm
Distance forward from the vertical plane containing the axis of the rear wheels	830 mm
Distance from the median plane of the tractor: to the left	0 mm

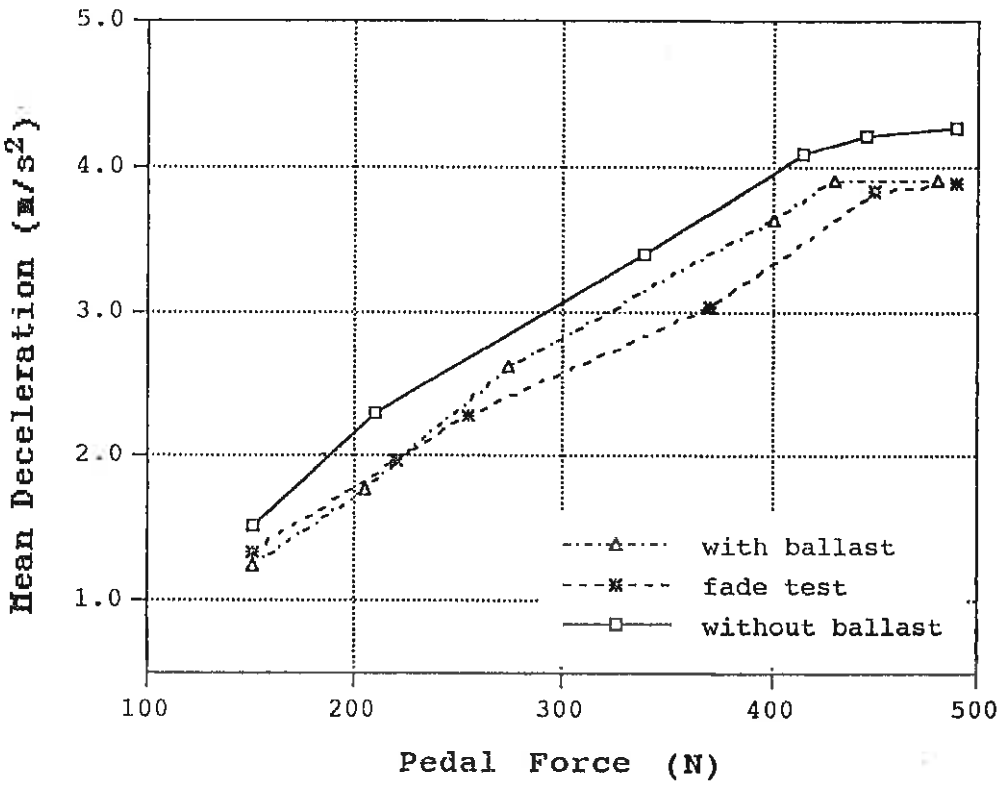
3.6 BRAKING

- Date of tests: 29th April 1997
- Type of track: asphalt
- Type of decelerometer: PEISELER
- Tractor masses during test (*)

	front axle kg	rear axle kg	total kg
Ballasted	1740	2285	4025
Unballasted	1150	2105	3255

(*) tractor carring a driver and the decelerometer (85 kg)

3.6.1 Cold service braking device test - 3.6.2 Fade test



3.6.1 Cold service braking device test

	Ballasted tractor	Unballasted tractor
Speed before application of brakes (km/h)	32.5	33.0

3.6.2 Fade test

- Maximum deviation of the tractor from its original course: none
- Abnormal vibration: none
- Brake heating method: by means of towing the tractor for 1 km at 26.4 km/h with a towing force of 3.94 kN

3.6.3 Parking braking device test

	Uphill	Downhill
Braking device control force	20.5 daN	20.0 daN

3.7 MEASUREMENT OF EXTERNAL NOISE LEVEL

- Date of tests: 30th April 1997 - I.M.A. - TORINO
- Sound level meter: make,model and type: RION make, NA 29 E model, impulse precision type
- Type of track: asphalt
- Gear number: 4 III High
- Travelling speed before acceleration: 24.8 km/h
- Sound level: 83.0 dB(A)

4. REPAIRS = none

5. REMARKS = none

6. OPTIONAL TEST (on request of the manufacturer)

6.1 Drawbar performance

This test has been carried out using optional ballasts in order to reach the condition of the maximum admittable load on the axles; measurements have been done in the same gears tested during the drawbar performance shown at the point 3.3.2 of this report.

6.1 DRAWBAR PERFORMANCE

Date of tests: 28th April 1997
Type of track: asphalt
Tyre size - front: 7.50 - 16 10 ply
- rear: 480/70 R 30 141 A8

Tractor masses used during tests:

front	2200 kg
rear	3000 kg
Total	5200 kg

	Height of hitch above ground	Tyre inflaction pressure	
		Front	Rear
Ballasted	750 mm	420 kPa	160 kPa

Gear no. and group		Driving speed km/h	Power kW	Drawbar pull daN	Engine speed rev/min	Wheel slip %	Specific fuel consumpt. g/kWh	Specific energy kWh/l	Temperature Fuel °C	Coolant °C	Engine oil °C	Atmospheric conditions Tempe rature °C	Relative humidity %	Pres sure kPa
MAXIMUM POWER IN TESTED GEARS (tractor with the maximum admittable load on the axles)														
I	Low	1.64	15.91	3501	2684	14.9	-	-	27	86	108	11	50	98.0
II	Low	2.36	23.03	3511	2671	15.1	-	-	27	86	108	11	50	98.0
III	Low	3.36	30.57	3275	2506	10.7	341	2.44	27	87	112	12	48	98.0
I	Medium	3.86	31.75	2962	2502	7.8	325	2.55	27	87	112	12	47	98.0
IV	Low	5.06	32.00	2275	2495	5.6	322	2.57	31	88	112	12	45	98.0
II	Medium	5.78	32.12	2001	2495	4.8	317	2.62	32	87	113	13	43	98.0
III	Medium	8.55	31.43	1324	2502	2.6	324	2.56	31	88	113	13	42	98.0
I	High	9.61	31.91	1196	2501	2.6	321	2.58	30	87	112	13	41	98.0
IV	Medium	12.29	30.45	892	2499	2.1	337	2.47	30	88	113	13	40	98.0

NEW HOLLAND ITALIA FIAT L60

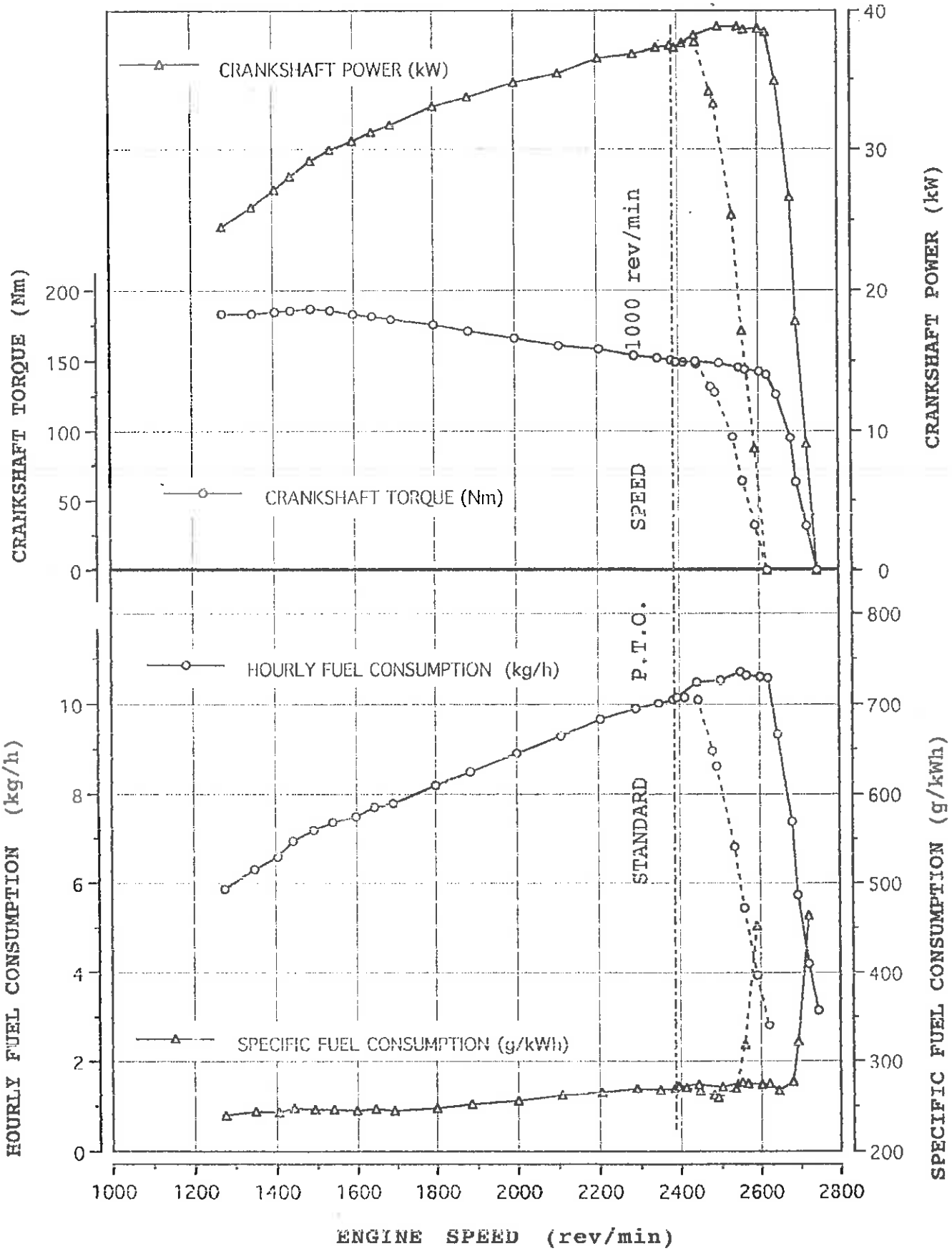


FIG. 1 - POWER TAKE-OFF TEST

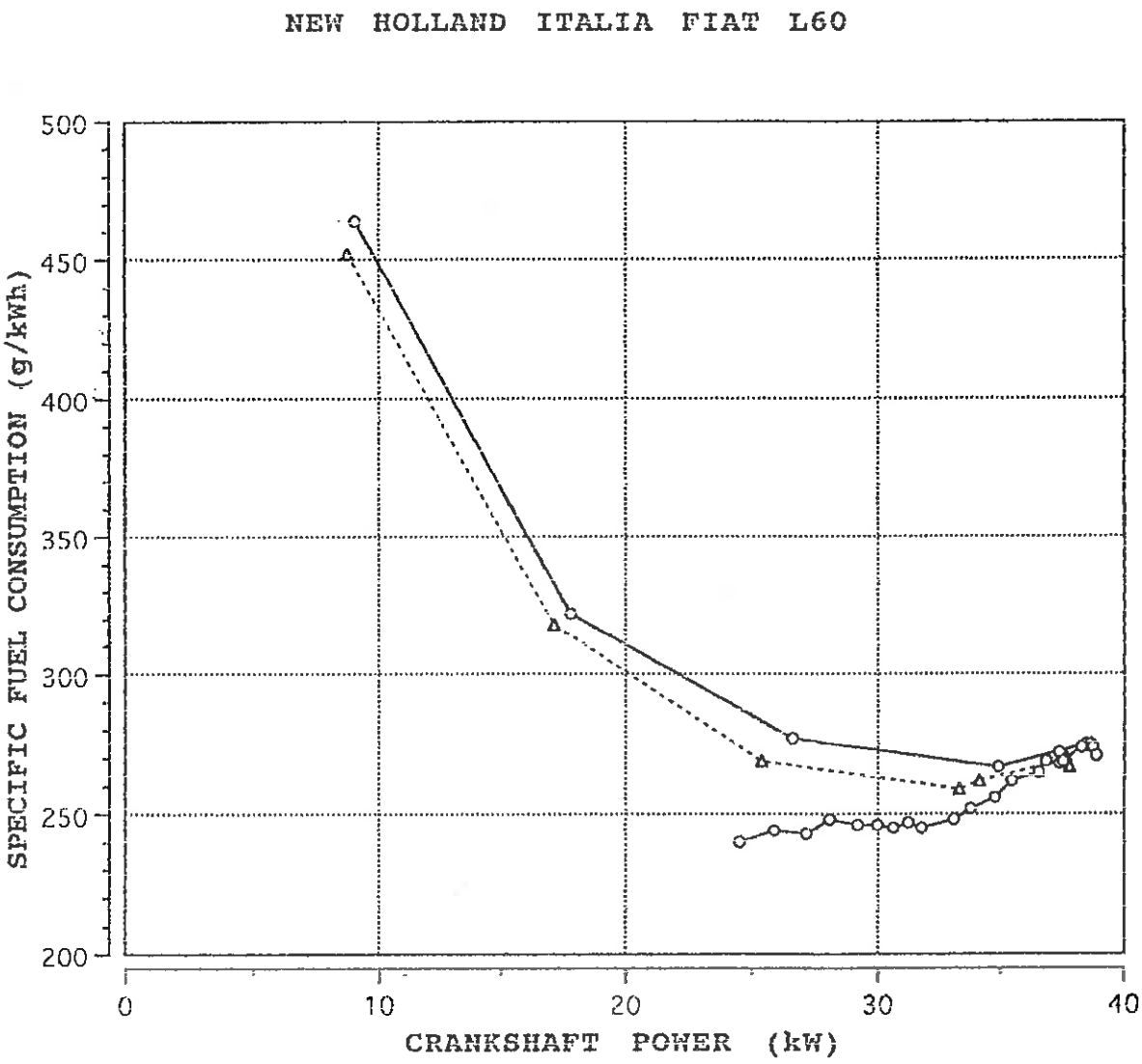


Fig. 2 - POWER TAKE-OFF TEST

The Head of the Section

R. MARENGO

The Director

P. PICCAROLO

Torino, 14th July 1997