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

Report No. 2179/T/1997

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

TRACTORS: Make: **NEW HOLLAND ITALIA**

Models: **FIAT L 95** Approval number: 1653/1
with 24 x 12 HI-LO Transmission (30 km/h version)

Models: **FORD 7635** Approval number: 1653/2
with 24 x 12 HI-LO Transmission (30 km/h version)

Type: 2 WD



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

Date and location of the tests: September÷December 1996 - 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.

Date of approval: 20th March 1997

PRELIMINARY REMARK

The NEW HOLLAND ITALIA FIAT L95 (2 WD) and the NEW HOLLAND ITALIA FORD 7635 (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 L95 (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 L95 (2 WD) and the NEW HOLLAND ITALIA FORD 7635 (2 WD) tractors are manufactured in following variants:

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

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

3. with 20 x 12 Mechanical Transmission - (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;

4. with 20 x 12 Mechanical Transmission - (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;

5. with 24 x 12 HI-LO Transmission - (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;

6. with 24 x 12 HI-LO Transmission - (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 fifth variant.

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

TABLE OF CONTENTS

	Page
1. Specification of tractor	4
2. Test condition	20
3. Compulsory tests	
3.1 - Main power take-off performance	23
3.2 - Hydraulic power and lifting force	24
3.3 - Drawbar performance	26
3.4 - Turning area and turning circle	28
3.5 - Location of centre of gravity	28
3.6 - Braking	28
3.7 - Measurement of external noise level	29
4. Repairs	29
5. Remarks	29
6. Optional tests (on request of the manufacturer)	
6.1 - Drawbar performance	29

Annex

	Fig. No.
Compulsory main power take-off test	
Curves of crankshaft power and specific fuel consumption/crankshaft speed	1
Curves of crankshaft torque and hourly fuel consumption/crankshaft speed	1
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, FIAT L95 (2WD), wheeled tractor, unit construction, all wheels drive tractors
- Number of driving wheels:	2
- Serial N°:	001059868
- 1st serial N°:	001059219

1.2 ENGINE

- Make/Model/Type:	NEW HOLLAND ITALIA, FIAT 8045.25K (*), water cooled, 4 stroke, Diesel engine, direct injection
- Serial N°:	176451

1.2.1 Cylinders

- Number/disposition:	4, vertical, in-line
- Bore/stroke:	104 x 115 mm
- Capacity:	3908 cm^3
- Compression ratio:	16.5 : 1
- Arrangement of valves:	overhead
- Cylinder liners:	dry

1.2.2 Supercharging

- Make/Model/Type:	GARRET make, TA 3118 model, supercharger driven by exhaust gas type
- Pressure:	62 kPa

(*) The engine manufacturer is going to change the model denomination of the engine from FIAT 8045.25K to IVECO 8045.25K 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° 2, NEW HOLLAND make, with replaceable cartridge and n° 1 mesh filter inside the fuel feed pump
- Capacity of fuel tank:	115 dm^3 on the left side under the protective structure
- Make/Model/Type of injection pump:	BOSCH vel 678, rotary injection pump (as option, BOSCH VE4/11 F 1250 LV13601, rotary injection pump)
- Serial N°:	466759
- Manufacturer's production setting of injection pump:	
- flow rate:	62.2 mm^3/stroke at rated speed and full load corresponding 18.67 dm^3/h (63±1 mm^3/stroke given by the manufacturer)
- timing:	7.0°±1° before TDC
- Make/Model/Type of injectors:	BOSCH DLLA 137 S multihole injection nozzles used with engine equipped with BOSCH VEL 678, rotary injection pump (as option BOSCH DLLA 132 S multihole injection nozzles used with engine equipped with BOSCH VE4/11 F 1250 LV13601, rotary injection pump and STANADYNE SDLLA 137 S multihole injection nozzles used with engine equipped with BOSCH VEL 678, rotary injection pump)
- Injection pressure:	24 ± 1 Mpa for BOSCH DLLA 137 S and STANADYNE SDLLA 137 S multihole injection nozzles and 26 ± 1 Mpa for BOSCH DLLA 132 S multihole injection nozzles (*)
- 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 750 to 2735 rev/min
- Rated engine speed:	2500 rev/min

1.2.5 Air cleaner

- Pre-cleaner:	none
• Make/Model/Type:	---
• Location of air intake:	---

(*) Although the injection pressure of the available injectors is different, the performances of the engine - tested according to the 80/1269/EEC, 88/195/EEC and 89/491/EEC - change within the tollerance given by these EEC Directives

- Main cleaner:	
• Make/Model/Type:	DONALDSON make, NEW HOLLAND ITALIA drawing n. 5150017, dry paper element filter with two replaceable cartridge elements; DONALDSON make, 21930590 type for the internal one and 21950589 type for the external one (as option DONALDSON make, NEW HOLLAND ITALIA drawing n. 5165665, 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. Engine oil cooling is provided by a heat exchanger using engine coolant
- 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:	2

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:	450 mm
- Coolant capacity:	16 dm^3 (14 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 125E, 12 V 65A, Alternator for the tractor equipped with the safety cab and MAGNETI MARELLI, AA 125E, 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. 5169716, DGM SA 3746, interference type with internal perforated pipe (as option, NEW HOLLAND ITALIA, drawing n. 5169717, DGM SA 3745, 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. 5179849, dual disk dry clutch, one for travelling and one for PTO engagement; the two discs are composed respectively by cerametallic material - travelling disc - and organic material - PTO disc.
- Number of plates:	2
- Diameter of plates	305 mm
- Method of operation:	Mechanically operated by pedal, for travelling and by lever, for PTO engagement.

As option:

- Make/Model/Type:	LUK, drawing n. 5179832, independent single disc dry clutch, used only for travelling, composed by cerametallic 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. 5170538, mechanical syncromesh speed change gears, fitted on the tested tractor.
- 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
- Available options:	
- Make/Model/Type:	Own make, drawing n. 5170522, mechanical syncromesh speed change gears.
• Arrangement:	four speeds forward with three ranges and one reverse group;

• Number of gears:	12 forward and 12 reverse
- Make/Model/Type:	Own make, drawing n. 5170530, 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. 5171127, 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 and final drives

- Make/Model/Type:	Own make, drawing n. LK-21339, centrally pivoted, telescoping inverted "U" shape section
- Differential lock	
• Make/Model/Type:	none
• Method of engagement:	---
• Method of disengagement:	---

1.3.5 Total ratios and travelling speeds

NEW HOLLAND ITALIA FIAT L 95 with 24 x 12 HI-LO 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 LO	Low	444.533	1.58
I HI		390.322	1.80
II LO		305.854	2.30
II HI		268.555	2.61
III LO		212.164	3.31
III HI		186.290	3.77
IV LO		148.107	4.74
IV HI		130.045	5.40
I LO	Medium	190.326	3.69
I HI		167.116	4.20
II LO		130.951	5.36
II HI		114.981	6.11
III LO		90.838	7.73
III HI		79.760	8.80
IV LO		63.412	11.07
IV HI		55.678	12.61
I LO	High	80.843	8.69
I HI		70.984	9.89
II LO		55.623	12.62
II HI		48.840	14.38
III LO		38.584	18.20
III HI		33.879	20.73
IV LO		26.935	26.07
IV HI		23.650	29.69
I	Reverse Low	396.994	1.77
II		273.146	2.57
III		189.474	3.71
IV		132.268	5.31
I	Reverse Medium	169.972	4.13
II		116.947	6.00
III		81.123	8.66
IV		56.630	12.40
I	Reverse High	72.198	9.73
II		49.674	14.14
III		34.458	20.38
IV		24.054	29.19

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 34 tyres: 745 mm (ISO 4251/1 - 1992).

NEW HOLLAND ITALIA FIAT L 95 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	2155.940	0.33
II		1483.360	0.47
III		1028.970	0.68
IV		718.303	0.98
I	Medium Low	923.064	0.76
II		635.099	1.11
III		440.553	1.59
IV		307.540	2.28
I	Medium	390.322	1.80
II		268.555	2.61
III		186.290	3.77
IV		130.045	5.40

continue in the next page

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	Medium High	167.116	4.20
II		114.981	6.11
III		79.760	8.80
IV		55.678	12.61
I	High	70.984	9.89
II		48.840	14.38
III		33.879	20.73
IV		23.650	29.69
I	Reverse Low	410.865	1.71
II		282.689	2.48
III		196.095	3.58
IV		136.889	5.13
I	Reverse Medium	175.911	4.00
II		121.033	5.80
III		83.958	8.36
IV		58.609	11.99
I	Reverse High	74.720	9.40
II		51.410	13.66
III		35.662	19.69
IV		24.895	28.20

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 34 tyres: 745 mm (ISO 4251/1 - 1992).

NEW HOLLAND ITALIA FIAT L 95 with 12 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	390.322	1.80
II		268.555	2.61
III		186.290	3.77
IV		130.045	5.40
I	Medium	167.116	4.20
II		114.981	6.11
III		79.760	8.80
IV		55.678	12.61
I	High	70.984	9.89
II		48.840	14.38
III		33.879	20.73
IV		23.650	29.69
I	Reverse Low	398.223	1.76
II		273.991	2.56
III		190.061	3.69
IV		132.677	5.29
I	Reverse Medium	170.499	4.12
II		117.309	5.99
III		81.374	8.63
IV		56.806	12.35
I	Reverse High	72.421	9.70
II		49.828	14.09
III		34.565	20.31
IV		24.129	29.10

(**) Calculated for the rated engine speed 2500 rev/min and dynamic index ratio of 480/70 R 34 tyres: 745 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 second 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, by means of a lever, mechanically acting on a single dry plate made of organic material; in case of hydraulic system, that is the one fitted on the tested tractor, 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, shaft ends may be changed removing three bolts, swopping shaft and replacing bolts; in the hydraulic system, that is the one fitted on the tested tractor, 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.

1.4.1.1 Main 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:	735 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:	735 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:	735 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

1.4.1.2Power 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:	0.41 m
- Number of power take-off shaft revolutions for one revolution of rear wheels:	11.4
- 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

1.4.2 Front Power take-off

- Type:	none
- Method of engagement:	----
- Number of shafts:	-
- Method of changing power take-off shaft ends and speeds:	----

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 and as option, 1, single acting, external, which was mounted on the tested tractor.
- 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 BOSCH 0 510 725 085 or SAUER 550/1/34385 rotary pump (with a pump delivery rate of 60 l/min), driven by engine shaft. The BOSCH 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

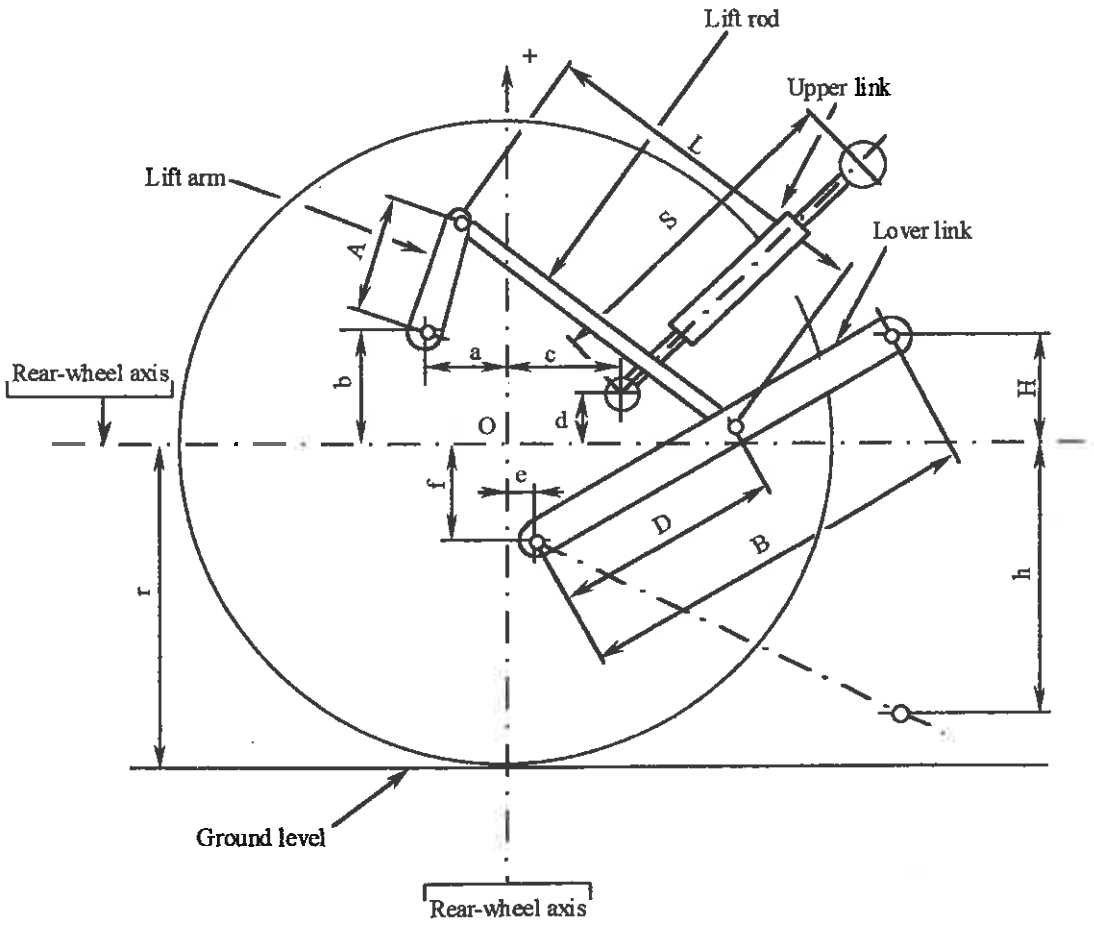
1.5.2 Front power lift (not available on the 2WD version)

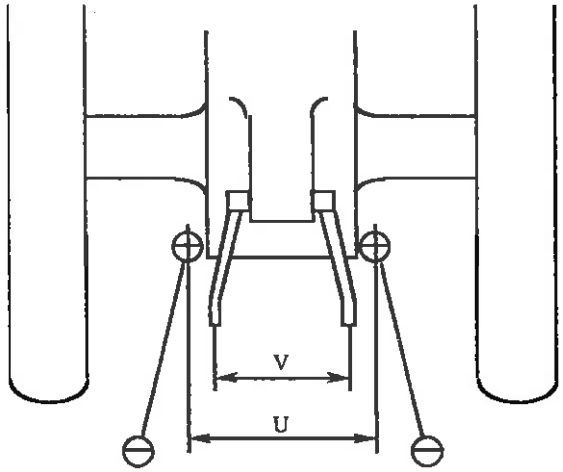
1.6 THREE POINT LINKAGE

1.6.1 Rear three point linkage

Category: 2nd, implement attachment with three point linkage and lower links, in conformity with I.S.O. STANDARD 730/I-1994

Category adapter: none





		Dimension or range mm	Settings used in test mm
Length of lift arms	(A)	255	255
Length of lower links	(B)	965	965
Distance of lift arm pivot point from rear wheel axis: - horizontally	(a)	135 rearward	135rearward
- vertically	(b)	300	300
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	675
Distance of upper link pivot point from rear wheel axis: - horizontally	(c)	400	400
- vertically	(d)	255-335	255
Distance of lower link pivot point from rear wheel axis: - horizontally	(e)	135	135
- vertically	(f)	205	205
Distance of lower link pivot points to lift rod pivot points on lower links	(D)	465-540	465
Length of lift rods	(L)	from 510 to 640	620
Heigth of lower hitch points relative to the rear wheel axis:			
- in low position	(h)	535	535
- in high position	(H)	175	175
Height above ground of lower hitch points when locked in transport position (*)		920	-
(*) Assuming r = 745 mm tyre dynamic radius index of ISO 4251/1-1992			

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

1.6.2 Front three point linkage none

1.7 SWINGING DRAWBAR

- Type:	own make, DGM-GA 1086 A 6t V0
- Height above ground	
• Minimum:	410 mm
• Maximum:	520 mm
- Type of adjustment:	overturning the drawbar to position the fork uppermost or downmost
- Distance of hitch point from rear-wheel axis, horizontally:	860 - 930 mm
- Distance of hitch point from PTO shaft end:	
• Vertically:	215 to 325 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:	465 mm
- max:	950 mm
- Distance of hitch point from rear wheel axis, horizontally:	700 mm
- Distance of hitch point from power take-off shaft end:	
- vertically:	270 mm below, 215 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 FIAT A31 XRP hydraulic gear pump or FIAT A31 XRP2 hydraulic gear pump
- rams:	one single 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. 5172711
- 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: 2 at rear

- Wheelbase: 2342 mm

- Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1400	2110	Adjusting the telescopic beam and alternating wheel rims
Rear	1440	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 1404/2 for the FIAT version and CSD 1404/12 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 0349/2 for the FIAT version and CSS 0349/12 for the FORD version
- Date of approval:	9th 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 1406/2 for the FIAT version and CSD 1406/12 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 1406/22 for the FIAT version and CSD 1406/32 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 1412/39÷40 for the FIAT version and CSD 1412/59÷60 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 1411/43÷44 for the FIAT version and CSD 1411/63÷64 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 1411/123÷124 for the FIAT version and CSD 1411/143÷144 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 tractor equipped with all above mentioned Rear Roll Bar frame.
- 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

	Recommended	Used during test
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: 11th September 1996, 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						
61,14	2500	1050	15,50	18,67	254	3,27
3.1.2 POWER AT RATED ENGINE SPEED						
61,14	2500	1050	15,50	18,67	254	3,27
3.1.3 STANDARD POWER TAKE OFF SPEED (1000 ± 25 rev/min)						
61,10	2381	1000	15,10	18,19	247	3,36
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
61,14	2500	1050	15,50	18,67	254	3,27
3.1.4.2 85% of torque obtained in 3.1.4.1						
54,00	2598	1091	14,11	17,00	261	3,18
3.1.4.3 75% of torque defined in 3.1.4.2						
41,27	2643	1110	12,03	14,49	292	2,85
3.1.4.4 50% of torque defined in 3.1.4.2						
27,79	2674	1123	9,79	11,80	352	2,36
3.1.4.5 25% of torque defined in 3.1.4.2						
14,13	2707	1137	7,34	8,84	520	1,60
3.1.4.6 unloaded						
-	2733	1148	5,02	6,05	-	-
3.1.5 PART LOADS AT STANDARD POWER TAKE OFF SPEED (1000 rev/min)						
3.1.5.1 the torque corresponding to maximum power						
61,10	2381	1000	15,10	18,19	247	3,36
3.1.5.2 85% of torque obtained in 3.1.5.1						
54,98	2519	1058	14,13	17,02	257	3,23
3.1.5.3 75% of torque defined in 3.1.5.2						
41,95	2560	1075	11,61	13,99	277	3,00
3.1.5.4 50% of torque defined in 3.1.5.2						
28,32	2595	1090	9,35	11,27	330	2,51
3.1.5.5 25% of torque defined in 3.1.5.2						
14,42	2633	1106	7,06	8,51	489	1,70
3.1.5.6 unloaded						
-	2674	1123	4,68	5,64	-	-

3.3 DRAWBAR PERFORMANCE

Date of tests: 26th November ÷ 28th November 1996
Type of track: asphalt
Tyre size - front: 9.00 - 16 8 ply
- rear: 480/70 R 34 143 A8

	Height of hitch above ground	Tyre inflaction pressure	
		Front	Rear
Unballasted	765 mm	310 kPa	160 kPa
Ballasted	760 mm	310 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)													
4 HI Slow	4.81	43.39	3246	2595	15.0	343	2.42	19	88	110	8	80	96.8
2 LO Medium	4.79	43.33	3256	2599	15.0	336	2.47	19	89	110	8	80	96.8
2 HI Medium	5.39	48.18	3217	2501	12.7	312	2.66	16	89	105	8	80	96.8
3 LO Medium	7.27	50.07	2481	2505	7.2	306	2.71	19	90	110	8	80	96.8
3 HI Medium	8.37	50.39	2167	2499	5.9	297	2.79	18	90	112	8	80	96.8
1 LO High	8.22	51.70	2265	2500	6.4	297	2.79	18	91	110	8	80	96.8
1 HI High	9.49	51.45	1952	2501	5.1	293	2.83	18	91	111	8	80	96.8
4 LO Medium	10.73	50.27	1687	2502	4.2	301	2.76	19	92	110	8	80	96.8
4 HI Medium	12.26	49.73	1461	2498	3.8	306	2.72	19	92	111	8	80	96.8
3.3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)													
1 LO Slow	1.46	14.36	3550	2698	15.0	-	-	22	92	118	12	29	97.6
1 HI Slow	1.65	16.29	3550	2686	15.0	-	-	23	91	117	12	28	97.6
2 LO Slow	2.10	20.72	3550	2676	14.9	-	-	23	90	116	12	28	97.6
2 HI Slow	2.39	23.46	3540	2667	14.9	-	-	22	91	104	12	30	97.6
3 LO Slow	3.01	29.48	3530	2655	14.9	384	2.16	22	91	109	12	30	97.6
3 HI Slow	3.37	33.09	3540	2616	15.1	370	2.24	22	90	107	12	30	97.6
1 LO Medium	3.32	32.45	3521	2634	15.1	363	2.29	22	89	109	12	29	97.6
1 HI Medium	3.75	36.73	3530	2608	15.0	355	2.34	22	89	110	12	30	97.6
4 LO Slow	4.21	40.94	3501	2597	15.0	340	2.44	22	88	113	12	28	97.6
4 HI Slow	4.72	45.88	3501	2551	14.8	330	2.52	24	89	113	12	30	97.6
2 LO Medium	4.69	46.24	3550	2559	15.0	325	2.55	23	88	112	12	28	97.6
2 HI Medium	5.66	49.77	3168	2503	7.9	307	2.70	23	89	109	12	28	97.6
3 LO Medium	7.31	50.15	2471	2497	5.9	298	2.79	23	89	111	12	30	97.6

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 HI Medium	3.46	50.01	2128	2505	4.6	304	2.73	21	89	110	12	32	97.6
1 LO High	8.32	51.63	2236	2502	4.9	293	2.84	23	90	111	12	33	97.6
1 HI High	9.52	51.08	1932	2503	4.4	296	2.81	20	89	110	12	34	97.6
4 LO Medium	10.74	49.71	1667	2503	3.7	307	2.70	18	89	109	12	34	97.6
4 HI Medium	12.31	49.27	1442	2496	2.8	314	2.64	18	88	104	12	35	97.6
3.3.3 FIVE-HOUR TESTS													
3.3.3.1 FIVE HOUR TEST at 75% of pull at maximum power													
3 LO Medium	7.90	40.65	1853	2633	3.5	323	2.57	13	90	104	5	40	98.7
3.3.3.2 FIVE HOUR TEST at pull corresponding to 15% wheelslip - with 460 kg as additional ballast													
2 LO Medium	5.07	49.96	3550	2564	-	-	-	11	90	102	7	45	98.7

Oil consumption during ten hours tests 3.3.3.1 and 3.3.3.2: 78 g/h

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

NEW HOLLAND ITALIA FIAT L 95

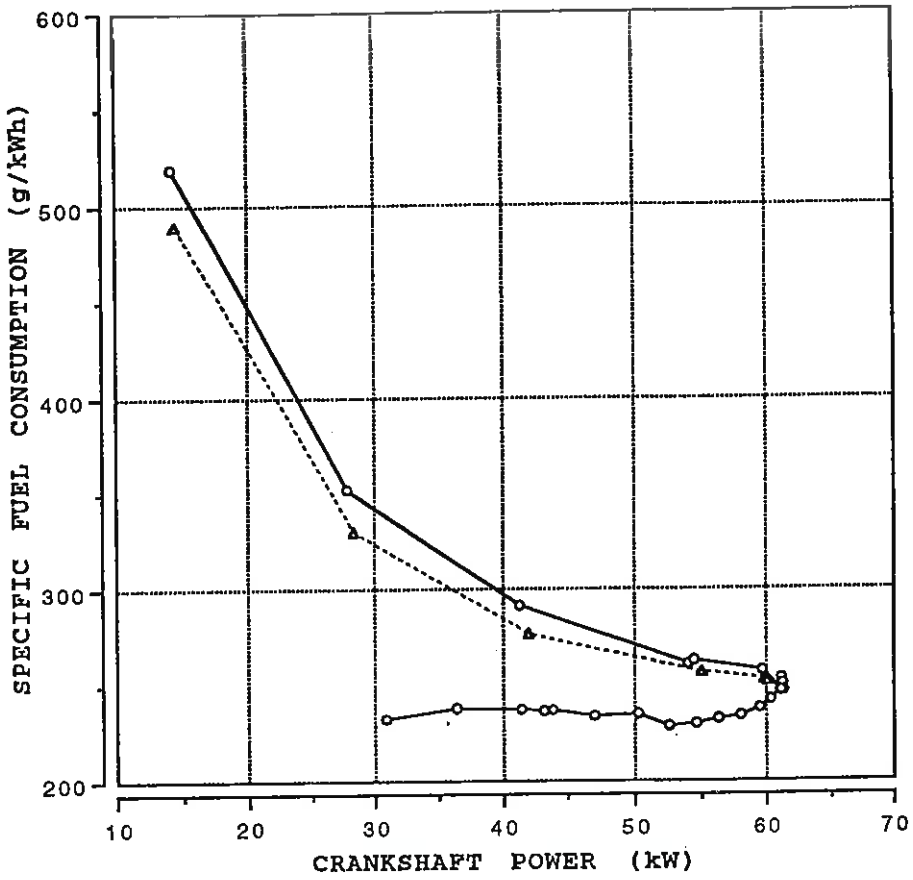


Fig. 2 - POWER TAKE- OFF TEST

The Head of the Section

R. MARENGO

The Director

P. PICCAROLO

Torino, 29th January 1997