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

Report No. 2175/T/1996

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

TRACTORS: Make: **NEW HOLLAND ITALIA**

Models: **FIAT L 85DT** Approval number: **1642/1**
with 24 x 12 HI-LO Transmission (30 km/h version)

Models: **FORD 6635DT** Approval number: **1642/2**
with 24 x 12 HI-LO Transmission (30 km/h version)

Type: 4 WD



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

Date and location of the tests: July÷October 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: 30th December 1996

PRELIMINARY REMARK

The NEW HOLLAND ITALIA FIAT L85DT (4 WD) and the NEW HOLLAND ITALIA FORD 6635DT (4 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 L85DT (4 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 L85DT (4 WD) and the NEW HOLLAND ITALIA FORD 6635DT (4 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 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;

4. 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;

5. 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;

6. 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 fifth variant.

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

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- 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 L85DT (4WD), wheeled tractor, unit construction, all wheels drive tractors
- Number of driving wheels:	4
- Serial N°:	001045558
- 1st serial N°:	001044531

1.2 ENGINE

- Make/Model/Type:	NEW HOLLAND ITALIA, FIAT 8045.25 (*), water cooled, 4 stroke, Diesel engine, direct injection
- Serial N°:	821674

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 8045.25 to IVECO 8045.25 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 VE4/11 F 1250 L 613, rotary injection pump (as option, BOSCH VE4/11 F 1250 LV13800, rotary injection pump)
- Serial N°:	8900
- Manufacturer's production setting of injection pump:	
- flow rate:	58.6 mm^3/stroke at rated speed and full load corresponding 17.59 dm^3/h (57±2 mm^3/stroke given by the manufacturer)
- timing:	7.0°±0.5° before TDC
- Make/Model/Type of injectors:	BOSCH DLLA 138 S multihole injection nozzles used with engine equipped with BOSCH VE4/11 F 1250 L 613, rotary injection pump (as option BOSCH DLLA 132 S multihole injection nozzles used with engine equipped with BOSCH VE4/11 F 1250 LV13800, rotary injection pump and STANADYNE SDLLA 138 S multihole injection nozzles used with engine equipped with BOSCH VE4/11 F 1250 L 613, rotary injection pump)
- Injection pressure:	23 ± 1 Mpa for BOSCH DLLA 138 S and STANADYNE SDLLA 138 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 2740 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. 5170537, 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
- Available options:	
- Make/Model/Type:	Own make, drawing n. 5170521, 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. 5170529, 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. 5171125, 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. 5175961, centrally pivoted, with integral drive shaft (without universal joints) aligned with the tractor longitudinal axis; two-pinion differential centrally mounted and epyciclic final drives
- 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.

1.3.5 Total ratios and travelling speeds

NEW HOLLAND ITALIA FIAT L 85DT 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	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 85DT 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		167.116	4.20
II	Medium	114.981	6.11
III	High	79.760	8.80
IV		55.678	12.61
I		70.984	9.89
II	High	48.840	14.38
III		33.879	20.73
IV		23.650	29.69
I		410.865	1.71
II	Reverse	282.689	2.48
III	Low	196.095	3.58
IV		136.889	5.13
I		175.911	4.00
II	Reverse	121.033	5.80
III	Medium	83.958	8.36
IV		58.609	11.99
I		74.720	9.40
II	Reverse	51.410	13.66
III	High	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 85DT 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		390.322	1.80
II	Low	268.555	2.61
III		186.290	3.77
IV		130.045	5.40
I		167.116	4.20
II	Medium	114.981	6.11
III		79.760	8.80
IV		55.678	12.61
I		70.984	9.89
II	High	48.840	14.38
III		33.879	20.73
IV		23.650	29.69
I		398.223	1.76
II	Reverse	273.991	2.56
III	Low	190.061	3.69
IV		132.677	5.29
I		170.499	4.12
II	Reverse	117.309	5.99
III	Medium	81.374	8.63
IV		56.806	12.35
I		72.421	9.70
II	Reverse	49.828	14.09
III	High	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).

Number of revolutions of front wheels for one revolution of rear wheels: 1.242

1.4 POWER TAKE OFF

1.4.1 Main power take-off

- Type:	two sistems are available - fully independent mechanical or hydraulic system. 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, 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, 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:	730 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:	730 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:	730 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 (available as option and not present on the tested tractor)

- Type:	independent, driven directly from the crankshaft and actuated by a multi plate hydraulic clutch which is supplied by its own hydraulic system.
- Method of engagement:	the engagement or disengagement of the front power take off is identical to that of the rear power take off with its own operating knob.
- Number of shafts:	1
- Method of changing power take-off shaft ends and speeds:	shaft ends may be changed removing a simple circlip that retains it. As there is one speed only, no methods of changing speed are available

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 NEW HOLLAND C 42 rotary pump (with a pump delivery rate of 42 l/min), driven by engine shaft; as option, 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 (available as option and not present on the tested tractor)

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

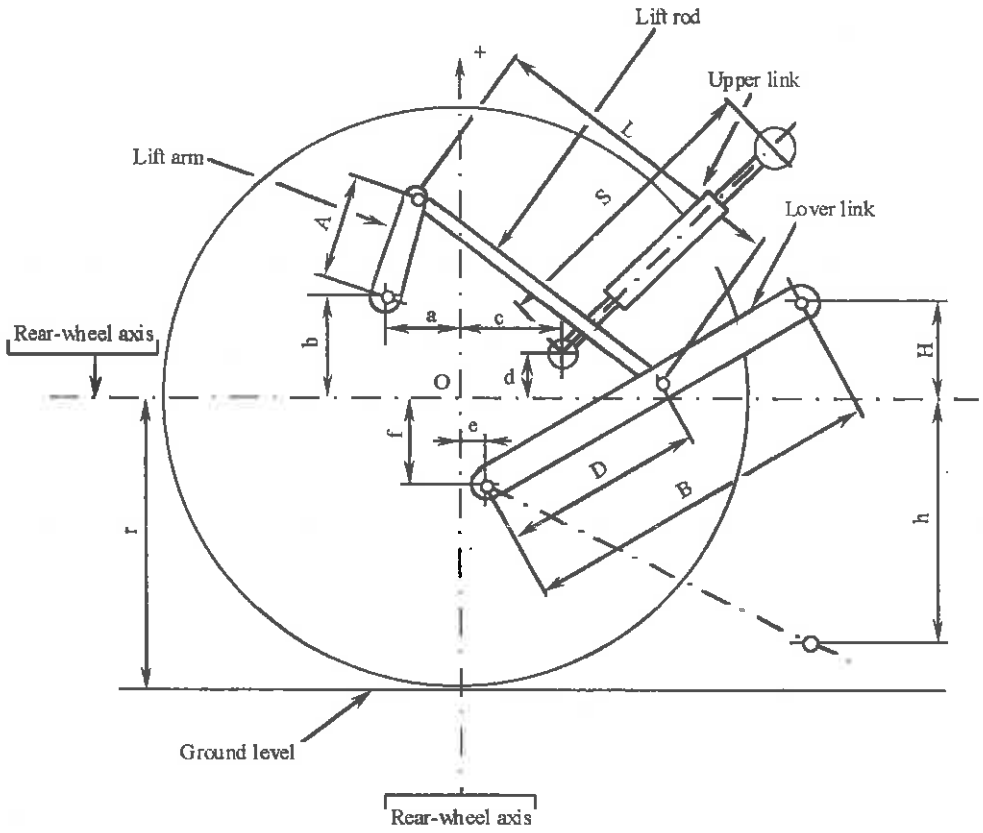


Figure 1.1

Life test - Rear linkage geometry

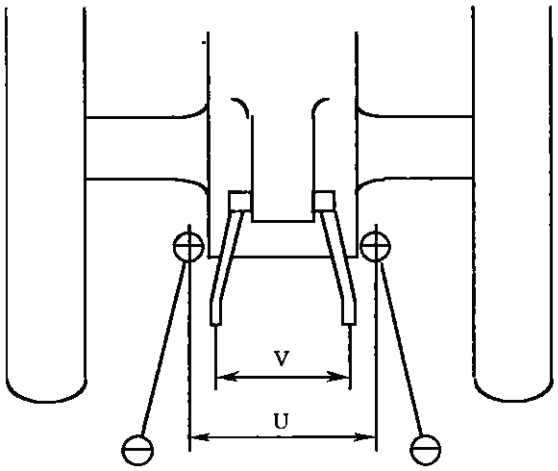


Figure 1.2

Life 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)	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)	545	545
- in high position	(H)	165	165
Height above ground of lower hitch points when locked in transport position (*)		910	-

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

1.7 SWINGING DRAWBAR

- Type:	own make, DGM-GA 1086 A 6t V0
- Height above ground	
• Minimum:	400 mm
• Maximum:	510 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:	220 to 330 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 125 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:	two double acting rams acting directly on front axle;
- Working pressure:	17 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 40 A lining material

As option:
- 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 40 A lining material. The working of the service brake produces the automatic engagement of the front wheel traction.
- 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: 4
- Location: 2 at front and 2 at rear

- Wheelbase: 2314 mm

- Track width adjustment:

	Minimum mm	Maximum mm	Adjustment method
Front	1300	2115	Changing the position of the rims with respect to the disc
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 1404/3 for the FIAT version and CSD 1404/13 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 0349/3 for the FIAT version and CSS 0349/13 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 1406/3 for the FIAT version and CSD 1406/13 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 foldng
- OECD approval number:	CSD 1406/23 for the FIAT version and CSD 1406/33 for the FORD version
- Date of approval:	9th October 1995

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

1.15 LIGHTING

	Height above ground of centre (*) mm	Size mm	Distance from outside edge of lights to median plane of tractor mm
Headlights:	1160	165 x 105	210
Sidelights	1470	110 x 35	785
Rearlights	1580	75 x 70	795
Reflectors	660	Ø 55	475

(*) with tyres: 380/70 R 24 front - 480/70 R 34 rear

2. TEST CONDITIONS

2.1 OVERALL DIMENSIONS (with tyres 380/70 R 24 front and 480/70 R 34 rear)

	Length	Width		Height at top of	
		minimum	maximum	protective structure	exhaust silencer
	mm	mm	mm	mm	mm
Ballasted	4270	2020	2685	2550	2710
Unballasted	4030	2020	2685	*2550	2710

2.2 GROUND CLEARANCE

(unballasted tractor): 430 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	2040	2060	1460	1480
Rear	2500	2555	2310	2365
Total	4540	4615	3770	3845

2.4 BALLAST

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

2.5 TYRES AND TRACK WIDTH SPECIFICATIONS

	Front	Rear
Tyres:		
- dimensions	380/70 R 24	480/70 R 34
- ply rating	125 A8	143 A8
- type	radial	radial
- maximum load (tyre manufacturer')	16.18 kN	26.72 kN
- maximum load (tractor manufacturer's)	13.98 kN	22.07 kN
- inflaction pressure (tyre manufacturer's)	160 kPa	160 kPa
- dynamic radius index	560 mm	745 mm
Chosen track width:	1670 mm	1540 mm

Tyre matching			
At front		At rear	
13.6 R 24	121 A8	16.9 R 34	139 A8
11.2 R 28	116 A8	13.6 R 38	128 A8
380/70 R 24	125 A8	480/70 R 34	143 A8
440/65 R 24	122 A8	540/65 R 34	140 A8
360/70 R 24	122 A8	520/70 R 30	145 A8
425/75 R 20		18.4 R 30	142 A8
12.4 R 24	119 A8	13.6 R 38	128 A8
		16.9 R 34	139 A8
		18.4 R 30	142 A8

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: 2850 kg - Rear axle: 4500 kg - Total: 5800 kg

2.5 OILS AND LUBRICANTS

2.5.1 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
- Front axle	7.0	1200	-
- Final drive	1.3	1200	-

2.5.2 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
Front and 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

2.5.3 Grease:

AMBRA GR9, NLGI2 international specification

- Number of lubrication points:14

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: 2nd July 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						
56,72	2495	1048	14,60	17,59	257	3,22
3.1.2 POWER AT RATED ENGINE SPEED						
56,72	2495	1048	14,60	17,59	257	3,22
3.1.3 STANDARD POWER TAKE OFF SPEED (1000 ± 25 rev/min)						
56,44	2383	1001	14,31	17,24	254	3,27
3.1.4 PART LOADS						
3.1.4.1 the torque corresponding to maximum power at rated engine speed						
56,72	2495	1048	14,60	17,59	257	3,22
3.1.4.2 85% of torque obtained in 3.1.4.1						
49,78	2576	1082	13,33	16,06	268	3,10
3.1.4.3 75% of torque defined in 3.1.4.2						
38,09	2629	1104	11,23	13,53	295	2,82
3.1.4.4 50% of torque defined in 3.1.4.2						
25,83	2674	1123	9,16	11,04	355	2,34
3.1.4.5 25% of torque defined in 3.1.4.2						
13,08	2707	1137	6,95	8,37	531	1,56
3.1.4.6 unloaded						
-	2741	1151	4,84	5,83	-	-
3.1.5 PART LOADS AT STANDARD POWER TAKE OFF SPEED (1000 rev/min)						
3.1.5.1 the torque corresponding to maximum power						
56,44	2383	1001	14,31	17,24	254	3,27
3.1.5.2 85% of torque obtained in 3.1.5.1						
49,64	2464	1035	12,80	15,42	258	3,22
3.1.5.3 75% of torque defined in 3.1.5.2						
37,88	2510	1054	10,70	12,89	282	2,94
3.1.5.4 50% of torque defined in 3.1.5.2						
25,86	2562	1076	8,78	10,58	340	2,44
3.1.5.5 25% of torque defined in 3.1.5.2						
13,13	2602	1093	6,66	8,02	507	1,64
3.1.5.6 unloaded						
-	2638	1108	4,55	5,48	-	-