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

Report No. 2178/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 95DT** Approval number: **1652/1**
with 24 x 12 HI-LO Transmission (30 km/h version)

Models: **FORD 7635DT** Approval number: **1652/2**
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: September÷November 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 L95DT (4 WD) and the NEW HOLLAND ITALIA FORD 7635DT (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 L95DT (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 L95DT (4 WD) and the NEW HOLLAND ITALIA FORD 7635DT (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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- 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. 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 95DT 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 95DT 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

- 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

1.4.1.2 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: 0.41 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

- OECD approval number:	CSD 1404/1 for the FIAT version and CSD 1404/11 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 0349/1 for the FIAT version and CSS 0349/11 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 1406/1 for the FIAT version and CSD 1406/11 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 1406/21 for the FIAT version and CSD 1406/31 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 1412/37÷38 for the FIAT version and CSD 1412/57÷58 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 1411/41÷42 for the FIAT version and CSD 1411/61÷62 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 1411/121÷122 for the FIAT version and CSD 1411/141÷142 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

	Recommended	Used during test
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: 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: 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	-	-

- No load maximum engine speed: 2733 rev/min
- Torque (equivalent crankshaft) at maximum power:
  - at rated engine speed 233.5 Nm
  - at standard power take-off speed 245.1 Nm
- Maximum torque (equivalent crankshaft) 283.8 Nm
  (engine speed: 1452 rev/min)

Mean atmospheric conditions	
Temperature:	22 °C
Pressure:	99.0 kPa
Relative humidity:	70 %
Maximum temperatures	
Coolant:	90.0 °C
Engine oil:	115.0 °C
Fuel:	42.0 °C
Engine air intake:	24.0 °C

3.2 HYDRAULIC POWER AND LIFTING FORCE

- Date of tests: 20th September 1996

3.2.1 Hydraulic Power Test

- Sustained pressure with relief valve open: 19.0 MPa
- Pump delivery rate at minimum pressure: 58.0 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	56.0	16.0	17.1
Flow rate and hydraulic pressure corresponding to maximum hydraulic power	56.0	16.3	17.5

- Tapping point used for test: at rear of tractor
- Temperature of hydraulic fluid: 60 °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	640 (*)	mm	640 (*)	mm
	700 (+)	mm	700 (+)	mm

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

	at the hitch point		on the frame	
Maximum corrected force exerted through full range	17.53 (**)	kN	13.72 (**)	kN
	23.92 (++)	kN	18.06 (++)	kN
Corresponding pressure of hydraulic fluid	17.1	MPa	17.1	MPa
Moment about rear-wheel axis	19.28 (**)	kNm	23.46 (**)	kNm
	26.31 (++)	kNm	30.88 (++)	kNm
Maximum tilt angle of mast from the vertical	- degrees		3 degrees	

(**) without supplementary external cylinder
(++) with supplementary external cylinder

Results without supplementary external cylinder

Lifting heights relative to the horizontal plane including the lower pivot points										
mm	- 340	- 300	- 200	- 100	- 50	0	50	100	200	300
Lifting forces										
at the hitch points kN	17.53	18.87	21.98	23.85	24.40	24.96	25.26	25.28	25.01	23.83
Corresponding pressure: 17.1 MPa										
at the frame kN	23.97	24.25	24.70	24.52	24.40	23.97	23.00	22.44	21.66	13.72
Corresponding pressure: 17.1 MPa										

Results with supplementary external cylinder

Lifting heights relative to the horizontal plane including the lower pivot points										
mm	- 340	- 300	- 200	- 100	- 50	0	50	100	200	300
Lifting forces										
at the hitch points kN	25.35	26.62	28.97	30.18	30.22	30.34	30.17	29.78	30.01	23.92
Corresponding pressure: 17.1 MPa										
at the frame kN	33.75	33.12	32.74	31.03	30.38	29.57	28.56	27.22	25.72	18.06
Corresponding pressure: 17.1 MPa										

3.4 TURNING AREA AND TURNIG CIRCLE (front wheel disengaged)

Wheel equipment: front: 380/70 R 24 (125 A8) rear: 480/70 R 34 (143 A8)
Track width: front: 1670 rear: 1540

	With brakes		Without brakes	
	Right-hand m	Left-hand m	Right-hand m	Left-hand m
Radius of turning area	4.25	4.35	5.52	5.62
Radius of turning circle	4.06	4.16	5.33	5.43

3.5 LOCATION OF CENTRE OF GRAVITY

Height above ground	865 mm
Distance forward from the vertical plane containing the axis of the rear wheels	893 mm
Distance from the median plane of the tractor: to the left	0 mm

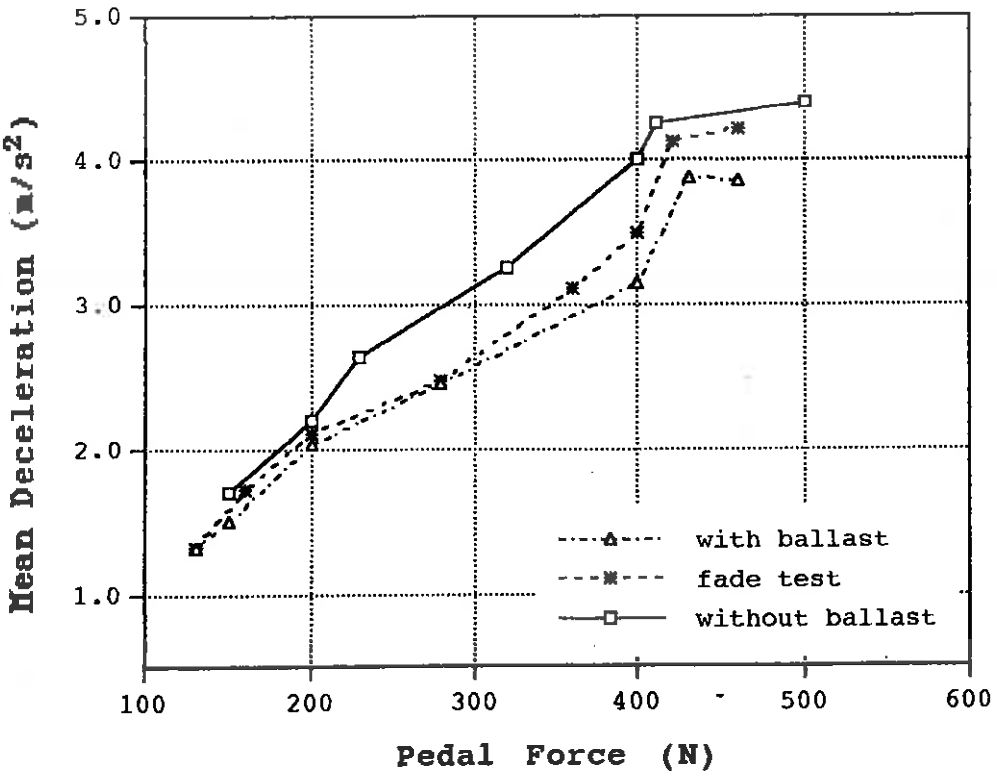
3.6 BRAKING

- Date of tests: 7th November 1996
- Type of track: asphalt
- Type of decelerometer: PEISELER
- Tractor masses during test (*)

	front axle kg	rear axle kg	total kg
Ballasted	2090	2605	4695
Unballasted	1510	2415	3925

(*) 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	32.8

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 26.2 km/h with a towing force of 4.69 kN

3.6.3 Parking braking device test

	Uphill	Downhill
Braking device control force	20.3 daN	20.1 daN

3.7 MEASUREMENT OF EXTERNAL NOISE LEVEL

- Date of tests: 22nd November 1996 - 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 HI High
- Travelling speed before acceleration: 24.5 km/h
- Sound level: 84.5 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.