ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

O.E.C.D. n. 1082

Test in accordance with O.E.C.D. Standard Code for the official testing of agricultural tractors

Report on test of: LAMBORGHINI 674 70 N.DT "4WD"



Submitted for test by: TRATTORI LAMBORGHINI S.p.A.
V.le Cassani 15
24047 TREVIGLIO (BG)

Date of approval O.E.C.D.: 08-09-1987

Period of test: february-may 1987

I.S.M.A. - TREVIGLIO
Via Milano, 43

TEST n.030

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TABLE OF CONTENTS

- Specification of tractor ..... pag. 3
- Power take-off performance ..... " 18
- Power lift and hydraulic pump performance .. " 22
- Drawbar performance ..... " 23
- Turning space and turning circle ..... " 25
- Location of centre of gravity ..... " 25
- Braking performance ..... " 26
- Measurement of external noise level ..... " 27
- Noise measurement at the driver's ear ..... " 28

All stated dimension and tests referred to tyre size 12.4/24 (6plr) at front and 16.9/30 (6plr) at rear, as well as to track whiths 1700 mm at front and 1700 mm at rear.

- Tractor manufacturer's: LAMBORGHINI TRATTORI S.p.A. TREVIGLIO (BG)
- Submitted for test by: the manufacturer
- Selected by: the manufacturer with the agreement of ISMA
- Place of running in: TREVIGLIO
- Duration of running in: 50 hours

I - SPECIFICATIONS OF TRACTOR

TRACTOR

- Make: LAMBORGHINI;
- Model : 674-70 N.DT "4WD";
- Type: Wheeled tractor, unit constr.,all wheel drive tractor;
- Serial no.: 10048;
- First serial no.:10001;

ENGINE

- Make: LAMBORGHINI;
- Model: 1000.4 W;
- Type : Watercooled 4 stroke Diesel engine direct injection;
- Serial n.: 1110;

Cylinders

- Number/disposition: 4 vertical in line;
- Bore/stroke: 105/115.5 mm;
- Capacity: 4000 cc;
- Compression ratio: 17.1/1;
- Arrangement of valves: Overhead;
- Cylinder liners: wet liners;

Fuel system

- Fuel feed system: AC corone fuel feed pump;
- Make, type and model of fuel filter: FIAMM FNA 166/00;
- Capacity of fuel tank: 61.5 l;
- Make, type and model of injection pump: BOSCH PFR 1K 90 A 472, immersed pump one for cylinder,whitout serial number,in line injection pump.

- Manufacturer's production setting of injection pump:
  . flow rate 50.4 ±3 mm3/stroke at rated speed and full load;
  . timing 18 ± 0.5 before TDC;
- Make, type and model of injectors:BOSCH DLLA 150 S 925 multihole injection nozzles;
- Injection pressure: 180 ± 15 bar;

Governor

- Make: LAMBORGHINI;
- Type: mechanical variable speed;
- Model: 089.1652.4;
- Governor range of engine speed from 675 to 2509 rev/min;
- Rated engine speed : 2350 rev/min;

Air Cleaner

- Main filter
  . Make: DONALDSON;
  . Type: Dry paper element filter;
  . Model: FKG 06-5296;
  . Location : front of engine;
- Maintenance indicator : with the warning lamp on the dashboard;

Lubrication system

- Type : forced feed from gear pump;
- Total oil capacity including filter: 9.2 l;
- Oil change period : 1250 hrs;
- Type of filter : FIAMM 4803 IN;
- Number: 1;
- Filter change period: 300 hrs;
- Oil specifications (see pag.17)

Cooling system

- Type and detail: water cooling with impeller pump over pressure valve set to 0.4 bar;
- No. of fan blade : 4;
- Diameter : 400 mm;
- Coolant capacity: 11 l;
- Type oil temperature control: electrical indicator.

Starting system

- Safety device: Preventing engine start in gear;
- Make: BOSCH;
- Model: JF 12 V;
- Type: electromagnetic engagement;
- Power: 3 kW for start motor rating;
- Starting system for low temperatures: thermostarter(opt.);

Electrical equipement

- Voltage: 12 V;
- Generator
  . Make: BOSCH;
  . Type: alternator K1 14V 55 A 20;
  . Power: 770 W;
- Battery : 1 lead acid;
  . Capacity: 110 Ah at 20 hours;

Exhaust system

- Make: LAMBORGHINI;
- Type: 4 chambers reflection absorption;
- Model: 255.6610.3;
- Location: on the left hand side of engine cowling, vertical; position;
- Height of outlet above ground: 2750 mm.

TRANSMISSION

Clutch: utilized only for travelling of tractor
- Make: LAMBORGHINI;
- Type : single disc dry clutch;
- Model: 296.23;
- Disc diameter: 280 mm;
- Control system: hydraulically operated by pedal self readjusting;

Gear box

- Make: LAMBORGHINI;
- Type: mechanical syncromesh speed change gear with 4 speeds forward, with 3 ranges speed, and 1 reverse group;
- Model: 296.31;
- No. speeds: 12 forward and 12 reverse;
- Available options: 24 forward and 12 reverse or 16 forward and 16 reverse or 20 forward and 20 reverse;

Rear axle and final drives

- Make: LAMBORGHINI;
- Type: bevel gear differential and epicyclic final drive;
- Model: 296.44;
- Differential lock: yes;
- Model: LAMBORGHINI;
- Type: mechanical;
- Control system: engaged or disengaged with pedal;

Front axle and final drive

- Make: LAMBORGHINI;
- Type: 296.43;
- Model: original LAMBORGHINI system with central shaft bevel gear drive, differential and epicyclic final drive;
- Differential lock: yes;
  . Model: LAMBORGHINI;
  . Type: mechanical;
  . Method of engagement: with pedal;
  . Metod of disengagement: with pedal;

Transmission lubrication

- Oil capacity
  . Gear box, rear axle, final drive,power lift and hydraulic system: in common, total capacity filter including 45 l;
  . Change period: 1200 hrs;
  . Filter change period: when the filter clogging warning lamp is lighted;
  . Front axle and final drive: total capacity 6 l;
  . Changing: 1200 hrs;
- Recommended oil: see pag.17

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

Total ratios and speeds

Group		Number of engine revolutions for one revolution of the driving wheels	Nominal traveling speed at a rated engine speed of 2350 rev/min
FORWARD			
SLOW	1	494.57	1.23
	2	371.72	1.64
	3	281.80	2.16
	4	212.31	2.87
NORMAL	1	155.28	3.93
	2	116.71	5.23
	3	88.47	6.90
	4	66.66	9.16
FAST	1	51.29	11.91
	2	38.55	15.85
	3	29.22	20.76
	4	22.01	27.76
REVERSE			
SLOW	1	474.93	1.28
	2	357.00	1.62
	3	270.60	2.25
	4	203.90	2.99
NORMAL	1	149.11	4.09
	2	112.07	5.45
	3	85.00	7.19
	4	64.01	9.55
FAST	1	49.25	12.41
	2	37.01	16.51
	3	28.06	21.78
	4	21.14	28.91

- Tyre size 16.9/30 inflaction pressure: 1.3 bar
- Tyre radius index: 695 mm (E.T.R.T.O. norm)

POWER TAKE-OFF

Main power take-off

- Type: independent at rear of tractor, in tractor's median plane, engaged or disengaged through hand lever. Driven by multiplate wet clutch independent of travel clutch; ISO standard 500-1979;

Power take-off proportional to engine speed

540 rev/min

It is possible,through 6 screws, to mount: one take-off shaft end at 6 or at 21 splines. Changing speeds through external hand lever;

- Location:at rear of tractor;
- Diameter of power take-off shaft end: 34.9 mm;
- Number of splines: 6 in conformity with "ISO Standard 500 - 1979";
- Height above ground with tyre size 16.9/30: 710 mm;
- Distance from the median plane of the tractor 0 mm;
- Distance behind rear axle: 380 mm;
- PTO speed: 609 rev/min at rated engine speed;
- Engine speed: 2083 rev/min at standard power take-off speed 540 rpm;
- Ratio of rotation speeds (engine speed/p.t.o. speed): 3.857;
- Max power and torque trasmissible: 90 kW and 124.5 daNm;
- Direction of rotation (viewed facing driving end): clockwise;

1000 rev/min

- Location: at rear of tractor;
- Diameter of power take-off shaft end: 34.9 mm;
- Number of splines: 21 in conformity with "ISO Standard 500 - 1979";
- Height above ground with tyre size 16.9/30: 710 mm;
- Distance from the median plane of the tractor 0 mm;
- Distance behind rear axle: 380 mm;
- PTO speed at rated engine speed: 1028 rev/min
- Engine speed 2285 rev/min at standard power take-off speed: 1000 rpm;
- Ratio of rotation speeds (engine speed/p.t.o. speed):.2.2857;
- Direction of rotation (viewed facing driving end): clockwise;

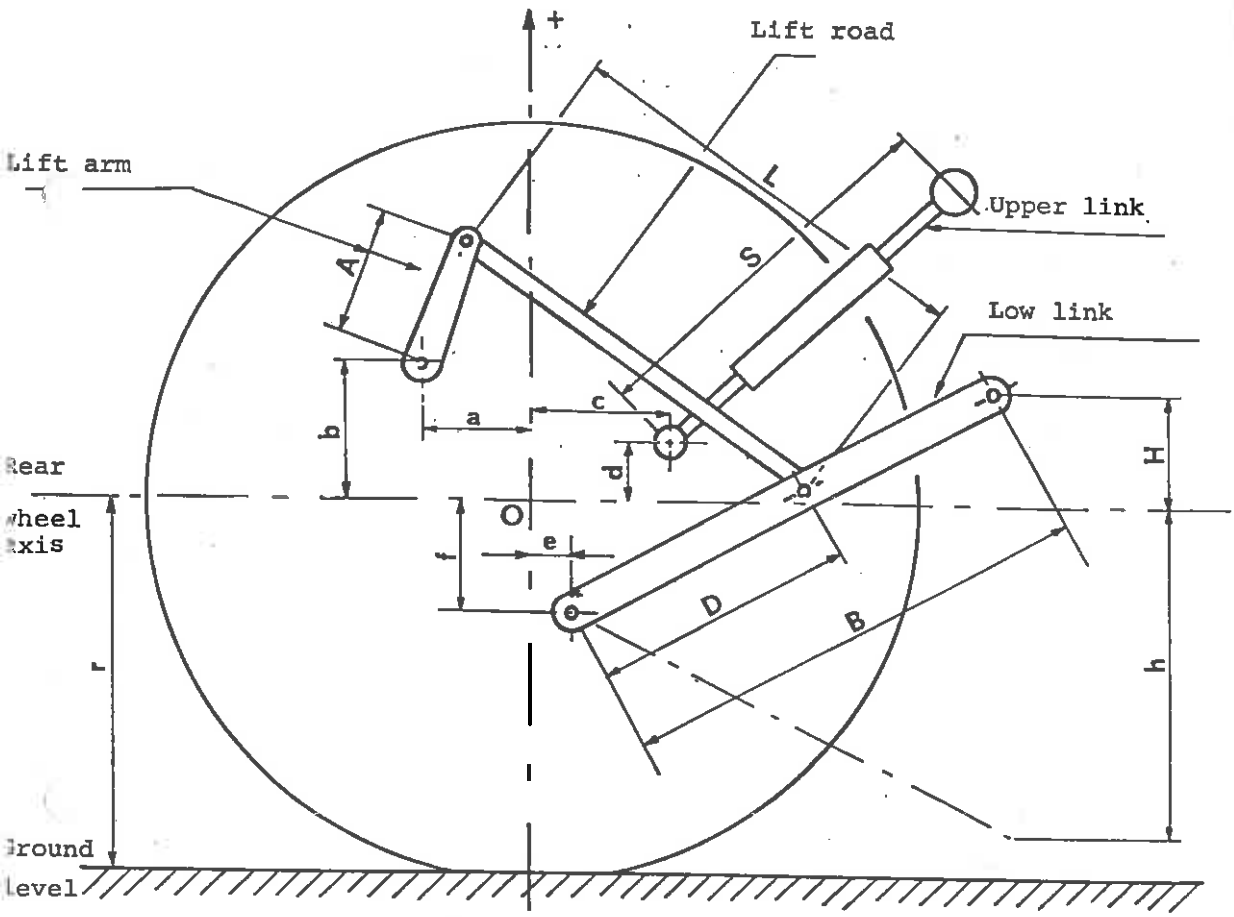
POWER LIFT

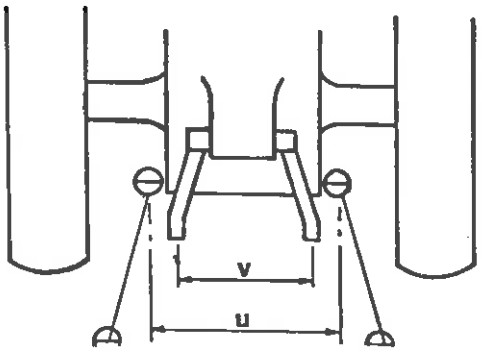
- Make: LAMBORGHINI;
- Type: LOAD SENSING;
- Type and number of cylinders: 2 at simple effect;
- Type of locking for the transport: mechanical, with screwed tie rods that lock the lower links;
- Exercise valve pressure: 150 bar;
- Opening pressure anti-shock valve: 180 bar;
- Lift pump type: hydraulic rotary pump,driven from engine shaft;
- Transmission between pump and engine: mechanical
- Type and number of filters: 1, replaceable paper cartridge;
- Changing: when the filter clogging warning lamp is lighted;
- Oil capacity: 45 l;
- Site of oil reservoir: gear box;
- Position and No.of additional oil plugs: 3 ways distributor at rear of tractor;
- Maximum volume of oil available to external cylinders: 15 l;
- Recommended oil (see pag.17)

Three-point linkage

- Category: 2 in conformity with ISO 730/I;

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030 10





ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

Specify the settings for the lifting test

Rear tyres (size 16.9/30)		(r)	695 mm
Front tyre (size 14.4/24)		(r')	540 mm
Length of lift arms		(A)	310 mm
Length of lower links		(B)	725 mm
Distance of lift arm pivot point from rear wheel centre line	:horizontally	(a)	122 mm
	:vertically	(b	337 mm
Horizontally distance between the 2 lower link points		(u)	480 mm
Horizontally distance between the 2 lift arm end points		(v)	490 mm
Length of upper link		(S)	from 580 to 700 mm
Distance of upper link horizontally pivot point from rear vertically wheel centre line		(c)	320 mm
		(d)	220 mm
Distance of lower link horizontally pivot point from rear vertically wheel centre		(e)	215 mm
		(f)	190 mm
Distance of lower link pivot points to lift rod pivot points on lower link		(D)	363 mm
Length of lift rods		(L)	from 640 to 740 mm
Height of lower hitch points:			
- in Low position		(h)	495 mm
- in High position relative to the rear wheel centre line, situated 695 mm above the ground level		(H)	145 mm

SWINGING DRAWBAR

- Type: LAMBORGHINI 97320;
- Height above ground (tyre size:16.9/30) max 450 mm
  min 375 mm
- Type of adjustment: reversible;
- Distance of hitch point from rear axle axis, horizontally: 815 mm;
- Distance of hitch point from power take-off shaft end
  . vertically: 283 - 358 mm below;
  . horizontally: 485 mm forward;
- Lateral adjustement (centre of clevis):
  (right hand) 270 mm;
  (left hand) 270 mm;
- Distance of pivot point from rear axle axis, horizontally: 485 mm forward;
- Diameter drawbar pin hole: 33 mm;

TRAILER HITCH

- Type: LAMBORGHINI;
- Height above ground: 470 - 600 - 730 mm;
- Distance of hitch point from rear axle axis, horizontally: 530 mm;
- Distance of hitch point from power take-off shaft end:
  . vertically: behind 240 - 110 mm above 20 mm;
  . horizontally: 150 mm;
- Maximun vertical permissible load: 1470 daN;
- Diameter of pinhole; 30 mm.

HOLED DRAWBAR

- Number of holes: 7;
- Distance between holes: 100 mm;
- Hole diameter: 28.5 mm;
- Thickness/width of the drawbar: 30 - 80 mm;
- Height above ground , minimum 220 mm;
  maximum 910 mm;
- Horizontal distance to power take-off shaft end (rear) 560 mm;
- Diameter of the pinhole: 28 mm.

STEERING

- Specifications: hydrostatic steering whit BOSCH hydraulic gear pump HY/ZFS 1L/8 L 208.
  two rams at simple effect acting directly on front axle;

- Make: DANFOS;
- Model: ORBITROLL;
- Type: OSPC 80 OR;
- Working pressure: 120 bar;
- Oil capacity: 45 l in common with gear box;
- Oil change period: 1200 hrs;
- Filter change period: when the filter clogging warning lamp is lighted;
- Recommended oil (see pag.17)

BRAKE

Service brake

- Make: LAMBORGHINI;
- Model: 296.54;
- Type: oil bath disc, total 4 discs, mounted before 2 at front and 2 at rear differential half schafts.Front disc dia=224 mm ; rear disc dia=290 mm. FRENDO HDT 303 lining material;
- Method of operation: hydraulically acting with 2 pedals.
- Trailer braking take-off: none.

Parking brake

- Type: fully independent by service brake, 2 oil bath discs mounted on the pinion shaft in the gear box ISOBOND SINTERIX lining material;
- Method of operation: mechanically by hand lever

Steering brake : divided pedal of service brake for normal use locked together;

STEERING WHEELS

- Number: 2;
- Location: at front;
- Tyres: radial;
  . Size: 12.4/24;
  . Ply rating: 6;
  . Maximum permissible load on each tyre: 1176.8 daN;
  . Corresponding inflation pressure: 1.7 bar;
- Track widths: 1500 - 1600 - 1700 - 1800 - 1900 - 2000 mm;
- Regulation: changing the position of the rims in respect of the disc;

DRIVING WHEELS

- Number: 4;
- Location: 2 at front and 2 at rear;
- Tyres:
  . Size: 16.9/30;
  . Ply rating: 6
  . Type of casing: radial;
  . Maximum permissible load on each tyre: 1863 daN;
  . Corresponding inflation pressure: 1.3 bar;
- Track widths: 1500-1600-1700-1800-1900-2000 mm;
- Regulation: changing the position of the rims in respect of the disc;

WHEELBASE: 2280 mm;

PROTECTIVE STRUCTURE

Specifications

- OECD approval number: CSD 0826/8;
- Trade name: SAME T 42;
- Manifacturer's name: SAME;
- Protective device: frame.

Materials used in the construction and dimensions

See OECD Test Report on Protective Stuctures.

DRIVER'S SEAT

- Make: BOSTROM XL;
- Type of suspension: 84422 upholstered seat with back rest;
- Type of damping: shock absorber;
- Range of adjustment, longitudinal 150 mm;
  vertical 60 mm;

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030

LIGHTING

Lighting system in accordance with CEE 78/933

	Height above ground of centre with tyre mm	Size mm	Distance from out side edge of trac tor to centre at 1700 mm track width mm
Headligths	895	110*110	820
Front park.lights	1610	110*35	190
Front finger post	1650	110*35	190
Rear park.lights	1650	180*35	250
Rear finger post	1520	90*45	180
Stop	1520	90*45	285
Reflectors	1460	90*60	240

Tyre size: 12.4/24 front - 16.9/30 rear.

TEST CONDITIONS

- Overall dimensions with tyres:
- Front 12.4/24 - Rear 16.9/30

	Length (mm)	Width (mm) min	Width (mm) max	Height (mm) at top of exaust sil.	Height (mm) at top of protec.struc.
Without ballast	3870	1930	2430	2750	2430
With ballast	4270	1930	2430	2765	2425

Ground clearance

-Clearance-limiting part: 410 mm, below front traction gear

Track setting

- Front: 1700 mm;
- Rear: 1700 mm;

Tractor mass (without driver but with thanks full with cab);

	Units	Front	Rear	Total
Without ballast	kg	1190	1630	2820
With ballast	kg	1410	1830	3240

Ballast: front axle, ballast of 40 Kg each with svitable support; weight support 20 Kg;
rear axle, rings of 50 kg,each, with 6 bolts

	ballast (n)	total weight (Kg)	water (Kg)
front	5+1*	220	--
rear	2+2	200	--
additional	---	---	--

* = front ballasted support.

Fuel and lubricants recommended and used in tests in accordance with API NORM

Fuel

- Type: AGIP Diesel, DIN 51601;
- Specific gravity at 15 °C: 0.840 kg/l;

Engine oil

- Type: AGIP DIESEL SIGMA S SAE 30;
- Viscosity: 12.5 cSt;

Transmission oils and rear, front axle and final drive oils;

- Type: AGIP ROTRA THT;
- Viscosity: 11.5 cSt;
- Viscosity index: 95;

Power lift oil

- Type: AGIP ROTRA THT;
- Viscosity: 11.5 cSt;

Steering oil

- Type: AGIP ROTRA THT;
- Viscosity: 11.5 cSt;
- Recommended grease: AGIP GREASE 30;
- Number of lubrication points: 11;

II - TEST RESULTS

A. COMPULSORY TESTS RESULTS

1) MAIN POWER TAKE-OFF PERFORMANCE

- Date and location of test: 09 th APR 1987 - I.S.M.A. TREVIGLIO (BG) ITALY
- Type of dynamometer: ZOELLNER 350 AC

Power	Speed		Fuel consumption			Specific Energy
	Engine	P.T.O.	Hourly	Specific		
kW	rev/min	rev/min	l/h	kg/h	g/kWh	kWh/l
MAXIMUM POWER - 2 - HOUR TEST						
46.81	2350	1028	14.22	11.92	254	3.29
POWER AT RATED ENGINE SPEED						
46.81	2350	1028	14.22	11.92	254	3.29
STANDARD POWER TAKE-OFF SPEED (1000+/-10 REV/MIN)						
46.69	2285	1000	14.04	11.77	252	3.32
PART LOADS						
i) torque corresponding to maximum power at rated engine speed						
46.81	2350	1028	14.22	11.92	254	3.29
ii) 85% of torque obtained in i)						
40.67	2402	1051	12.60	10.56	259	3.22
iii) 75% of torque definited in ii)						
30.92	2434	1065	10.19	8.54	276	3.03
iv) 50% of torque defined in ii)						
20.78	2454	1074	8.08	6.77	325	2.57
v) 25% of torque defined in ii)						
10.51	2484	1087	5.96	5.00	475	1.76
vi) unloaded						
0	2509	1098	4.12	3.45	-	-

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030

PART LOADS AT STANDARD POWER TAKE-OFF SPEED

Power	Speed Engine	Speed P.T.O.	Fuel consumption Hourly	Fuel consumption Hourly	Fuel consumption Specific	Specific Energy
kW	rev/min	rev/min	l/h	kg/h	g/kWh	kW h/l
i) The torque corresponding to maximum power available						
46.69	2285	1000	14.04	11.77	252	3.32
ii) 85% of torque obtained at maximum power						
40.46	2331	1020	12.41	10.40	257	3.26
iii) 75% of torque defined in ii)						
30.73	2361	1033	10.19	8.39	273	3.06
iv) 50% of torque defined in ii)						
20.66	**2382**	**1042**	**7.87**	**6.60**	**319**	2.62
v) 25% of torque defined in ii)						
10.46	2414	1056	5.95	4.99	477	1.76
vi) unload						
-	2443	1069	3.93	3.29	-	-

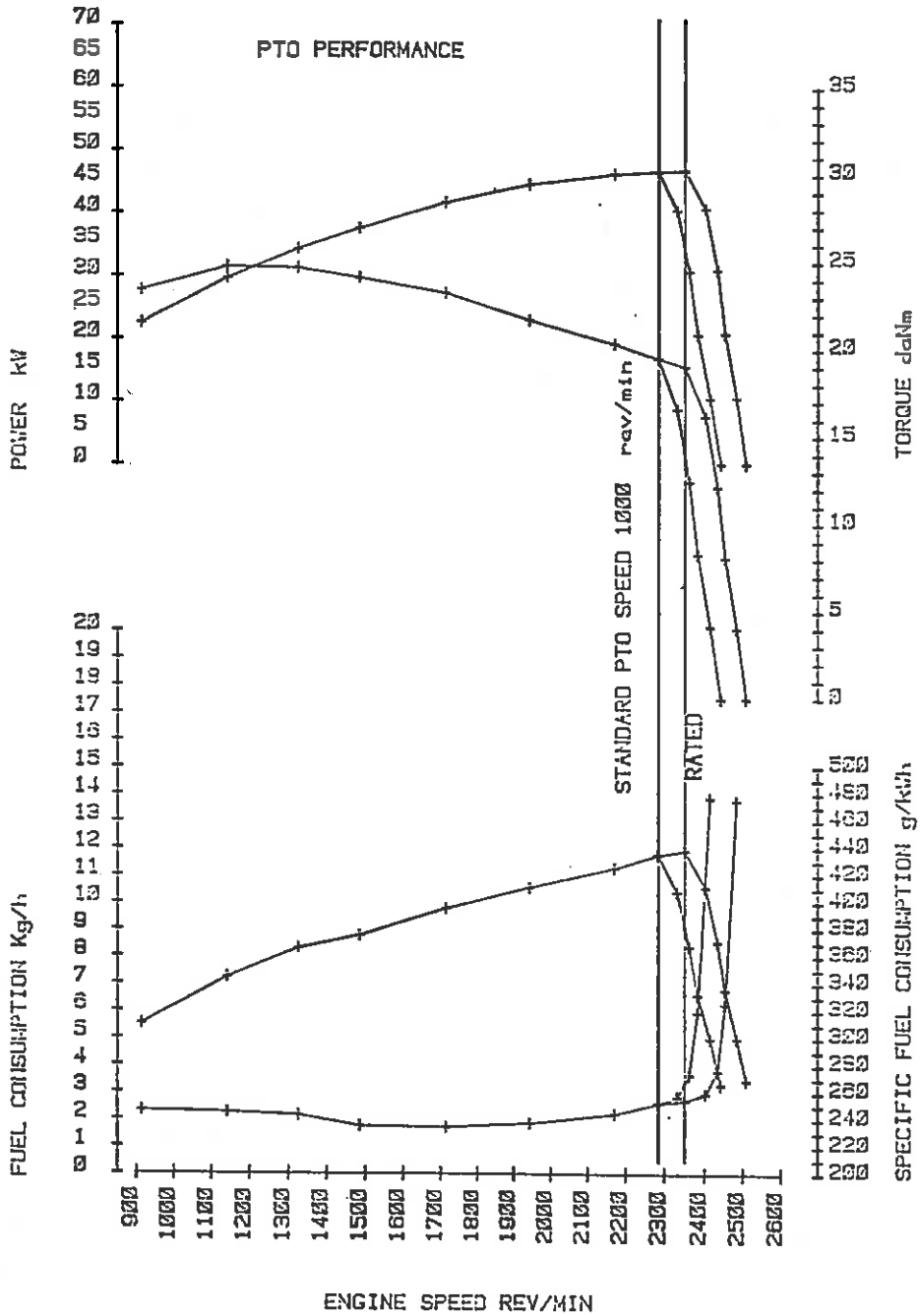
STANDARD SPECIFIC FUEL CONSUMPTION: 259/325/257/319 g/kWh

- No load maximum engine speed: 2509 rev/min
- Torque (1) at maximum power: 19.03 daNm
- Maximum torque (1) (engine speed: 1143 rev/min):24.70 daNm
- Mean atmospheric conditions : Temperature 20°C
  Pressure 987 mbar
  Relat.humidity 90%
- Maximum temperatures : Coolant 107°C
  Engine oil 85°C
  Fuel 35°C
  Engine air intake 22°C

(1) The torque is the equivalent crankshaft torque.

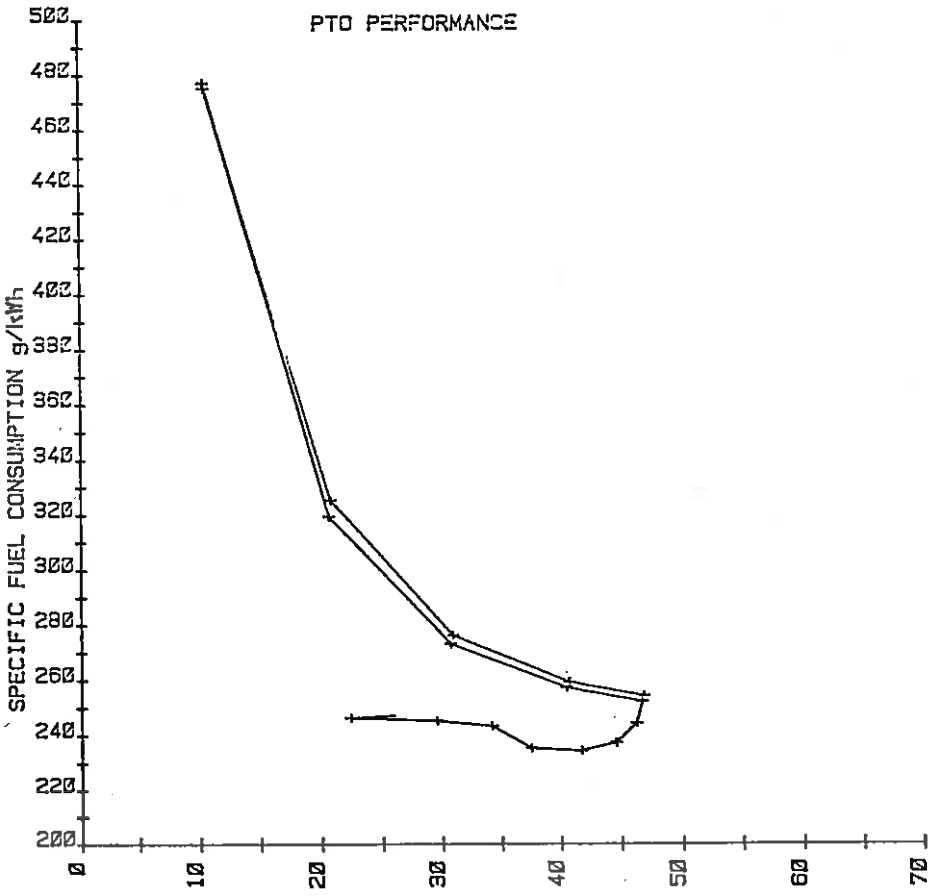
ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030



ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030



(2) POWER LIFT AND HYDRAULIC POWER TEST

- Date and location of tests: 14 th APR 1987 - ISMA Treviglio (BG)

		at hitch point	on the frame
Height of lower hitch point above ground in down position	mm	200	200
Vertical movement	mm	640	756
Maximum corrected force exerted through full range	daN	2451	2206
Corresponding pressure of hydraulic fluid	bar	164	164
Moment about rear axle	daNm	2303	3419
Maximum tilt angle of mast over range of lift	Degrees	--	11

Lifting heights relative to the horizontal lower links

mm	-305	-200	-100	0	100	200	300	335	451
daN	2451	2598	2745	2843	2941	3089	3187	2941	---

Lifting forces at test frame

daN	2206	2451	2471	2471	2471	2451	2451	----	2353

HYDRAULIC POWER TEST

Sustained pressure with relief valve open: 183 bar;
Pump delivery rate at min pressure: 36 l/min;

Hidraulic power	kW	flow rate l/min	pressure bar	oil temp. °C
At 90% of the actual reliev valve setting	8.95	32.6	164	65
Maximum	9.83	32.5	167	65

Tapping point used for test : at rear of tractor
Hydraulic fluid: see pag.17

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

(3) DRAWBAR PERFORMANCE

- Date of tests: 24-25/5/1987 I.S.M.A. - TREVIGLIO
- Type of track: concrete
- Type and size of tyres front: 12.4/24 6 plr
  rear : 16.9/30 6 plr

Gear	Pow.	Draw. pull	Speed	Engine speed	Slip of wheel	Specific ener.cons.	fuel	Temperat. cool.	eng.	Atm. condit. temp.	hum.	pres.
n.	kW	daN	km/h	rev/min	%	kWh/l	g/kWh	°C	°C	°C	°C	%	mbar

1) MAXIMUM POWER (UNBALLASTED)

heigh of drawbar above ground 470 mm;
tyre inflation pressure: 1.3 bar rear ; 1.7 bar front.

2S	9.78	2399	1.47	2478	15	1.34	626	26	59	94	18	63	993
3S	13.16	2462	1.93	2470	15	1.78	471	26	59	94	18	63	993
4S	17.29	2453	2.54	2451	15	2.05	410	26	59	95	18	63	993
1N	23.20	2429	3.44	2430	15	2.16	388	27	59	96	18	63	993
2N	31.25	2450	4.60	2390	15	2.45	342	27	59	96	18	63	993
3N	39.04	2246	6.26	2355	11	2.73	307	27	60	97	19	64	993
4N	40.37	1702	8.54	2350	6.2	2.83	297	27	60	98	19	64	993
1F	39.71	1261	11.35	2353	4	2.78	302	27	60	101	19	64	993

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030

(ii) MAXIMUM POWER (ballasted)
. heigth of drawbar above ground 465 mm
. tyres inflation pressure : 1.3 bar at rear - 1.7 bar at front

Gear	Pow.	Draw. pull	Speed	Engine speed	Slip of wheel	Specific ener.cons.		Temperat. fuel		cool.eng.	Atm.condit. temp.	hum.	pres
n.	kW	daN	km/h	rev/min	%	kWh/l	g/kWh	°C	°C	°C	°C	%	mbar
1S	8.10	2678	1.09	2485	15	1.21	691	24	60	98	17	61	994
2S	10.88	2688	1.46	2478	15	1.48	565	24	60	98	17	61	994
3S	14.49	2705	1.93	2468	15	1.93	435	24	60	98	17	61	994
4S	18.60	2649	2.53	2446	15	2.06	408	25	60	98	17	61	994
1N	25.07	2633	3.43	2420	15	2.22	378	25	61	99	18	61	994
2N	32.50	2601	4.50	2385	15	2.48	338	25	62	100	18	62	994
3N	38.75	2228	6.27	2360	9	2.74	307	26	62	101	18	62	995
4N	40.66	1675	8.74	2350	4	2.82	297	26	63	101	18	62	995
1F	40.15	1259	11.48	2351	3	2.79	299	26	63	102	19	62	995
(iii) FIVE HOUR TEST at 75% of pull at maximum power: gear 3N													
3N	31.40	1671	6.77	2415	4	2.58	325	30	68	99	21	68	994
(iv) FIVE HOUR TEST at pull corresponding to 15% wheel slip in test (ii)													
2N	33.00	2529	4.70	2410	-	-	-	31	67	98	21	66	994

- Test (iv) was carried out with additional ballast, the figures not quoted are therefore irrilevant.
- Total oil consumption in the first five hours: 260 g;
- Total oil consumption in the second five hours: 270 g;
- Hourly consumption: 53 g/h.

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030

4 - TURNING SPACE AND TURNING CIRCLE

Wheel equipment front: 12.4/24 6 ply
rear: 16.9/30 6 ply
Track of wheel front: 1700 mm
rear: 1700 mm.

	with brakes on four wheels		without brakes	
	rigth (m)	left (m)	rigth (m)	left (m)
rad.turn space	3.76	3.73	4.34	4.36
rad.turn circle	3.68	3.65	4.26	4.28

5 - LOCATION OF CENTRE OF GRAVITY

Heigth above ground ..... mm 824
Distance forward from rear axle centre ..... mm 962
Distance from tractor median plane ..... mm 0

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

6 - BRAKING PERFORMANCE
(tractor with brakes on all wheels)

Date of test: 24/4/1987
Type of track: concrete;
Type of decelerometer: Peiseler.

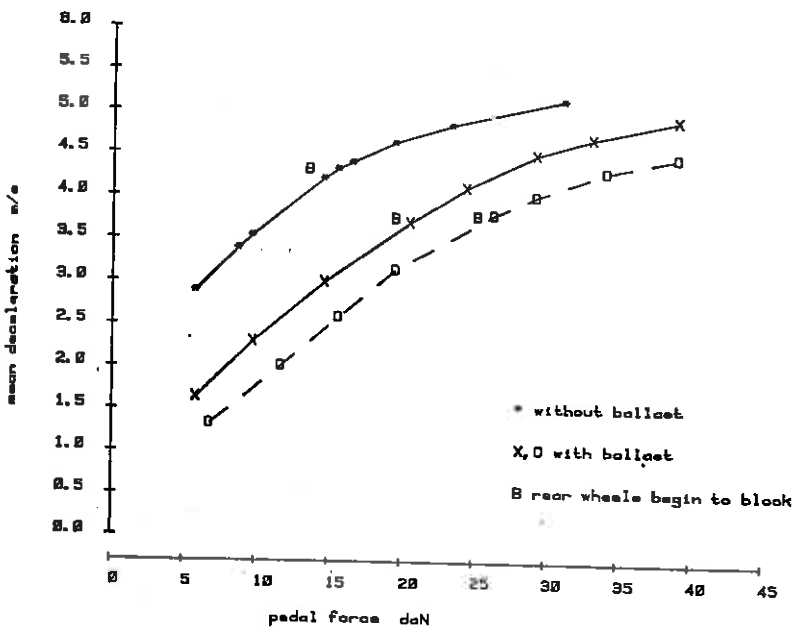
Maximum weigth tecnically permissible of the tractor with ballast(*)

	front axle kg	rear axle kg	total kg
unballasted	1200	1710	2910
ballasted	1920	2980	4900

(*) Tractor carrying a driver, a responsable for monitoring and the decelerometer.

A1) SERVICE BRAKES (all wheel braked)

Type - 0 - (cold brakes) _____ Type - I - (fade) --------



- Middle speed of beginning braking (unballasted tractor) = 30.9 km/h
- Middle speed of beginning braking (ballasted tractor) = 30.6 km/h
- The heating of brakes has been make to drag tractor braking for 1 km

- Comment on deviation and vibration: none

B) Parking brake

	ballasted tractor on 18% slope		unballasted tractor with trailer of 3000 kg on 12% slope.	
	slope	desent	slope	descent
pull on handbrakes daN	10.5	11	13.0	13.5

7 - MEASUREMENT OF EXTERNAL NOISE LEVEL

- Date of test: 17/4/87
- Type of sound level meter: 2209 Brüel & Kjaer
- Type of track: concrete
- Safety frame: SAME T 42

Result of test

- Number gear used: 4F
- Travelling speed: 22.5 km/h
- Sound level: 84.8 dB(A)

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

8 - NOISE MEASUREMENT AT THE DRIVER'S EAR LEVEL

- Date of test: 22/5/87
- Type of sound level meter: 2209 Brüel & Kjaer
- Type of track: concrete
- Safety frame: SAME T 42.

Gear	Drawbar pull at which the tractor develops the max sound level (daN)	travelling speed km/h	sound level db(A)	
1S	2580	1.00	93.0	
2S	2207	1.50	93.5	
3S	2256	1.87	93.2	
4S	2256	2.60	94.0	
1N	2452	3.70	95.5	
2N	2354	4.90	95.0	
3N	0	6.90	93.8	
3N	1864	6.20	95.5	*°
4N	1569	9.30	94.5	
1F	1226	11.90	94.5	
2F	883	16.30	95.5	
3F	687	20.00	94.5	
4F	0	30.10	94.0	#
4F	432	29.50	94.4	

(*) Gear with nominal speed nearest 7.5 km/h.
(°) Noisest gear.
(#) Max forward speed gear.

ISTITUTO SPERIMENTALE PER
LA MECCANIZZAZIONE AGRICOLA
SEZIONE DI TREVIGLIO

LAMBORGHINI 674 - 70 N.DT "4WD" TEST N.030

REMARKS: none

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THE DIRECTOR OF TESTING STATION
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HEAD OF ISMA - ROMA
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