Report on test in accordance with
O.E.C.D. STANDARD CODE 1 for the Official
Testing of Agricultural Tractor Performance

FULL CODE

O.E.C.D. approval No. : 1/2 035
Date of approval : 17th Jan. 2003



Agricultural Tractor

LG N41(4WD)

Manufactured by : LG Cable Ltd.
200, Dangjung-dong, Gunpo-si, Gyeonggi-do,
Republic of KOREA

NATIONAL AGRICULTURAL MECHANIZATION RESEARCH INSTITUTE
249, Seodun-dong, Gwonseon-gu, Suwon-city, Gyeonggi-do, Republic of Korea

This is a report on a tractor test in accordance with the OECD STANDARD CODE for the Official Testing of Agricultural Tractor Performance(C(87)53(Final), Code 1) and amendments (C(90)79, C(92)52, C(93)52, C(93)133, C(95)17 and C(99)23).

It does not contain an evaluation of the tractor on practical work

Report No. : 02-M-5-3
Duration of test : April to July 2002
Date of approval : 17th Jan. 2003

This report has been approved by the OECD Co-ordinating Centre (CEMAGREF, France) as being in accordance with the OECD STANDARD CODE 1.

In this report all performance characteristics are given corresponding to the International System of Units.
The reference to the former used Technical System of Units is given by the following relations:

Forces	1 kgf	=	9.80665 N
Powers	1 PS	=	0.7355 kW
Pressures	1 kgf/㎠	=	98.0665 kPa

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- Tractor manufacturer's name and address:	LG Cable Ltd. 200, Dangjung-dong, Gunpo-si, Gyeonggi-do, R.O.K
- Location of tractor assembly:	200, Dangjung-dong, Gunpo-si, Gyeonggi-do, R.O.K
- Submitted for test by:	The manufacturer
- Selected for test by:	The manufacturer in agreement by NAMRI
- Place of running-in:	LG Cable Ltd. 200, Dangjung-dong, Gunpo-si, Gyeonggi-do, R.O.K
- Duration of running-in:	-
- Location of test:	NAMRI

1. SPECIFICATIONS OF TRACTOR

1.1 Identification

1.1.1	- Make of the tractor:	LG
	- Model (trade name):	N41
	- Type:	Four-wheel drive, unit construction
1.1.2	Number	
	- 1st Serial No.:	N41-B00001
	- Serial No.:	N41-C00167

1.2 Engine

	- Make/Model/Type:	LG, S4QS17T, 4 cycle diesel engine with indirect injection, water cooled, naturally aspirated
	- Serial No.:	C020136
1.2.1	Cylinders	
	- Number/disposition:	4/ vertical, in-line
	- Bore/stroke:	88/95.05 mm
	- Capacity:	2313 cm^3
	- Compression ratio:	22.2:1
	- Arrangement of valves:	Overhead
	- Cylinder liners (wet or dry):	Dry

1.2.2	Supercharging:	None
1.2.3	Fuel system	
-	Fuel feed system:	Gravity
-	Fuel filters	
	. Make/Model/Type:	Dongwoo, Q1250001 Replaceable paper element, cartridge type
-	Capacity of fuel tank:	55 dm^3
-	Injection pump	
	. Make/Model/Type:	Delphi diesel system , K3943F041N, DPA
-	Serial No.:	00646BVK
-	Manufacturer's production setting of injection pump	
	. Flow rate (rated engine speed and full load):	9.4±0.5 dm^3/h
	. Timing:	20 degree before T.D.C
-	Injectors	
	. Make/Model/Type:	Delphi diesel system, BDNOPDN21, single hole
-	Injection pressure:	11.76 MPa
-	Make/Model/Type of Carburetor:	None
1.2.4	Governor	
-	Make/Model/Type:	Delphi diesel system, Q1250069, Mechanical
-	Governed range of engine speed	from 750 to 2750 min^{-1}(rev/min)
-	Rated engine speed:	2600 min^{-1}(rev/min)
1.2.5	Air cleaner	
-	Pre-cleaner:	None
-	Main cleaner	
	. Make/Model/Type:	Donaldson, A11900107, dry
	. Location of air intake (in case of no pre-cleaner):	Under the bonnet, in front of the radiator
-	Maintenance indicator:	None
1.2.6	Lubrication system	
-	Type of feed pump:	Rotor pump
-	Type of filter(s):	Full flow, replaceable canister

- Number of filters: 1

1.2.7 Cooling system

- Type of coolant: Water or water and antifreeze solution
- Type of pump: Centrifugal
- Specification of fan: Axle driven puller
  . Number of fan blades: 7
  . Fan diameter: 380 mm
- Coolant capacity: 7.5 dm^3
- Type of temperature control: Wax pellet type thermostat
- Superpressure system: 88.3 kPa, at radiator cap

1.2.8 Starting system

- Make/Model/Type: Valeo mando, Q1700001, electrical, pre-engaged, solenoid operated
- Starter motor power rating: 2.2 kW
- Cold starting aid: Electrothermal plug, 12V
- Safety device: Starting operable only when main clutch pedal fully depressed and pto clutch disengaged

1.2.9 Electrical system

- Voltage: 12 V
- Generator
  . Make/Model/Type: Valeo mando, Q1750001,3phase generator
  . Power: 0.54 kW
- Battery of accumulators
  . Number: 1
  . Rating: 80Ah at 5 hours rating

1.2.10 Exhaust system

- Make/Model/ Type: Se-sin, A1151121, expansion and absorption muffler
- Location: Under the bonnet, left hand side of tractor

1.3 Transmission

1.3.1 Clutch (travel alone)

- Make/Model/Type: Seojin-daikin, A1250066, dry
- Number of plates: 1
- Diameter of plates: 275 mm
- Method of operation: Mechanically actuated by pedal

1.3.2 Gear box

- Make/Model/Type: LG, A1001089, mechanical
- Description: Synchro-mesh 4 speed gears with main lever, constant mesh 2 speeds (H/L) gears with sub-lever, additional constant mesh creep gear(CR), total 16 forward and 16 reverse gears, synchro-mesh type forward / reverse with shuttle lever

	Forward	Reverse
Number of gears	4	4
Number of ranges/groups	2x2	2x2
Total of arrangements	16	16

- Available options: None

1.3.3 Rear axle and final drives

- Make/Model/Type: LG, A1480094, bevel gear type differential and spur gear type final drives
- Differential lock
  - . Type: Mechanical, dog clutch on differential gears
  - . Method of engagement: Mechanically actuated by pedal
  - . Method of disengagement: Self-disengagement by spring

1.3.4 Front axle and drives

- Make/Model/Type: Youngjin, A1400109, bevel gear type differential and bevel gear type final drives
- Differential lock: None

1.3.5 Total ratios and travelling speeds

Gear No	Group Or Range	Number of engine revolutions for one revolution of the driving wheels		Nominal travelling speed (*) at rated engine speed of 2600 min^{-1}(rev/min) km/h	
		Forward	Reverse	Forward	Reverse
1	C-L-1	2612.32	2440.85	0.22	0.24
2	C-L-2	2086.88	1949.91	0.28	0.30
3	C-L-3	1470.64	1374.11	0.39	0.42
4	C-L-4	792.77	740.73	0.73	0.78
5	C-H-1	725.05	677.46	0.80	0.85
6	C-H-2	579.22	541.20	1.00	1.07
7	C-H-3	408.18	381.39	1.42	1.52
8	L-1	315.68	294.96	1.83	1.96
9	L-2	252.18	235.63	2.29	2.45
10	C-H-4	220.03	205.59	2.63	2.81
11	L-3	177.71	166.05	3.25	3.48
12	L-4	95.80	89.51	6.04	6.46
13	H-1	87.62	81.87	6.60	7.06
14	H-2	69.99	65.40	8.26	8.84
15	H-3	49.32	46.09	11.73	12.55
16	H-4	26.59	24.84	21.75	23.28
(*) Calculated with a tyre dynamic index 590 mm (pneumatic tyred tractors only) (ISO 4251-1:1998).					

- Number of revolutions of front wheels for one revolution of rear-wheels (for 4WD tractors only): 1.39
- Range selection: C=Creep, L=Low, H=High

1.4 Power take-off

1.4.1 Main power take-off

- Type (independent, semi-independent or not independent): Independent
- Method of engagement (if necessary describe the type of clutch): Engaged or disengaged by switch, driven by multi-plate wet clutch independent of travel clutch
- Number of shafts: 1
- Method of changing power take-off shaft ends and speeds: Manually, 3 p.t.o. speeds are shiftable by hand lever

1.4.1.1 Power take-off proportional to engine speed

- Location: Rear of tractor
- Diameter of power take-off shaft end: 35 mm
- Number of splines: 6 , in conformity with ISO 500:1991 PTO type 1(540 min^{-1})
- Height above ground: 590 mm
- Distance from the median plane of the tractor: 0 mm
- Distance behind rear-wheel axis: 315 mm
- P.t.o. speed at rated engine speed and engine speed at standard power take-off speed:

p.t.o. type	engine/pto transmission ratio	p.t.o. speed rev/min	engine speed rev/min	power restriction kW
540	4.615	540 563	2492 2600	none
750	3.869	750 672	2902 2600	none
1000	2.476	1000 1050	2476 2600	none

- Direction of rotation (viewed from behind tractor): Clockwise

1.4.1.2 Power take-off proportional to ground speed : None

1.4.2 Optional power take-off: None

1.5 Hydraulic power lift

- Make/Model/Type: Daeshin, A1820049, hydraulic with mechanical draft and position control, top linkage sensing
- Type of hydraulic system: Open center system
- Type and number of cylinders (single or double-acting): 1, internal single acting
- Type of linkage lock for transport: Hydraulic
- Relief valve pressure setting (tolerance): 15.6 ~16.4 MPa
- Opening pressure of cylinder safety valve (if fitted): 19.6~20.6 MPa
- Lift pump type: Gear pump
- Transmission between pump and engine: Mechanical, driven by cam shaft

- Type and number of filters:	1, Cartridge type
- Site of oil reservoir:	Transmission housing
- Type, number and location of tapping point:	SAE standard 3/8" female coupler, 4 sets, rear of tractor
- Maximum volume of available to external cylinders:	Not available

1.6 Three point linkage

- Category:	1, in conformity with ISO 730/1-1994 +Cor.1:1995 and ISO 730-2:1979.
- Category adapter:	None

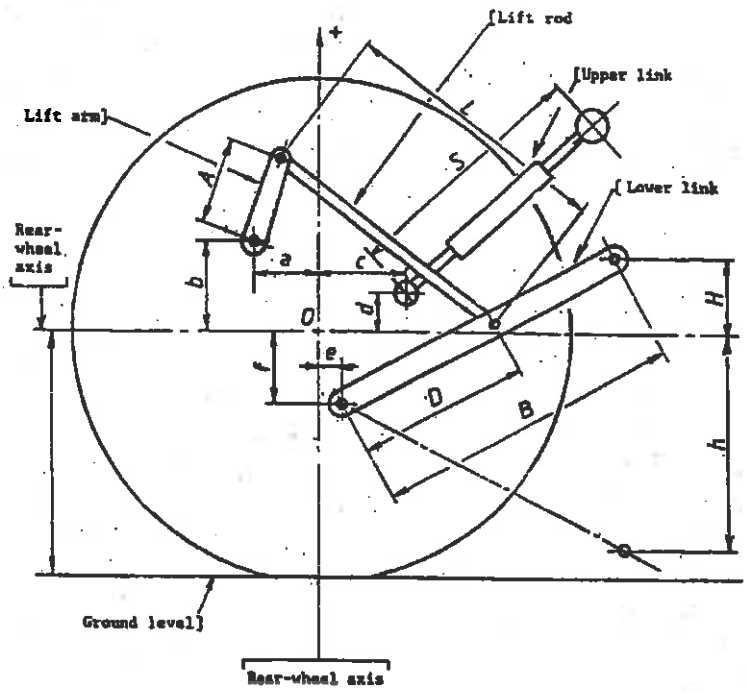


Figure 1.1

Lift test – Linkage geometry

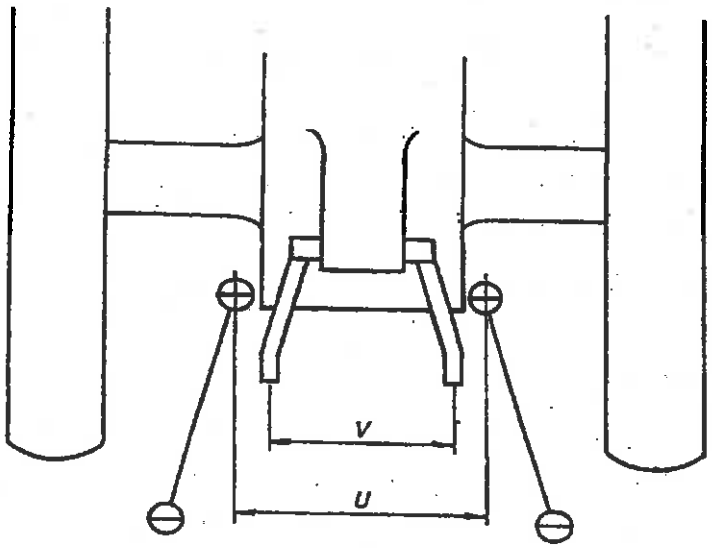


Figure 1.2

Lift test – linkage geometry

		Dimension or range	Settings used in test
		mm	mm
Length of lift arms:	(A)	250	250
Length of lower links:	(B)	714	714
Distance of lift arm pivot point from rear-wheel axis :			
- Horizontally	(a)	102	102
- Vertically	(b)	269	269
Horizontal distance between the 2 lower link points:	(u)	308	308
Horizontal distance between the 2 lift arm end points:	(v)	445	445
Length of upper link:	(S)	458 - 720	565
Distance of upper link pivot point from rear wheel axis:			
- Horizontally	(c)	299	299
- Vertically	(d)	252 - 297	297
Distance of lower link pivot point from rear wheel axis :			
- Horizontally	(e)	149	149
- Vertically	(f)	173	173
Distance of lower link pivot points to lift rod pivot points on lower links:	(D)	337	337
Length of lift rods	(L)	475 - 545	545
Height of lower hitch points relative to the rear-wheel axis:			
- in low position	(h)	296 - 461	447
- in high position	(H)	161 – 303	193
Height above ground of lower hitch point when locked in transport position(*)		Any height within lifting range	
(*) Assuming r = 590mm type dynamic radius index of ISO 4251-1:1998 (pneumatic tyred tractors only)			

Table 1.1

Dimensions of linkage geometry when connected to the standard frame

1.7 Swinging drawbar : None

1.8 Trailer hitch

- Type: Fixed clevis on rear axle housing
- Hole diameter: 30 mm
- Height above ground: 360 mm
- Distance of hitch point from rear-wheel axis, horizontally: 390 mm
- Distance of hitch point from power take-off shaft end . Vertically: 130 mm

. Horizontally:	75 mm
- Maximum vertical permissible load:	5.3 kN

1.9 Holed drawbar : None

1.10 Steering

- Make/Model/Type:	Sauer danfoss, OSPC 80 ON, Hydrostatic type
- Method of operation	
. Pump(s):	Gear
. Ram(s):	2, single acting ram actuated directly on front axle
- Working pressure:	14.2 MPa

1.11 Brakes

1.11.1 Service brake

- Make/Model/Type:	Jin-myoung, A1650097(RH)/ A1650098(LH), oil-immersed multiplate discs, 3 on each side
- Method of operation:	Hydraulically by pedals, coupled or independent
- Trailer braking take-off (hydraulic or air brake):	Not available

1.11.2 Parking brake

- Type:	Mechanical common with service brake
- Method of operation:	Mechanically by hand lever with ratchet

1.12 Wheel

- Number	
. Front:	2, driving/steering
. Rear:	2, driving
- Wheelbase:	1900 mm

- Track width adjustment:

	Minimum	Maximum	Adjustment method
	mm	mm	
Front	1255	1565	By reversing wheels and offset lug rims
Rear	1235	1535	

1.13 Protective structure

- Make/Model/ Type: Dae-chang, LGNC47, Cab
- Manufacturer's name and address: Dae-chang, 91-2, Paho-dong, Dalseo-gu, Daegu-si, R.O.K.
- Protective device :
  . Cab/frame/rollguard/other: Cab
  . Tiltable/not tiliable: Not tiltable
- OECD approval : 4/0 749

1.14 Seat

1.14.1 Driver's seat

- Make/Model/Type: Daehan, 1850095, upholstered seat with backrest
- Seat and steering wheel reversible: No
- Type of suspension: Air
- Type of damping: Spring
- Range of adjustment
  . Longitudinally: 120 mm
  . Vertically: 60 mm
- Safety belt: Yes

1.14.2 Optional driver's seat(s) : None

1.14.3 Passenger seat : None

1.15 Lighting

	Height above ground of centre	Size	Distance from outside edge of lights to median plane of tractor
	mm	mm	mm
Headlights	960	170x110	210
Sidelights	1245	55x50	670
Rearlights	1245	55x60	570
Reflectors	1245	45x60	605

2 TEST CONDITIONS

2.1 Overall dimensions

	Length	Width		Height at top of	
		Minimum	Maximum	Protective structure	Exhaust pipe
	mm	mm	mm	mm	mm
Ballasted	3675	1565	1865	2380	825
Unballasted	3400	1565	1865	2380	825

2.2 Ground clearance (unballasted tractor): 310 mm

- Clearance-limiting part: Trailer hitch

2.3 Tractor mass

Mass (with cab):

	Ballasted		Unballasted	
	Without driver	With driver	Without driver	With driver
	kg	kg	kg	kg
Front	1173	1180	960	971
Rear	1274	1342	1337	1401
Total	2447	2522	2297	2372

2.4 Ballast

	Weights		Water
	Number	Total mass	
		kg	kg
Front	30kg+20kg×6	150	-
Rear	-	-	-
Optional	-	-	-

2.5 Tyres and track width specifications

	Front	Rear
Tyres:		
- Dimensions	8.3-20	12.4-28
- Ply rating	6	6
- Type	Diagonal	Diagonal
- Maximum load (tyre manufacturer's)	6.96 kN	12.5 kN
- Maximum load (tractor manufacturer's)	6.96 kN	12.5 kN
- Inflation pressure (tyre manufacturer's)	196.0 kPa	157.0 kPa
- Dynamic radius index	435mm	590 mm
Chosen track width	1320mm	1235 mm

2.6 Fuel

- Type: Diesel fuel No 2, in conformity with Korean Standard. (KS M 2610:1996)
- Density at 15°C: 0.824 g/cm^3

2.7 Oils and lubricants

2.7.1 Capacity and change interval

	Capacity	Oil change	Filter change
	dm^3	h	h
Engine	8	200	200
Gear box in common with hydraulic system and steering	38	400	400
Front axle and final drives	10	400	-
Rear axle and final drives	9	400	-

2.7.2 Specifications (SAE, API, CCMC, ACEA, Mil.L, ISO)

	Recommended	Used during test
Engine oil . Type: . Viscosity: . Classification:	Below 0℃:SAE 10W or 10W-30 From 10℃ to 25℃:SAE 20 or 10W-30 Above 25℃:SAE 30or 10W-30 68.2 cSt at 40℃ 11.4 cSt at 100℃ API-CC or CD	SAE 10W-30
Transmission oils, Hydraulic fluid, Steering oil . Type: . Viscosity: . Classification:	Transmission oil 10cSt API GL-4	As recommended

2.7.3 Grease

- Number of lubrication points: 9

3. COMPULSORY TESTS RESULTS

3.1 Main power take-off

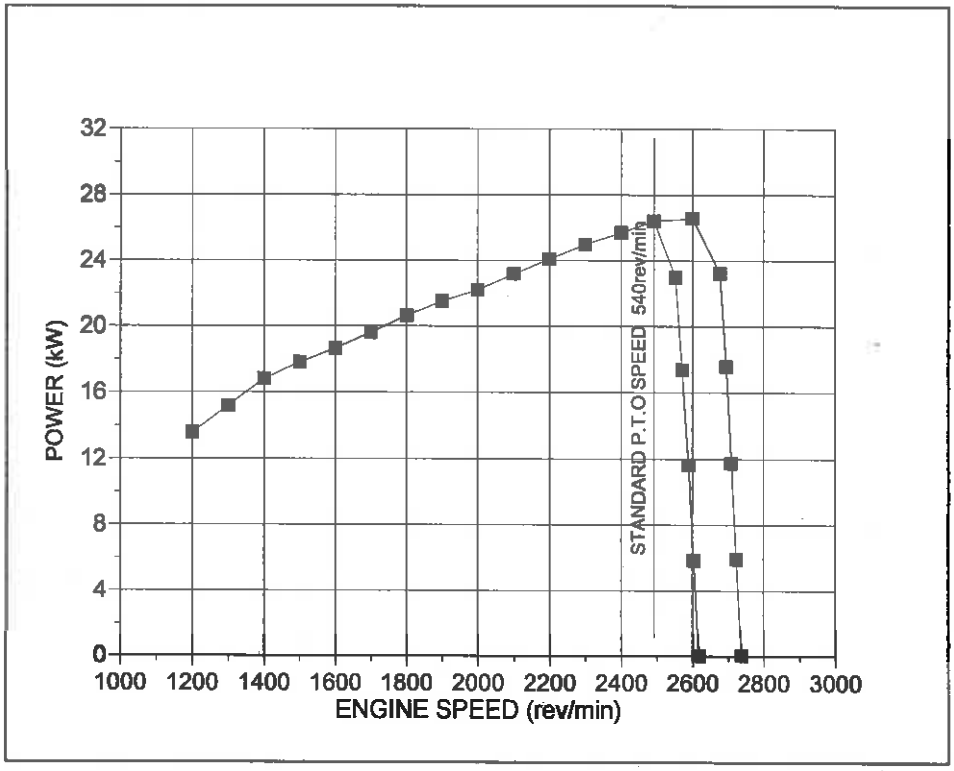
- Date and location of test: 16th to 18th April 2002, NAMRI
- Type of dynamometer bench: FROUD AG-250

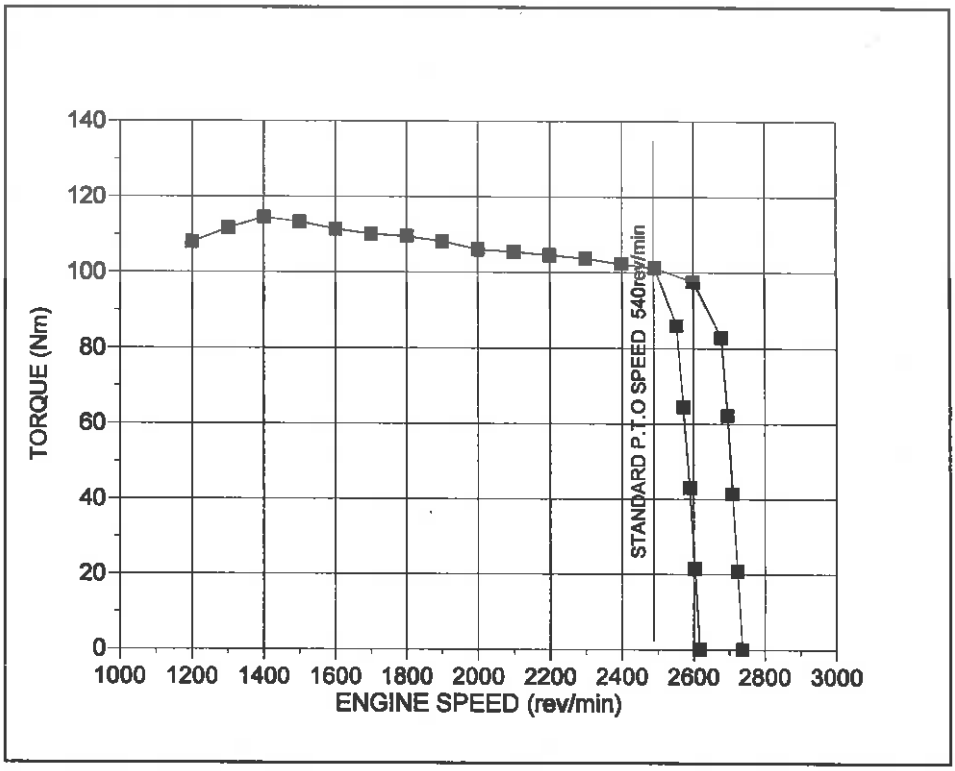
Power	Speed		Fuel consumption			Specific energy
	Engine	P.T.O.	Hourly		Specific	
kW	min^{-1}(rev/min)		kg/h	ℓ /h	g/kWh	kWh/ ℓ
3.1.1 MAXIMUM POWER-TWO-HOUR TEST						
26.6	2600	563	7.89	9.57	297	2.78
3.1.2 POWER AT RATED ENGINE SPEED						
26.6	2600	563	7.89	9.57	297	2.78
3.1.3 STANDARD POWER TAKE-OFF SPEED [540±10 min^{-1}(rev/min)]						
26.4	2492	540	7.77	9.43	294	2.80
3.1.4 PART LOADS 3.1.4.1 the torque corresponding to maximum power at rated engine speed						
26.6	2600	563	7.89	9.57	297	2.78
3.1.4.2 85% of torque obtained in 3.1.4.1						
23.2	2677	580	7.07	8.58	304	2.71
3.1.4.3 75% of torque defined in 3.1.4.2						
17.6	2695	584	5.87	7.12	334	2.46
3.1.4.4 50% of torque defined in 3.1.4.2						
11.8	2709	587	4.80	5.83	408	2.02
3.1.4.5 25% of torque defined in 3.1.4.2						
5.9	2723	590	3.78	4.59	640	1.29
3.1.4.6 unloaded						
0	2737	593	2.81	3.41	-	-
3.1.5 PART LOADS AT STANDARD POWER TAKE-OFF SPEED[540±10 min^{-1}(rev/min)] 3.1.5.1 the torque corresponding to maximum power						
26.4	2492	540	7.77	9.43	294	2.80
3.1.5.2 85% of torque obtained in 3.1.5.1						
23.0	2552	553	6.85	8.31	298	2.76
3.1.5.3 75% of torque defined in 3.1.5.2						
17.4	2571	557	5.65	6.86	326	2.53
3.1.5.4 50% of torque defined in 3.1.5.2						
11.7	2589	561	4.53	5.50	389	2.12
3.1.5.5 25% of torque defined in 3.1.5.2						
5.9	2603	564	3.52	4.27	601	1.37
3.1.5.6 unloaded						
0	2617	567	2.60	3.16	-	-

- No load maximum engine speed: 2737 min^{-1}(rev/min)
- Torque (equivalent crankshaft)at maximum power
  . At rated engine speed 97.5 Nm
  . At 2-hour test 97.5 Nm
- Maximum torque (equivalent crankshaft): 114.5 Nm
  (engine speed: 1400 min^{-1}(rev/min))

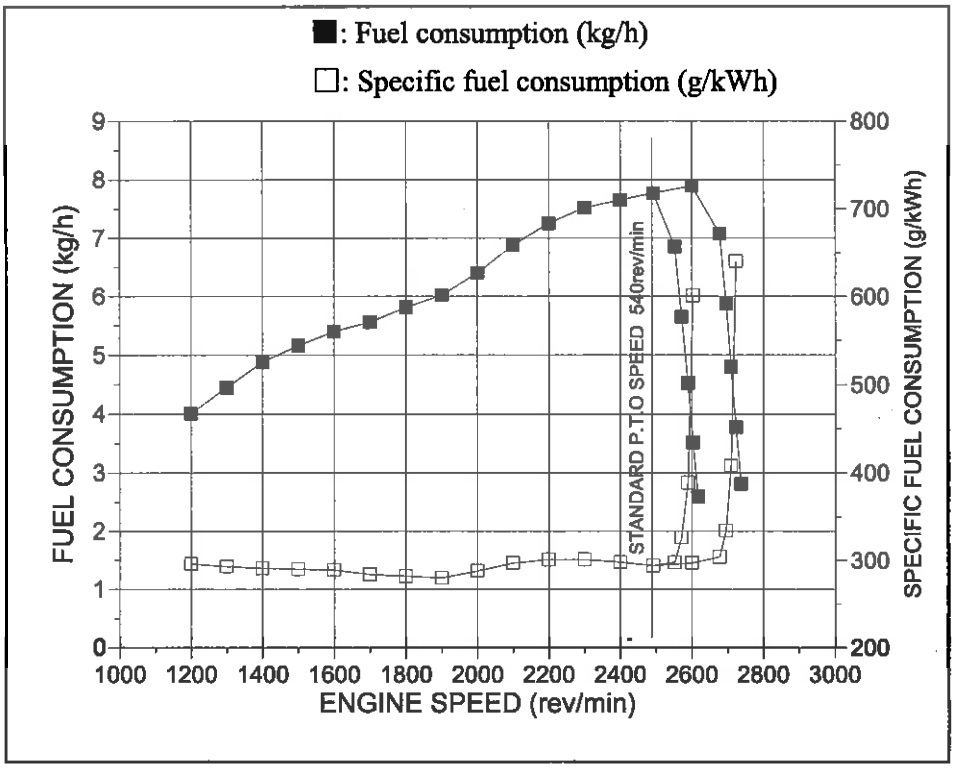
Mean atmospheric conditions:	
Temperature	21 °C
Pressure	99.5 kPa
Relative humidity	65 %
Maximum temperatures:	
Coolant	99 °C
Engine oil	115 °C
Fuel	49 °C
Engine air intake	28 °C

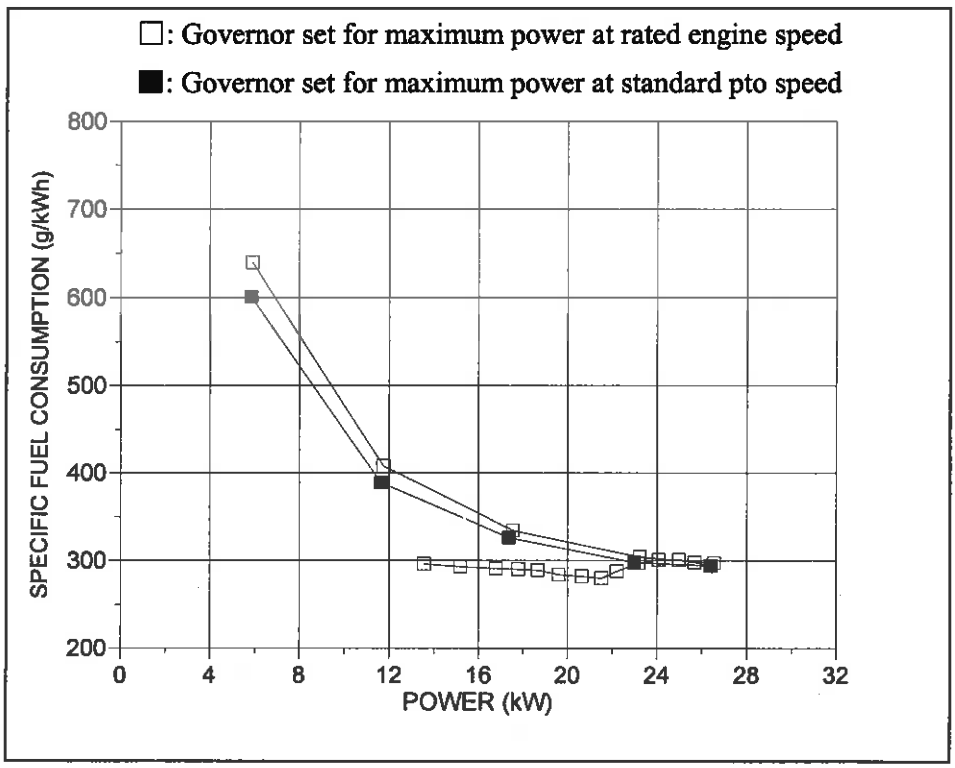
POWER TAKE – OFF PERFORMANCE CURVES





POWER TAKE – OFF PERFORMANCE CURVES





3.2 Hydraulic power and lifting force

- Date of tests: 14th to 15th May 2002

3.2.1 Hydraulic power test

- Sustained pressure with relief valve open: 16.1 MPa
- Pump stalled: Not applicable, open center system
- Pump delivery rate at minimum pressure 38.2 ℓ /min

	Flow rate ℓ /min	Pressure MPa	Power kW
Flow rate corresponding to a hydraulic pressure equivalent to 90% of the actual relief valve pressure setting and corresponding hydraulic power	14.5	14.5	3.5
Flow rate and hydraulic pressure corresponding to maximum hydraulic power	36.3	12.5	7.6

- Tapping point used for test: External tapping
- Temperature of hydraulic fluid, if different from 65±5°C: None
- Opening pressure of the unloading valve: None
- Closing pressure of the unloading value: None

3.2.2 Power lift test

- Linkage settings for test-see Table 1.1 and Figures 1.1 and 1.2

	at the hitch point	on the frame
Height of lower hitch points above ground in down position	143 mm	143 mm
Vertical movement without lifting forces with lifting forces	 640 mm 604 mm	 693 mm 658 mm
Maximum corrected force exerted through full range	15.2 kN	14.2 kN
Corresponding pressure of hydraulic fluid	14.5 MPa	14.5 MPa
Moment about rear-wheel axis	13.1 kNm	20.9 kNm
Maximum tilt angle of mast from vertical	-	3 degrees

Lifting heights relative to the horizontal plane including the lower link pivot points										
mm	-298	-274	-200	-100	0	100	200	300	330	360
Lifting forces (the values of force measured shall be corrected to correspond to a hydraulic pressure equivalent to 90% of the actual relief valve pressure setting of the hydraulic lift system): At the hitch point, corresponding pressure: 14.5 MPa										
kN	-	15.2	15.7	16.2	16.6	17.0	17.5	18.1	17.0	-
At the frame, corresponding pressure: 14.5 MPa										
kN	15.6	-	15.8	15.9	15.9	15.7	15.3	14.7	-	14.2

3.3 Drawbar power test (ballasted and unballasted tractor)

- Date of tests: 16th May to 4th June 2002
- Type of track: Asphalt

	Height of drawbar above ground	Tyre inflation pressure	
		Front	Rear
	mm	kPa	kPa
Unballasted	390	196	157
Ballasted	390	196	157

Gear number and range	Power	Drawbar pull	Speed	Engine speed	Slip of wheels	Specific fuel consumption	Specific energy	Temperatures			Atmospheric condition		
								Fuel	Coolant	Engine oil	Tempe -rature	Relative humidity	Pressure
	kW	kN	km/h	rev/min	%	g/kWh	kWh/ℓ	℃	℃	℃	℃	%	kPa
3.3.1 MAXIMUM POWER IN TESTED GEARS (unballasted tractor)													
L-1	7.0	15.17	1.67	2713	15.1	645	1.28	43	95	109	27	35	100.2
L-2	8.6	14.91	2.09	2703	15.1	555	1.49	44	96	110	28	34	100.1
L-3	12.1	14.75	2.96	2683	15.1	466	1.77	42	94	108	27	32	100.4
L-4	19.5	12.43	5.64	2602	10.6	393	2.10	43	95	109	28	32	100.4
H-1	19.9	11.38	6.28	2600	8.6	386	2.14	42	94	107	27	33	100.5
H-2	20.5	9.02	8.17	2599	5.8	379	2.17	41	93	106	28	32	100.4
H-3	17.1	5.16	11.94	2598	2.8	450	1.83	42	92	105	27	32	100.2
3.3.2 MAXIMUM POWER IN TESTED GEARS (ballasted tractor)													
L-1	7.5	16.28	1.66	2700	15.1	653	1.26	43	94	108	27	36	100.2
L-2	9.2	15.97	2.08	2695	15.1	618	1.33	42	95	109	28	35	100.2
L-3	12.8	15.61	2.96	2675	15.1	544	1.51	41	94	108	27	32	100.4
L-4	20.1	12.76	5.67	2602	10.2	382	2.16	42	96	108	28	31	100.1
H-1	20.4	11.76	6.25	2600	9.1	375	2.20	43	95	107	27	32	100.2
H-2	20.4	9.01	8.15	2599	5.8	377	2.19	42	94	107	27	32	100.2
H-3	17.9	5.42	11.88	2597	2.6	429	1.92	41	93	106	26	33	100.2
3.3.3 FIVE-HOUR TESTS 3.3.3.1 FIVE-HOUR TEST at 75% of the pull corresponding to maximum power at rated speed													
L-4	16.3	9.59	6.12	2668	5.6	439	1.88	41	96	108	28	30	100.1
3.3.3.2 FIVE-HOUR TEST at pull corresponding to 15% wheelslip (trackslip: ≥ 7%), with additional ballast : (+)... kg													
L-3	13.6	15.6	3.14	2671	15.0	515	1.60	42	95	107	27	32	100.2

(+) Test 3.3.3.2 was carried out without additional ballast.

- The creep gears are not to be used for heavy drawbar work.
- Oil consumption during ten hours duration of tests 3.3.3.1 and 3.3.4: 23 g/h

3.4 Turning area and turning circle

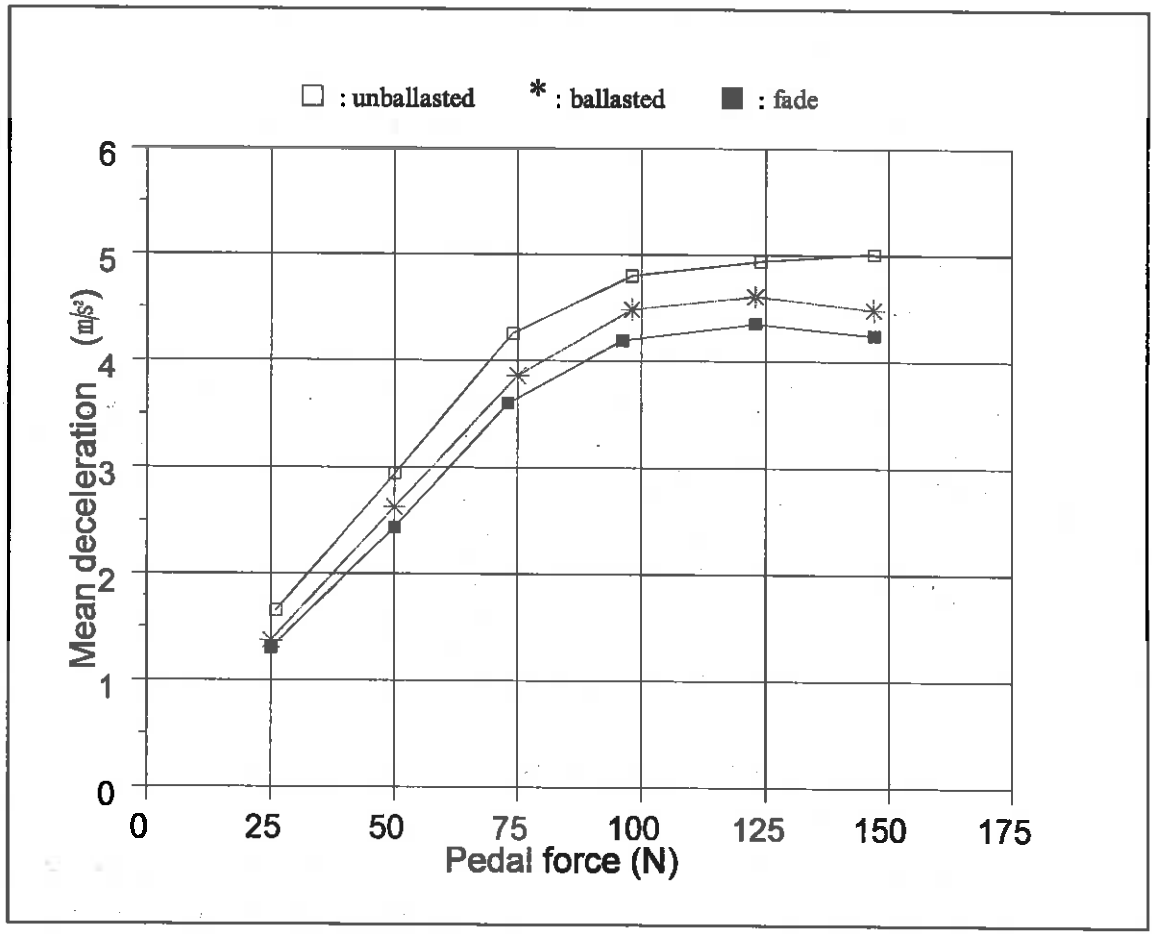
	Without brakes	
	Right-hand	Left-hand
	m	m
Radius of turning area	3.44	3.40
Radius of turning circle	3.32	3.27

3.5 Location of centre of gravity

- Height above ground: 872 mm
- Distance from the vertical plane containing the axis of the rear-wheels: 778 mm
- Distance from the median longitudinal plane of the tractor, to the left: 12 mm
- If the angle of suspension of the tractor is less than 20°, indicate its value: None

3.6 Braking

- Date of tests: 24th to 26th June 2002



3.6.1 Cold service braking device test

	Speed before application of brakes	Braking device control force	Mean deceleration	Minimum stopping distance without locking wheels
	km/h	kN	m/s^2	m
Ballasted tractor	24.20	0.025 0.050 0.073 0.096 0.123 0.147	1.30 2.44 3.60 4.19 4.35 4.24	5.20
Unballasted tractor	24.05	0.026 0.050 0.074 0.098 0.124 0.147	1.65 2.94 4.25 4.80 4.94 5.01	4.45

- Maximum deviation of tractor from its original course: None
- Abnormal vibration: None
- Brake heating method: None

3.6.2 Fade test

Speed before application of brakes	Braking device control force	Mean deceleration	Minimum stopping distance without locking wheels
km/h	kN	m/s^2	m
24.12	0.025 0.050 0.075 0.098 0.123 0.147	1.37 2.63 3.86 4.48 4.61 4.48	4.87

- Maximum deviation of tractor from its original course: None
- Abnormal vibration: None
- Brake heating method: Driven with brakes applied for 1km at 80%(19.30 km/h) of maximum speed with a pedal force corresponding to deceleration of 1 m/s

3.6.3 Parking braking device test

	Uphill	Downhill
Braking device control force	0.31 kN	0.31 kN

3.7 Measurement of external noise

- Date of tests: 23rd April 2002
- Sound level meter, make/model/type: Brüel and kjær, 2236
- Type of track: Asphalt
- Gear number: 16(H-4) gear
- Travelling speed before acceleration: 17.7 km/h
- Sound level: 81.2 dB(A)

4. OPTIONAL TESTS RESULT None

5 REPAIRS None

6. REMARKS None