O. E. C. D. Report No.:647

Report on test in accordance with

O. E. C. D. Test Code for Agricultural Tractors

ISEKI T 5000

Manufactured by: ISEKI & Co., Ltd.
Ibaragi Plant
Ibaragi, JAPAN



Test No.: 54002/O. E. C. D.
Date of test: June–July 1979

This report has been approved by the O. E. C. D. Coordinating Centre (C. N. E. E. M. A., France) as being in accordance with the O. E. C. D. Tractor Test Code.
Date of Approval: 7th March, 1980

INSTITUTE OF AGRICULTURAL MACHINERY

OMIYA SAITAMA JAPAN

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Tractor manufacture:	ISEKI & Co., Ltd. Ibaragi Plant Ibaragi, Japan
Submitted for test by:	The manufacturer
Selected by:	The manufacturer with the agreement of the I. A. M.
Place of running-in:	ISEKI & Co., Ltd. Ibaragi Plant
Duration of running-in:	85 hours

SPECIFICATION OF TRACTOR

Tractor

Make:	ISEKI & Co., Ltd.
Model:	ISEKI T 5000
Type:	Wheel tractor, unit construction, rear wheel driven
Serial No.:	000485

Engine

Make:	ISUZU MORTORS Ltd.
Model:	ISUZU 4BA1
Type:	Water cooled, 4-stroke, indirect injection diesel
Serial No.:	602248
Cylinders:	4 cylinders, vertical, in-line, 98 mm bore x 92 mm stroke, capacity 2775 cm^3, compression ratio 19 : 1, overhead valves, replaceable dry cylinder liners
Fuel system:	DIESEL KIKI mechanical fuel feed pump with primer, single TAIYO GIKEN KOGYO wire mesh filter and double TOKYO ROKI replaceable paper filter, fuel tank capacity 60 ℓ, DIESEL KIKI NP-PES4A in-line injection pump, serial No. 3QF 821785, manufacturer's production setting 0.0435 cm^3/stroke at 2250 rev/min engine speed and full load, injection timing 12° before TDC, DIESEL KIKI throttle type NP-DNOSD 2110 injection nozzles, injection pressure 118 bar
Governor:	DIESEL KIKI mechanical governor, governed range of engine speed 700-2470 rev/min, rated engine speed 2250 rev/min
Air cleaner:	TSUCHIYA dry paper element filter TSUCHIYA cyclone type pre-cleaner
Exhaust-silencer:	Own make, multichamber-expansion-absorption type silencer 77 x 119 mm oval, 1216 mm long, on the left hand side of the bonnet, mouth showing upwards
Lubrication system:	Forced feed from gear type pump, replaceable cartridge type paper element full flow filter, oil capacity 9 ℓ, oil changing period 100 hours, cartridge changing period 300

	hours, recommended oil quality CC, recommended oil viscosity SAE 10W/30
Cooling system:	Water cooled, centrifugal pump assisted with 430 mm dia 4-blade belt driven fan, coolant capacity 16 ℓ, thermostat for temperature control, pressurized at 1.03 bar
Starting system:	Electrical, 24 V HITACHI S25-114 solenoid engaged starter motor 3.7 kW, operable only when clutch pedal is depressed, electrical glow plug for cold starting
Electrical system	
Voltage:	24 V, negative earth
Alternator:	HITACHI three phase alternator LT215-27, 15 A, 0.37kW
Battery:	YUASA BATTERY Y130-7, 1 lead acid battery, capacity 80 Ah at 20 hour rating
Transmission	
Clutch:	DAIKIN single dry clutch, 275 mm dia plate, pedal-operated
Gearbox:	Own make, mechanical type with constant mesh gear, speed change gear with 5 forward and 1 reverse speeds, creep and normal reduction gear boxes with 2 groups each; total 20 forward and 4 reverse speeds, Greep speeds (creep lever L position) shall not be used for drawbar works.
Rear axle and final drive:	Own make, crown wheel and bevel pinion with planetary gear final drives, pedal operated mechanical differential lock, self disengaging
Oil capacity:	Gearbox and rear axle differential (in common with hydraulic oil) 31 ℓ Final drive each 6 ℓ Oil changing period 900 hours Recommended oil API Service GL-4, Grade 80

Gear ratios and speeds

Gear			Number of engine revolutions for one revolution of driving wheel	*Nominal travelling speed for rated speed of engine km/h
Sub	Creep	Main		
Forward				
L	L	1	1980.83	0.29
L	L	2	1726.45	0.33
L	L	3	1238.88	0.47
L	L	4	799.28	0.72
L	L	5	501.87	1.15
L	H	1	467.74	1.24
L	H	2	407.68	1.42
L	H	3	292.55	1.98
L	H	4	188.74	3.06
L	H	5	118.51	4.88
H	L	1	375.11	1.54
H	L	2	326.93	1.77
H	L	3	234.61	2.46
H	L	4	151.36	3.82
H	L	5	95.04	6.08
H	H	1	88.58	6.53
H	H	2	77.20	7.49
H	H	3	55.40	10.44
H	H	4	35.74	16.18
H	H	5	22.44	25.77
Reverse				
L	L	R	1152.81	0.50
L	H	R	272.22	2.12
H	L	R	218.31	2.65
H	H	R	51.55	11.22

* Calculated with a tyre rolling radius of 682 mm

Power take-off	At rear of tractor in vertical centre plane, height above ground 525 mm, 35 mm dia., 6-spline accordance to JIS Standard (equal I. S. O. Standard)
Proportional to engine speed p. t. o.:	Independant p. t. o. driven by the independent wet multiple disc clutch, hand lever operated 2 speeds selected by hand lever: High ratio: 869 rev/min at 2250 rev/min engine rated speed 540 rev/min (standard p. t. o. speed) at 1398 rev/min engine speed Low ratio: 670 rev/min at 2250 rev/min engine rated speed 540 rev/min (standard p. t. o. speed) at 1813 rev/min engine speed direction of rotation clockwise viewed from driving end
Proportional to ground speed p. t. o.:	Engaged by hand lever and dog clutch, travelled for one revolution of the p. t. o. 0.34 m, number of p. t. o. revolution of driving wheel 12.66 rev., direction of rotation clockwise viewed from driving end
Power lift	Own make, hydraulic, gear type pump directly driven from engine, supplies oil to a single acting ram, over pressure relief valve for ram adjusted to 196 bar, 2 external tappings, maximum oil pressure 167 ± 10 bar, JIS 1 implement linkage (equal I. S. O. Standard), draught and position control, oil capacity and oil changing period in common with gearbox (see page 2)
Drawbar	Swinging drawbar, height above ground to centre of clevis 435 mm, 375 mm, 345 mm and 285 mm changed by inverting drawbar and clevis, distance from rear wheel centre 750 mm and 650 mm, position relative to p.t.o. 400 mm and 300 mm, lateral adjustment 240 mm and 205 mm, pivot position relative to rear wheel centre 0 mm, drawbar pin hole 29 mm dia. Linkage drawbar, optional
Steering	NIPPON SEIKO, power-assisted ball and nut type with single drag link, oil supply from hydraulic system of power lift with flow dividing valve
Brakes	NSK WARNER, mechanically acting on 6 wet disc on differential shaft, operated by foot pedals, independant for field work or locked together for road traffic, ratchet on both pedals for parking
Wheels	
Steering wheels:	Two at front, BRIDGESTONE 6.00-18 tyres, 6 ply rating, diagonal type tyre casing, maximum permissible weight on each tyre 6280 N at 3.43 bar pressure, track width 1320 mm by 100 mm steps to 1820 mm, changed by extending axle, rims 4.00 E x 18
Driving wheels:	Two at rear, BRIDGESTONE 12.4/11-32 tyres, 6 ply

rating, diagonal type tyre casing, maximum permissible weight on each tyre 17020 N at 1.57 bar pressure, track width 1230 mm, 1350 mm, 1430 mm, 1520 mm, 1550 mm, 1630 mm, 1720 mm and 1840 mm, changed by reversing wheels and offset lug rims, rims W 11 x 32

BRIDGESTONE 14.9/13-28 tyres, 6 ply rating, diagonal type tyre casing, maximum permissible weight on each tyre 17020 N at 1.57 bar pressure, rims W 13 x 28

Wheel base: 2000 mm

Safety frame

Own make
ISEKI SF-105
O.E.C.D. tested: CSD 0122/2-a(F)

CONDITIONS DURING TEST

Masses:

Tractor without driver but with tanks full and safety frame
Tyre size: front: 6.00-18 6 ply rating rear: 12.4/11-32 6 ply rating

	Front kg	Rear kg	Total kg
Without ballast	921	1437	2358
With ballast	1240	1747	2987

Ballast:

	No. of weights	Total mass kg (excluding water)	Water kg
Front	4	60	—
Rear	10	368	—
Additional *)	8	201	—

*) front bumper

Track setting

Front wheels track width 1320 mm
Rear wheels track width 1430 mm

Lighting: in accordance with Japanese Regulations (equal SAE Standard)

	Height above ground of centre mm	Dimensions mm	Distance from outside edge of tractor to centre *) mm
Head lights	880	145 x 90	710
Side lights	1570	90 **)	315
Rear lights	1380	80	205
Reflectors	1285	35	205

*) at 1760 mm width
**) in combination with direction indicator

Number of grease points: (whole tractor) 17

Overall dimensions:

	Length 1)	Width m		Heights m	
		max. 2)	min. 3)	with exhaust	without exhaust 4)
With ballast	3.71	2.17	1.92	2.34	2.25
Without ballast	3.49	2.17	1.60	2.34	2.25

Remarks: 1) length with 3 point linkage
2) at 1840 mm rear wheels track width
3) at 1230 mm rear wheels track width
4) to top of safety frame

Ground clearance: 300 mm below swinging drawbar bracket

Seat: NANBA PRESS WORKS, cross linkage and gas damper, pan seat with cushon, range of adjustment 100 mm fore and aft, range of vertical adjustment 80 mm

FUEL AND LUBRICANTS USED IN TESTS

Fuel: Diesel oil, specific gravity 0.8383 at 15°C, viscosity at 30°C 4.471 cSt, cetane No. 59.4 to No. 2 JIS

Engine oil: MARUZEN OIL, HEAVY DUTY DIESEL ENGINE OIL, API service CC, SAE 10W30, viscosity at 37.8°C 68.9 cSt

Transmission oil: MARUZEN OIL, HYPOID GEAR OIL, API service GL-4, SAE 80, viscosity at 37.8°C 89.9 cSt

COMPULSORY TESTS

(1) MAIN POWER TAKE-OFF PERFORMANCE

Date and locations of tests: 6th June, 1979 I. A. M., Omiya, Japan
Type of dynamometer: EC Electrical, MEIDENSHA TW-D1

Power kW	Speed		Fuel consumption			Specific Energy kWh/ℓ
	Engine rev/min	p. t. o. rev/min	hourly ℓ/h	hourly kg/h	specific kg/kWh	
MAXIMUM POWER-2hours test						
31.8	2270	676	11.61	9.73	0.306	2.74
Part loads, the governor hand lever in the position corresponding to the maximum power at full load						
(Ⅰ) 85% of the torque obtained at maximum power						
27.5	2301	686	10.00	8.38	0.305	2.75
(Ⅱ) unloaded						
—	2370	704	3.42	2.87	—	—
(Ⅲ) half the load defined in (Ⅰ)						
13.8	2324	691	6.46	5.42	0.393	2.14
(Ⅳ) a load corresponding to maximum power						
31.8	2270	676	11.61	9.73	0.306	2.74
(Ⅴ) one quarter of the load defined in (Ⅰ)						
6.9	2335	695	4.99	4.18	0.606	1.38
(Ⅵ) three quarters of the load defined in (Ⅰ)						
20.6	2313	688	8.06	6.76	0.328	2.56

Power kW	Speed		Fuel consumption			Specific Energy kWh/ℓ
	Engine rev/min	p. t. o. rev/min	hourly ℓ/h	hourly kg/h	specific kg/kWh	
Part loads, the governor hand lever in the position corresponding to the standard p. t. o. speed at full load						
(Ⅰ) 85% of the torque obtained at maximum power						
24.6	1882	562	8.52	7.14	0.290	2.89
(Ⅱ) unloaded						
—	1924	573	2.66	2.23	—	—
(Ⅲ) half the load defined in (Ⅰ)						
12.4	1901	566	5.21	4.36	0.352	2.38
(Ⅳ) a load corresponding to maximum power						
27.8	1812	540	10.09	8.46	0.304	2.76
(Ⅴ) one quarter of the load defined in (Ⅰ)						
6.2	1908	568	3.74	3.13	0.505	1.66
(Ⅵ) three quarters of the load defined in (Ⅰ)						
18.6	1894	565	6.66	5.58	0.300	2.79

STANDARD SPECIFIC FUEL CONSUMPTION: 0.305/0.393/0.290/0.352 kg/kWh

Noload maximum engine speed: 2370 rev/min

Torque* at maximum power: 133.8 Nm

Maximum torque* : 151.0 Nm
at 1300 rev/min of the engine

Mean atmospheric conditions	temperature:	22 ℃
	pressure:	1028 mbar
	relative humidity:	61 %
Maximum temperatures	coolant:	107 ℃
	engine oil:	87 ℃
	fuel:	54 ℃
	engine air intake:	47 ℃

*The torque is the equivalent crankshaft torque.

The recommended speed for drawbar work was not expressly specify by the manufacturer.

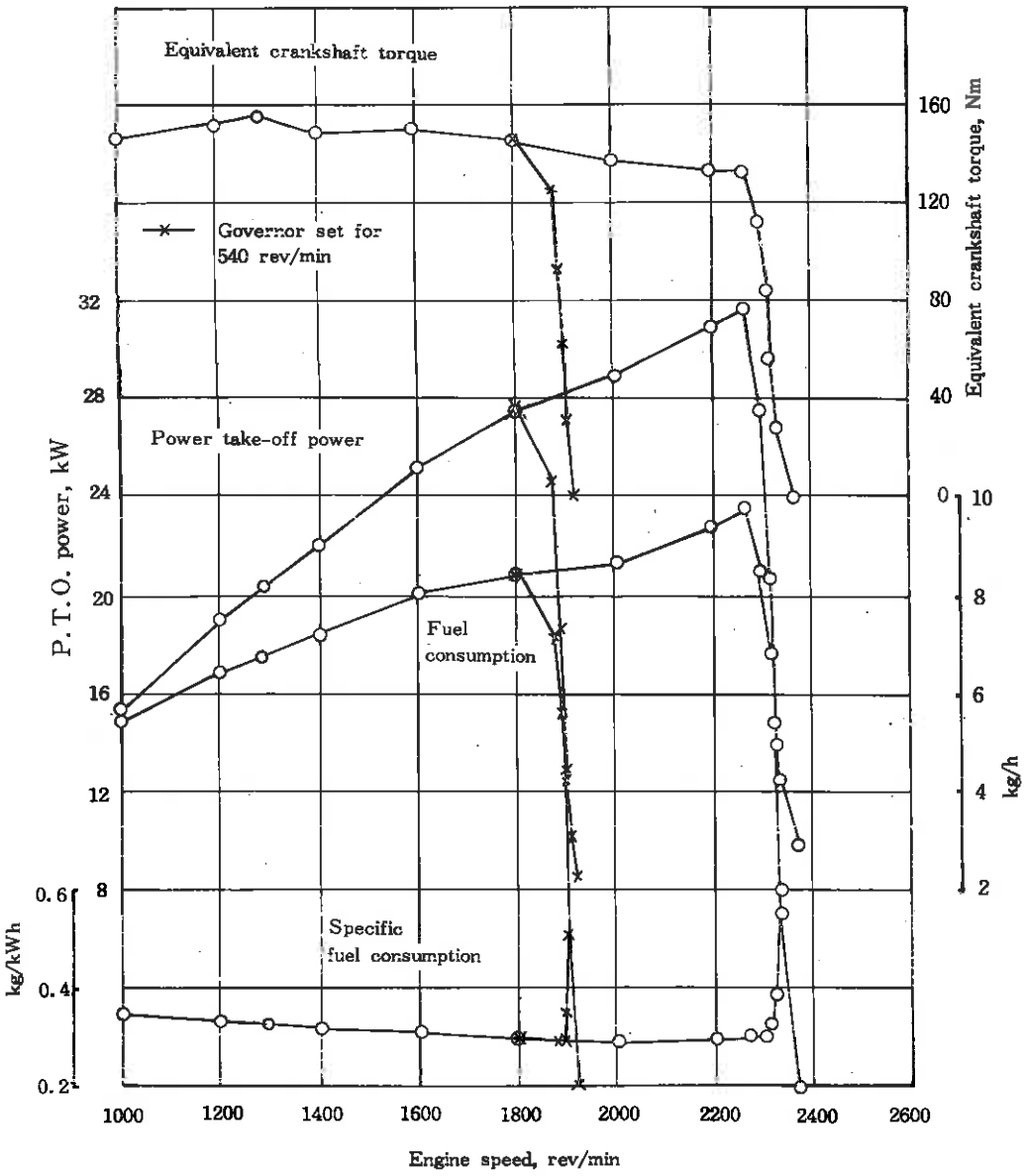


Fig. 1 Power take-off test

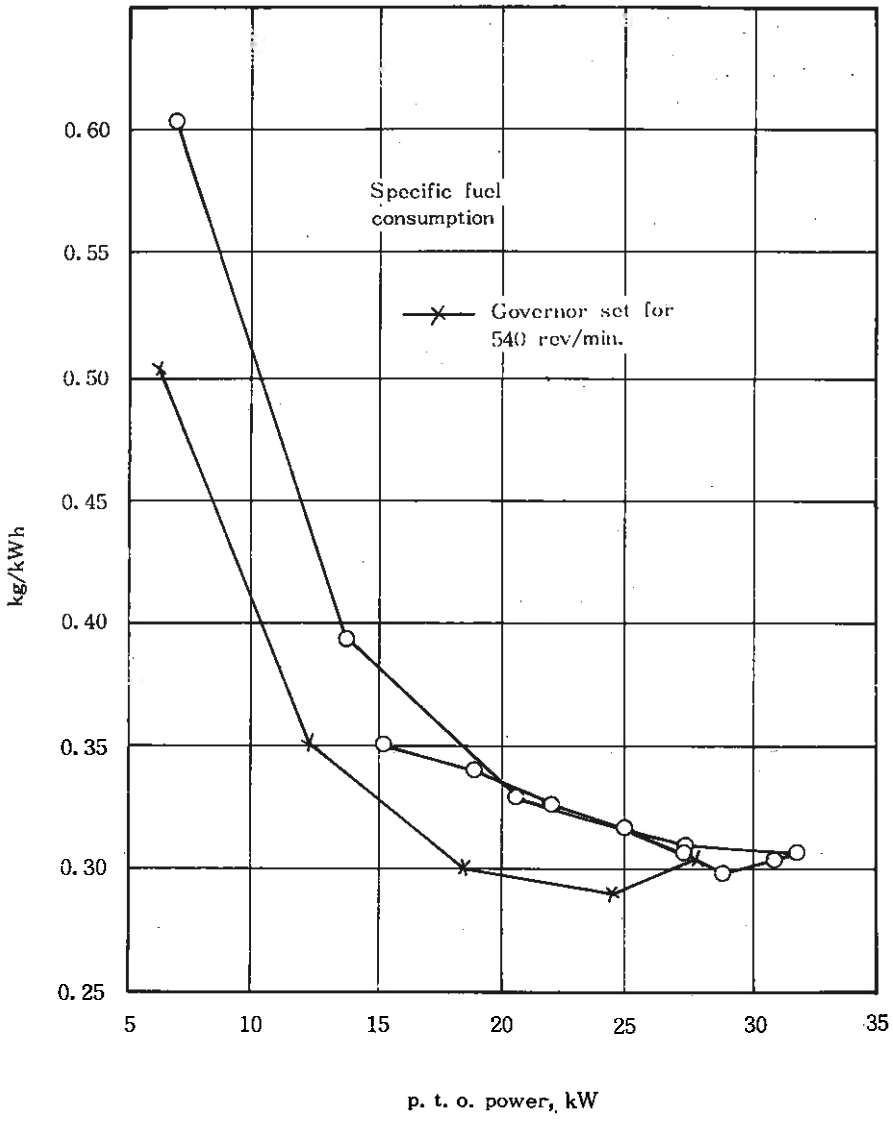


Fig.2 Power take-off test

(2) DRAWBAR PERFORMANCE (I)

Date of tests: 20th-26th June, 1979
Type of track: Concrete
Tyre size: 12.4/11-32 at rear, 6.00-18 at front
Height of drawbar above ground: 435 mm
Tyre inflation pressure: 1.18 bar at rear, 2.55 bar at front

Gear No.	Speed km/h	Power kW	Drawbar pull N	Engine speed rev/min	Slip of wheels %	Specific fuel consumption kg/kWh	Specific energy kWh/ℓ	Temperature			Atmospheric conditions		
								Fuel °C	Coolant °C	Engine oil °C	Temperature °C	Relative humidity %	Pressure mbar
(I) MAXIMUM POWER (with ballast)													
L-H-1	0.97	3.4	12750	2286	15.0	1.035	0.77	45	85	71	27	63	1013
L-H-2	1.15	4.1	12750	2279	15.2	0.975	0.83	46	85	73	27	63	1013
L-H-3	1.62	5.7	12750	2276	14.9	0.674	1.19	48	85	73	28	63	1012
L-H-4	2.48	8.8	12750	2270	15.0	0.576	1.40	48	86	74	28	63	1012
L-H-5	3.96	14.0	12750	2266	15.1	0.424	1.89	49	86	76	30	53	1012
H-H-1	5.29	18.7	12750	2264	15.1	0.405	1.99	48	86	72	30	58	1011
H-H-2	6.05	21.4	12750	2261	15.0	0.382	2.10	52	87	77	30	58	1011
H-H-3	8.60	25.5	10690	2214	11.4	0.394	2.04	54	89	78	31	54	1011
H-H-4	14.08	24.9	6380	2229	7.1	0.395	2.03	53	90	76	32	49	1011
(II) FIVE HOUR TEST at 75% of pull at maximum power													
H-H-2	6.16	18.9	11040	2231	12.3	0.418	1.92	59	88	79	32	55	1014
(III) FIVE HOUR TEST at pull corresponding to 15% wheelslip in test (I)													
*H-H-2	6.01	—	12750	—	—	—		59	89	81	31	59	1014

* Those figures not quoted are irrelevant due to the additional ballast.

Height of drawbar above ground 430 mm
Tyre inflation pressure: 1.18 bar at rear, 2.55 bar at front

Gear No.	Speed km/h	Power kW	Drawbar pull N	Engine speed rev/min	Slip of wheels %	Specific fuel consumption kg/kWh	Specific energy kWh/ℓ	Temperature			Atmospheric conditions		
								Fuel °C	Coolant °C	Engine oil °C	Temperature °C	Relative humidity %	Pressure mbar
(Ⅳ) MAXIMUM POWER (without ballast)													
L-H-1	1.01	3.2	11280	2292	14.7	0.985	0.83	51	85	78	29	65	1011
L-H-2	1.15	3.6	11280	2291	15.0	0.930	0.86	54	86	78	30	60	1010
L-H-3	1.58	4.9	11280	2280	14.8	0.808	0.99	53	85	78	30	60	1011
L-H-4	2.48	7.8	11280	2277	14.9	0.578	1.40	53	85	77	28	70	1011
L-H-5	3.96	12.4	11280	2274	14.8	0.461	1.74	51	85	77	27	76	1012
H-H-1	5.26	16.5	11280	2265	15.0	0.403	2.00	51	86	77	27	77	1012
H-H-2	6.01	18.8	11280	2261	15.1	0.396	2.03	50	87	76	27	77	1012
H-H-3	8.17	25.6	11280	2200	14.9	0.391	2.07	48	87	75	25	82	1012
H-H-4	13.39	25.5	6870	2195	9.8	0.387	2.08	48	89	74	25	83	1012

Total oil consumption during ten hours duration of tests (Ⅱ) and (Ⅲ) 11.9 g/h

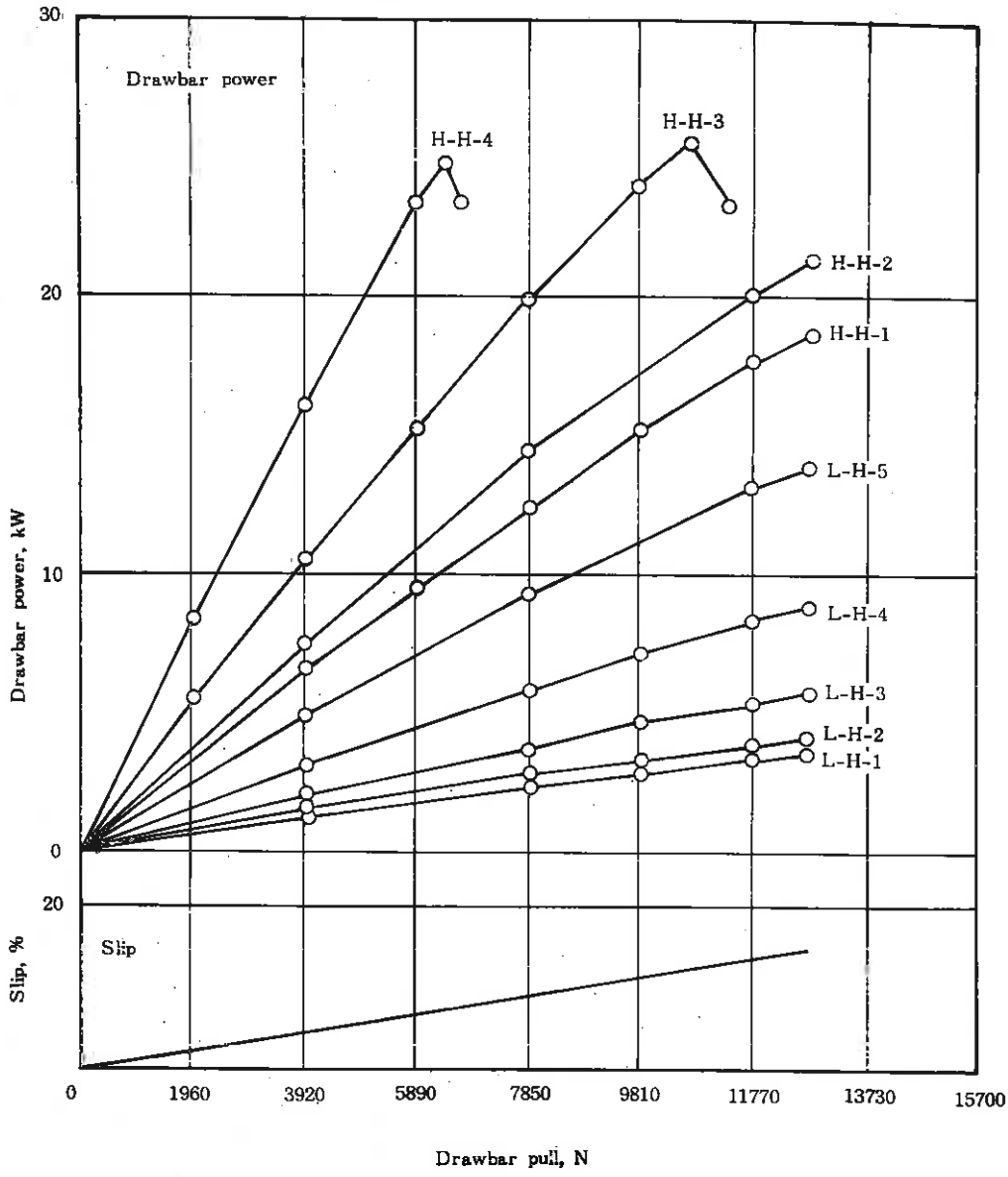


Fig. 3 Drawbar-test on concrete, with ballast

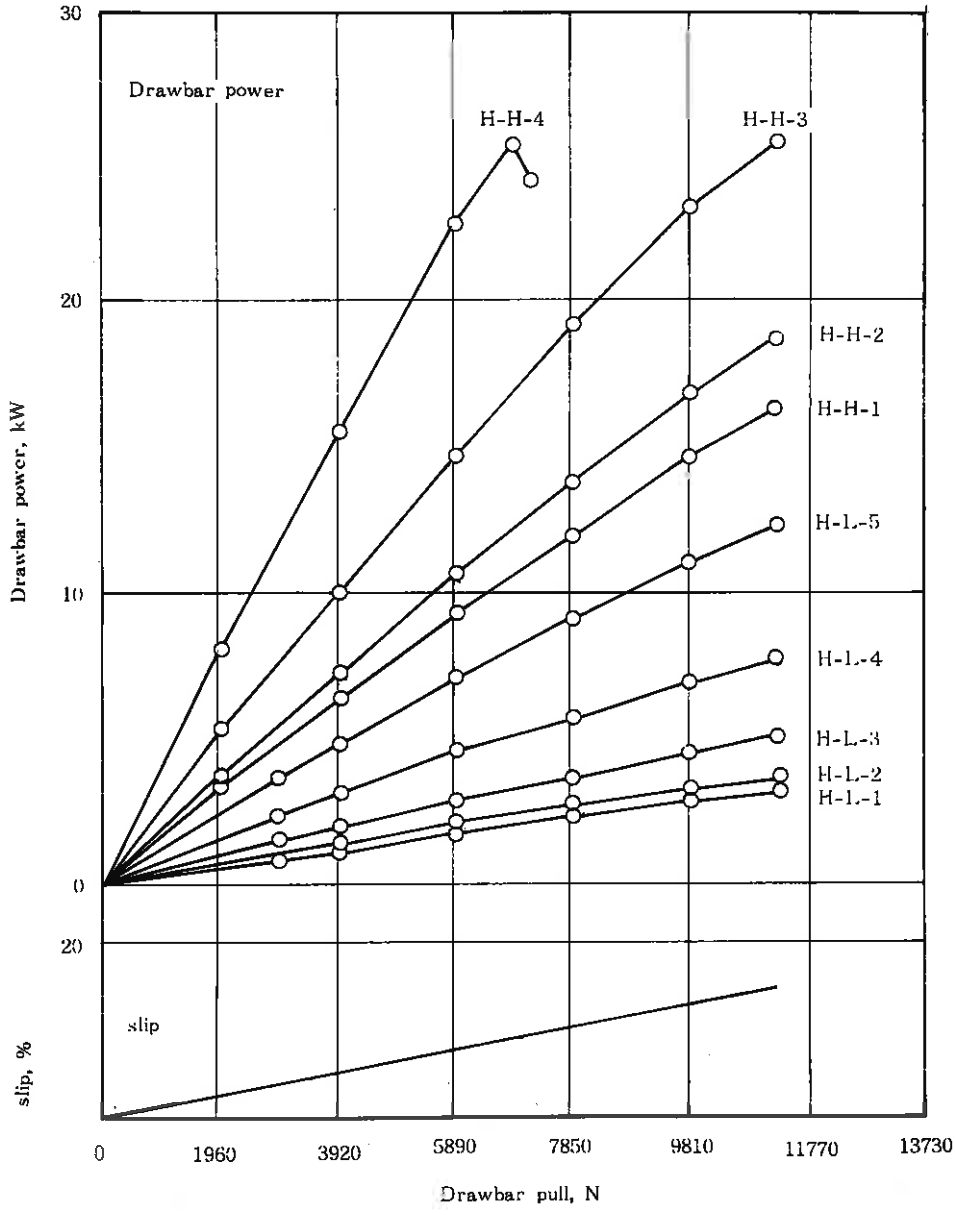


Fig. 4 Drawbar-test on concrete, without ballast

(2) DRAWBAR PERFORMACH (Ⅱ)

Date of tests: 27th-28th June, 1979
Type of track: Concrete
Tyre size: 14.9/13-28 at rear, 6.00-18 at front
Height of drawbar above ground 437 mm
Tyre inflation pressure: 1.18 bar at rear, 2.55 bar at front
Weight of ballasted tractor: 3027 kg

Gear No.	Speed km/h	Power kW	Drawbar pull	Engine speed rev/min	Slip of wheels %	Specific fuel consumption kg/kWh	Specific energy kWh/ℓ	Temperature			Atmospheric conditions		
								Fuel °C	Coolant °C	Engine oil °C	Temperature °C	Relative humidity %	Pressure mbar
(Ⅰ) MAXIMUM POWER (with ballast)													
L-H-1	1.01	4.4	15700	2297	15.1	0.869	0.93	47	85	73	26	81	1005
L-H-2	1.15	5.0	15700	2282	14.9	0.848	0.95	47	85	71	27	80	1005
L-H-3	1.58	6.9	15700	2278	15.3	0.688	1.18	46	85	72	27	79	1005
L-H-4	2.48	10.8	15700	2273	14.7	0.509	1.58	46	86	74	27	78	1005
L-H-5	3.92	17.1	15700	2270	15.5	0.420	1.92	48	92	72	27	78	1005
H-H-1	5.22	22.8	15700	2263	15.5	0.366	2.21	48	90	74	27	78	1005
H-H-2	5.80	25.3	15700	2193	15.4	0.355	2.26	53	87	77	29	64	1008
H-H-3	8.53	25.6	10790	2221	12.0	0.394	2.05	49	92	77	27	78	1005
H-H-4	13.93	26.6	6870	2246	8.3	0.378	2.13	47	89	75	27	79	1005
(Ⅱ) MAXIMUM POWER (without ballast)					Height of drawbar above ground 435 mm Tyre inflation pressure: 1.18 bar at rear, 2.55 bar at front								
L-H-1	1.01	3.4	12260	2291	14.7	1.219	0.65	50	84	76	29	70	1008
L-H-2	1.15	3.9	12260	2287	14.7	1.049	0.76	50	85	75	29	70	1008
L-H-3	1.62	5.5	12260	2279	14.8	0.842	0.95	52	85	76	29	70	1008
L-H-4	2.48	8.4	12260	2276	15.0	0.632	1.27	52	85	76	29	63	1008
L-H-5	3.96	13.5	12260	2275	15.1	0.482	1.67	52	85	77	29	64	1008
H-H-1	5.29	18.0	12260	2275	15.2	0.425	1.89	50	86	76	29	70	1008
H-H-2	6.08	20.7	12260	2274	15.0	0.413	1.95	48	88	75	29	70	1008
H-H-3	8.53	25.6	10790	2233	12.9	0.401	2.02	46	88	72	29	64	1008
H-H-4	14.04	24.9	6380	2259	8.6	0.419	1.93	43	87	67	29	70	1008

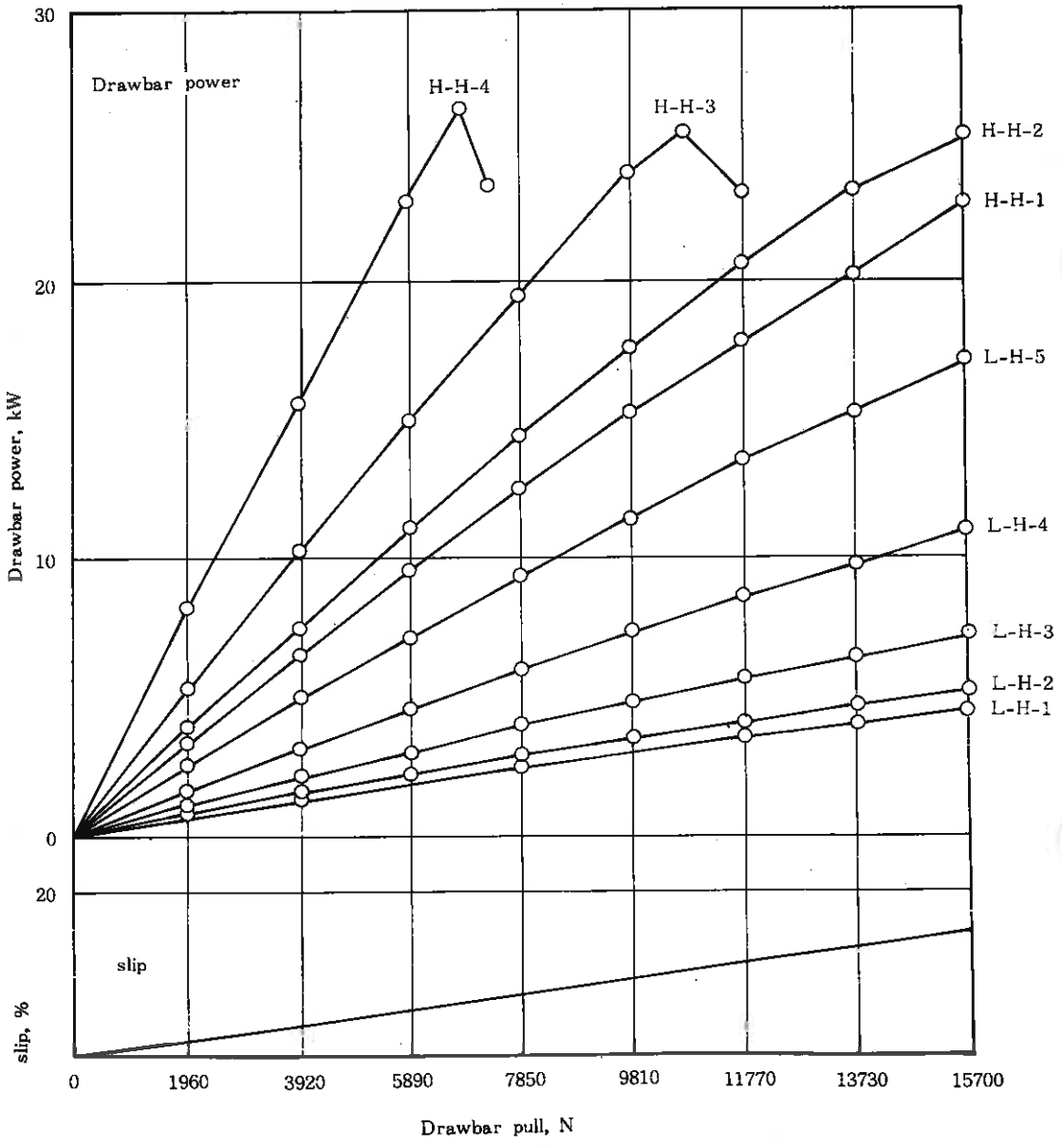


Fig. 5 Drawbar-test on concrete, with ballast

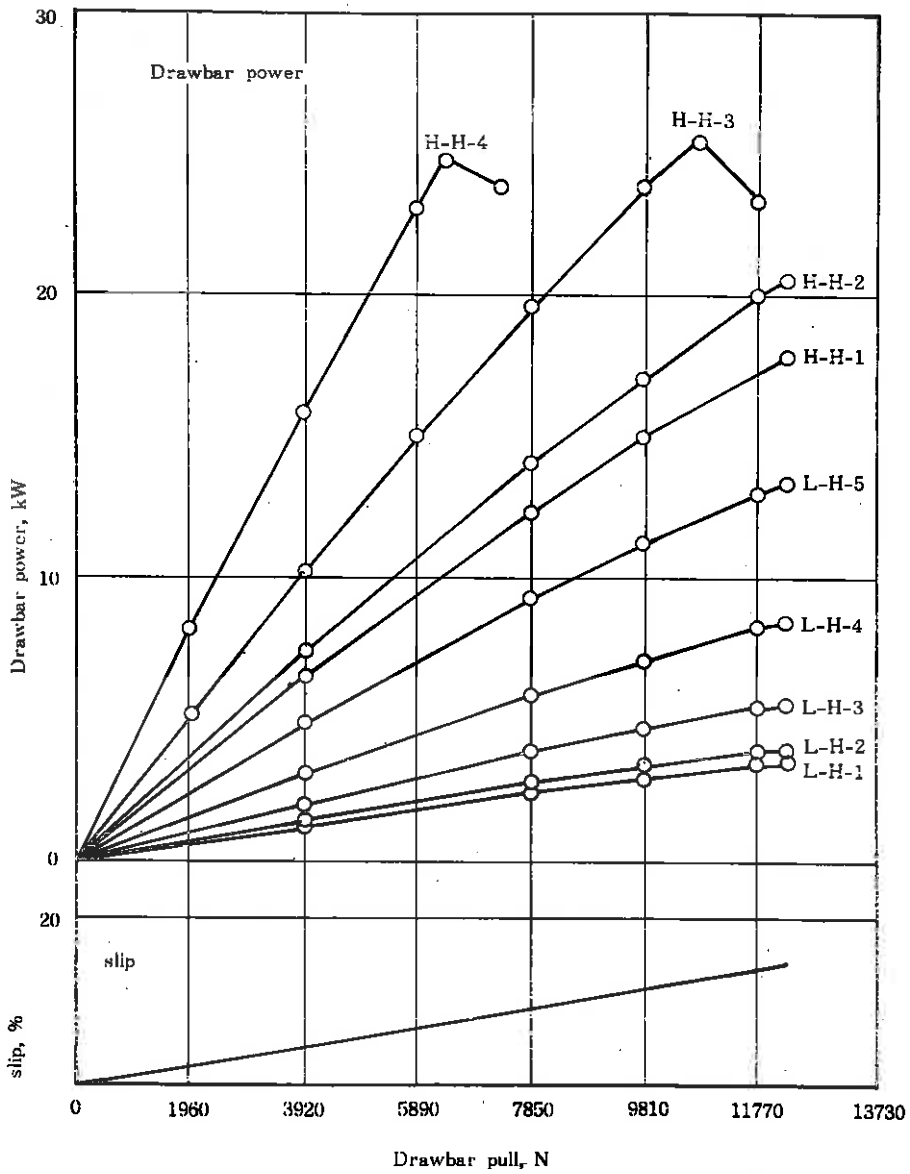


Fig. 6 Drawbar-test on concrete, without ballast

(3) TURNING SPACE AND TURNING CIRCLE

Details of wheel equipment: As in specification, without ballast
front 1320 mm, rear 1430 mm

Results	With brakes		Without brakes	
	right-hand m	left-hand m	right-hand m	left-hand m
Radius of turning space	2.83	2.85	3.44	3.43
Radius of turning circle	2.69	2.71	3.30	3.29

(4) LOCATION OF CENTRE OF GRAVITY

mm

Height above ground	785
Distance forward from the vertical plane containing the axis of the rear wheels	765
Distance from the median plane	0

(5) BRAKING

Date of tests: 2nd July, 1979

Type of track: Concrete

Type of decelerometer: YOSHIDA SEIKI Co., Ltd., Type 106-2C

Weight of ballasted tractor: 3006 kg

COLD BRAKES

	Ballasted	Without Ballast
Travelling speed of the tractor km/h	25.0	25.0
(1) Deceleration m/s²	6.5	6.0
(2) Stopping distance m	6.4	6.5
(3) Force exerted on the brake pedal N	226	226
(4) Force exerted on the brake pedal to achieve a deceleration of 2.5 m/s² N	177	177

BRAKE FADE CHARAC TERISTICS (hot tests)

		Ballasted	Without Ballast
Deceleration, hot/deceleration, cold × 100	%	103	102
Stopping distance, cold/stopping distance, hot × 100	%	102	104
Force on pedal, cold/force on pedal, hot × 100	%	100	100

PARKING BRAKE

Efficiency of handbrake: Satisfactory facing and down 16 % slope

Pull on handbrake: 196 N

(6) MEASUREMENT OF AMBIENT NOISE

Date of tests: 3rd July, 1979

Type of sound level meter: Bruel and Kjaer 2203

Type of track: Concrete

Results of tests:

Gear H-H-5

Travelling speed before acceleration 19.3 km/h

Sound level 80 dB(A)

(7) NOISE MEASUREMENT AT THE DRIVER'S EAR LEVEL

Date of tests: 3rd July, 1979

Type of sound level meter: Bruel and Kjaer 2203

Type of track: Concrete

Results of tests:

Gear	Travelling speed km/h	dB(A)
H-H-2	6.8	95

(8) POWER LIFT AND HYDRAULIC PUMP PERFORMANCE

Date and location of tests:	29th June, 1979 I. A. M., Omiya, Japan
Hydraulic fluid Make and type:	MARUZEN OIL Co., Ltd. Hypoid Gear Oil API Service GL-4 Grade 80
Viscosity:	89.9 cSt (37.8℃)
Viscosity index:	101
Type of linkage lock for transport:	Hydraulic

Pump characteristics

(Ⅰ)	Opening pressure of the relief valve:	127 bar
	Sustained pressure of the open relief valve:	160 bar
(Ⅱ)	Pump delivery rate at minimum pressure and rated engine speed:	33.3 ℓ/min
(Ⅲ)	Pump delivery rate at maximum hydraulic power:	28.2 ℓ/min
	Corresponding delivery pressure:	116 bar
	Power:	5.44 kW

Linkage geometry when connected to the standard frame

	Maximum mechanical advantage	Minimum mechanical advantage
Projected length in side view		
lower links, mm	815	815
lift arm, mm	280	280
lift rods, mm	630	810
top link, mm	630	630
Distance of lift rod connection point from pivot point of lower link, mm	500	500
The following dimension are given relative to the rear wheel center line, situated 640 mm above the ground level		
Lower link pivot point	100 mm behind, 175 mm below	100 mm behind, 175 mm below
Top link pivot point	270 mm behind, 210 mm above	280 mm behind, 170 mm above
Lift arm pivot point	83 mm forward, 295 mm above	83 mm forward, 295 mm above
Maximum and minimum height of lower link hitch points	271 mm above, 244 mm below	22 mm below, 682 mm below
Height of lower link hitch points when locked in transport position	Any height within lift range	Any height within lift range

Lifting heights in relation to a horizontal line through the lower link pivoting point, cm.

			−52.5	−50.7	−50	−40	−30	−20	−10.7	−10	− 6.9	0	+10	+15.3	+16.3	+20	+30	+40	+44.6	+50	+54.6
Lifting force with the pressure at maximum hydraulic power 116 bar calculated from measurements made at the maximum pressure 160 bar kN	At the hitch points	Max. mech. advantage									13.45	14.93	16.34			17.55	17.83	18.32	18.60		
		Min. mech. advantage		9.42	9.56	11.33	12.53	13.17		14.08		14.37	14.72	15.00							
		Maximum force exerted throughout whole range 13.45 kN Force at which front of tractor is calculated to lift with maximum allowable front ballast 26.59 kN																			
	On the frame	Max. mech. advantage							12.14	12.21		13.27	13.62			13.76	13.27	12.49		11.78	11.50
		Min. mech. advantage	11.29		11.36	11.92	12.28	12.70		12.84		12.42	11.92		11.85						
		Maximum force exerted throughout whole range 11.50 kN Force at which front of tractor is calculated to lift with maximum allowable front ballast 15.95 kN																			

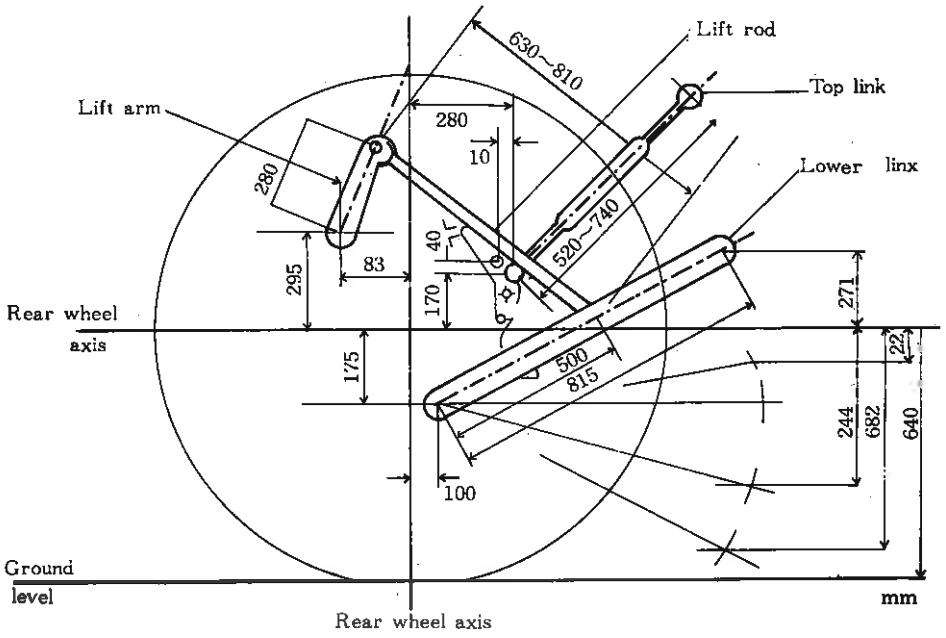


Fig. 7 Dimensions required for table of linkage geometry

REPAIRS AND ADJUSTMENTS DURING TESTS:	None
REMARKS:	None

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