2WD and 4WD

ISEKI

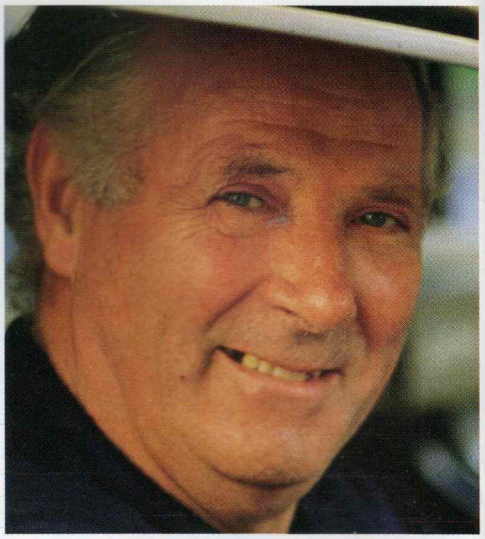
MODEL TD4410

MODEL TD4450

32kW (44hp) SAE

35kW (48hp) SAE

"The turning radius... incredible, I can flip the 4410 4WD around in just over 6 ft. with brakes, 13 ft. without. You won't beat that."



Japanese ingenuity and cleverness as well as typical Japanese attention to detail and finish has produced these rather remarkable tractors.

Iseki take you another step closer to the ease and comfort of driving a car.

Stepping up on to the driver's area and sitting in the seat is easy. Control levers don't clutter the operating area – it's roomy and well laid out.

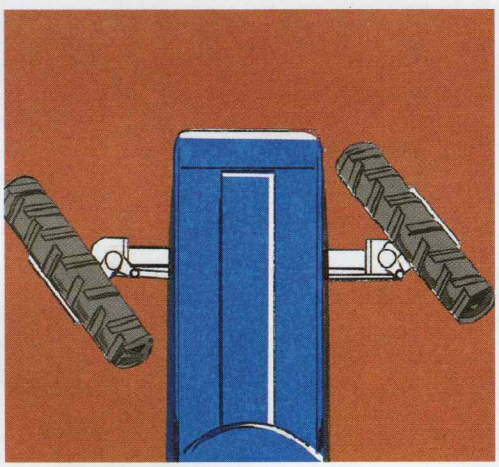
Seating is comfortable and reflects excellence in ergonomics.

The nett result: operator fatigue is substantially reduced and so efficiency goes up. Ruggedness in design saves on maintenance so operating costs go down and efficiency of operation goes up.

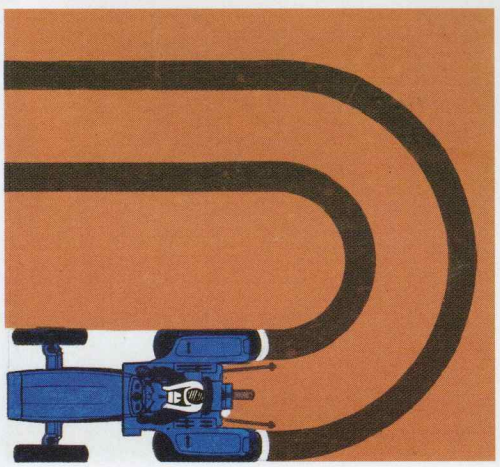
More and more farmers recognise these key issues and so the new demand for Japanese tractors continues. Iseki are the driving force.

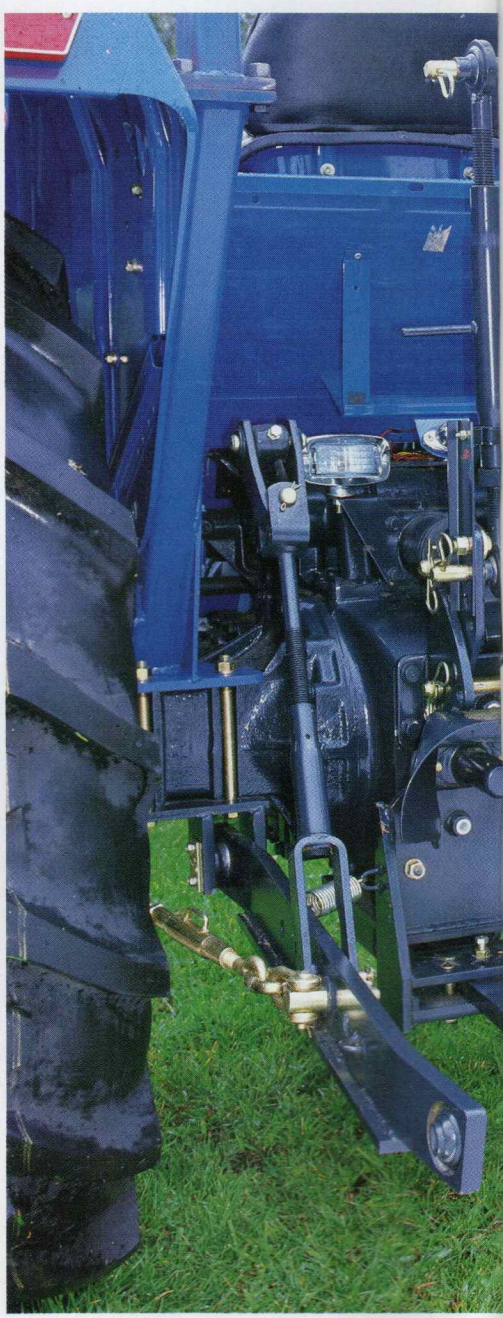
A low centre of gravity adds to stability and safety. There is little change in load distribution even when working headlands. The weight distribution enables higher wheel loads on the front wheels when travelling uphill (and vice versa). An ideal power-to-weight ratio enables better use of total available power.

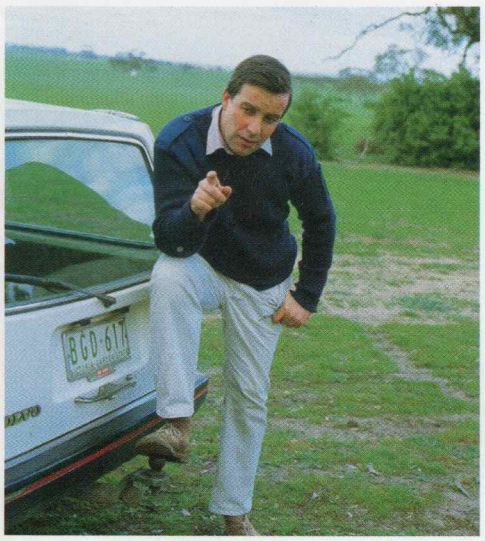
One of the most incredible things about Iseki tractors is the amazing turning circle. Try it ... then think how it makes driving so much better.



What is more surprising is the tightness of turning with the 4WD model. There's virtually no concession despite the added engineering in the front axle. The answer is the bevel gear drive system which enables far sharper turns than conventional 4 wheel drive tractors.







"Look at the front and the rear... for a tractor that size it's sturdier than anything I've seen."

With such a strong, sturdy front axle design you know it can stand up to a lot of hard work. Being completely sealed means you can drive in mud or dust for hours in total confidence.

Generally, the model TD4410 (32kW) and TD4450 (35 kW) are similar. Specifications are set out on the back cover and they identify where there are differences – for example engine power, speeds (due to different tyre sizes) and some dimensions.

The information on other pages is applicable to both models unless otherwise stated.

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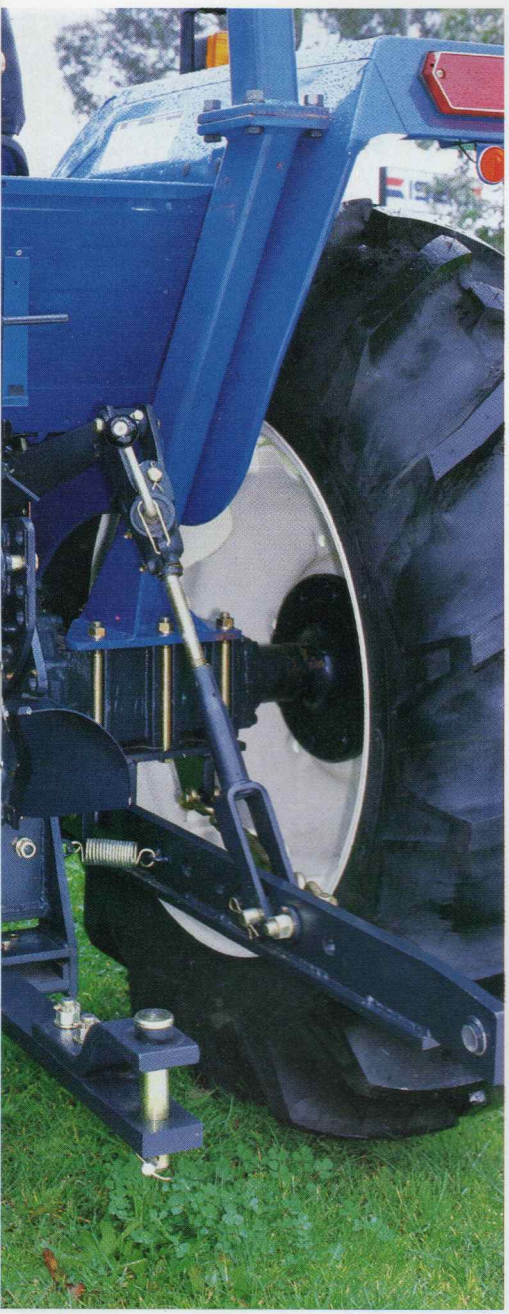
MODEL TD4450 ▶ 35kW (48hp SAE)



The control centre

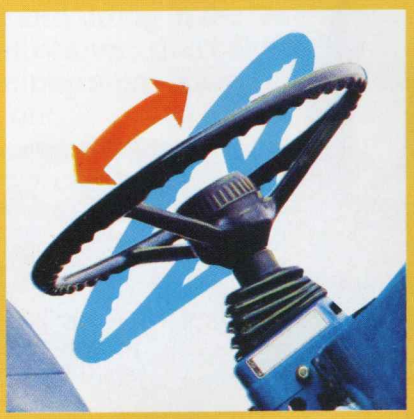
Efficient, simple, and a pleasure to work in. Gear levers and other controls are ideally located – they don't clutter the operator's roomy area – yet they make the most of natural arm movements to avoid awkward, tiresome stretching and twisting.

P.T.O. – with fingertip control. Both 540 and 1000 r.p.m. are standard.

The independent clutch is a hydraulic multi-disc type.

For easy engagement and declutching of p.t.o.-driven implements, an independent control lever/switch is mounted on the dashboard. It's a simple operation only requiring the flick of a finger while the hand rests on the steering wheel. It makes intermittent operation or quick on-off-on again operation of p.t.o.-driven equipment so easy. This electrified switching operation can be overridden. There is a separate control lever to bring the p.t.o. in slowly on hard-to-turn equipment such as hammer-mills or slashers. The lever for graduated manual engagement is mounted alongside the gear lever. For stationary p.t.o. or belt pulley work, many combinations of engine and p.t.o. speeds are possible.

- Power assisted steering – makes light work of constant turning, ensures precise, easy steering and you get "feel" as you steer. If the engine is not running, manual steering (without power assistance) is still possible.
- Tilt steering wheel. The angle of the steering column is adjustable – adds to comfort, reduces fatigue.



- 4WD engagement – conveniently located on left hand side of platform enabling quick, easy engagement.
- Independent p.t.o. clutch – fingertip control while your hand rests on the steering wheel.
- Clutch pedal – smooth engagement. Location coincides with natural leg movements. Only requires modest pressure. Well-located gearshift lever.
- Well-located gearshift lever. The lever is easily reached for quick, easy gear changing of synchro-meshed gears.
- Multi-speed shift levers. Chart fixed to mudguard gives readout for various combinations/speeds. Easily read from the seat ... right by the levers.

Hydraulics – two levers ... three operations.

A multi-function system to give automatic fingertip control of the three point linkage.

Should owners wish to operate remote one-way and two-way ram cylinders the appropriate control valves are available as an option.

The hydraulics are strong, being powered by a gear type pump that can operate at a pressure of up to 160 kg/cm² (2275 p.s.i.) and give a flow rate of up to 32 litres per minute (7 g.p.m.)

The rate of descent of the linkage can be controlled by a valve sensibly located just below the front of the seat.

Lift capacity at ball joints is 1600 kg (3250 lb).

The 3 pt. linkage conforms to accepted standards. Category I ball ends, anti-sway chains and springs are included.

The two hydraulic levers – one for position control, the other draft control – are conveniently located on quadrants on the right hand side of the tractor seat to coincide with natural arm movements.

As well as position and draft control there is also a float position and an ability to intermix position and draft control.

Position control.
Generally for implements that operate on or above the ground surface or with implements that have their own depth control.

The position control simply controls the degree to which the implement is elevated or lowered within the range of lift of the linkage arms.

Draft control.
Generally for implements that operate in the soil. The mechanism reacts as the implement strikes variations in soil density.

When an implement encounters more drag thus creating extra resistance the tractor, without a draft control mechanism, slows down and as more power is applied the tractor can often tend to "bog down" and drive wheels spin.

With draft control the implement and tractor behave differently. On encountering the increased drag the draft control mechanism reacts, lifting the implement sufficiently to reduce the resistance transfering weight to the rear wheels of the tractor thereby enabling the tractor to forge ahead.

Float control.
A control position that does away with both position and draft controls and allows the implement to float up and down at will.

Mixed control.
Provides a mixture of position control and draft control functions – it is ideal with paddocks where complicated (varying) soil conditions exist.

More particularly it involves setting the implement at a specific depth then introducing the draft control. The effect of so doing is to make the draft control less sensitive thus holding depth more than it otherwise would

The degree to which settings can be held before the draft control reacts is variable.

- Dashboard – a clear unobstructed view of all gauges, dials and lights. Gives readout on all necessary functions. Engine speed, hours, temperature, fuel, oil pressure, charging circuit.
- Hand throttle – convenient location yet well clear of steering column to avoid congestion. (A foot throttle is conveniently located on the floor area.)
- Key starting and stopping – automotive style. (There is also an emergency manual engine stop.)
- Interlocked brake pedals for stopping. Can be separated for steering. Location coincides with natural leg movements. Only require modest pressure.
- Handbrake – close to the centre tunnel – out of the way of your leg.
- Floor area clear of obstructions, easy to clean, doesn't harbour mud.
- Foot throttle located to suit easy, comfortable leg movements. (A hand throttle is within easy reach of the steering wheel.)
- Diff. lock engagement. Foot operated. Actuates the jaw type lock coupling the wheels together. Pilot light indicates when lock is engaged.
- Hydraulic controls – beautifully positioned in relation to seat and steering wheel to suit natural arm movements. Helps ensure positive accurate, precise implement control.
- Adjustable seat – fore and aft movement as well as adjustment for "springiness".

Synchromesh on all gears.

The gearbox has synchromesh on both forward and reverse, making operation so much easier – gear changing can be implemented smoothly without undue loss of momentum. And, efficiency is improved, especially where there is constant changing from forward to reverse – as, for example, in front end loader operations.

Heavy duty clutch.

A big, dry, single-disc type – 260mm (10.5 in.). Remember the p.t.o. has an independent clutch.

Firm solid disc braking.

A large-capacity oil-immersed multi-disc brake system gives a strong braking force and extended durability. Actuators with discs on each side give reliable braking in both forward and reverse. It's good to feel the tractor being brought to such a smooth, solid halt. There is also a mechanical type parking brake.

Speeds – a wide choice.

There is a total of 18 forward and 6 reverse speeds obtained with various combinations of the two gear levers located on the left hand side of the seat. Forward speeds are well spread over the range. There is a creeper gear for special or heavy duty operations. Regardless of application there is a wide choice of ideal speeds.

Speed Chart Model TD4410 (32kW)

Forward km/h	L	L	1	0.34	H	L	1	1.89
			2	0.51			2	2.78
			3	0.72			3	3.92
	L	M	1	0.84		M	1	4.59
			2	1.24			2	6.76
			3	1.75			3	9.52
	H	H	1	2.12		H	1	11.54
			2	3.12			2	16.98
			3	4.40			3	23.93
Reverse km/h	L	R	L	0.49	H	R	L	2.70
			M	1.21			M	6.56
			H	3.03			H	16.50

Speed Chart Model TD4450 (35kW)

Forward km/h	L	L	1	0.36	H	L	1	3.28
			2	0.54			2	4.16
			3	0.76			3	4.62
	L	M	1	0.89		M	1	4.82
			2	1.30			2	7.09
			3	1.84			3	9.99
	H	H	1	1.98		H	1	12.11
			2	2.23			2	17.83
			3	2.92			3	27.60
Reverse km/h	R	L	L	0.52	R	L	L	3.18
			M	1.27			M	6.89
			H	2.20			H	17.32

"The Iseki 4WD... a near perfect design for the front axle. You get about 40% more traction."

Iseki have perfected several design techniques in the front axle drive to make their system one of the strongest, most versatile and compact designs currently available.

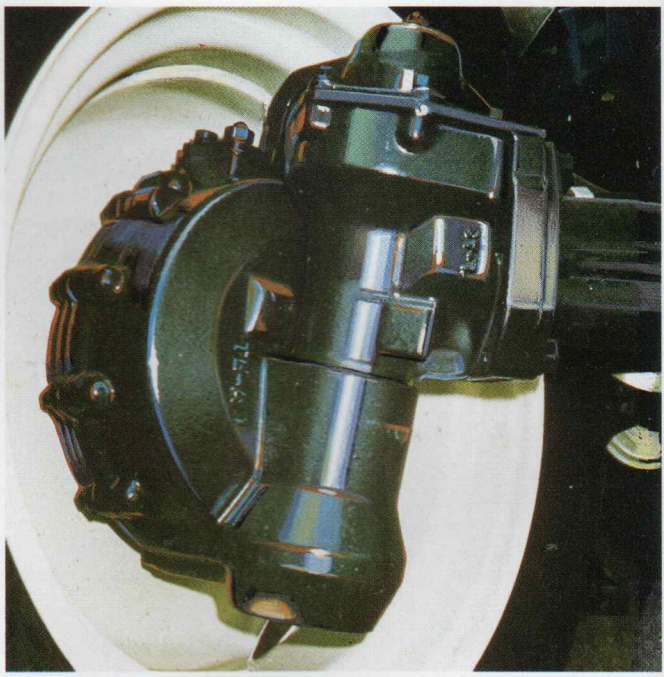
These are the five main points which give a near perfect design:

1. Large diameter front wheels.
4WD tractors are sometimes required to climb over large obstacles. To enable this with a minimum of effort, Iseki fit larger diameter front wheels so that, at practically all angles, there is enough tyre area in contact with the ground to achieve good traction.

2. Oscillation.
Sometimes obstructions will not be directly in the path of both front wheels. More often than not the contour will be under one wheel only. To compensate, Iseki have designed the centre pivot to allow a generous axle oscillation on the TD4450 of approximately 200mm (8 in.) before bottoming on the axle stops.

3. Tight turning circle.
The design of the king pin and front axle final drive system enables the same number of gear teeth to be in mesh irrespective of the degree of lock applied with the steering wheel. Further, no matter what degree of turning there is, no variation in loading on the gears occurs as all the load is taken on support bushes and thrust bearings.

4. Completely sealed.
Tractors with 4WD often have to work in severe conditions. To prevent working parts being exposed to dust, dirt, mud, water or trash, the whole system has been fully enclosed.. It's impossible for anthing to enter. Importantly, the system does away with exposed universal joints and constant velocity joints that are subject to wear.



5. Construction.
The "chassis" or "body" of the assembly has been designed to flex. It is manufactured from steel – pressed and welded to get a 100% sealing and in all, ensure stronger joints. (The alternative method – cast steel – requires flanges, bolts and gaskets which can form weak spots or unsealed areas. Furthermore, cast will not allow any flexing and tends to break rather than "give" with shock loading.)

The drive system is referred to as a bevel gear type.

The drive is taken from the rear of the engine via a drive shaft that is recessed underneath the chassis.

All gears revolve at high speed up to the final drive gear. There are two advantages:

First, the size of all components is kept to a minimum, giving excellent ground clearance as a result of compact design. Second, the high speed drive line reduces torque loadings (you've no doubt noticed with the 540 and 1000 p.t.o. – machines driven at the 1000 speed – they enjoy smoother running and even power absorption).

Another feature is the bushing and support thrust bearings which are designed to take all the loading withour stress being applied to the gears.

"You know how the Japanese trucks and cars are light on fuel. Well, their tractors are the same. I tell you I was amazed."

Isuzu engines power both the 32kW and 35kW tractors although different Isuzu designs are fitted.

Model TD4410 (32kW)
Isuzu engine 4FC1.

Model TD4450 (35kW)
Isuzu engine C240.

Both engines are in fact more powerful but derated to give the specified power. The big bonus is an engine not working to maximum capacity ... not stressed and so giving an extended working life.

Large displacement and short piston stroke ensure higher performance and excellent torque.

Both engines feature swirl type combustion chambers which give optimum fuel/air mixing for total combustion. This unique feature gives higher power output, greater fuel efficiency and less engine noise.

Precision forged crankshafts with five main bearings give smooth vibration-free operation.

The big water cooling systems even take Australian summers in their stride. And, the dual element air cleaners can handle Australia's dust too.

Specifications

	TD4410		TD4450	
	2WD	4WD	2WD	4WD
Engine				
Model	Isuzu model 4FC1		Isuzu model C240	
Type	Water cooled 4 cyl. diesel		Water cooled 4 cyl. diesel	
Displacement	1995 c.c.		2369 c.c.	
Bore x stroke	84 x 90mm		86 x 102mm	
Max. power at 2600 E.R.P.M.	32 kW (44 hp) SAE		35 kW (48 hp) SAE	
Max. torque at 1400 E.R.P.M.	12.5 kg/m (90.4 ft.lb.)		13.5 kg/m (97.4 ft.lb.)	
P.T.O.	28 kW (38 hp)		30.5 kW (41 hp)	
Fuel tank	50 litres (11 Imp. galls)		50 litres (11 Imp. galls)	
Transmission (Synchro all gears)				
Clutch	Dry single disc. 260mm (10.5 in.)		Dry single disc. 260mm (10.5 in.)	
Speeds	18 fwd. 6 rev. (See chart)		18 fwd. 6 rev. (See chart)	
Brakes	Multi-disc wet type		Multi-disc wet type	
Steering	Integrated power steer		Integrated power steering	
P.T.O. PTO/eng. speed	540/2250 | 1000/2250		540/2250 | 1000/2250	
3 pt. linkage	Cat. 1		Cat. 1	
Drawbar	Heavy duty swinging		Heavy duty swinging	
Hydraulics	Position, draft and float. Capacity to intermix position/draft.		Position, draft and float. Capacity to intermix position/draft.	
Flow	32 litres per min. (7 g.p.m.)		32 litres per min. (7 g.p.m.)	
Lift at lower link point	1600 kg (3250 lb.)		1650 kg (3630 lb.)	
Electrical	12 volt 80 amp./hour		12 volt 80 amp./hour	
Tyres				
Front	6.00 x 16 | 8.00 x 18		6.00 x 16 | 8.30 x 20	
Rear	13.6 x 28		12.4 x 32	
Ballast (Front weights)	Aust.: 37 kg (81.5 lb.); N.Z.: 27 kg (59.5 lb.)			
R.O.P.S.	Two post. Govt. app.		Two post. Govt. app.	
Dimensions				
Front wheel track	1150–1550mm (45.3–61 in.) Adj. in steps | 1220mm (43–63.8 in.)		1150–1550mm (45.3–61 in.) Adj. in steps | 1220mm (43–63.8 in.)	
Rear wheel track	1220–1620mm (48–63.8 in.) Adj. in steps		1240–1640mm (48.75–64.5 in.) Adj. in steps	
Overall length	3410mm (134.2 in.)		3410mm (134.2 in.)	
Overall width	1560mm (61.4 in.)		1560mm (61.4 in.)	
Overall height	2200mm (86.6 in.)		2290mm (90.2 in.)	
Height to top of steering wheel	1470mm (57.8 in.)		1500mm (59.0 in.)	
Min. ground clearance — without drawbar	345mm (13.5 in.)		420mm (16.5 in.)	
— with drawbar	310mm (12.25 in.)		385mm (15.25 in.)	
Wheelbase	1940mm (76.3 in.)		2000mm (78.7 in.)	
Turning radius — with braking	1910mm (75.1 in.)		1940mm (76.3 in.)	
— without braking	3960mm (154.8 in.)		3990mm (157.0 in.)	
Weight (without ballast)	1590 kg (3502 lb.)	1720 kg (3789 lb.)	1670 kg (3679 lb.)	1810 kg (3965 lb.)
Registration equipment	Horn, driving lights (high/low beam), side and tail lights, stop light, reversing light, number plate illumination light, trafficators, rear vision mirrors (2)			
Optional equipment	Additional remote hydraulics, single and double acting valves in single and double acting banks			

In the interests of continuing product improvement Iseki reserves the right to alter specifications without prior notice.

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