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Submission on

The Impact in Australia from Used Mobile Crane Imports

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Impact in Australia from Used Mobile Crane Imports

1) Background

Despite objections from the Australian mobile crane industry against the dropping of restrictions on the import of used mobile cranes, the Federal Government in the mid 1980s took the advice of the Industries Commission to allow the importation of used mobile cranes with no restrictions to age or condition. The purpose of this change was to create a more competitive supplier to the construction industry resulting in a cheaper, more cost effective industry.

Whether the lifting of these restrictions ever improved the efficiency of the industry at the time is debatable, however the decision certainly laid the foundations for a profound impact some 10 years later.

2) Change of Japanese Market Structure

In 1994 it became very apparent to the Australian crane industry that the future of Hydraulic Truck cranes from Japanese manufacturers was looking very bleak with the departure from the industry by Kobelco and the change in having a much lower tax rate for Rough Terrain cranes than that for Hydraulic Truck cranes. Very quickly the structure of the mobile crane industry in Japan changed from predominately an industry of 90% Hydraulic Truck cranes and 10% Rough Terrain cranes to exactly the reverse with Rough Terrains being 90% of the market versus 10% for the Hydraulic Truck cranes.

Manufacturers such as Kato and Tadano manufactured Hydraulic Truck cranes with a specific Australian build that included a special carrier to meet Australian Road Regulations and an upper conforming to Australian Standards AS1418 Parts 1 and 5 that was well established and acceptable in the Australian market even though the Japanese domestic models had gone through two or more series improvements to suit their local requirements. Due to the specialized requirements for the Australian market and a reluctance by the then Australian distributors for Kato and Tadano to order large quantities for stock, the availability for Hydraulic Truck cranes for the Australian market became longer as the manufacturers had to order batches of special carriers that often exceeded the orders placed by the Australian distributors. This created a feast or famine of supply of Hydraulic Truck cranes.

3) An Opportunity Exploited in Australia

Several entrepreneurs, predominately located in Melbourne, recognized that a business opportunity existed that could be exploited. Initially, some of these acted as commission agents charging a fee up front for finding the mobile crane and also getting a "back-hander" from the supplier. This type of business only existed for a short period of time before it was realized that far greater returns could be achieved by buying the equipment overseas, bringing it to Australia and selling to anyone with a need.

Japan offered a fantastic entrée into this business as there was an extremely generous depreciation given over much shorter periods than Australia, and basically the structure of the mobile crane market was changing to a Rough Terrain concept so there were large quantities of good quality, low age, low cost, Hydraulic Truck cranes available. Hydraulic Truck cranes were not the only cranes available from Japan. Indeed, there were many All Terrain cranes manufactured in Germany specifically for the Japanese market available at cheap (by Australian standards) prices. Used Rough Terrain cranes were also to follow in smaller numbers at the same time. The used mobile crane market was in full swing and was twice the size of the new mobile crane market. This continued with more emphasis on German imports of All Terrain cranes when the European market was in recession.

It was not long before owners also started visiting Japan and other countries and began buying in their own right. Some were only one time buyers as the effort to ensure that they properly complied was too onerous, but many still persisted without abating by simply ignoring any requirements that they had an obligation to fulfil in any of the States.

Some of the earlier entrepreneurs also added these imports into their own “dry” and “wet” hire fleets.

The flood of imports was not restricted to just being sourced from Japan, as Europe was heading into a recession and there were numerous All Terrain cranes available there.

It is estimated that around 800 used mobile cranes have been imported into Australia.

4) So, what's the problem?

In a self regulating environment the onus is on the importer to ensure that all of the regulatory requirements of each of the States are met. Some of the early entrepreneurs made a genuine attempt to comply, but the vast majority simply did not know what their obligations were, and many simply did not want to know. They had a bargain and there are really no impediments or checks to ensure they were doing the right thing from a moral or legal point of view. It is really like the “wild west” all over again. Anything goes and this situation is still the same today as it was 10 years ago with no policing evident.

Some of the more critical issues are as follows:

a) Load Charts

US sourced products have 85% load charts. Until CraneSafe detected these charts, the cranes were operated to the incorrect stability factor.

Japanese sourced products have 78% load charts. Many of the initial used imports simply had the charts changed by “white-out” to read 75% but continued to use the crane with the original 78% ratings. For many of the cranes in the field that had this change carried out, the rating charts were on photocopied paper. Some users also changed the rating charts to have a higher maximum capacity. We had the ridiculous

situation where a 45 tonne crane in Japan suddenly became a 50 tonne crane in Australia. The rating given was 50 tonne at 1.2 metres radius which is a total nonsense.

Japanese crawler cranes were imported with 78% load charts and because there is no pick and carry provision in the JIS code, the importers have mathematically changed the ratings and produced a 66.7% chart for a crane that has not been designed for this application.

We also had the situation where All Terrain cranes had a significantly higher maximum lift capacity when they were imported used from Japan versus the same model imported new from Germany. A new Liebherr LTM1060 with a 60 tonne capacity imported into Australia became a LTM1070 with a 70 tonne capacity when sold into Japan.

When the used Japanese Liebherr cranes were imported into Australia different load charts existed for two basically identical cranes. The situation was also the same for used Demag cranes from Japan.

b) Load Indicators

Many of the imported mobile cranes had the original 78% or 85% charts imbedded in the load indicators. In the case of Japanese cranes, the instructions and warnings as well as the controls were all in Japanese.

Even when the correct ratings according to Australian Standards were established it was often the case that the load indicator did not have correct charts in the memory.

c) Decals

There were many imported foreign mobile cranes that did not have English decals and they are still operating to this day. CraneSafe ensures that these are corrected, but as it is a voluntary scheme, there are many that simply do not have their cranes inspected by a third party inspector, thus escaping detection unless there is an accident and a State Inspector picks up the deficiencies.

d) Manuals

Initially, an effort was made by the more reputable importers to translate manuals to English but there are a large number of used imported mobile cranes that do not have any English manuals at all.

e) Service Records

Almost without exception, none of the imported used mobile cranes have any service history; yet none comply with the AS2550.1 requirement to have a mandatory major inspection.

f) Age

There are no restrictions on the age of used mobile crane imports. Apart from QLD and SA there is no mechanism in place to have a major inspection carried out. However, SA has a real weakness in its system as there are no audits carried out and the Department accepts on face value, a signed document stating that a 10 year inspection has been carried out. A \$700 single page certification, signed by a person not qualified according to Australian Standards, is accepted without question.

With an industry that has a known two out of every three cranes in Australia having an age of 10 years or greater, we have a real concern that so many cranes, having exceeded their nominal design life can be allowed to continue to operate.

We have recorded instances where a New Zealand company has sold a 33 year crane into QLD through an auction. Nobody else in our immediate region will allow the used importation of cranes with no limitations on age or condition. We are becoming the dumping ground of Asia.

g) Brakes

Domestic model Hydraulic Truck cranes from Japan do not have "Maxi" brakes or additional reserve capacity air tanks. These cranes will be typically registered at a country office or more lenient State Road Agency which does not understand fully what is required. NSW is the only State that will pick up these units through the introduction of 12 monthly vehicle inspections.

h) Load Sharing Suspension

The used Japanese domestic Hydraulic Truck cranes do not have this mandatory Australian fitment. Many have escaped the net for the reasons mentioned in g).

i) Rear Wheel Spacers

To enable 50 tonne Hydraulic Truck cranes to be road registered, it is necessary to fit up to 100mm rear spacers to the rear axles. The original suppliers of these cranes did the necessary engineering to ensure these spacers are safe. There is no such requirement for the multitude of used domestic Japanese Hydraulic Truck cranes imported by anyone who so wishes. There are many cases of rear wheels detaching from the crane during road travel.

j) Weight Distribution

The weight distribution for used Japanese Hydraulic Truck cranes is different in Australia. A far greater weight is allowable on the front axles thus creating a problem when they are introduced into Australia. Some

overcome the problem by simply never registering the crane and by simply using the plates of a similar crane in the fleet when they want to road the unit.

CraneSafe Victoria found a unit that had an additional 1 tonne slab fixed to the rear counterweight to balance the overall weight distribution and as a bonus the owner produced his own load charts with a greater lifting capacity than that of the original design. This was obviously changed but if a random inspection had not been carried out, this potentially dangerous condition would have carried on indefinitely or perhaps until an accident occurred.

k) Tyre size and Wheel Rim Centres

Tyre sizes required for Australian conditions are in the main far larger than for any other country. This will entail a change either in Australia or the end user may elect to run on what they have bought and try to get it through the system the best way they can.

Another matter causing concern for the Crane Industry Council of Australia (CICA) is that it has been found that the standard 12mm thick wheel centres on the used imported Japanese Hydraulic Truck cranes do not withstand the harsh Australian conditions and crack. The special Hydraulic Truck cranes specifically for Australia have 14mm thick wheel centres.

l) Free Fall Capability

Most of the used Japanese mobile cranes have free fall as standard. In QLD this is illegal and most other States require a lockable latch as a minimum. Most importers ignore this requirement and hence we have many potentially unsafe cranes operating in the field unless they have a CraneSafe assessment which will solve this problem area.

A perfect example of the problems caused is highlighted in the attached Safety Alert.

m) Lever Detents

Like item l) above, most used Japanese imported mobile cranes have detents on the operating levers which lock the lever in position when full stroke is applied. Many 2-block accidents occur because of this feature and numerous lattice booms have been pulled backwards against the back stops when the lever has been locked into boom up.

All States require this feature to be removed but unless the crane has had a CraneSafe assessment or an inspection by a Regulatory Authority Inspector, the fault goes ignored.

n) Cranes Under 10 Tonne Capacity

For plant registration purposes, it is not necessary to complete a design registration even though all States still insist that the crane conforms to Australian Standards. This has allowed importers to have an “open slather” approach to any mobile crane that is less than 10 tonne lifting capacity. Basically not many of the self importers even try to comply with local standards.

o) Design Registration

CICA believes this is the biggest single issue with imported used mobile cranes in Australia. The area of most concern is the used Japanese Rough Terrain and Hydraulic Truck cranes that have been imported into Australia.

The original Australian cranes, which were imported and design registered by the authorized distributors, were mostly adaptations of the domestic series 2 and 3 of a particular model. The design was suited to Australian conditions and there were very few changes to the actual unit. On the other hand, the Japanese domestic models underwent many changes in comparison to the “Australian model”, eg new Booms, new Fly Jibs were all added yet many of the importers of used Japanese domestic models have obtained and used the design registration number of the “Australian model” even though the only thing in common is the original model number.

For example, the Tadano 50 tonne truck cranes designed and supplied in Australia simply had the TG500E model number. As can be seen from the following tables, there are many different series of cranes under the same model number. The same is true for other Tadano models and also Kato. The situation is even worse with the Rough Terrain cranes where there are more recent product developments due to the fact that it is an evolving product.

Some of the original importers made an effort to obtain some design registrations using material supplied to the Japanese authorities when they were originally supplied to owners in Japan. The information contained in this documentation is however limited to the main boom and none of the other critical areas that go to make up a complete crane. It is a flawed process and cannot give a guarantee that the crane provides a similar level of safety as dictated by Australian Standards.

The only true method is to have a statement of compliance from the manufacturer and this is simply not given to any person who goes to the world market and buys a used crane.

Of a real concern is the number of Komatsu models operating in Australia. There has never been an Australian distributor for this range of products in this country.

Impact in Australia from Used Mobile Crane Imports

The following table is by no means exhaustive. It is a snap shot of the Japanese cranes that CraneSafe has on its database for 2007.

KNOWN POPULAR JAPANESE IMPORTS WORKING IN AUSTRALIA - 2007

WA		NSW & ACT		VICTORIA		QLD	
Kato	KR 10H	Kato	450B-V	Kato	KR 10H	Kato	KR 10HL-I
Kato	KR 20H-III	Kato	KR 10H-S	Kato	KR 10H-L	Kato	KR 10H-LII
Kato	KR 20H-L	Kato	KR 20H-III	Kato	KR 10H-LII	Kato	KR 20H-III
Kato	KR 22H	Kato	KR 22H	Kato	KR 10HM	Kato	KR 22H
Kato	KR 25H-III	Kato	KR 250	Kato	KR 10HM-LII	Kato	KR 250
Kato	KR 25H-V6	Kato	KR 25H-III	Kato	KR 20H-III	Kato	MR 220H
Kato	KR 35H-V	Kato	KR 25H-V	Kato	KR 22H	Kato	NK 160C
Kato	KR 45H-V	Kato	KR 300	Kato	KR 250	Kato	NK 200 H-V
Kato	KR 500	Kato	KR 35H-III	Kato	KR 25H-V	Kato	NK 250
Kato	KR 50H	Kato	NK 160E-III	Kato	KR 300	Kato	NK 250V
Kato	MR 220	Kato	NK 200 H-V	Kato	KR 35H-III	Kato	NK 30
Kato	NK 200H-V	Kato	NK 200H-V2	Kato	KR 45H-V	Kato	NK 300E
Kato	NK 250E-V	Kato	NK 250	Kato	KR 500	Kato	NK 300E-III
Kato	NK 250-V	Kato	NK 250E-3	Kato	NK 140	Kato	NK 300E-V
Kato	NK 300E-V	Kato	NK 250V	Kato	NK 160C	Kato	NK 450
Kato	NK 450	Kato	NK 250-V	Kato	NK 160E-III	Kato	NK 450B-V
Kato	NK 450B-V	Kato	NK 300E-III	Kato	NK 200	Kato	NK 500B-V
Kato	NK 500B-V	Kato	NK 300E-V	Kato	NK 200H-V	Kato	NK 500E-III
Kato	NK 500E	Kato	NK 500	Kato	NK 250	Kato	NK 500E-V
Kato	NK 500E-III	Kato	NK 500E-III	Kato	NK 250E-V	Kato	NK 650
Kato	NK 500E-V	Kato	NK 500E-V	Kato	NK 250-III		
Kato	NK 500-V	Kato	NK 70M-111	Kato	NK 250-V		
				Kato	NK 250-V2		
				Kato	NK 300E-V		
				Kato	NK 450B-III		
				Kato	NK 450B-V		
				Kato	NK 500B-V		
				Kato	NK 500E-III		
				Kato	NK 500E-V		
Kobelco	RK 160	Kobelco	RK 160	Kobelco	FC 50	Kobelco	RK 160-2
Kobelco	RK 160-2	Kobelco	RK 160-2	Kobelco	RK 160-2	Kobelco	RK 250
Kobelco	RK 250	Kobelco	RK 70	Kobelco	RK 250	Kobelco	RK 250-3
Kobelco	RK 250-3	Kobelco	RK 70-2	Kobelco	RK 450	Kobelco	RK 450
Kobelco	RK 450-2	Kobelco	RK 70M-2	Kobelco	RK 450-1	Kobelco	RK 450-1
Kobelco	RK 70			Kobelco	RK 70-2	Kobelco	RK 450-2
Kobelco	RK 70-2			Kobelco	RK 70M	Kobelco	RK 70
Kobelco	RK 70M			Kobelco	RK 70M-1		
				Kobelco	RK 70M-2		
Komatsu	LW 100-1			Komatsu	LC 755-3	Komatsu	LW 100-1
				Komatsu	LW 100-1	Komatsu	LW 100M-1
				Komatsu	LW 100-1E	Komatsu	LW 80-1
				Komatsu	LW 100M-1		
				Komatsu	LW 80-1		
				Komatsu	LW 80M-1		

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WA		NSW & ACT		VICTORIA		QLD	
Tadano	ATF 110G-5	Tadano	AR 200M-1	Tadano	AR 200M-1	Tadano	ATF 110G-5
Tadano	ATF 30-2L	Tadano	ATF 30-2L	Tadano	FY 360	Tadano	ATF 160G-5
Tadano	GR 120N-1	Tadano	GR 120N-1	Tadano	GR 120N-1	Tadano	ATF 220G-5
Tadano	GR 250N	Tadano	GR 300EX	Tadano	GR 700EXL	Tadano	ATF 65G-4
Tadano	GR 300EX	Tadano	GT 550E	Tadano	GT 550E	Tadano	ATF 80-4
Tadano	GR 300N	Tadano	GT 550E-1	Tadano	TG 350M-3	Tadano	GR 120NL-1
Tadano	GR 700EXL	Tadano	TG 250E	Tadano	TG 400E-1	Tadano	GT 550E
Tadano	GT 550E	Tadano	TG 350M-3	Tadano	TG 450M-3	Tadano	GT 550E-1
Tadano	GT 550EX-1	Tadano	TG 400E-1	Tadano	TG 500E	Tadano	GT 700E
Tadano	LM 20Z	Tadano	TG 500E	Tadano	TG 500E-1	Tadano	TG 350M-1
Tadano	Super Z 220	Tadano	TG 500E-2	Tadano	TG 500E-2	Tadano	TG 500E
Tadano	TG 450E-3	Tadano	TG 500E-3	Tadano	TG 500E-3	Tadano	TG 500E-3
Tadano	TG 500	Tadano	TG 500M-4	Tadano	TG 500M-4	Tadano	TG 500M-4
Tadano	TG 500E	Tadano	TG 500M-5	Tadano	TG 500M-5	Tadano	TG 500M-5
Tadano	TG 500E-1	Tadano	TL 200M-3	Tadano	TL 151	Tadano	TG 700E
Tadano	TG 500E-3	Tadano	TL 200M-4	Tadano	TL 160M-3	Tadano	TL 200M-3
Tadano	TG 500M-4	Tadano	TL 200M-5	Tadano	TL 200M-3	Tadano	TL 200M-4
Tadano	TL 200M-5	Tadano	TL 250	Tadano	TL 200M-4	Tadano	TL 250E-3
Tadano	TL 250E	Tadano	TL 250E	Tadano	TL 200M-5	Tadano	TL 250M-4
Tadano	TL 300E-3	Tadano	TL 250E-2	Tadano	TL 201	Tadano	TL 300E
Tadano	TR 100M	Tadano	TL 250E-3	Tadano	TL 250E-2	Tadano	TL 300E-3
Tadano	TR 100M-1	Tadano	TL 250M	Tadano	TL 250M-3	Tadano	TL 300M-2
Tadano	TR 100ML	Tadano	TL 250M-3	Tadano	TL 250M-4	Tadano	TR 100M-1
Tadano	TR 160M	Tadano	TL 250M-4	Tadano	TL 250M-5	Tadano	TR 160M
Tadano	TR 160M-3	Tadano	TL 250M-5	Tadano	TL 300E	Tadano	TR 160M-3
Tadano	TR 200M	Tadano	TL 300E	Tadano	TL 300E-3	Tadano	TR 200M
Tadano	TR 200M-3	Tadano	TL 300E-1	Tadano	TL 300M-2	Tadano	TR 200M-3
Tadano	TR 200M-4	Tadano	TL 300E-2	Tadano	TR 100M-1	Tadano	TR 200M-4
Tadano	TR 200M-5	Tadano	TL 300E-3	Tadano	TR 151	Tadano	TR 200M-5
Tadano	TR 250M	Tadano	TR 100M-1	Tadano	TR 160M-3	Tadano	TR 250E-1
Tadano	TR 250M-4	Tadano	TR 151	Tadano	TR 1800	Tadano	TR 500EX
Tadano	TR 250M-6	Tadano	TR 160M-2	Tadano	TR 180E-1	Tadano	TR 500M-1
Tadano	TR 350M	Tadano	TR 160M-3	Tadano	TR 200M-3	Tadano	TR 500M-3
Tadano	TR 350M-1	Tadano	TR 200 EXC	Tadano	TR 200M-4		
Tadano	TR 350M-2	Tadano	TR 200M	Tadano	TR 200M-5		
Tadano	TR 400E	Tadano	TR 200M-4	Tadano	TR 250E-1		
Tadano	TR 500E-3	Tadano	TR 200M-5	Tadano	TR 250M-5		
Tadano	TR 500EX	Tadano	TR 250E	Tadano	TR 250M-6		
Tadano	TR 500M	Tadano	TR 250E-1	Tadano	TR 300E		
Tadano	TR 500M-2	Tadano	TR 250M	Tadano	TR 350M-1		
Tadano	TR 500M-3	Tadano	TR 250M-4	Tadano	TR 350M-2		
Tadano	TR 600EXL	Tadano	TR 250M-5	Tadano	TR 350M-3		
		Tadano	TR 350M-1	Tadano	TR 500E		
		Tadano	TR 500E	Tadano	TR 500M-1		
		Tadano	TR 500M-2	Tadano	TR 500M-3		
		Tadano	TR 80M	Tadano	TR 80M-1		
		Tadano	TR 80M-1	Tadano	TS 75M-1		
		Tadano	TR 80ML				
		Tadano	TS 70M				
		Tadano	TS 70M-2				

5) Conclusions

Quite simply, the industry is in a bit of a mess at this point of time. Self regulation in the mobile crane industry has been imposed by State Governments striving to cut Government cost and not sought by the industry itself. This is not necessarily a bad thing, but there are a number of areas that do require some review. The lack of age restrictions is not working as it was intended; unworkable used importations; lack of individual State audits (with the exception of QLD and to a lesser extent Victoria) all contribute to an industry that is struggling to help itself.

That is not to say the industry is not capable of self regulation. The very establishment of the CraneSafe annual assessment program clearly indicates that the industry can look after itself. We do however require some assistance from Government and this is included in recommendations below.

6) Recommendations

a) Imported Used Cranes

CICA is not against used crane imports but it is patently obvious that importers of used mobile cranes are in the main ignoring local Australian requirements as outlined above. Some reputable importers certainly try to rectify the issues but as there are no restrictions on who imports these cranes it is far too easy for owners and “sharp operators” out for a quick dollar to ignore the requirements.

The simple solution would be to insist on an independent third party inspection to verify all issues have been addressed before the issuing of a plant registration.

b) Age Issues

While we would like to see an absolute maximum age limit on used crane imports, we are realistic enough to know that there is very little likelihood of achieving this in the immediate future. We therefore believe it is important to ensure that no matter what age the crane is, it must meet, or exceed, the expectations as mandated by AS2550.1.

Our recommendation is that for used crane imports up to the age of 10 years from date of manufacture, the crane must comply in all respects to what is stipulated in AS2550.1 Section 7.3.5, and have an assessment carried out by a third party inspector to ensure that all items listed from a) to m) above are addressed and rectified before any individual State plant registration is issued.

Any crane that is in excess of 10 years but less than 20 years old needs to have a major inspection in accordance with AS2550 Section 7.3.5 carried out in Australia, or the country of origin, and signed off by an Australian based engineer, verifying that the crane conforms to the Australian Standards, and has had an independent third party inspection to ensure items a) through to m) are rectified before any State plant registration is issued.

Any cranes in excess of 20 years are to have an assessment carried out in the country of origin by an Australian qualified engineer prior to shipment to ascertain whether the crane can meet Australian Standards. In addition, once the crane arrives in Australia, an independent third party inspection needs to verify that items a) through to m) have been rectified before any State registration is issued.

c) *Design Issues*

Regardless whether the mobile crane is new or is an imported used crane, the industry believes all cranes require a valid Australian design registration issued by one of the Australian States that has universal reciprocal design recognition by all States.

Some States do have this arrangement in place but it appears to us that there is no checking to ascertain whether the design number is valid for the particular make and model in question. As long as a number is provided, then this appears to satisfy the need regardless of whether the number is correct or not.

As an industry we are prepared to assist the States by checking that the current design numbers held by each State are correct and which numbers are relevant to the specific series of cranes being imported. CICA represents not only crane users but also crane manufacturers and/or distributors for all of the major brands. There is a considerable number of units in the field that do not have valid design registrations and it is feared that as these units become second and third hand after the initial importation, many of our members may unwittingly be breaking the regulations and leaving themselves open to prosecution.

To overcome this issue it is proposed that a period of time is granted by the State authorities so that the industry can help clear up the current state of affairs.

One further issue that greatly concerns us is the fact that for design registrations purposes, most States only require a minimum of 10 tonne and above lifting capacity. A quick check of the CraneSafe assessments done for the 2007 calendar year reveals that there are 160 units 3 tonnes or less, and 340 cranes which are 10 tonne or less. In our opinion this constitutes a serious number of cranes that are in constant use and should be registered for use with a design registration.

We understand that while no design registration is required, the crane still needs to conform to Australian Standards, or equivalent, but the reality is that in many cases this is not happening.

We believe that all purpose built cranes require design registration as well as plant registration regardless of size. A crane of one tonne lifting capacity can kill just as easily as a crane with a 1000 tonne lifting capacity.