



Colossus 6000

This is the story of the largest crane Coles ever built, largest in the world at the time. The story of why Coles decided to make it along with the story and images of all the machines that were ever built.

The History of Coles Cranes

Introduction

This is one of series of books about Coles Cranes, a company which between the mid 1950s and 1980s became one of the largest mobile crane manufacturers on the world. By 1998 the last few workers walked off the factory site and Coles Cranes was no more. This is one of the focus books looking at one crane in particular, in this case the largest crane Coles ever built the 250 ton Colossus 6000.

When I started looking into Coles Crane it was just out of idle curiosity. In 1972 I went to work for Coles as a model maker making display models of their cranes. While there I had made a series of vintage models of key machines in the history of Coles.

Some thirty years later my curiosity had been awakened by finding some old photographic negatives of the models I had made there. I wondered quite idly what vintage models they may have ask me to build if I had stayed there making models. Little did I know this small thought was going to go on for over 14 years counting...

When I searched the internet, which had come into existence in the mean time, I found there was almost nothing about Coles Cranes. I eventually found out that the company no longer existed. This came as a bit of a shock as it was a massive company when I was working for it, what had happened. I found an article in a book about Coles, it was just two pages long. I thought at the time there must be more to it then that, a major world wide company does not just roll over and die just like that.

I started collecting photos of Coles Cranes and started the Coles Crane website. This sparked a lot of interest form others who either worked there, owned a Coles crane or were just interested in cranes. Since that time bits and peace's of information have gradually filtered back to me through the Coles website. These books are an assimilation of all those pieces of information and half forgotten memories and yes there was more to it, a lot more. This was not just about building cranes this was about business, economics and government.

Any useful additional information or corrections can be posted to me through the Coles Crane Website at <https://sites.google.com/site/colescranedatabase/home>

A J Kemp - March 2015

This is the photograph found in an old file that started the whole project going, the first model I made for Coles Cranes.

This was the Tilling Stevens lorry mounted mobile with a 2 ton lift and built in 1920. This was the tropical export version built for the Karachi Harbour Trust,

There were no drawings for this machine so I had to draw a set from couple of photographs.



The Books

THIS BOOK

COLES COLOSSUS 6000

One crane that Coles built has a strong fascination for lovers of cranes was an oddity that probably should never have been built The Colossus 6000. When built it was the largest mobile crane in the world, it had sixteen wheels and could lift 250 tons. Only seven of these crane were ever built and five of them are still working today.

Other Coles Crane books in this series.

Coles History Book One

The first is a reproduction of a promotional book given to clients and agents produced 1979 by Coles called, "Coles 100 years - The growth story of Europe's Leading Crane Manufacturer - 1879 - 1979". It was to celebrate the 100th anniversary of the establishment of the Coles Crane company by Henry James Cole in 1879.

Coles History Book Two

In the second book we pick up the story in the 1960s twenty years before the above book was produced. We do this as the first book missed out a vital section in relation to the merger of Coles with Priestman Brothers. This merger began to show cracks in the industry and in management thinking at the time. This book has the advantage of hindsight but hopefully gets closer to the truth of what happened to the company. In such a large company there are many stories here is the basic story of what happened.

COLES STEAM RAIL MOBILE 3 TON CRANE of 1879

In the year they started their company 1879 Coles made their first recorded sale of a crane, it was for a steam mobile crane. This crane was of a pattern similar most of the other cranes being built at the time. This shows the basic crane unit and other later models. I also describes how they were put together.

COLES VINTAGE CRANES 1879 - 1944

Coles cranes developed steadily throughout the years, every advance in engineering knowledge had been adopted and adapted to improve their efficiency. As one of the earliest manufacturers to replace steam with internal combustion engine Coles progressively developed and subsequently discarded mechanical transmission, hydraulic transmission and different types of torque converter before arriving at the ideal transmission for crane operation the Coles Variable Voltage System.

THE DEVELOPMENT OF HYDRAULICS IN CRANES

Under development

Coles Colossus 6000

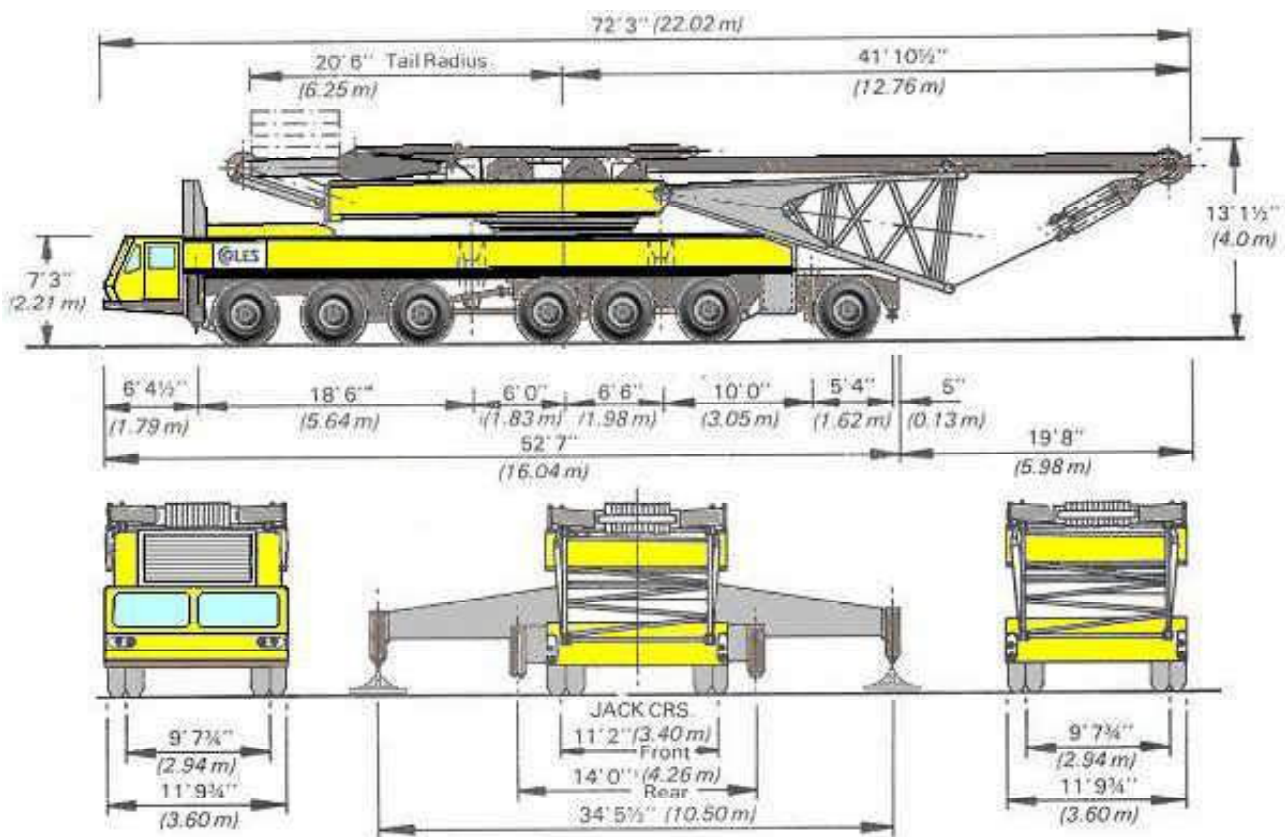
The Coles Colossus 6000 was conceived, designed and built as a total concept: as a crane capable of lifting the super heavy loads, and putting them up high or far out as a total concept. The 6000 has the features that make for real efficiency, real profitability, allowing easy work planning and even easier lifting of really big loads.

The Coles Colossus 6000 has features like a seven axle chassis tot supreme readability; a unique eight point jacking system for ultra stable lifting; interchangeable structures for strut jib, short and high tower working; an over the wheels chassis frame of immense strength; hydro pneumatic suspension; and the capability to lift all loads through the full 360 degree of slew.

The 6000 has all these features and many more. It is built at a purpose designed factory by specialist crane makers using the most modern techniques. The 6000 succeeds with the heavy loads and the high lifts because that's the way it was designed. It travels the highways at speed. negotiates the city streets with ease - and moves on site with full rigging. This is the Coles Colossus - the crane with more to offer.

These were the words on the first page of the Colossus 6000 sales brochure as Coles in 1971 introduced their latest and what was then the largest mobile crane in the world, to the public.

All images in this file and more can be seen full size in the Coles crane database on the Coles Crane Website. Go to tonyonthemoon.co.uk and select the Coles link.



The first time the name Colossus appeared on a Coles cranes was in 1954 when they produced a 41 ton machine. The biggest truck crane in the world, it was more than twice the size of the previous biggest Coles crane. It could lift 42.857 ton at 3.8m. This was however pushing the technology at the time and it was said to be fairly unstable, it is thought only one was ever built.

Image below Coles 1954 41 ton Colossus



It was 1969 before the name was to crop up again. In the design department word went around about a new 16 wheeler machine that could lift over 200 ton was to be designed.

It would turn out to be a 12 wheeler with a 2 wheel bogie called Colossus 6000 with an eventual 250 ton lifting capacity. It would be another three years before the first of these cranes rolled off the assembly line

So why would Coles want to build such a crane at this time. Hydraulics were well on there way and high lift mobile strut towers were established technology. They already had the Illustrious and Zealous, these could lift 45 ton and 60 ton respectively. They also had the heavy lift Centurion which could lift 100 ton. Why was not a question that that readily fell from the lips of anyone in the design team, after all bigger was always better. I was too far down the hierarchy ladder to be party to any decisions being made by senior management at the time. Looking back now however perhaps we can see where the idea of such a crane was coming from.



*Above Right
Illustrious 45T*

*Right
Zealous 60T*

*Left
Centurion 100T*



Corporate vanity may have been a factor, as Coles was a world leading crane manufacture and wanted to stay up there in the leaders, it was always good publicity to have the biggest mobile crane in the world in your sales catalogue. It is unlikely this would have been enough to prompt the expenditure required to develop such a project.



Above -Husky 13T TIC 4x4x4 1971

Below right - motorway building 1967

It was a time a much expansion especially in civil engineering both at home and abroad, especially motorway building, refineries and power stations all requiring some heavy lifts. Motorway bridges were requiring ever large larger spans over a hundred feet (31 meters) and only concrete could do this economically and these beams could weight up to 80 tons.



Another development was happening in shipping, containerisation was becoming a popular method of shipping good around the globe. In 1956 the first container ship set sail for local trips around the east coast of America, in 1968 American Standards Organisation set the standard size of containers for shipping, the smallest of these was 20 feet by 8 feet by 8 feet 6 inches high (6.1 x 2.4 x 2.6 meters high) this size could weight up to 28 ton (1016 Kilograms).

What was becoming apparent was that containers were the future of international shipping.

This was fine for big ports who could afford to build specialist cranes or who already had travelling harbour cranes but there were many smaller ports where they simply had quayside mooring and relied on small cranes and man handling of goods the traditional way. There was an opening for a mobile crane that could reach all parts of a ship and lift over 28 tons vertically at full reach.



Above - Early container ship

Above left -Standard shipping containers

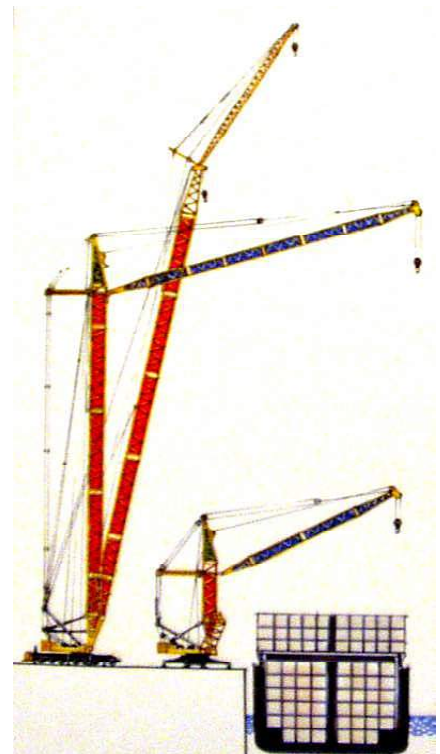
Many small ports had extensive quayside area where ships could dock, as it could take a couple of weeks to unload a ship the traditional way by hand with small mobile cranes. These ports needed a mobile crane that could move to where the container ship was birthed, where ever it was. Not many docks could afford to place lots of specialist cranes all over their docking area not knowing how or if containerisation was going to be the future or simply fade away.

These facts would be filtering back to the management from the agents and crane hire companies all over the world, requests for lifting that could not be done with current machines.

Confidence in an ever expanding market and in growth for the company was thus the impetus behind the decision to develop the machine, the market could be huge but they had to move before the competition got there.

The (eventual) top figure of 250 ton lift for the Colossus 6000 was not the important number, what mattered how far the boom could reach with a useful load on the end and how fast it could move this load. For instance the 250 ton max lift figure meant in reality that configured as a Port Tower at 100 foot (30,5m) radius with an 113 ft boom (34.5m) it could lift 33 ton (33520Kg). Fitted as a straight boom jib it could lift at 80 foot (24.4m) radius with an 123 ft boom (37.5m) it could lift 44 ton, so two machines could lift an 80 ton beam over a useful distance.

Even in power station and factories industry was having bigger and bigger prefabricated units made of ever increasing weights and size.



*Above - Colossus 6000 boom configurations
Right below - Vigorous port tower*

Left Below - 1956 port-cranes catalog



Coles were no stranger to harbour cranes they had been building them since the mid fifties. They had a catalogue in 1956 especially for port cranes.

There were the Fay, Weyland and Illustrious Port Towers, also a range of mobile towers the Dominant, Endurance and Vigorous of 1960. These port cranes however were designed to work with stevedores, men handling cargo from the holds of small ships and a crane would only have to lift at the most 5 or 6 tons at a time from the hold of a ship. Now Coles were faced with moving up to something much bigger and heavier. Containers weighing up to 28 ton.



It takes a long time to design such a large crane from scratch but Coles had a jump start because the German subsidiary factory at Duisburg, which been in operation since 1955 assembling cranes shipped in from Sunderland, was by 1968 building there own designs. These designs were mostly variations of the Coles types but in 1969 they brought out a large heavy unit the called the L80/100 which had an 80 ton lift. Although this was not as big as the Centurion which could lift 100 ton, this crane was different in an important way. The Duisburg design team had made a new type of chassis to the truck body which was extremely rugged and strong, with ten wheels and a fully developed undercarriage and suspension. This was to form the basis of the 6000.

Below - German Coles L80/100 truck 80T 10x6 1969



Although there was co-operation between Coles UK and the German factory, the German factory was almost an independent operation, Coles however wanted to make the Colossus in the UK. The problem for Coles was though they had three factories at this time, Sunderland, Grantham and Glazebury, the latter were too small and the Sunderland factory was running at full capacity and also working on a site too cramped for such a large unit. They decided to build a new factory on an industrial site at Springfield, on the outskirts of Darlington in County Durham. This factory was set up in 1972 solely for the production of the new Colossus.

Right - Coles Springfield Works Darlington



The Colossus was developed as a joint project between Coles UK and Coles Germany, Coles UK would develop the 250 ton 6000 (apparently it started out as a 170 ton design load only later to be upgraded to 250 ton) and Coles Germany would develop the L4000 at 150 ton. This joint development meant that if there was a sudden demand for mobile port towers (which seemed quite likely at the time) there would be two lines of production as the Darlington factory alone would not be able to be expanded fast enough to cope any sudden demand.



The UK truck would be larger than the German one the 6000 being 11 foot 10 inch wide (3.6 meters) and 52 feet 7 inches long (16.04 meters), where as the 400 would be 9 feet 8 inches wide (3 meters) (41 feet 3 inches long (12.53 meters) to conform to the European maximum road width limit.



*Above Left - German LT 4000
Left - Port tower jib*

Above - Colossus 6000

The main straight jib and the high port tower jib, would be developed in Germany based upon the box section jib developed for the L80/100. This new tower and long jib would be able to be used in a number of configurations, and would be similar on both the L4000 and the Colossus 6000.

One of the factors in the design of the port tower jib arrangement was stability, as one of the design requirements was that the whole machine could be moved short distances with in a shipping port with the tower ring in place. This was to allow the unit to be moved around a harbour area from ship to ship without having take down the jib and reassemble it elsewhere. Which is a long and so costly operation and difficult in the limited spaces around a port.



Coles design team put together a design comprising of as many standard parts as they could muster. For such a machine it was a very short design lead in time. Early in the design a model was made to access what the final machine would look like. The model above is that model, although updated to the 1974 version. Its quite a surprise that this model survived it was found in a store room at a Grove Cranes depot in Greencastle , Pennsylvania USA. An employee was told to throw away everything in the store, this model was one of three Coles models, he decided to save this one from the skip. It was put up for sale in 2009.





Colossus First Public Appearance

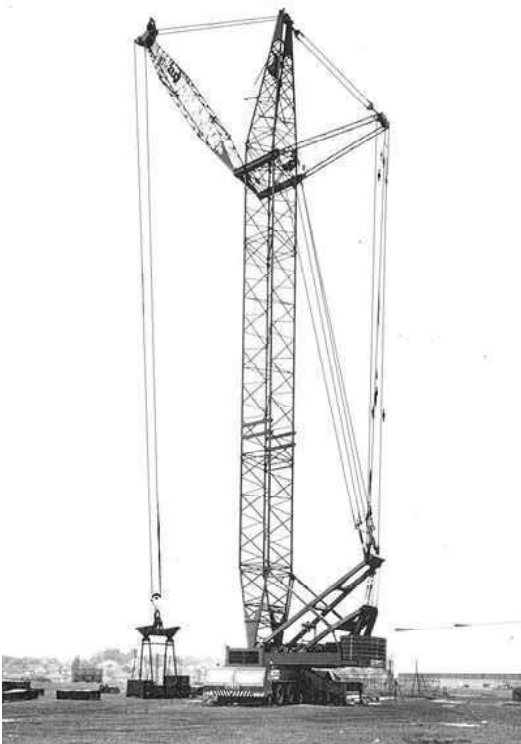
It had been a very rapid development for the 6000, in less than two years Coles had gone from the drawing board to the first fully working machine. It was a proud moment for the management and design team when the Colossus was first unveiled to the public in late 1971. The first machine was to be handed over to the first buyer, Sparrows of Bath. Sparrows were large crane hire company who could afford the hefty price tag of such a machine. The catalogue price was to be £250,000 this worked on a rule of thumb that a crane cost a £1,000 a ton. Sparrows were probably offered a good deal by Coles to get the sales started. A delegation had been dispatched from Sparrows for the hand over and to witness the machine working.



*Left - Demo Team
Right - Painted in Sparrows colours*

Unfortunately for Coles when the machine was working on a heavy lift it suffered structural failure and fell over in a rather spectacular manor.

This was a major embarrassment for Coles, Sparrows immediately cancelled their order for the crane and bought a Gottwald MK500. The crane had already been painted with the red Sparrows livery, this was quickly painted out.



*Left -
High Rig
Port Tower*

*Right -
Straight Jib
Long Boom*



What went wrong....

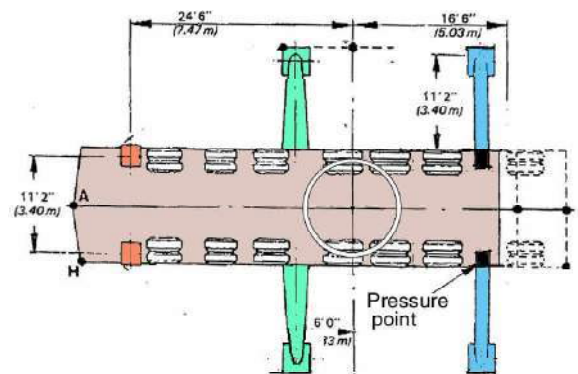


This was serious for Coles, an accident of this kind could jeopardise the whole future of the Colossus and the investment so far made.

All the German L series so far had been fitted with two pairs of large hydraulically operated stabilising outriggers each side. These were placed, directly under the high level chassis, one set at the rear of the chassis and one set between the third and fourth pair of wheels. These were equidistant from the pivot centre point of the crane superstructure.

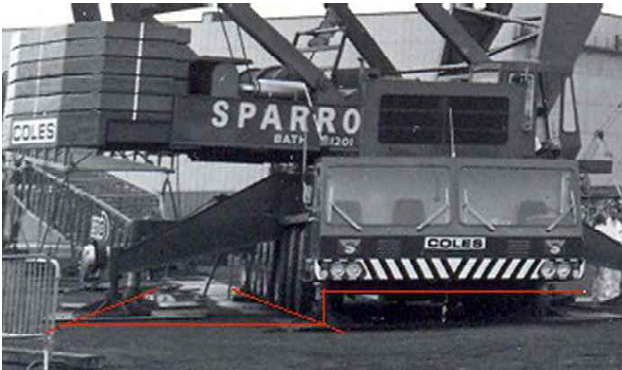
This first Colossus however (prototype) for Sparrows had three pairs of outriggers, the first pair were fixed (not extending) at the front of the chassis just behind the drivers cab, the second pair were telescopic and fixed at the rear of the main chassis behind the 6th axle, in front of a removable 7th axle on the pendle bogie, lastly a pair of removable outriggers bolted onto the side of the main truck chassis between the 3rd and the 4th axle.

The only account of the failure to come to light about the failure on that day refers to the rear pair of outriggers, those behind the 6th wheels had not been fully extended. Thus while the crane was rotating, probably with maximum load, the weight as it moved over these rear outriggers would have been at it maximum design load. The partly extended outriggers would have not been locked into their design position where reinforcing plates would transfer the load correctly to the chassis.



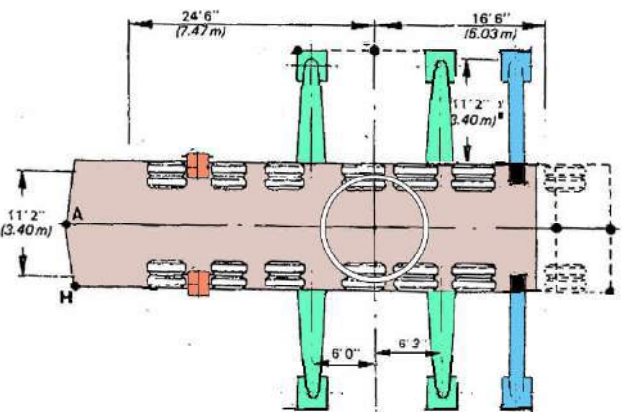
In all probability the rear end of the outrigger, under the crane, would have ripped through bottom of the outrigger casing box causing the outrigger to rip away. The crane would have rapidly overbalanced and fallen over.

If this was a matter of human error, the driver not extending the outrigger, then this was a design flaw, the design should have been such that this could not happen. The problem was one of differential point loading on the rear end of the rear hydraulic outrigger. the loading going straight along the chassis had to transfer at 90 degrees to the side. The loading at this junction could rise very sharply, technically they probably could cope but it was a weak point.



Coles solution to the problem was to add another pair of removable outriggers between the fifth and sixth wheels. There could be no human errors with removable outriggers, they would be either there or not. The center point of the crane was now almost midway between these flying outriggers. These could carry the whole load and the others became stabilisers to avoid twisting of the chassis frame.

They seemed to have allowed for the extra loading on the center removable outriggers as here the load went straight down from the chassis frame. This would have made the problem at the rear worse, the mid outriggers were stable whereas the rear outriggers were further away from the axis of the crane body putting even more uneven load onto the rear pads.



The original prototype machine seems to have been given a top capacity of 170 tons, possibly based on the maximum load it was thought the existing outriggers could safely take with the additional flying outriggers. Now that an additional pair of flying outriggers had been added, and the weight of the slewing deck now centred between them the greater stability meant the lift capacity could be increased. Thus after satisfactory tests the machine upper lift capacity was increased to the 250 ton load. The original prototype crane was updated repainted and then sold to J D White another crane hire company in 1972. Who were probably offered an even better deal than Sparrows to take the crane because of this disaster.



Full technical details of the Colossus 6000 unit can be seen the specification sheets available as a separate PDF download.

During this time while Coles were having troubles with the 6000, the factory German factory in Duisburg was busy working on the designs for the L4000, in doing so they would work their way through a whole L1000 series, from the L1000, L2000 and L3000. these were developed to prove the technology before the 4000 was finally made, all these were ten wheeled machines all based on the L80/100 chassis. The important break in design with these machines was the development of the high level ridged boxed chassis frame below which all the suspension drive and steering wheels were placed. This layout also gave a good depth of frame with no penetration or changes of level to weaken the structure. It also meant there was good ground clearance for the fitting of extra strong outriggers, necessary as loads increased. This was the major design factor that allowed the Colossus 6000 to be so rapidly developed in the UK.

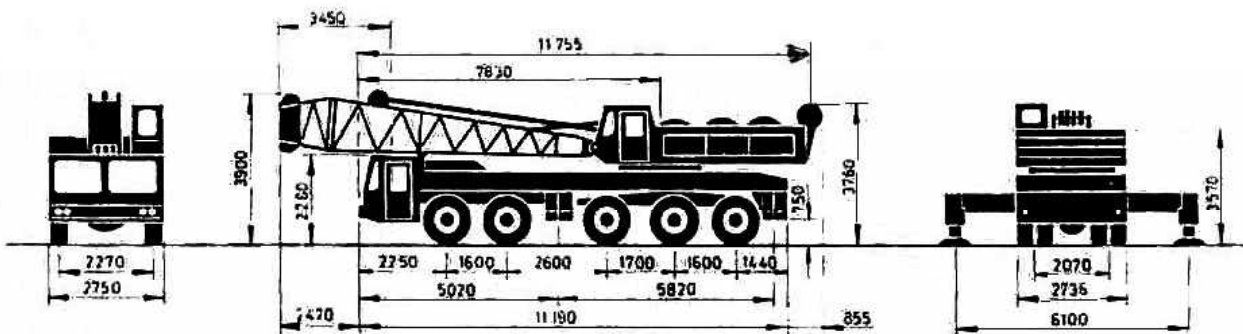


Images - Left - The L1000 was a simple update of the L88-100, the full width tubular steel boom meant the cabin had to be detached for travel. The root section of the boom also had to be detached.

Below - LT3000 98 ton of 1973 had a high tensile steel tower allowing a smaller jib section so the cab to be pulled onto the body for travel. The root jib could also remain attached resting over the cab during road travel.

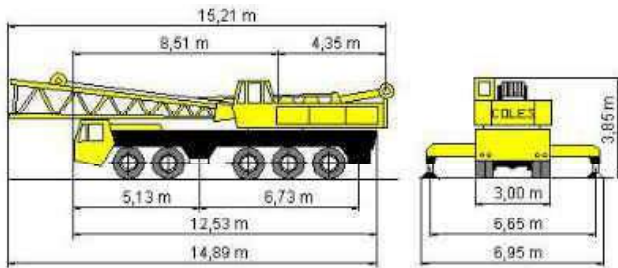


COLES LT3000



Above -The LT3000 was now a self contained tower and jib unit which could self erect and road travel a speed. This was the design on which the L4000 would be built, the Colossus 6000 would have a larger jib so the slewing deck would be facing the rear.

Coles (Duisburg) L4000



Coles LT 4000



By 1974 the L4000 was finally developed with a 140 ton lift and an interchangeable jib system giving a full range lifting opportunities from straight boom, to short port tower, high port tower, and mobile tower.



Specification L4000

Max. lift 143 (metric) ton at 3,5 m
 Main boom: 12 to 81 m
 Total length: 15.21 m
 Carrier length: 12.52 m Width: 3.0m
 Outrigger base: 6.73 x 6.65 m
 Carrier and crane engines: Deutz
 Transmission: 6-Gang-Hauptgetriebe
 Gears: 12+2 (Forward + reverse)
 Max. speed: 62 km/h
 Drive / Steering (standard): 10x8x6
 Max. counterweight: 35 t



Above left - Short tower with long derricking jib

Above - LT Port tower working in Sydney Harbour. One of two machines supplied.

Left - Outrigger spreader beam as used on above port tower crane.



The Colossuss 6000 - hits the road.....

The Colossus 6000 and the LT4000 were both brought to market in 1974 this was much later than originally planned. The advantage of getting to market quickly was lost and so other manufactures and been able to catch up. Not only that the market was changing and also the management at Coles.



In 1972 Acrow took over Coles but almost immediately there was a slow down in the sales of heavy machinery as the stock market crash of 1973/74 saw most construction work either stop or slow down throughout out Europe.

Another factor that affected the Colossus was that the marine container market never materialised, as ports discovered a single specialised dedicated container crane could empty a ship of cargo in a day, thus turning around a ship far faster than anyone had ever imagined. A single port crane could be cheaper to buy and easier to operate than the Colossus.

The pressure on profits also meant that Acrow had to streamline the production line and the number of crane types that they produced. The Colossus 6000 was still in the sales catalogue of 1976 but by 1978 the Hydramobile 911 was being built at Darlington, its success saw three versions being made there. The Darlington factory eventually closed down in 1984.

When the Colossus was finally phased out of production in not exactly known probably in 1977 when the factory was re-tooled for the Hydramobile. The foreman of the factory at the time only recalls that there were only six or seven ever built. The factory at Darlington opened in 1971 to build the Colossus but production did not really begin until 1973 after the problems of the prototype failure were sorted out. Even building two a year would be about right to give it a production run of three or four years at the most. Coles undoubtedly made a considerable financial loss on the whole project.



The LT4000 continued to be built in Germany until that factory, as part of the Acrow reorganisation, closed down 1982. There are no details now of how many of the 4000 were built but many more than the 6000. There was even another crane, L5000 which was rated at 200 ton brought out before closure.

Two types of Coles container handling cranes

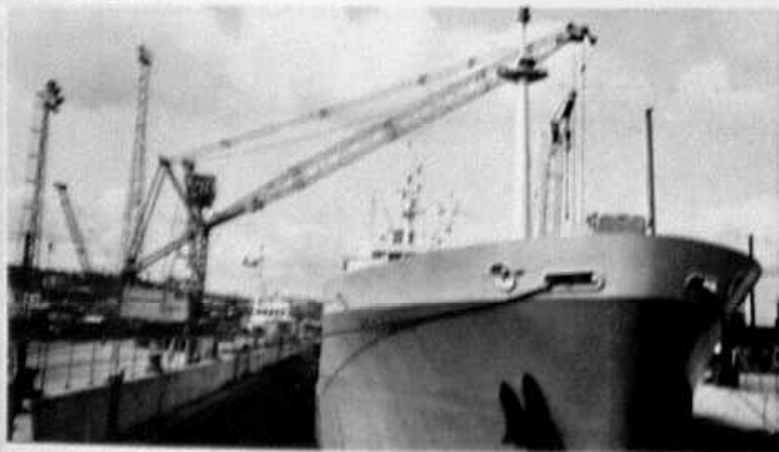
Coles container handling cranes are available in two distinct types; self-propelled mobile cranes; and truck-mounted mobile cranes.

Self-propelled mobile cranes are designed for use where only a limited amount of travelling is required. Coles mobiles are available in two models. They are each capable of lifting containers on and off trucks; travelling with loaded containers suspended from the hook; stacking containers; and discharging loaded containers from up to 10m (33ft) outreach. The cranes can also be used for the discharge of general cargo at up to 40m (130ft) radius, and for handling heavy cargo of up to 40 tonnes (Vigorous Mobile) or 90 tonnes (M2000 Mobile).

Truck-mounted mobile cranes are, as their name implies, mounted on chassis designed to travel at fast highway speeds when required. Coles trucks are available in four models, capable of discharging loaded containers from vessels of over 30m (98ft) beam, according to model. In addition, they can handle heavy cargo of unit loads up to 100 tonnes (Coles Colossus 2000 HLT), 150 tonnes (Coles Colossus 4000 HLT), 240 tonnes (Coles Colossus 5000 HLT) or 250 tonnes (Coles Colossus 6000 HLT). General cargo can also be discharged at up to 50m (165ft) radius.

Right Coles Colossus 4000 HLT in action, fitted with an automatic spreader unit.

Below Vigorous Port Tower has an excellent outreach, used here for general cargo work.



There is often confusion between the L4000 and Colossus 6000 as both these machines were called Colossus Port Cranes in Coles sales catalogues, but the 6000 was bigger and had the distinguishing cooling radiator sitting on top of the cab.

Left is a page from Acrows Port Crane catalogue of 1976, mentioning the whole range of heavy cranes in the L1000 series and the 6000 calling them all Colossus. This puts them all from the 100 ton to the 250 ton 6000 in the same category as Colossus.

The Internet has allowed the collecting of data on the machines that were built and so we have been able to uncover where all the Colossus 6000 machines went.

There were seven Colossus 6000 built in the Darlington factory this is a list of all the machines with the name of their first owners, further details with photographs are in the following pages

- Number 1 - JD White (United Kingdom)
- Number 2 - Stanley Davies Crane Hire Limited. (United Kingdom)
- Number 3 - Senn AG (Switzerland)
- Number 4 - Saudi Binladin (KSA) Kindom Saidi Aribia
- Number 5 - Hamilton Port Authority (Bermuda)
- Number 6 - Hobart Marine (Australia)
- Number 7 - Haji Mohammad Aslam and Sons (Pakistan)

Thanks to all the people who have helped supply the photos and information.

Anyone who can throw any more light or detail about any of these machines please contact the author and we will incorporate additional information in revised editions.

The Cranes - Colossuss 6000 - hits the road.....

Number 1 - JD White ((United Kingdom),

Model Type 1 14x10 (front fixed outrigger between 1st and 2nd axle - extending outrigger rear chassis between 6th and 7th axle)

J.D. White was the first buyer 1972 and were only ever to have one. This was the crane that was originally destined for Sparrows and actually ordered as a 170 ton before the order was cancelled after the accident during initial testing. Apparently if you scratched the ICI golden yellow paint you found Sparrows red underneath.

This crane went out of service and left for scrap for many years before being bought for parts to be used on the second UK Colossus.



Above - Official hand over outside the Coles Darlington works.



Number 2 - Stanley Davies (United Kingdom)

part of Hewden Stuart Plc, Castleford ,Yorkshire , England

Model Type 1 14x10 (front fixed outrigger between 1st and 2nd axle - extending outrigger rear chassis between 6th and 7th axle)

This was the second crane to be sold, this time to Stanley Davies Cane Hire part of the Hewden Stuart company based in Yorkshire.

This unit was eventually bought by Harvey Plant to go on the supply base in Peterhead but collapsed during test after a re-fit in Darlington due to a mistake in the way the pendle bogie outriggers had been extended. (This is a second hand story perhaps it is being confused with the original crane) (It is thought Harvey's bought the wreck of the JD White crane for parts.)



Left - Colossus being setup for a heavy bridge lift on motorway construction. Although supposed to be self erecting this is obviously using a second crane for assembly

Below - Same construction job here with a second Colossus 6000, possibly the JD White unit as this was the only other one in the country for hire.)



Number 3 - Asiacon (Pvt) Ltd Senn AG (Pakistan.)

Model Type 1 14x10 (front fixed outrigger between 1st and 2nd axle - extending outrigger rear chassis between 6th and 7th axle)

We are very fortunate by being contacted by the current owner of this machine Mr S.Ahsan Ali Tipu director of Asiacon.and the detail are verified from the log book. You can not get much better than that

This crane was registered 1973 and sold to Saudi Binladin (group) in Kindom Saidi Aribia. from here it was sold to its current owner around 1975. This machine is complete with the full port tower configuration as well as the straight boom.

Thanks to the current owners Asiacon Pvt Ltd, Burhan Pakistan, www.asiacon.com.pk (C: 0092-312-9116772) for the photographs and information.



Above left - Colossus working with straight boom.

Above right - Configured with the high tower fitted with luffing boom.



Left - The main 14 wheel truck and slewing deck locked down for road travel.



*Left - Working on a bridge
notice the large outriggers.*

*Below - Working on high lift to
block of flats showing the long
boom*



ASIACON (Pvt.) Ltd. was incorporated in 1968. The Company deals with Plant & Machinery Designing, site preparation, foundation work, equipment installation, Heavy Lifting, Transportation of Sensitive Equipments, piping, instrumentation, heat insulation and painting. They have their main offices at Abbottabad, Pakistan. Also a large workshop complex Railway Bridge GT Road Burhan Hassanabdal.



*Above and left. - The main
body and slewing unit being
given its first refit and paint
in 2014, forty one years
after it left the factory at
Darlington UK in 1973*



Number 4 - Senn AG (Oftringen, Switzerland.)

Model Type 1 14x10 (front fixed outrigger between 1st and 2nd axle - extending outrigger rear chassis between 6th and 7th axle)

Left - The only 6000 crane to be sold into Europe was sold to the construction company Senn AG of Switzerland. Here are two date known photographs showing it working on a 70 meter high skyscraper block on the site in the centre of Wallisellen in 1973, erecting prefabricated concrete elements in record time.

It was used in place of a normal tower crane, and was praised for its efficient working, the speed was helped as it could be moved without taking the tower down.



Above - The two photos show are the last sightings of this machine the transfer under its own power for export to Karachi. The crane had been sitting for several years and had to be made road worthy by the mechanics of purchasers before it could travel. The camera imprint date on the photograph is 1986.

This machine is now owned by Crecent Transport Services/Carriers, Lahore Pakistan. .

www.crescentcarriers.com

Number 5 - Hamilton Port Authority (Bermuda)

Model Type 2 12x10 (the front hydraulic outrigger has move back to a position just behind the cab. - extending outrigger rear chassis between 6th and 7th axle)

Bermuda was a British protectorate at this time and there would have been strong local advantage for buying British. It appeared in the 1976 Coles sales brochure working for the Hamilton Port Authority.

The following was information was given to me by Mike Hall who worked with this machine.

This Colossus was delivered to the Hamilton port authority in 1973 around October time when it left the UK as Deck Cargo bound for Bermuda. There was an interesting start to the delivery, in that, the crane was caught at the Darlington Factory during a prolonged strike by the Coles work force including Darlington.

Because of delivery commitments a Team of Coles Management personnel clandestinely (as in through the night) collected the Crane and got it on board a prearranged vessel for shipment. This caused quite a stir with the work force! By the time anyone realised what was happening the crane was on it's way.

As an aside, this strut jib configuration was chosen specifically by the Port Authority so that the boom could be lowered when the crane was not being used. This was to ensure that the views of the island would not be spoiled by crane jibs. As would have been the case with a port tower configuration or container crane, for example.



The above pictures are the front and rear view of the Colossus on the quayside at Hamilton during the first container lift taken around December 1973.

When the colossus arrived in Hamilton, the Port Authority arranged for the off loading with two cranes, one lifting at each end. The Colossus was about 2 to 3 metres in the air and being slowly lowered but the chassis cab was still the over the side of the ship, suddenly the lifting brackets supporting the front end of the crane slipped resulting in the crane falling on to the side of the ship. The chassis cab was bent upwards at about 30 Degrees resulting in considerable damage.

Fortunately the damage was limited to the cab and cab mountings. A replacement cab was ordered and specially made at Darligton and delivered in Nov/Dec 1973. The cab in the photos are of the new cab fitted.



Once repairs and installation were completed the crane worked extremely well except for a problem with the electric controls of the crane. The electrics for the Colossus were especially designed by D & P with normal crane operation in mind. However because this crane was ostensibly for off loading containers, requiring continual high cycle work one of the relay coils used for damping the slew motion overheated and actually caught fire. The driver put the fire out with a handy extinguisher but a complete replacement relay panel had to be acquired and fitted. This new panel obviously had modified electrics to cope with the high cycle operations for after that everything went as would be expected with a crane of this size. A bit of a chequered start and delay to it's working life.



Extra large outrigger pads spread the load as the dockside had limited loading capability.

The crane was put up for sale in the 1980's and was eventually sold through an US dealer to a dealer in the Netherlands. A few years later in 1996 after a major refurbishment. it was seen for sale in 1996 Sindorf Trading's yard (Holland). The crane originally was diesel electric driven, (as were all Coles strutt cranes at that time) but Sindorf converted the upper part to hydraulic drive.

From here it was last sitting was in Spain working for the firm of Santana, in what seems to be a quarry, and looking very sad for itself. When this photo last was taken is not known.



Above - Image from sales catalogue standing in Sindorf Trading's yard in 1996



Above - Looking very battered in Spain working for Santana

Number 6 - Hobart Marine (Australia)

Model Type 3 14x10 (front outriggers behind cab and rear outriggers replaced with solid bolt on outriggers at 45 degrees to chassis.)

This is one of the few units that we can follow from purchase to the present day.

A newspaper cutting from the Hobart Mercury in 1975 announces when the new Colossus was delivered to Tasmania

“Assembly of the Hobart Marine Boards travelling crane - the biggest in the southern hemisphere was completed yesterday, and it was given its first trials. The crane shipped by the makers Coles Ltd of England Will lift its first containers next week from barges from the overseas freighter Australia Bear. The \$600,000 unit can lift 250 Tons with its tower rising to 270 feet and a 112 ft jib extending a broad power reach.”

Below - Arrival from ferry at Hobart docks.



Hobart Marine used the Colossus 6000 as a wharf crane for fifteen years or so as a general cargo and container crane. However somewhere in the 1990's when specialist container cranes were being introduced Hobart decided to sell the Colossus. The new specialised container cranes were faster and easier to use than heavy cranes. Hobart still had two Colossus 4000 which were easier to deploy than the 6000 when extra crange was needed.

Connor Cranes an established crane hire company in Victoria purchased the Colossus 6000 crane from Hobart and worked it until they were taken over by the larger firm of Boom.



BOOM

The company was registered on 22 December 2000, Originally named The Australian Crane Company, over its first few years the company acquired a range of successful private businesses, which held strategic positions in the Australian crane industry.

In October 2003, the name was changed, and Boom Logistics Limited and was successfully listed on the Australian Stock Exchange. This gave the company additional capital to acquire another group of established businesses to extend their operations. among these companies was one Connor Cranes established in Victoria.

Boom thus acquired the Colossus 6000 by default and eventually repainted with their own house colours of green and black



Above and Last page - The big yellow thing is at the start of the freeway from Melbourne city to the airport. The freestanding yellow angle and red poles are simply a way of making a concrete storm water drain look like something else.

Below left - Now painted in Boom colours working lifting beams on a motorway bridge.



Boom decided to sell the their Colossus so it went up for sale again in September 2008. It was eventually bought by another Australian company Bridge & Marine form Ardeer in Victoria, who completely refurbished it and with whom it is still working.



Note the extended plates bolted onto the outriggers extend their length on this machine.

Also below that the lift has the Colossus at one end and two hydraulic boom crane at the other.



Number 7 - Haji Mohammad Aslam and Sons (Pakistan)

Model Type 3 12x10 (front outriggers behind cab, rear outriggers replaced with solid bolt on outriggers at 45 degrees to chassis.)

Not much information about this crane apart from the fact that it is still currently working for Haji Mohammad Aslam and Sons of Karachi. (probably not the first owners.)
Again Pakistan at the time had strong trade links British along with preferential trade agreements.

There was also a link with Tractors India Ltd who assembled UK built machines for local sales. This machine may have been part of a sales campaign in the sub continent.

Coles had sent machines to the Karachi Port Trust from the time of the first mobile crane the Tilling Stevens in 1918. It quite probable that the Port Trust were the first owners of this machine.





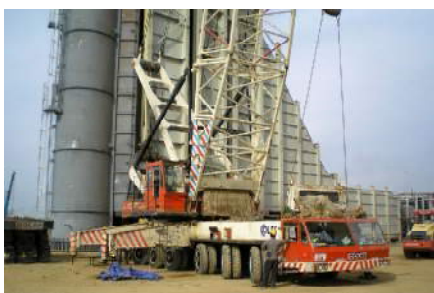
Finally the LT4000

Two LT4000 were sold to Sidney Harbour Board and were working until the mid 1980s when they fell into disrepair and were left in the harbour yard waiting for repair and rusting away for many years. They were finally sold for scrap in the early 2000s.

One was also supplied to Port Nelson in New Zealand, where it handled container traffic for many years. It was superseded by the Liebherr Mobile Harbour Cranes but continued to be used to discharge empties and as a handy back up. It was also used in the removal of the wood chip gantry in 2004 and the construction of the Brunt Quay square-off in 2005. Nelson people appreciated the installation of Christmas lights on the mast of this crane for many years. The machine has now been scrapped.



Still Working



Still Working



Still Working



Still Working



Still Working (just)

Above : Images of all the Coles Colossus 6000

Out of the seven Coles Colossus 6000 machines that were made in the Darlington factory between 1973 and 1976, five are still working and look as if they will be for some time yet. As they say "They don't build the like that any more"

I would like to thank all those who supplied information, also many others for supplying pictures and personal recollections that have helped piece together this story about this the Coles Colossus 6000. If there are any serious omissions, mistakes, or relevant additional material please feel free to contact me and we'll get it put into a revised addition. There is a lot more information somewhere out there to be added, especially about dates.

I would especially like to hear from anyone who worked at or knows about the Darlington works where the 6000 was built.

Contact can be made through the Coles Crane website at - www.tonyonthemoon.co.uk

Interesting sites and links

Books on Cranes.

Coles 100 Years - The Growth Story Of Europe's Leading Crane Manufacture 1879-1979
(available as PDF download) Coles 1978

'History of Cranes' (Classic Constructions) by Oliver Bachmann.
Published by KHL International in 1997.

'Mobile Crane Manual' by D.H.Campbell,P.Eng update D.Dickie.P.Eng
Published by Butterworths 1985.

Archives /Websites

Lincolnshire Archives - Engineering Records. Details of Hydra crane and general literature
Grantham Library - details and sales brochure of R H Neal Ltd
Newcastle, Tyne and Wear Archives - minutes, registers, financial records 1907-1948
Beamish Living Museum, Tyneside - <http://www.beamish.org.uk/>
Museum of Power. Essex - www.museumofpower.org.uk
Picture the Past. (Derby/Notts photo archive) - www.picturethepast.org.uk
Crane Site : Fan site all types of cranes - www.kransite.de
Sunderland Information - www.sunderland.gov.uk
Wortley Top Forge & Industrial Museum - www.topforge.co.uk
Neil Fraser - Classic Commercial Motor Vehicles - ccmv.aecsouthall.co.uk
REME Museum - Army museum - www.rememuseum.org.uk
Graham Newell (jubup) flicker - <http://www.flickr.com/photos/62532775@N03/sets/>

Contact

Anyone who feels there are any serious omissions, mistakes, or relevant additional material please feel free to contact me and we'll get it put into a revised addition.
I would especially like to hear from anyone who knows about gearing or has any photos or drawings of the slewing deck of this crane.
Contact can be made through the Coles Crane website.



COLES CRANES official models

A site dedicated to all things about Coles Cranes and its history in crane making. Complete with an image database of all the types made, technical details and history of companies take over.

<https://sites.google.com/site/colescranedatabase/home/>

About the Author



My early years were spent hunched over a drawing board as an apprentice in an architects office, whilst studying part time for exams. I had always made models and it was here that I first got paid to make architectural models. Convinced I had failed my final exams and generally fed up with life in a very small town, I packed my job in and took the train to Scotland. There was no money to get any further away. No plans except an invite to set up a pottery at a holiday art school.

It was a fun time but then inevitably winter came and you have to be very very waterproof to stay in Scotland in the winter. I came back and looked for a job. I saw an advert for a model maker in Sunderland, so I applied. Had to look up where Sunderland was when I got an interview. Much to my surprise I got the Job. So I was the official model maker to the British Crane and Excavator Corporation Ltd, otherwise known to everybody as Coles Cranes.

Leaving that job to become a teacher I was enticed back into architecture by the lure of money and the promise that I would not have to face a class marauding children every morning. Then computers came along I became a CAD (Computer Aided Design) manager. Strangely I ended up building schools for a number of years. After redundancy I did few years of contract work and one of my final jobs was working with the team building the National Ice Centre. After that I decided to hang up my T-square.

This gave me time for some of my other interests one of which ended up with the Coles Crane website and these books about cranes.

And one final model crane, the first Husky.(right)

Anthony J Kemp

