MRQC 2016; How QR Handled Freight.

"How Queensland Railways Handled Freight and Goods"

This is a Presentation at the Modelling the Railways of Queensland Convention held on Saturday the 17th of September 2016 by Peter Kennedy and John Lovett.

A brief Background View.

Queensland Railways (QR) commenced moving goods in 1865.
Prior to this, Coastal Trade was by sea and Inland Transport was by Horse, Bullock and Camel Power.
The early days of QR saw isolated rail systems developed between Coastal Ports and the agricultural hinterland behind each port. It was not until 1924 that Brisbane and Cairns were finally linked by rail.
In the 1940's, the World War 2 Japanese submarine threat diverted much of the coastal shipping trade onto the railways and QR became the supreme 'Goods Carrier' in Queensland for the next 30 years.
By the 1970's, increased Road Transport saw the gradual loss of the carriage of Goods from Rail to Road accompanied by the closure of branch lines and infrastructure.
By the year 2000, QR was reduced mainly to a 'Bulk' carrier and by 2010 the commercial Freight and Goods part of QR was sold to 'QR National' which later became 'Aurizon'.
Today, the only freight handled by QR is their 'Departmental Requirements', ballast, rails, sleepers etc.

During this session we will first look at the various Types of Goods carried during the 145 years of QR.

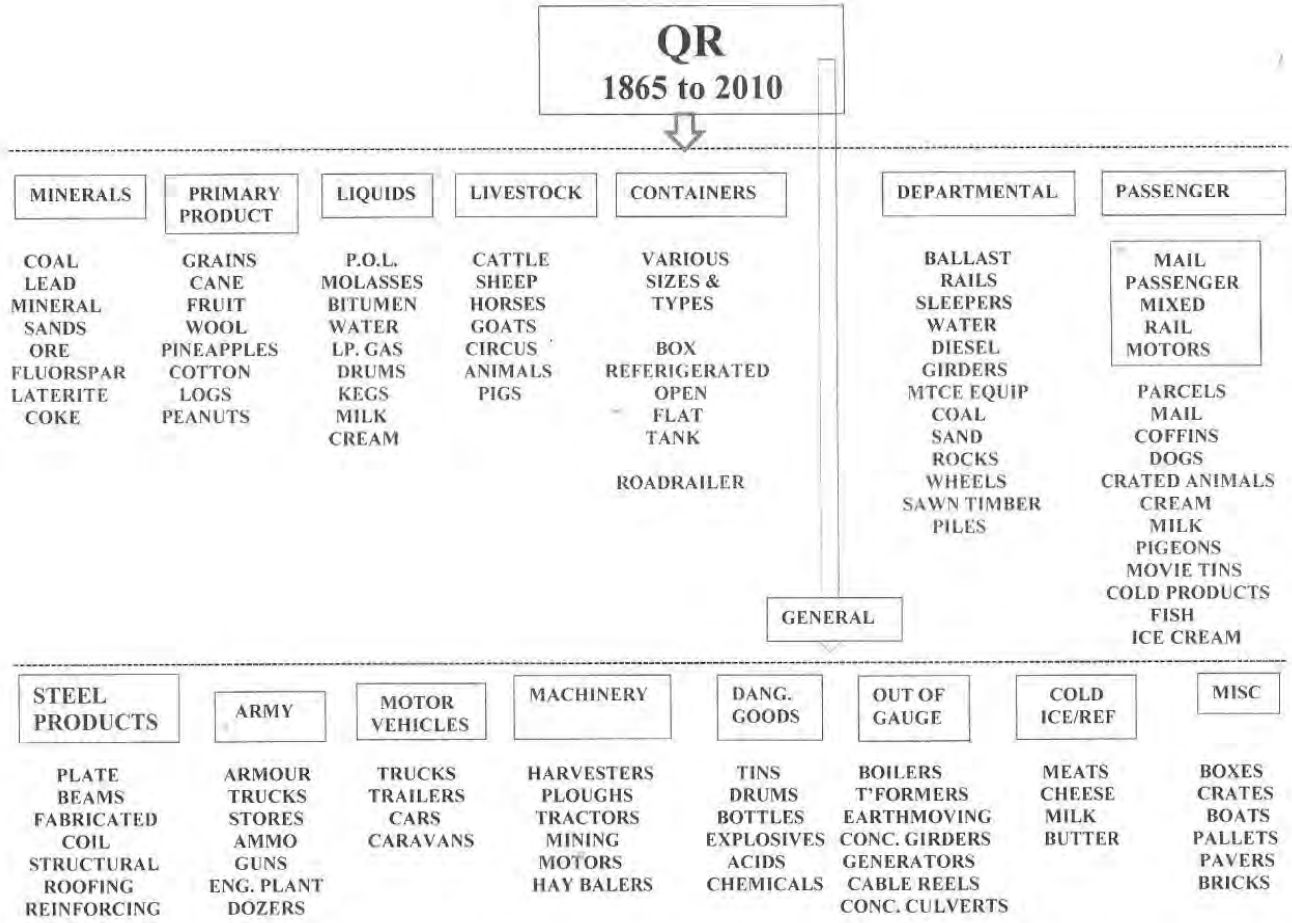
We will briefly look at the methods of loading goods.
Manual Handling; Wheeled Barrows.
Station Platforms and Side and End loading Ramps.
Overhead and under track chutes.
Cattle and Sheep yards.
Forklifts and Cranes.
Gantries, Goods Sheds and Mobile Cranes.
Sidelift Semitrailers.
Elephants, Augers and Front End Loaders.
Tip Trucks and Transhipment.

Then we will have a brief look at where loading and unloading took place.
Goods Shed and Loading Areas.
Isolated Sidings on Main lines, (for Ballast, Rails etc.)
Depots and Workshops.

We'll show examples of these areas through the period that QR operated.
If there is time, we'll have a short question time.
A short summary of QR's changing operations will end our session.

Here is a listing of SOME of the Freight and Goods which QR carried.
If we tried to cover EVERYTHING it would be a very long session indeed.

What QR Carried.



Using this table we will look at some of the Freight and Goods carried by QR.

MINERALS:
Coal;
Since the beginning of the Railway era in Queensland, Coal has formed a huge portion of the freight carried.
In the modern era with multiple Diesels hauling huge bogie hopper wagons it still continues to be a consistent money earner for QR.

C 17 No. 840 hauling four wheel coal hoppers from Rhondda Colliery in December 1968.
Wooden four wheel hoppers came in various Classes. As the loading allowed on QR rails increased, so larger capacity hoppers could carry larger loads.
The four wheel hoppers worked well past the large scale introduction of steel bogie hoppers in the late 1960's.

Both wooden and steel four wheel hoppers were also hauled direct to customers.

Outside the Wool Stores at Teneriffe, a string of coal hopers is heading for either CSR at New Farm or the Brisbane City Council New Farm powerhouse.

One of the earliest Coal handling installations was the South Brisbane Coal wharf which loaded coal direct into ships bunkers or into ships holds for export.

An overall view of the Coal Wharf looking to the West

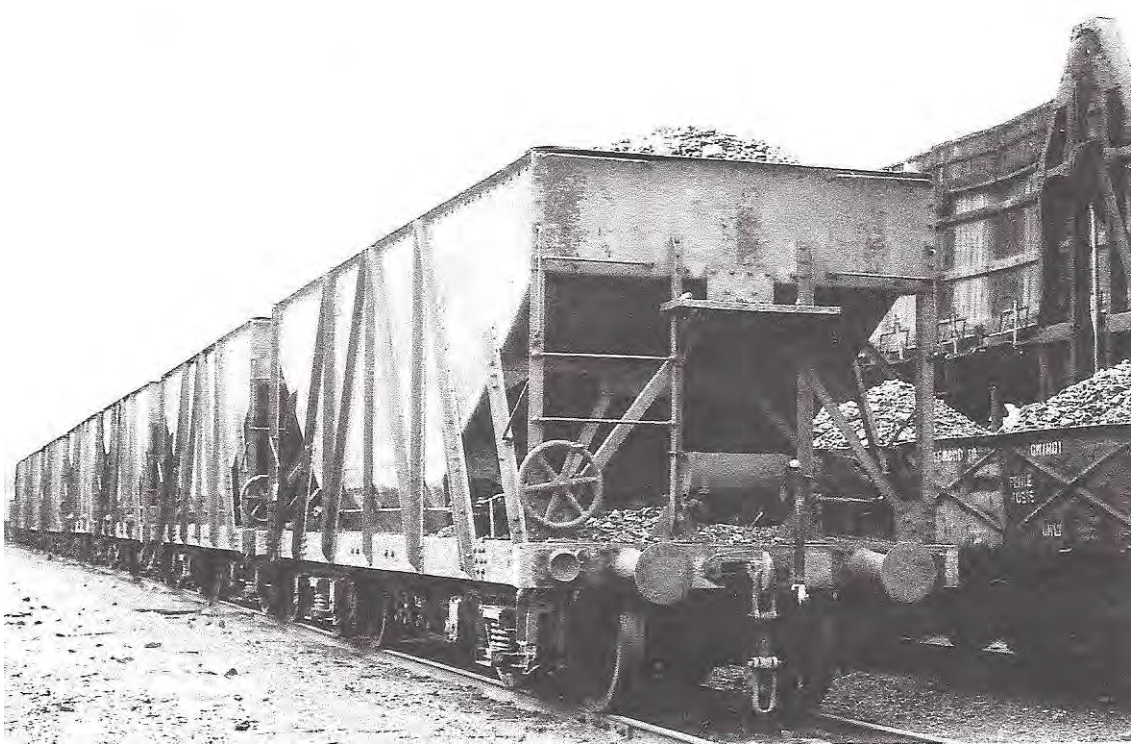
Loaded trains would arrive from the track through the tunnel from Woolloongabba Yard off to the left of the photo. The wagons were unhitched and left on the various tracks to be unloaded by the steam cranes.

In the 1970's, the South East Freeway and the Captain Cook Bridge cut right through this area, leaving little memory of the whole complex.
From river level, the only visible reminders are the steel bases of the individual steam cranes rising above the water level.

At the Coal Wharf, steam cranes would lift the hoppers from the wagon underframe and swing it over the ship or lighter using the 'four hook' arrangement hanging from the crane on the right.
When the river was calm, it could be a quiet place to row your boat on a Sunday morning at the turn of the tide.

Due to the regular flooding of the Brisbane River, the Coal Wharf could be out of commission for some time.
This is the 1890 flood. Two even bigger floods occurred early in 1893.

Departmental locomotive coal for QR was either carried in four wheel hoppers or in the earliest Steel Bogie Coal hoppers imported from the USA in 1903.
There were only 20 of these bogie hoppers built by the American Car and Foundry Company.
Similar sized wooden construction bogie Coal Hoppers were built at Townsville.



Steel VH bogie Coal Hoppers at Willowburn 1966.

In the modern era, multiple Class 4000 DELs haul loaded aluminium coal hoppers towards a shipping port to load the coal for export.

Today, the coal unloading facility at Fisherman Island is a more modest affair. The coal is dumped through the floor doors in the wagons into a pit, where an auger carries it off to a loader for the overhead belt conveyor which takes the coal off to the wharfside loader which transfers coal directly into the holds of the ships.

Lead;

Lead and Zinc ore in GSZY wagons behind DEL's 2837 and 2833.

After refining, Lead Ingots are railed to customer or export on PCZYL wagons.
Due to the high density of Lead, the volume is small for a high weight. The load is carried at both ends of the wagon.

Mineral Sands;

VSE Class wagon for Mineral Sands. They carried sand from Gympie to Whinstanes.

Copper;

Ingots of Copper are carried on wagon PCZY 48379 in a dedicated container.

Copper being railed to Southern markets from Townsville.

Nickel;

A ‘GN’ Class wagon for carrying Nickel.
These were unloaded using a tippler.

Cement;

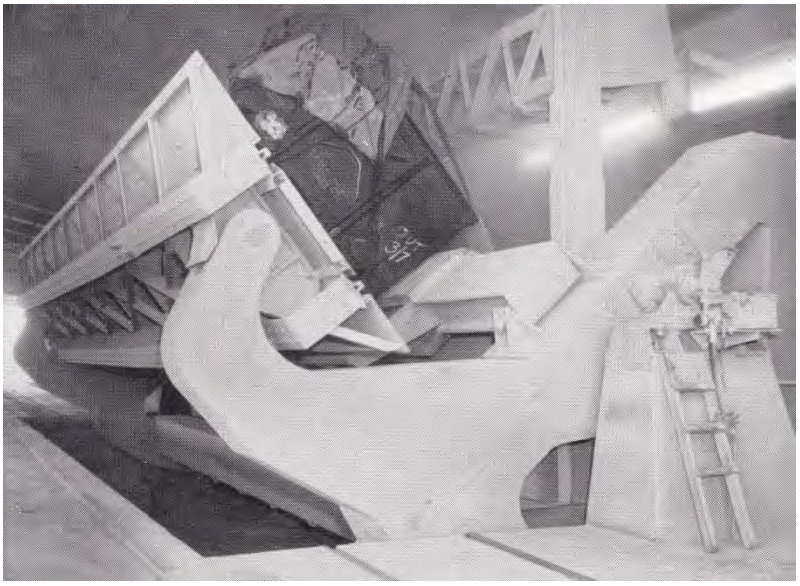
A QFQ wagon for Bulk Cement.

PRIMARY PRODUCTS:
Grain;
Wheat has been a food staple carried by QR since the early days.

The earliest shipments of bagged wheat were carried in wooden open wagons with a tarpaulin fitted over the load to keep the shipment dry.

Wooden bogie wagons also were used to carried wheat and were covered with tarpaulins to keep the shipment dry.
There were no restraints used; the weight of the bags was enough to keep the load stable.
There are loading diagrams in the ‘Further Information’ section of the Convention DVD.

DEL 1458 carried a record load of 1117 tons of bulk wheat in WH wagons from Toowoomba on the 31st of July 1959.



The loaded wagons were unloaded at Pinkenba Grain Wharf by a ‘tippler’ where the individual wagon was tipped over in a rotating cradle to let the grain fall out.
These wagons used a special tarpaulin for covering the load.

Bulk grain was also moved in four wheel GVJD hopper wagons. These were a development of the wooden and steel four wheel hopper wagons used for coal traffic from the early days.

Modern Grain bogie hoppers are loaded directly from a holding silo and a chute directs the grain into the wagon.
The covering tarpaulins have been replaced with solid sliding roofs for water protection.
The photo was taken at Meanderra on the 8th September 2010.

On arrival at the unloader, the bottom drop doors are opened and the grain falls into a pit, where an auger removes the grain to a holding storage building.

Grain can often be moved by container load, though it helps to secure the lower doors first! 9th March 2010.

Sugar Cane;

A PB 15 steam loco hauling wholestick cane near Gargett in September 1967.

Until the Diesel era, QR hauled cane to some Sugar Mills.
Mackay was the last bastion of steam hauled sugar.
Privately owned narrow gauge railways still haul cut stalk cane to some mills, along with road transport.

Processed sugar is now hauled exclusively by Road.

B 18 No. 844 hauling MTW wagons loaded with Bulk Sugar Bins across the Pioneer River, 12th September 1967.

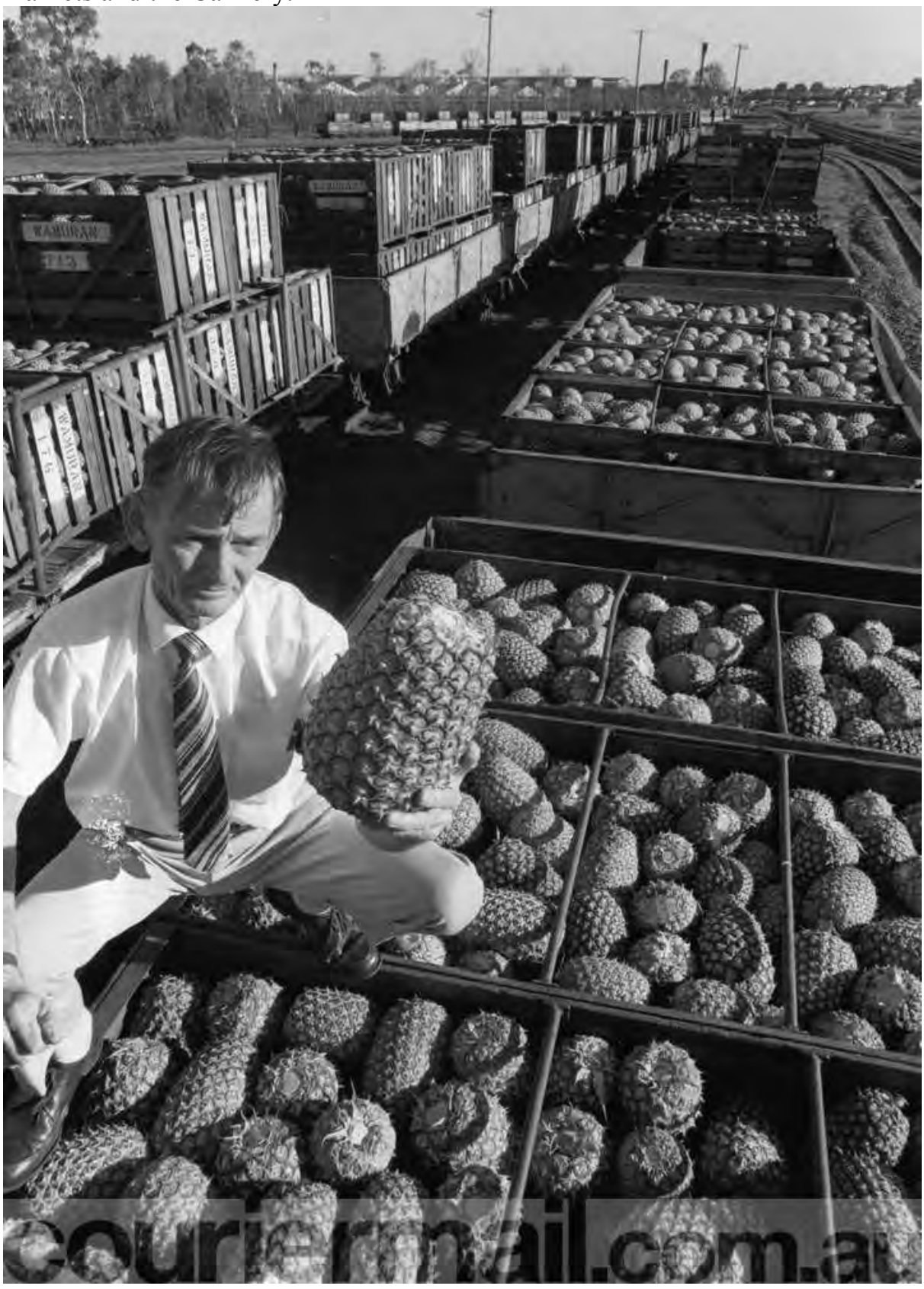
FRUIT;
Apples;
Up until the mid 1950's, single wooden boxes of Apples and other Fruits were carried by QR.

For carriage to the Golden Circle Cannery from the Stanthorpe District, bulk loads of apples were loaded into aluminium hopper wagons from bins mounted on a forklift.
The eventual product was Apple Juice.
I know what my Uncles who owned fruit farms on the Granite Belt would have said about the bruising given to fruit when handled in this manner!

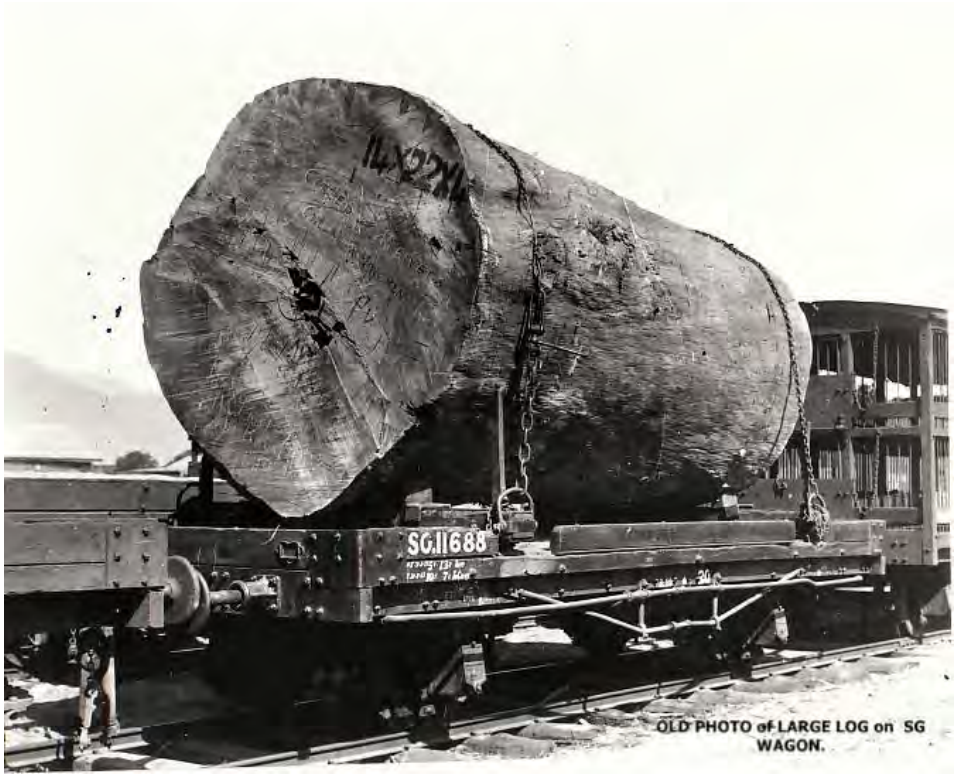
Wool;

Wool Bales being loaded onto an H wagon at Charleville from a horse drawn dray.
There are loading diagrams for Wool Bales in the ‘Further Information’ section of the Convention DVD.

Pineapples; for many years, QR conveyed crated pineapples to the markets and the Cannery.



LOGS;



Timber getting was a very early industry across much of Queensland. This log is being conveyed on a four wheel wagon, SG No. 11688.

Timber poles 100 feet long (30 metres) being carried on swivel fitted MTW wagons with QG runner wagons at each end. 1960's.

Log Loading Diagrams are in the 'Further Information' section of the Convention DVD.

LIQUIDS:
POL (Petrol, Oil, Liquids) 'bombs' were common on QR from the 1930's.
The earliest tanks were riveted, but welded tanks soon came into use.

Petrol 'bomb' OV 9.

Molasses Tank Car PTM No. 25724 at Home Hill. 28th August 1988.

Bitumen Tanker OBE No. 43903 at Pinkenba on 1st January 1988.

Water;

Water was carried in all areas of the State in both four wheeled wagons and various bogie wagons.
This is a PCWT Class water wagon.

LPG;

LP. Gas tank wagon at Roma Street 1966.

DRUMS;

An HJS wagon loaded with 44 gallon (200 Litre) drums in a situation which shows a very good view of how they were stacked.
'Plume' was an Australian Petroleum products company which became part of the 'Mobil' Group.

If you have an old wagon, here's a suggestion for 200 litre drum storage.
The leaking drums are optional!
The prototype is in the Shell Depot at Quilpie.

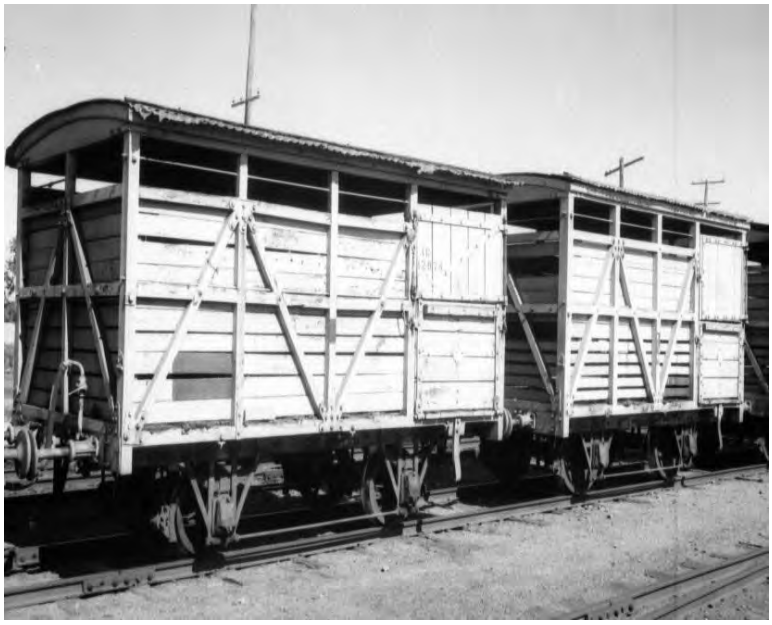
Kegs;

The display at the Railway Workshops museum has XXXX kegs loaded into an H wagon. If full they probably need to be more secure to reach the customer in a similar condition.

Milk;

Milk was transported in steel churns like this which were manhandled both on and off the Box Vans in which they were carried.
They are almost impossible to find these days.
This one is the letterbox for Mr. Bob Skinner.

LIVESTOCK:
Cattle;



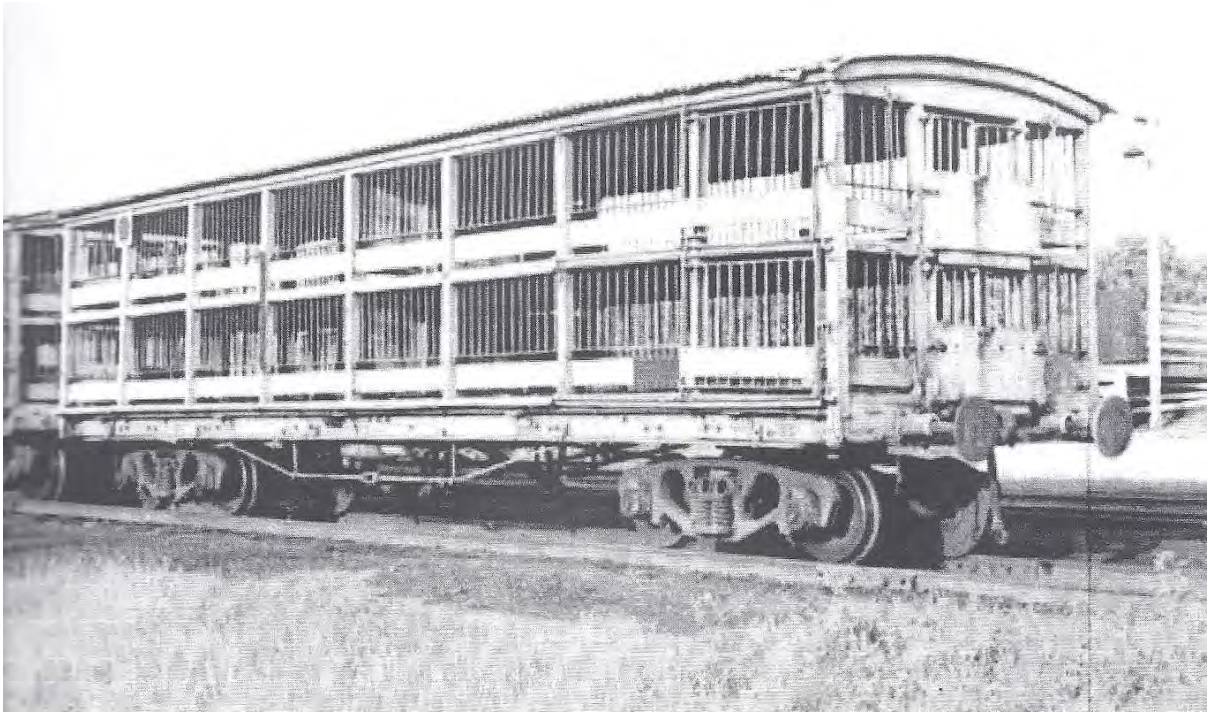
IC Class four wheel wooden wagons were used for four head of cattle. Quite soon wooden bogie wagons came into service.

Wooden bogie Cattle wagon K 9049.

Cattle are still carried by QR, but the wooden wagons have been replaced by steel wagons.
Often, the sign on the sides of the wagon proclaims these as one of Queensland's 'Named Trains'; in this case the "Cattletrain".

Sheep;

The MG Class Sheep wagon carries sheep on two levels.



The traffic soon needed two level bogie Sheep wagons, Class N.

In the late 1990's QR bought 96 Sheep containers from Western Australia and mounted them on 48 underframes from body rusted WHE bulk Grain wagons.

These were a lot higher than the QR N wagon (in background), so all the loading and unloading sheep races needed to be altered.
These became the PSC Class. The last usage of these was in 2000 for carrying Pigs from Julia Creek to Gympie.
Then the containers were removed and scrapped.

Horses;

A ‘Z’ Class wagon with three horse stalls.

ZZ No 22344 built in 1950 carried six horses.
In the days before the wide usage of the motor car, horses were an asset that needed good care. This photo was taken in 1969.

Circus Animals;

A Circus Elephant at Richmond.

When the Circus came to Town, everybody turned out to watch the unloading. As well as performing, the Elephants were used to unload and to load the Circus wagons from the flatcars.

QR had one Class of wagon dedicated to the carriage of Elephants.
This was the EIC Class which was an adaptation of the four horse carrying four wheeled IC wagon.
The roof framing on the EIC was higher with no actual roof cladding.
On the right is the end of an IC wagon for comparison.

Dogs;

Many Guards Vans had a full body width special compartment fitted with grilles for the carriage of Dogs.

It was the responsibility of QR Station Staff enroute to see that the dogs were fed and had drinking water.

CONTAINERS:
In the 1960's the 20 foot long ISO Container revolutionised Freight handling.
Fork Lifts arrived in Australia during World War 2 with the US Forces.
Postwar development of fork lifts saw them grow in capacity and be capable of heavier lifts.
From the 'Box' Container of 20 feet long, specialised Containers were developed for the carriage of specific goods.
Quite soon, 'block' trains of all Container wagons were common on QR.

DEL 1523 hauling Container wagons south of Mackay in the 1990's.

This is an ‘Open Container. Large forklifts handle things with ease.

This is an ‘Open Door’ container; the sides open fully to allow forklift loading of goods on pallets.

Forty foot long Containers are also loaded by forklift. Overhead spreader frames and multiple chains are used instead of fork tines when required.

With an extendable jib, this heavy lift forklift is able to load a tank container onto a wagon on the ‘second track’.

Sometimes, loading does not go to plan! Load limits should be obeyed!

Roadrailer;

In the 1990's QR began hauling 'Roadrailer' modified trailers for QRX, but by the end of the 1990's, the practice was discontinued.

DEPARTMENTAL:
QR still hauls the loads for its own purposes.

Ballast;

For many years QR moved Ballast in steel four wheel VTS wagons.
The bottom drop doors were controlled from the side mounted handwheels, depositing the ballast between the rails.
Then it was spread by a four wheel ballast plough.

The ‘T’ Class ballast plough was in use for many years.
The handwheels in the body of the vehicle controlled the height of the plough blades.

In more modern times, Diesel hauled ballast trains perform the same work, using bogie hopper wagons to carry heavier loads of ballast.

Rails;

Individual rails were carried on wagons until the practice of welding rail into long lengths commenced.
Specialist wagons were developed to carry the rails to the worksite.

Welded rail loaded in a dedicated rake of wagons.

Sleepers;
Wooden sleepers weighed about 25 Kg and could be manually handled. There were many thousands of wooden sleepers cut locally for various QR lines around the State.
With the advent of welded rail and concrete sleepers weighing 250 Kg each, it was necessary to totally mechanise the handling of sleepers.

HOSM wagons carrying concrete sleepers at Beerburrum.

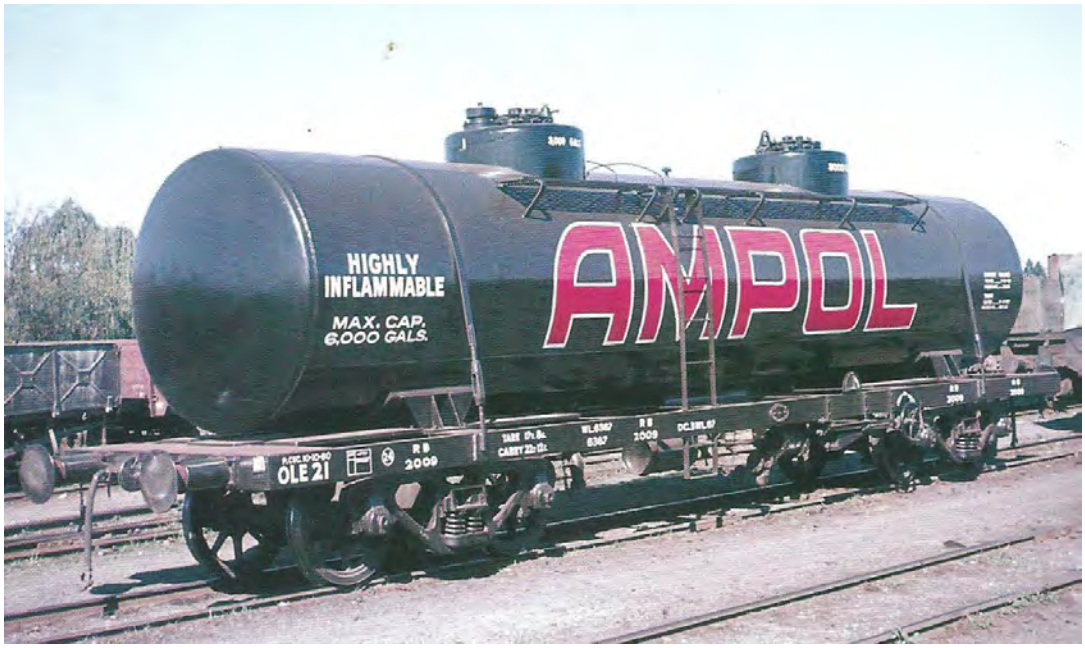
Concrete sleepers being placed on prepared trackbed.

Water;

For loco use, WW wagons were used. Photo taken at Charleville.

The crew of DH 64 filling the water tanks of a track gang near Dalby. Photo taken on 12th January 1971.

Diesel Supplies;
Removing the Steam locos from the system meant that Coal was no longer hauled, but Diesel fuel and other consumables became a Departmental requirement instead.



Welded Tank Car OLE 21 built 1960.

FJS wagon No 28639 was used for Loco Sand

FO wagon No 36273 carried Diesel Loco Sand as well.

Piles and Girders for bridges;

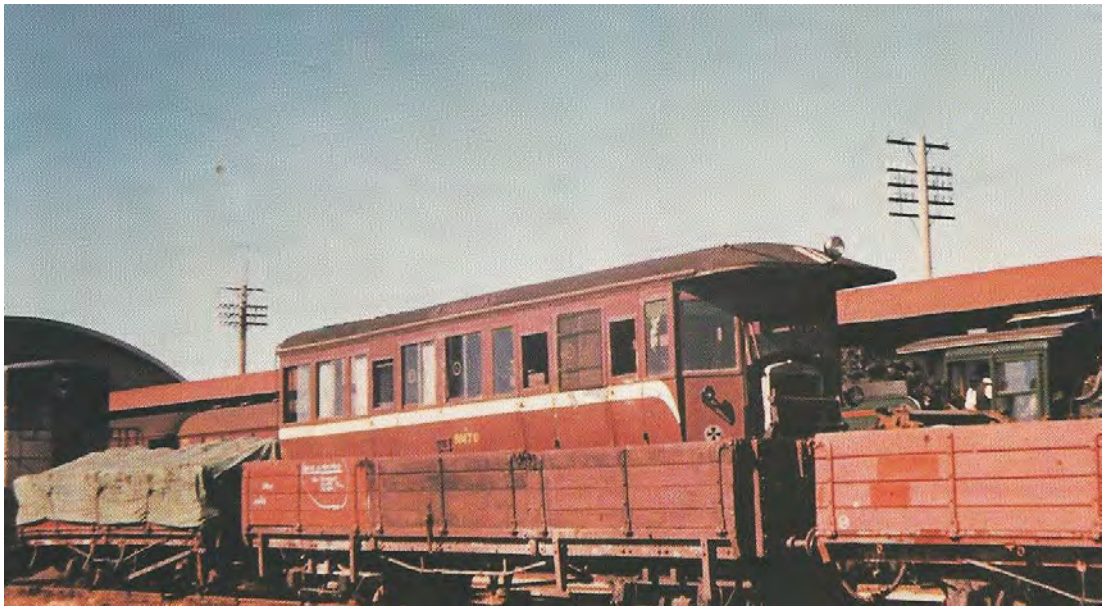
PWZ 31608 at Gladstone with Concrete Bridge Piles.

Prestressed Concrete Bridge Girders at Normanby.

Wheels;

Wagon wheels on a flat wagon.

Steel freight bogies carried in an open wagon.



A more unusual Departmental load was RM 70 on the way to Redbank for repairs, carried in an H wagon. August 1970.

PASSENGER TRAINS and RAILMOTORS:

QR was never able to provide a door to door service until the 1980's, but carriage of goods was from your local Railway Station by train to any other Station in the State.

The 'crack' Passenger trains to various points were often named "Gympie Mail, Sydney Mail" etc. Often these trains had Dining Cars, Sleepers and Mail sorting vans attached.

On the Normanton to Croydon line, RM 74 provided both the Passenger and Goods service.

Moving Pictures;

Canisters of the latest Movie Films were sent to theatres around the State each week.

STEEL PRODUCTS:

Steel plate and Girders on Flat wagons.

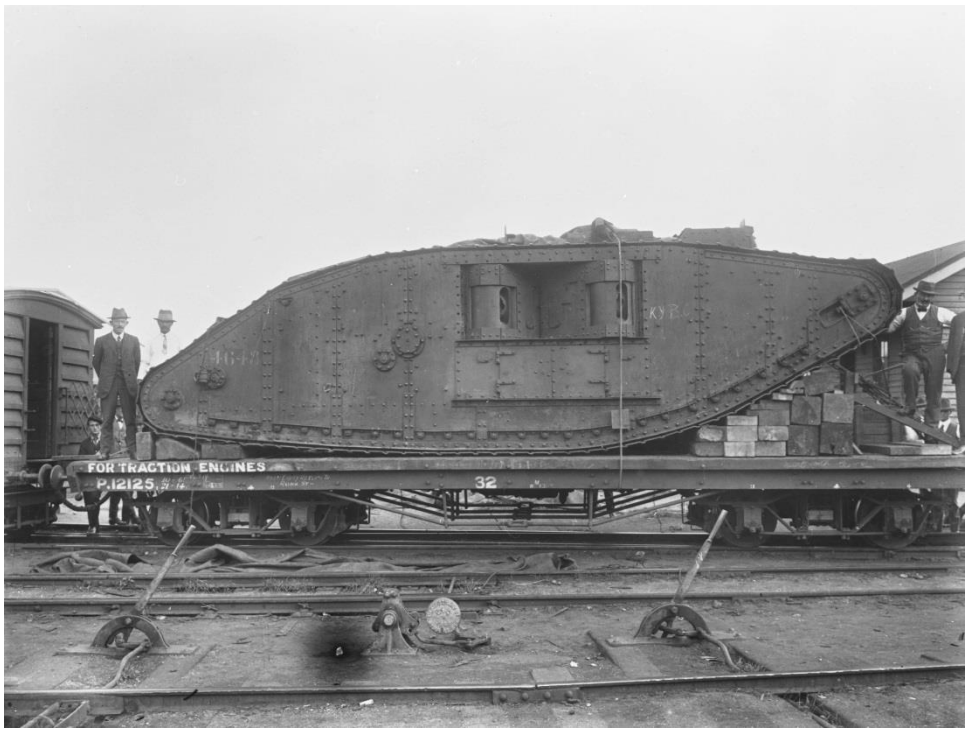
Steel ‘H’ girders were transported for building sites.

Steel mesh matting for reinforcing Concrete Slabs.

A 107 foot long Fabricated Girder is hauled to the North as a ‘Special Load’ on two wagons fitted with swivel bolsters.

ARMY LOADS:
Since the introduction of Railways, the Australian Army has used them for transporting Men and Material.

Armoured Vehicles;



For a War Bond drive in 1919, this British Tank was carried around the State on wagon P12125.

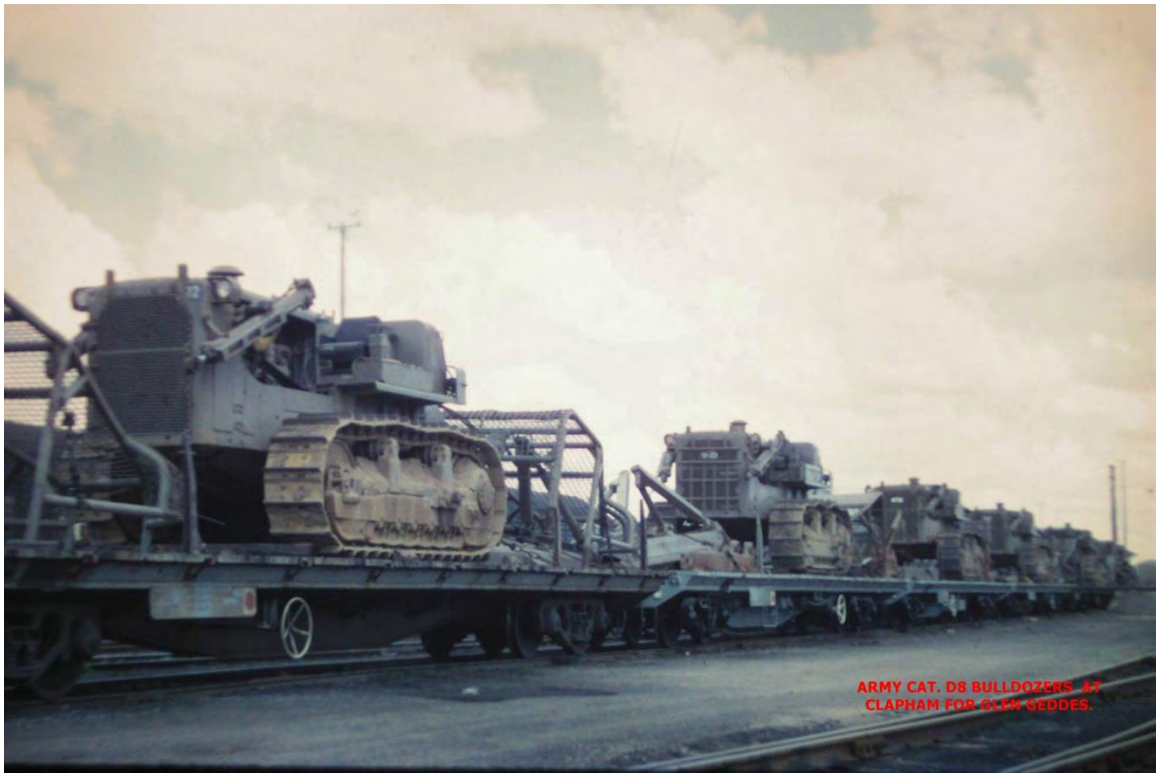
Leopard Tanks heading for the training area in 1980.

M113 Armoured Personnel Carriers at Gympie in 1976, during the Vietnam conflict.

Engineering Plant;

Graders and Scrapers on QFC wagons 1975.

Bulldozers;



Army D8 Bulldozers on QFC wagons. Removal of protective frames gets them within loading limits.

MOTOR VEHICLES:

Flat wagons loaded with trucks leaving Roma Street on the 30th June 1967.

Trailers stacked into an open wagon.

A train load of ‘Whippet’ cars on H wagons in the 1920’s.

It was not QR practice to cover cars with Tarpaulins as the tarps rubbed paint from the edges of panels, so it is possible the ‘New Model’ Whippet was being distributed and the importer wanted to keep the new vehicles hidden from public view. That contrasts with the ‘teasing’ signage on the side of the wagons drawing attention to the load.

Caravans being carried to Mt Isa for road transport to Darwin in 1975. removing the road wheels brings them within the QR loading gauge. They would provide temporary accommodation following Cyclone Tracy which struck the area in December 1974.

Not exactly a road vehicle; four Motor BCC tram body No 427 on its way to Edmonton. It is probably heading for a Children's Playground.
The steel skeleton of the SGIO building at the corner of Albert St and Turbot St is rising in the background.

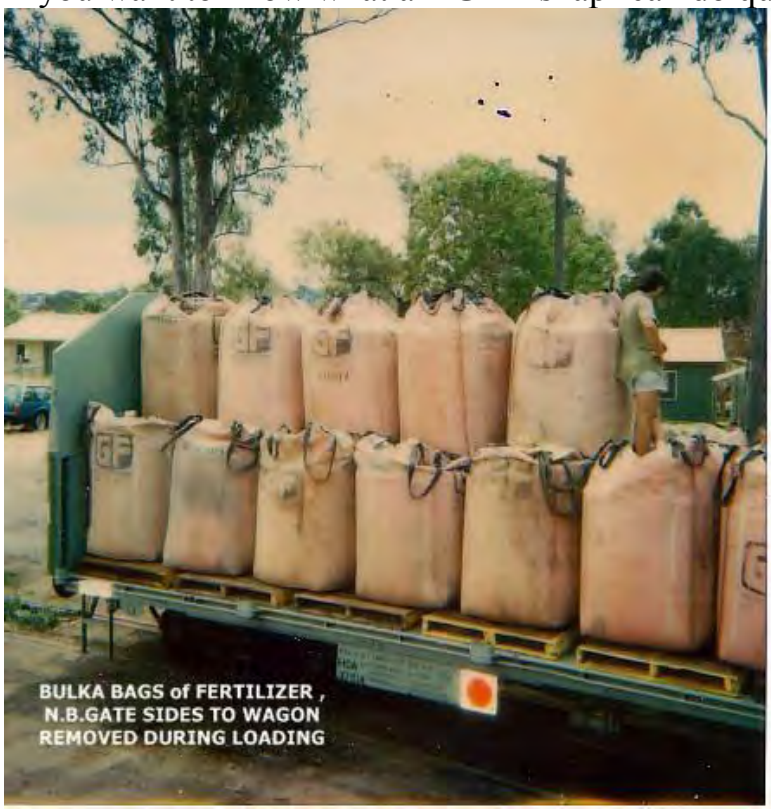
MACHINERY:

This tractor is loaded onto a flat wagon used for transporting motor vehicles.
The 'swing down' chocks on the transverse bars hold the wheels in place.

An 11 foot 6 inch diameter Ball Mill for mining at Gympie being loaded at Roma St onto a PJM well wagon. 1963.

A Hay Baler weighing two tonnes being loaded at Roma St onto PWE 39303 for Biloela 22nd September 1983.

DANGEROUS GOODS:
If you want to know what a DG ‘mishap’ can do quite quickly, mix



Ammonium Nitrate fertilizer with Fuel Oil in the ratio of 16 to One.

Load the lot onto a semitrailer and start a fire in the prime mover.
Stand well back!

This is the result of an explosion on a semitrailer beside the Cunamulla line on 7th September 2014. Amazingly, no one was injured.
The crater in the foreground is what remains of the concrete road bridge over Angellala Creek, Wallal, while the railway bridge in the background has been blown sideways off its piers. That has effectively closed the Cunamulla railway line.

The explosion did not do the local Fire Engine much good either!

All tank cars carrying fuel of any sort are classified ‘Dangerous Goods’. This OLE is pictured at Cannon Hill.

Sulphuric Acid carrying tank wagon ODE 1.

Gas bottles loaded into a container are also ‘DG’.

OUT of GAUGE:

This is an example of an ‘Out of Gauge’ load.
This transformer for Midgee is overhanging the platform at Strathpine Station.
For many years, QR had a ‘Special and Out of Gauge Loads’ Section.

An overhead Gantry being used to load a 65 foot long Pressure Vessel for North Queensland onto a modified PJC wagon at Clapham.

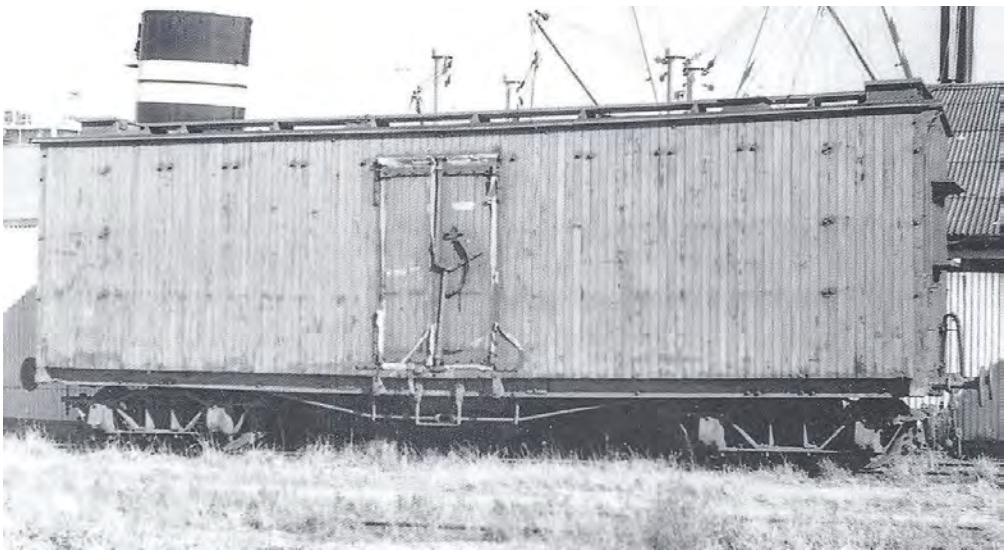
A 98.6 ton Transformer leaving GEC at Rocklea for Midgee.

End Loaders which were 11 foot six inches wide on QFC wagons. Note the overhang of the wheels at the side of the wagon.

Cable Reels in Newstead Yard on a drop centre wagon.

A 70 ton Generator stator for Calcap Power Station being moved from Road to Rail at Newstead.
The wagon would be jacked up, the road wheel bogies rolled out and replaced by rail bogies.

ICE and REFRIGERATED GOODS:



Almost from inception, QR used CM and CMI wooden ‘Ice’ wagons to move chilled meat around the State. Much went for export.

CR Class wagons were also used. These used blocks of ice loaded into roof mounted hatches for cooling.

In August 1951, QR introduced the first of the all steel Ice wagons, CMIS 25070.

Many of these steel wagons were converted to ‘Refrigerated’ by the fitting of motorised Chilling equipment at one end. This is CMR 31278 in November 1970.

Frozen Seafood was carried by refrigerated container on flat wagons.

MISCELLANEOUS:

Bottles of Soft drinks were carried in individual boxes.

Hand loading took time.

Boats were loaded onto flat wagons like SMS 6280.

Concrete pavers were carried on pallets loaded by forklift.

Concrete pipes for roadworks were carried on QFC wagons.

Temporary buildings were carried on QFC wagons.

HOW QR moved Freight and Goods.

Before the arrival of the Railway, goods were moved by Horse drawn wagon, on Bullock drays or in the more remote areas by Camel train. All goods handling was all done by muscle power.

Grain Handling;

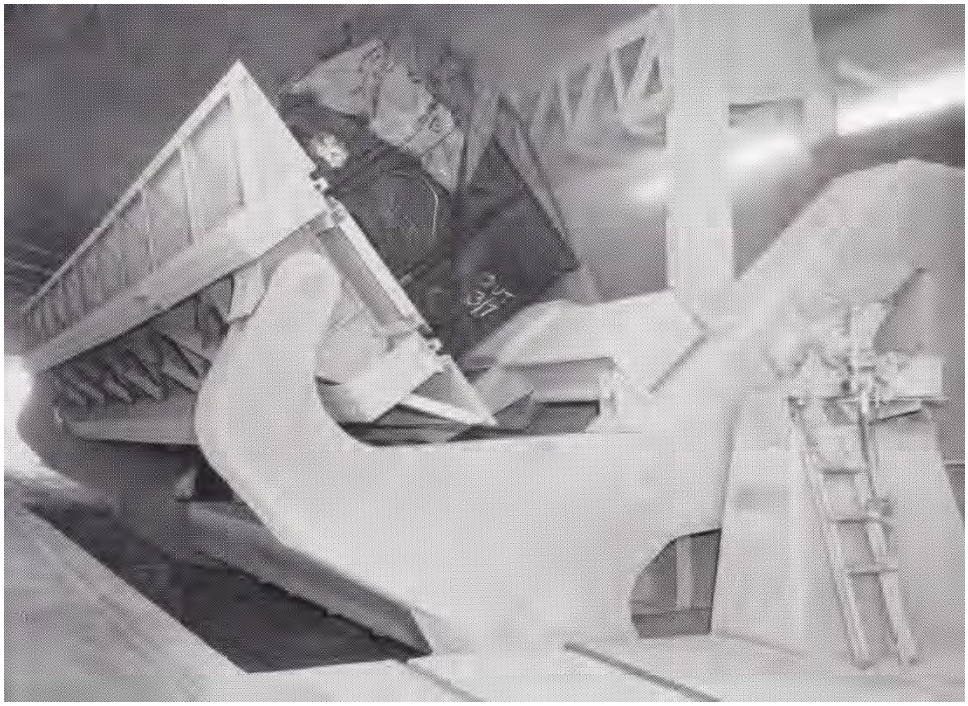
A ‘Wheat Lumper’. That perfectly describes this load on the back of a labourer carrying two bags of wheat weighing 165 Kg on his back ‘somewhere’ in NSW.
Note the post World War One ‘Mack’ truck in the background.

To do the job, they needed acrobatic skills as well!
At least the dog under the wagon is enjoying the life.

During the Bagged Wheat era, the wheatbags were brought to the Railway by the individual Farmers and stacked in a shed like this one at Greenmount.

The ‘Further Information’ section has a list of all the Wheatsheds operating in Queensland in 1950. There were 74 at the time.

Wagons like this H wagon were loaded by manual labour and tarpaulins covered the load. Bags were manually unloaded at Customer or Wharf. Using the ships derricks, the bags were stacked in the hold of the ship for export.



In the early days of Bulk Handling, tipplers were used to empty the wagons. This is at the Pinkenba Grain wharf.

With the introduction of ‘Bulk Handling’ more sturdy Wheatsheds were built around the State. This is at Allora in 1987.
The Grain was moved by the augers in the background.

Hopper wagons with sliding roofs were gravity loaded with Bulk Wheat directly from Silos.

Bottom dump doors allow the Grain to be discharged into a pit where an auger takes it away to storage.

Mobile augers are also used for transhipment.

No hustle and bustle at the Grain unloading point at Fishermans Island.

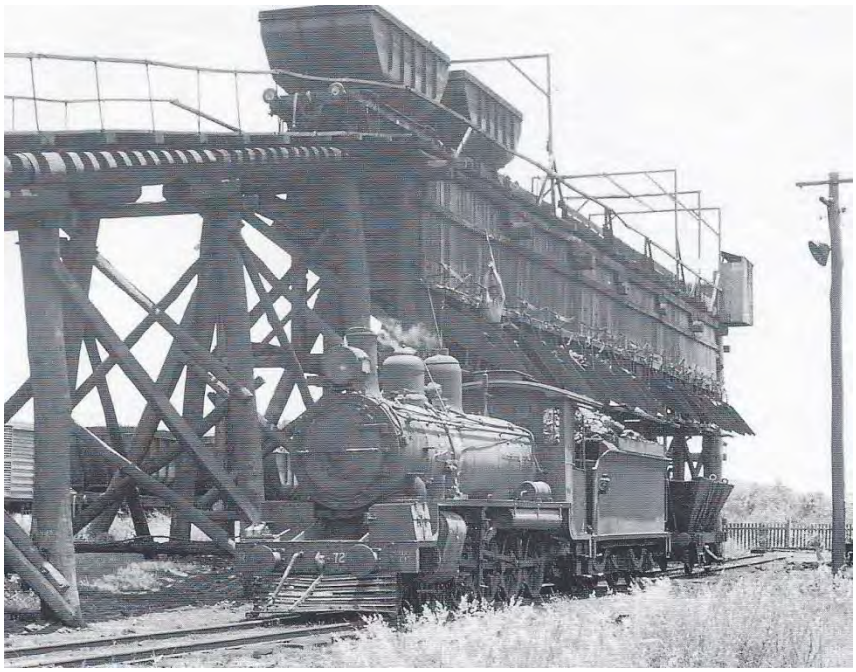
Ballast ;

Coal;

In the steam era, coal from the mine would be hauled by tip truck or small ore wagon to an elevated stage and the load dumped into the hopper bins. As the wagons were slowly drawn under the unloading chute, coal filled each wagon to capacity.

The Perry's Nob coal loader was still operating in much the same way into the 1980's. Belt conveyers fed the loading hopper.

Departmental Coal wagons for loco coal would be pushed up an elevated coal stage and emptied into the hoppers. The loco would be positioned at the discharge chute and the tender filled with coal.

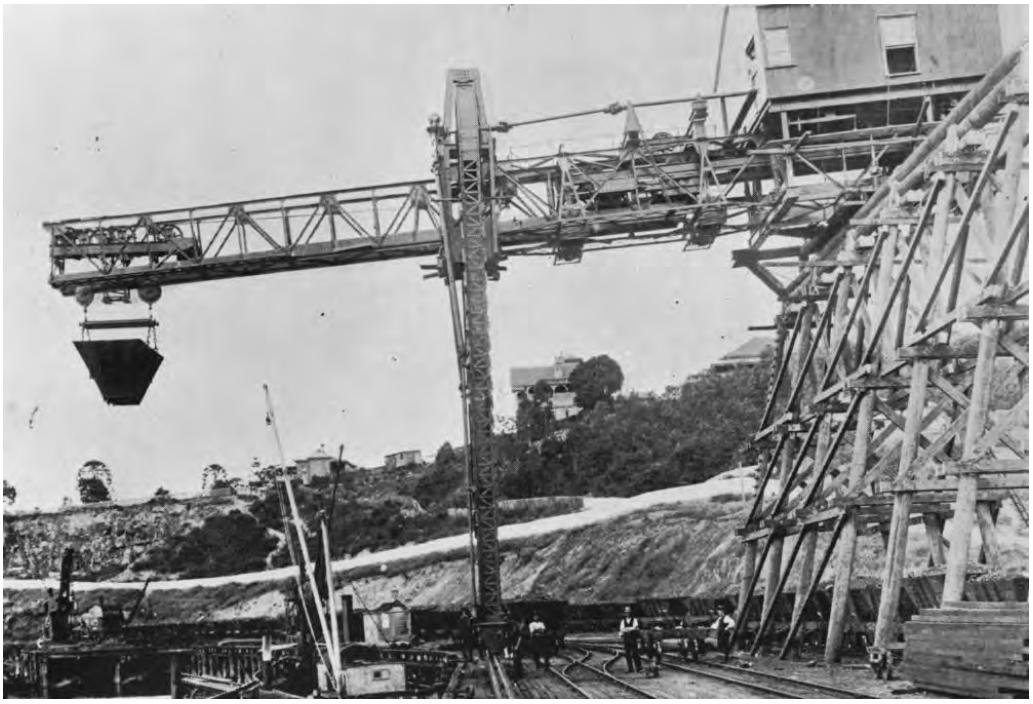


In some locations like Mackay, the wagons were cable hauled to the top of the coal stage. All of these Coal Stages are long gone.

The South Brisbane Coal Wharf facilitated an early export for coal.

Wooloongabba Wharf & Gantry Crane 7-2-63 John Armstrong

As the volume of Coal increased, QR built a large Gantry to lift the hoppers from the four wheel wagons and run them forward on the jib to unload into the ships. Photo was taken 7th February 1963.



The Wooloongabba Coal Gantry lifting a hopper above a lighter.

Export Coal now goes to Fishermans Island and other export ports where the hoppers drop their load into a pit and the coal is loaded into ships by auger and conveyer belt.

Handling Liquids;

POL;

POL tanks are unloaded in a secure, bunded yard to avoid spillage and subsequent contamination. The contents of the Rail Tanks are held in various above ground tanks until road transported to the destination.

Gravity feeds the pumps which transfer the contents of the Rail Tanks to individual holding tanks. This is BP Charleville.

LIVESTOCK:

Cattle and sheep were loaded at various points around the State.

Cattle being loaded to steel Cattlewagons.

The cattle are run off to a holding pen for the Abattoir. Dinmore.

Sheep;

The long train of sheep wagons is run to the buffer stops and the sheep are end loaded from a yard feeding the two levels of the loading race.

This is a combined Cattle and Sheep loading race at Goondiwindi. 21st March 2000.

Mechanised Handling and Containers.

This area is where an absolute revolution has taken place.
No longer does musclepower limit the loads.

Platform Barrows were in use at all Stations. This is North Bundaberg.

Double ended Barrows were also used. Toowoomba Station.

Ingenuity and five men load a pallet on a trolley jack into a wagon.

Fork Lifts and Containers;

Along with Coca Cola, the US forces brought Forklifts to Australia during World War 2. Jeeps and ¼ ton trailers were handy, too.

With the coming of Containers, forklifts became the preferred method of loading.

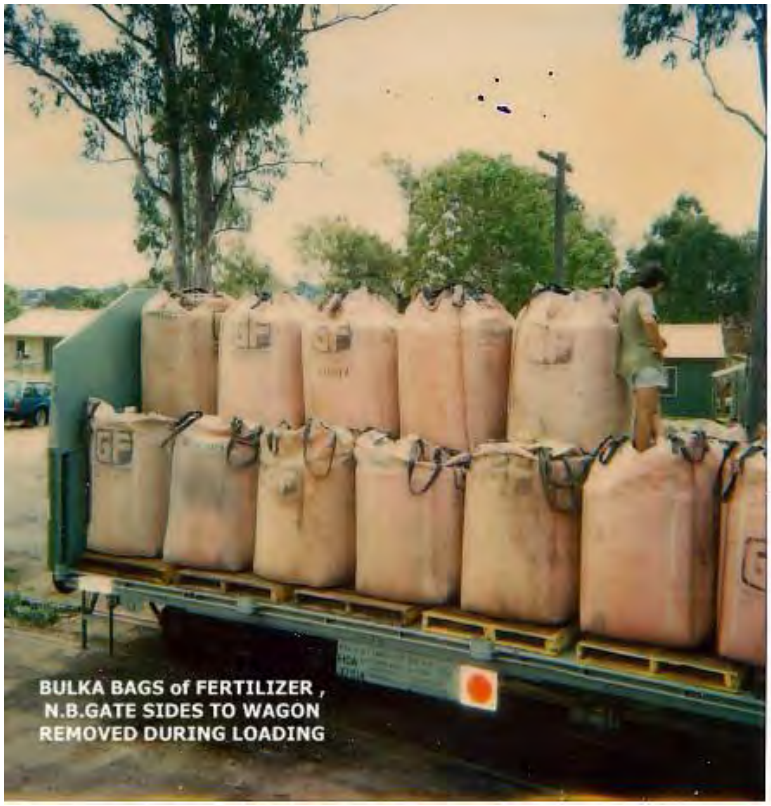
Forklift loading 80 foot long logs at Zillmere. Runner wagons are used at each end of the load wagon to allow for the overhang.

Specialised Forklifts were used for repetitive loads.

Some Container carrying is done by ‘Sideload’ trucks.
It’s only since about the 1970’s that trucks have become ‘specialised’ to carry one type of load.

As with all Mechanical methods, if something goes wrong it's usually spectacular.

'Piggy Back' Container Lifts are another way of handling containers.



Forklifts can also carry ‘Bulka’ bags of Fertiliser.
These are lifted from the top loops.
The pallets under the bags would be to ensure the bottoms of the bags do not become wet.

Concrete Pavers on pallets can be loaded into an open container at the supplier which then becomes ‘one lift’ to load the wagon.

Steel framed Crates of Pineapples can be forked onto a PHO wagon.

Drivers need to be alert to ‘other traffic’ when forklifts are in use! Fork lift drivers need to be on the lookout, too.

Cranes;
For loading and unloading at Station Yards, QR provided Cranes of various capacities.

This One Ton capacity Crane is at Cheepie.
The ‘Whip’ Cranes were a product of Ipswich Railway Workshops.
They could be mounted on poured concrete bases or on a wooden loading platform.

A ‘Whip’ Crane inside Wyandra Goods Shed.

If you are modelling QR in ‘HO’ Scale, Caintode Models puts out a ‘One Ton Crane’ kit.

This Two Ton capacity Crane is at Cooroy.

Muckadilla used this 3 Ton capacity Crane.
Note the octagonal concrete base.

Morven had a Five Ton capacity Crane.
A corrugated iron water tank was the former for the concrete base.

Wandoan used a Ten Ton Crane.
All these Cranes were manually operated.

There are drawings of QR Cranes in the "Further Information' Section.

QR had a few 'mobile' cranes mounted on wagons. H 428 was around until the 1970's.

Ship's Derricks;

Shipment of Sandalwood. [Photo: W. J. Laurie]

Derricks on ships unloaded directly onto Railway wagons.
This is Sandalwood being unloaded.

'Heavy Lift' ships delivered Steam locos directly to QR rails.
The 'modern' vision of 'Health and Safety' is not applied here.
The loco is a BB 18 ¼ and the date is 3rd February 1951.
Note the felt safety hats and the foot protecting sandals!

Gantries;
Gantry mounted cranes were used for loading to and from Rail all around the State.
Often they were installed for one requirement and later were used for any other traffic which came their way.

These hoppers for bulk cement were unloaded at Southport in the 1960's using the gantry which loaded Rutile before the Second World War. This gantry used a hand pulled chain to operate the lifting tackle.

Like all the lifting equipment, heavier loads soon meant hand power was not enough, so powered gantries came into use.

The Gantry at Clapham was used for loading this 45 Ton Pressure Vessel onto a modified PJC wagon.

With the introduction of Containers, Gantries big enough to transfer loaded Containers were installed at strategic places.

Mobile Cranes;

QR has used Contractors with heavy mobile cranes for unloading and loading for many years. For ‘one off’ jobs, it’s the most economical way.

Mobile cranes with long jib extension can load containers on the second of two tracks. The wheels of the crane are not allowed to cross the rails to avoid damage to the rails.

Two mobile cranes loading a BB 18 ¼ loco from Rail to Road for transport to the Zig Zag Railway.

Where Loading and Unloading took place;

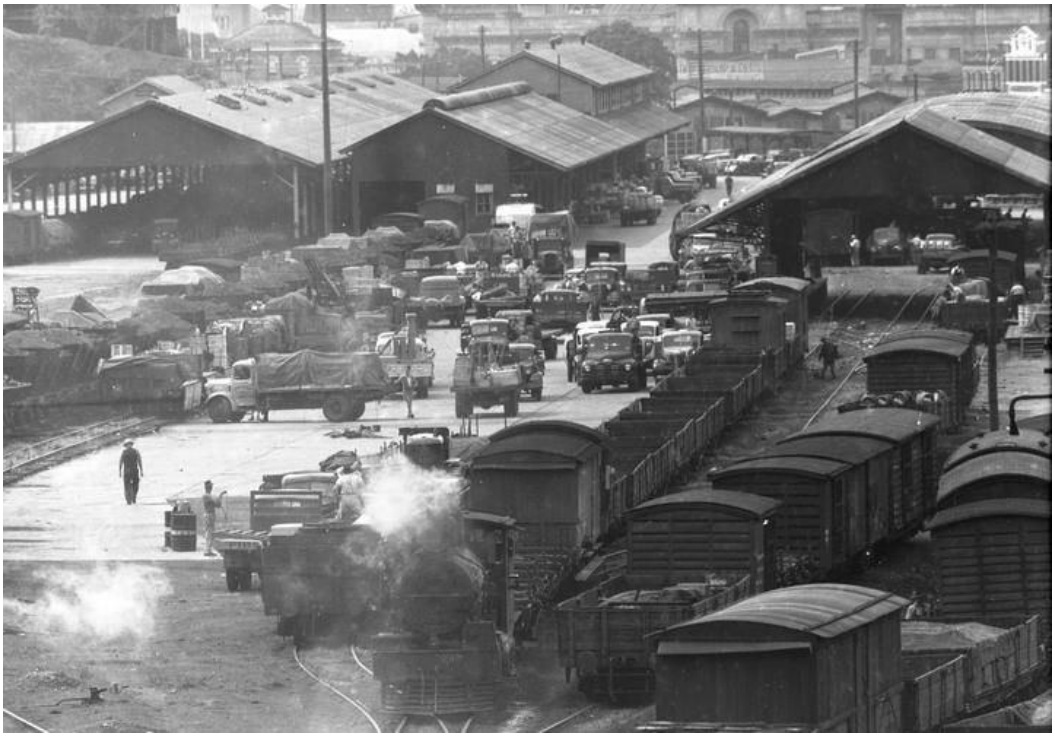
Railway Goods Yards;

Much loading of wagons was done direct from Truck to wagon.

From the early days, goods were delivered to the yard and often directly loaded into the wagon by the sender.

By the mid 1930's, the motor truck had displaced many of the horse drawn vehicles. Cleveland Central Station 1936.

Farm trucks usually were not ‘flash’ vehicles. Pineapples are the load.



Roma Street Railway Yard was a very busy place in the early 1960’s.

Konupa on the 28th July 1993 had no dedicated goods facilities.

In modern times, the local country Goods yard is liable to look more like this, where Pallets and Containers are the only things in view.

Goods Sheds;

For goods delivered when no wagons were available, or goods which needed more security, QR provided Goods Sheds at hundreds of locations around the State. A One Ton crane sits outside the Yandina Goods Shed.

This sprawling group of Goods sheds was at Thulimbah.

Alpha Goods Shed still stands, but most wagons are unloaded outside the shed. It's a 'rail through' design.

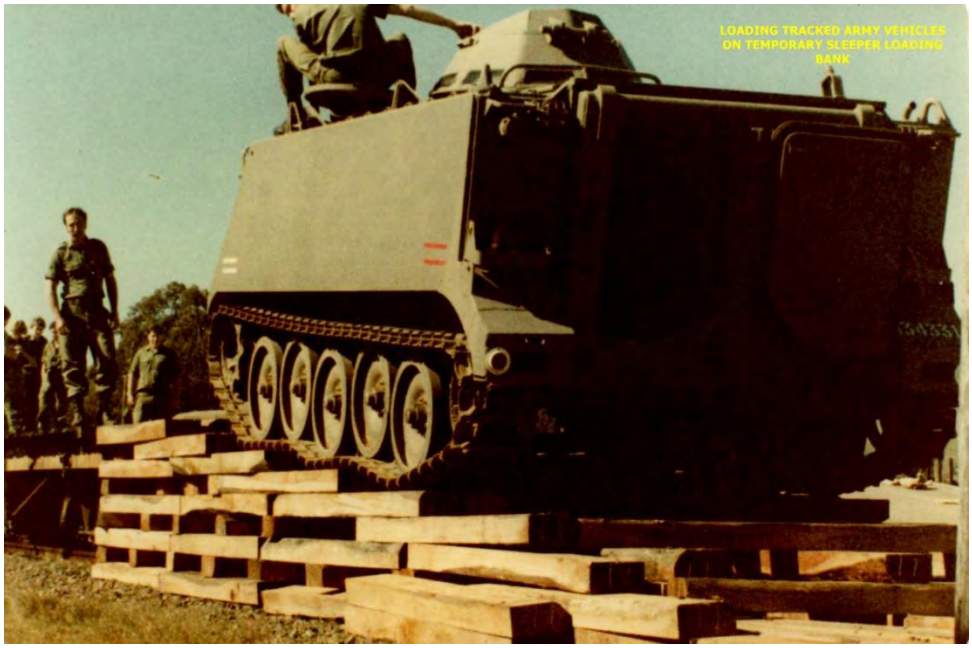
The interior of a modern Goods Shed. Pallets and forklift do the moving.

The 'Further Information Section' contains more on Goods Sheds.

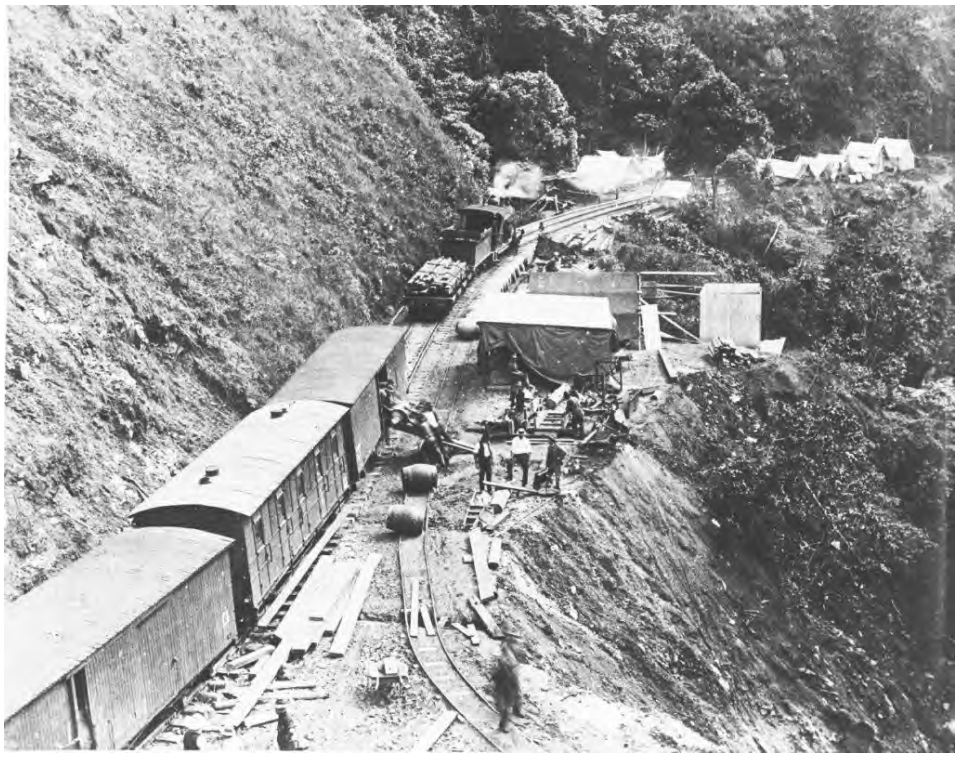
Where did Freight and Goods unload?

A side loading bank was provided at many locations. It facilitated easy unloading of wheeled vehicles.

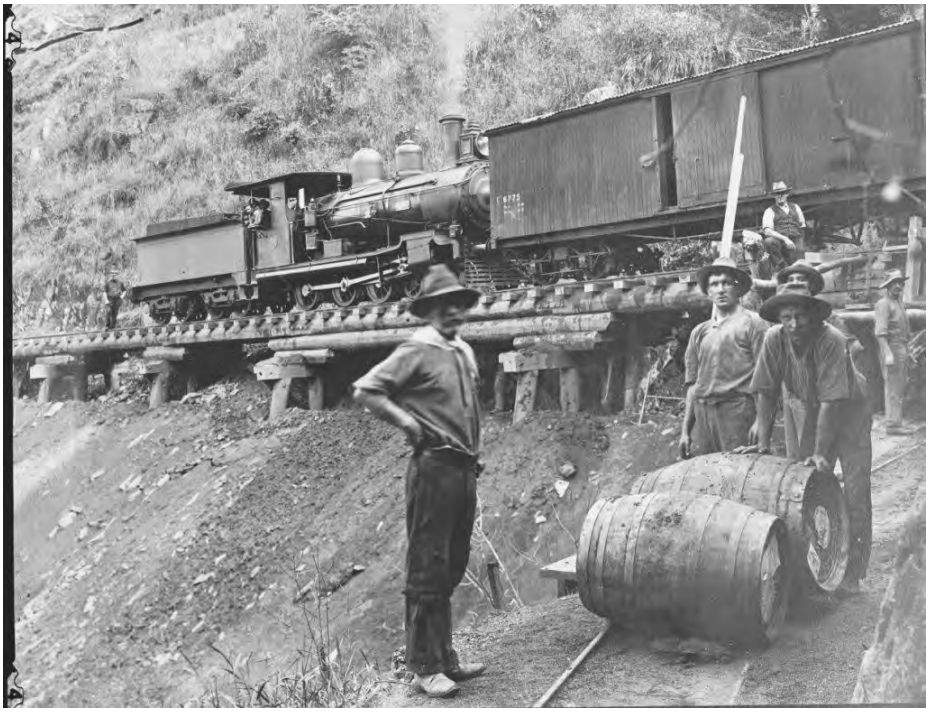
A Side and End loading bank was more useful. Alpha Yard.



Where there was no QR loading bank available, the Army Engineers rose to the challenge and constructed a temporary end loading bank from wooden sleepers. M 113 APC's being loaded.



In some locations, like the Cairns Range, work trains unloaded almost anywhere goods were needed. 1911.



After unloading, the goods needed to be handled safely.
There's a lot of faith in that retaining rock chocking the beer barrels.
Looking at the left side of the photograph, the timber trestle is being 'filled' to form an embankment. Cairns Range 1911.

QR still delivers goods in awkward places. This embankment is being built from side tipping ballast wagons.

How Loads were Secured;

Chains secure a 90 foot long girder.

Chain secures the welded rails to the carrying wagons.

Round billets of steel are wired together before loading into the wagon. Wooden chocks keep the bundles from moving sideways.

Wide webbing straps are used to tie down pavers on pallets.

Model Tiedown straps are available. Just pick the correct load for them.

Tarpaulins can be used to secure some loads.
In this case, Wool on an H wagon.
There are loading diagrams for some of the common loads on QR in the 'Further Information' section.

Shunting:

The DH shunt locos were used by QR for many years, but other ways of moving individual wagons were found.

A WW 2 era ‘Blitz’ truck is used to shunt a steel louvred wagon.

Some of the ‘Shunt’ vehicles could have come from a ‘Mad Max’ set.

This Road/Rail shunt vehicle has a runner wagon attached.

It's simply a case of the lowest cost to do the shunting job.

Loaded Rail wagons were weighed on a dedicated weighbridge.

Further Information:

Taken from the QR Appendix of 1950 and from earlier Modelling the Railways of Queensland Conventions.

Loads Carried by QR;

MOTOR VEHICLES
- CARS
- TRUCKS
- CARAVANS
- TRAILERS
- BUSES
- BOATS on TRAILERS

CONTAINERS
- BOX
- TANK TAINERS
- TRANSIFLATS
- FLAT RACKS
- HALF HEIGHT
- EXTENDABLE (to 18M)
- LIVESTOCK (SHEEP)
- NON-STANDARD (e.g. SUGARBINS)
- REFRIGERATED
- BULKTAINERS (e.g.) BULK CONCRETE)

MISCELLANEOUS or GENERAL
- ROLLS of NEWSPRINT
- BULKA BAGS
- BOATS
- CRATES
- CIRCUS/SIDESHOWS
- DRUMS
- PRE-FAB BUILDINGS
- ROOF TRUSSES
- GAS BOTTLES
- ANIMALS in CRATES
- TYRES
- PARCELS
- MILK CHURNS

PALLETISED
- BOTTLES
- TILES
- BRICKS
- FRUIT
- PARCELS
- BAGGAGE
- MAGAZINES

BULK
- LIQUIDS
- GRAIN
- MINERALS
- WOODCHIP
- EARTH
- STONE
- GASES
- FRUIT
- LOCO ASH
- BITUMEN

EARTHMOVING EQUIPMENT
- BULLDOZERS
- SCRAPERS
- LOADERS
- ROAD ROLLERS
- GRADERS

DANGEROUS GOODS
- LIQUID FUELS
- FUELS IN DRUMS
- AMMUNITION
- EXPLOSIVES

Rolling Stock;

ROLLING-STOCK GENERALLY.

67. (a) **Carriages with Wooden Bogies not to be Attached to Fast Passenger Trains.**—Carriages fitted with wooden bogies must not be attached to any fast passenger train. These carriages are distinguished by the letter "W" six inches square stencilled or painted about the centre of the sole bar.

(b) **Baggage Wagons for Mail Trains.**—These vehicles are fitted with carriage bogies and Naild's Automatic Train Stops, and are to be strictly confined to mail trains.

(c) **Ventilated Wagons (ALG, CLC, and CLF).**—These must be kept as far as possible for dairy produce, fruit, and other perishable traffic, but may be loaded up country with such traffic as will not taint them, and which is not readily damaged by water, as this class of wagon is not rain proof. Small parcels and packages must not be loaded against louvres owing to the risk of falling through.

(d) **Large Box and Goods Wagons (CJ, CJF, FF, FJ, HJ, UHJ, W, MTW).**—The CJ and CJF wagons carry about 21½ tons, FF 11 tons, FJ 10½ tons, the HJ and UHJ about 21½ tons, and W and MTW 26 tons. These wagons must be confined as far as possible to such traffic as will admit of their being loaded to the full carrying capacity.

(e) **Wagons for Heavy Boilers, &c.**—Three PJ and one PJM are available for conveying heavy boilers, engines, traction engines, &c. The PJ wagons will convey 22 tons and are numbered 7006, 7007 and 12125. PJM 18536 is fitted with a well in the centre of the wagon for the conveyance of high loading, length 32 feet and width 8 feet, and will carry 22 tons, plus overload allowed (see Rule 215). These wagons may be obtained by giving timely notice to the General Managers of each Division of their requirements.

(f) **PT, PWT, HWT, FWF Wagons for Conveyance of Road Rollers, Tractors, and other Heavy Loading.**—The PT and PWT wagons can be utilised for loading up to 22 feet, HWT 19 feet, and FWF 15 ft. When not in use for above classes of loading they may be utilised to the best advantage in other suitable classes of loading, wheat, &c.

(g) **CM Wagons** should not be used for fruit, cheese, cream, or goods of a like nature. They must not be used for loading hides, sheep-skins, tallow, and goods liable to taint them. CM wagons must not be used as road wagons, and must not be loaded with goods to stations south or west of Toowoomba, north of Gympie, or west of Charters Towers, without permission

of the General Manager. Eight CM wagons, Nos. 59, 182, 287, 1974, 12386, 13872, 13879, and 14628, are fitted up for carrying chilled meat in the Northern Division and are recognised by a mark in the shape of a hook painted in the centre of each end of the wagon.

Two CR wagons, Nos. 9557 and 9567, have been fitted with refrigerated space for the conveyance of milk between Townsville and Mount Isa. CR 1979 and 10265 for conveyance of perishables between Townsville and Winton, CR 8393 with refrigerated space for conveyance of milk between Rockhampton and Longreach. These wagons must be returned to Townsville and Rockhampton respectively first train.

CMIF 13204, 21562, 21564 are fitted with double capacity ice tanks for use in precooled fruit traffic from Granite Belt fruit stations, and Roma Street to stations in the Northern Division. CMIF 13204 is fitted with carriage wheels and is suitable for running on passenger trains.

ABG wagons are fitted with ice tanks for conveyance of butter.

ABGC wagons Nos. 7199, 9502, 12416, 12949, 15077, 18744, 18746 and 18748 are fitted with ice tanks and shelves for conveyance of cheese.

ABGX wagons Nos. 9484, 9493, 9500, 12418, 12424, 15083, 15084, 18750 and 18754 are fitted with ice tanks and are in no way different from ABG wagons except that the letter "X" has been added to the classification to indicate that these wagons are to be utilised for cheese traffic and not for butter.

ABGF wagons Nos. 7198, 7307, 12425 and 18008 are fitted with increased capacity ice tanks for the transport of fruit.

CFR 19627 is fitted up with diesel refrigerating unit for use by the State Fish Board for the conveyance of fish throughout the State.

(h) **DF Wagons** should be confined to firewood traffic as far as practicable. Goods liable to be damaged by water must not be loaded in these wagons, as the high sides prevent sufficient fall being given to the sheets to run off the water.

(i) Fifty **HJ** wagons, Nos. 19169 to 19218 inclusive, have been specially fitted for carrying bullion from Mount Isa and coal and coke to Mount Isa. These are painted battleship grey and must be confined to the Northern Division.

(j) **HVS Wagons.**—One hundred steel wagons with hopper doors in floor and classed HVS have been constructed specially for the conveyance of bullion, concentrates, &c., from Mount Isa and coal and coke to Mount Isa.

(k) **Three-stall Horse Box.**—The three-stall horse box (ZXG) must be closely watched by Guards for oscillation, and all concerned must see that the couplings are tightly screwed up. When only two horses are loaded they must occupy the two outside stalls. If only one horse be loaded, it must be put in the middle stall.

It should not be used for the conveyance of goods except in extreme emergency and then only such goods as cannot be damaged or tainted. Fruit or other food must not be loaded in this vehicle.

(l) **42 Feet SR Wagons.**—A number of SR wagons, 42 feet in length have been built for the purpose of carrying 42-feet rails, and have an average carrying capacity of 20 tons 12 cwt., with a tare of 11 tons 9 cwt. When not in use for conveying rails they should be confined as much as possible to such traffic as will ensure their getting full loads, and consequently should not be used for the purpose of carrying log or sawn timber except when a full load is assured.

(m) **TS Wagons.**—No heavy machinery or any other heavy material is to be loaded on to this class of wagon.

(n) **Private Oil Tank Wagons.**—Shell Company, Vacuum Oil Company, Commonwealth Oil Refineries Limited, Caltex Ltd. and Independent Oil Industries Pty. Ltd.

Private eight-wheeled tank wagons, for the bulk conveyance of petrol, &c., have been constructed by the Shell Company (classed "OB"), Vacuum Oil Company (classed "OV"), Commonwealth Oil Refineries, Limited (classed "OC"), Caltex Ltd. (classed "OT"), and Independent Oil Industries Pty. Ltd. (classed "OP").

A cast-iron plate bearing the words "Authorised by the Railway Commissioner" (and the year) is affixed to these wagons.

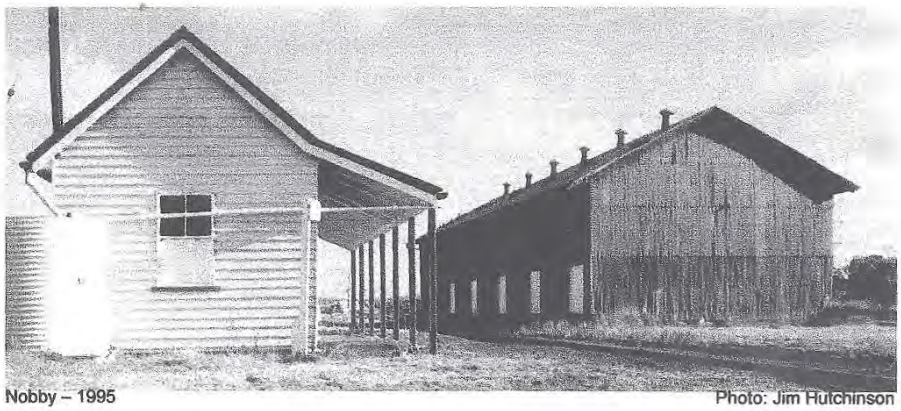
They must only be filled and emptied on the private sidings of the companies, and will be filled and emptied by consignors or consignees, who must see that the opening is properly closed—i.e., that the cylinders are made gastight on every occasion prior to transportation, whether full or empty. The loaded weight of these wagons must not exceed 32 tons except in the case of "OB" numbered 1 to 50 and "OV" numbered 1 to 31, for which the gross weight must not exceed 33 tons, and at least 2 per cent. of the space within the cylinders must be allowed for expansion.

Grain Sheds in Queensland;

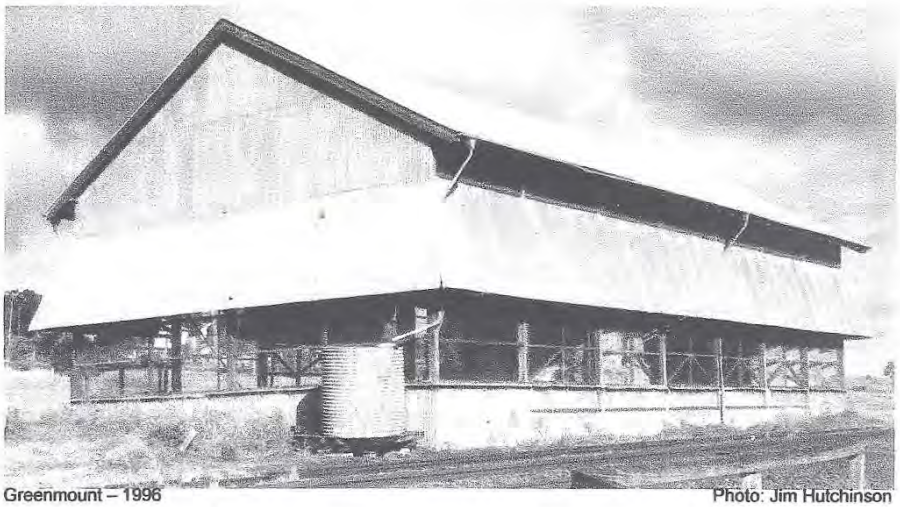
The following is a list of grain sheds:—

Station.	Lessee or owner of sheds.
Toowoomba (Water Street)	State Wheat Board
Toowoomba (Maltings)	State Wheat Board
Pittsworth (two sheds)	State Wheat Board
Yarranlea	State Wheat Board
Brookstead (three sheds)	State Wheat Board
Pampas (two sheds)	State Wheat Board
Yandilla	State Wheat Board
Millmerran (two sheds)	State Wheat Board
Cambooya (two sheds)	State Wheat Board
Greenmount	State Wheat Board
Nobby (two sheds)	State Wheat Board
Nobby	Brodie & Coy.
Clifton (four sheds)	State Wheat Board
Elphinstone	State Wheat Board
Ellinthorp	State Wheat Board
Massie	State Wheat Board
Allora	State Wheat Board
Berat	State Wheat Board
Goomburra	State Wheat Board
Warwick	State Wheat Board
Freestone	State Wheat Board
Gladfield	State Wheat Board
Yangan	State Wheat Board
Tannymorel	State Wheat Board
Killarney	State Wheat Board
Cunningham	State Wheat Board
Oakey	State Wheat Board
Aubigny	State Wheat Board
Boora Mugga	State Wheat Board
Evanslea (two sheds)	State Wheat Board
Boongeen (two sheds)	State Wheat Board
Norwin	State Wheat Board
Nangwee	State Wheat Board
Horrane	State Wheat Board
Cecil Plains (two sheds)	State Wheat Board
Jondaryn Wheat Siding	State Wheat Board
Malu	State Wheat Board
Bowenville	State Wheat Board
Blaxland	State Wheat Board
Dalby (three sheds)	State Wheat Board
Kaimkillenbun	State Wheat Board
Bell	State Wheat Board
Nandi	State Wheat Board
Pirrinuan (two sheds)	State Wheat Board
Jimbour	State Wheat Board
Kuyura	State Wheat Board
Yaralla	State Wheat Board
Macalister (three sheds)	State Wheat Board
Ulimaroa	State Wheat Board
Wallumbilla	State Wheat Board
Roma	State Wheat Board
Hodgson	State Wheat Board
7 Miles 52 chains (Karingal) Jandowae Branch	State Wheat Board
Warra Wheat siding	State Wheat Board
Southbrook Wheat siding	State Wheat Board
Kupuna	State Wheat Board
Mocatta's Corner	State Wheat Board
Guluguba	State Wheat Board

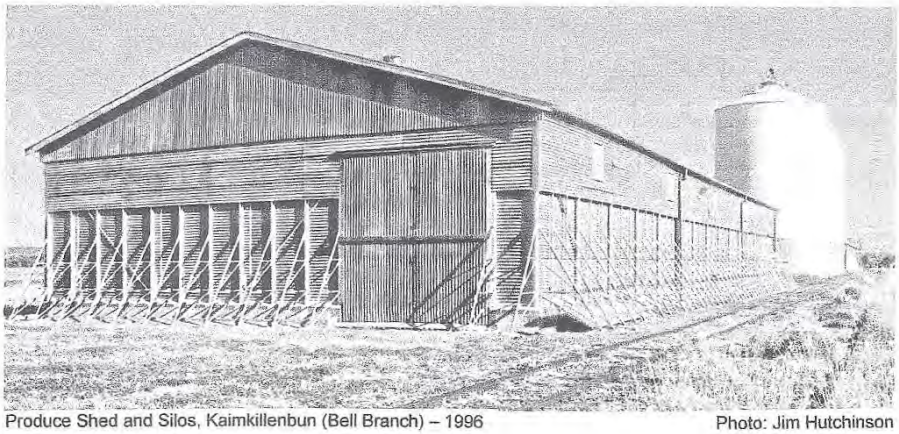
Apart from the buildings provided for general goods handling, there were other structures associated with the railway that catered for specific loads. Some of the most imposing were grain and produce sheds, that could (and can still) be found adjacent to both main and branch lines that service grain producing areas. They were large sheds, and modelling them would require intelligent compression, but nevertheless they were, and are, an important facet of freight operations. Typical examples are shown below at Nobby, Greenmount and Kaimkillenbun.



Nobby – 1995 Photo: Jim Hutchinson



Greenmount – 1996 Photo: Jim Hutchinson



Produce Shed and Silos, Kaimkillenbun (Bell Branch) – 1996 Photo: Jim Hutchinson

Loading Bagged Wheat;

Method of Loading Bagged Chaff Etc.

563. The diagrams given on page 193 depict the method of loading bagged chaff, &c., and should be accepted as a standard.

The diagrams show end and side views, and the manner of placing each tier is plainly visible. Station-masters will be held personally responsible for seeing that the staff concerned understands the methods, and receiving stations should report any instances where bad loading occurs.

As the loads shown are from actual tests there should be no difficulty in loading the number of bags shown, but great care must be exercised to see that each bag is firmly placed and that the authorised dimensions of load given in Rule 216 are not exceeded.

Stations requiring load-gauges should apply to the Divisional or District Officer. In order to act as a guide to loaders at gates where there are only women in charge, a number of diagrams have been mounted. They must be hung in a conspicuous place, and the attention of loaders drawn to them.

The following tables show the positions of the bags in each tier, viz.:—

"F" WAGON.

1st tier	16 on flat	= 16
2nd tier	16 on flat	= 16
3rd tier	5 each end on edge 6 each side on edge 2 up centre on edge	= 24
4th tier	2 each end on edge 2 each end on flat 1 each end in centre 2 rows of five on flat 3 across centre	= 23
5th tier	5 each end on edge 5 each side on edge 2 up centre on edge	= 22
6th tier	2 each end on edge 2 each end on flat 2 rows of 4 on flat	= 16
7th tier	3 each end on flat 4 across centre	= 10
		127

"FG" WAGON.

1st tier	6 rows of 4 on flat	= 24
2nd tier	5 rows of 6 on edge	= 30
3rd tier	5 each end on edge 10 each side on edge 6 up centre on edge	= 36
4th tier	2 each end on edge 2 each end on flat 1 each end in centre on flat 4 rows of 5 on flat	= 30
5th tier	5 each end on edge 10 each side on edge 4 up centre on edge	= 34
6th tier	2 each end on edge 2 each end on flat 1 each end on flat 4 rows of 4 on flat	= 26
7th tier	6 rows of 3 on flat	= 18
		188

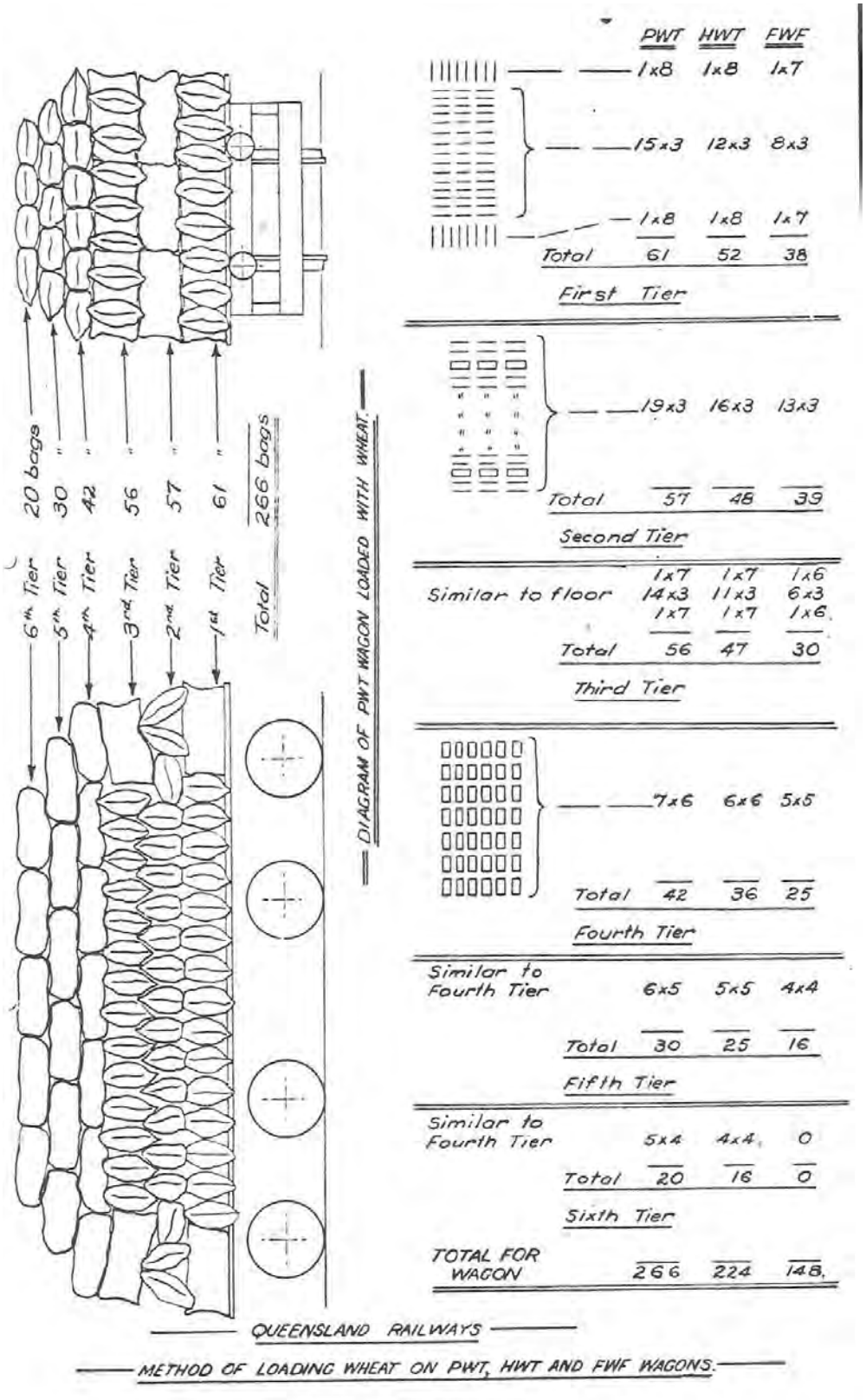
"H" WAGON.

1st tier	2 rows of 17 across on flat	= 34
2nd tier	4 rows of 8, 2 across	= 34
3rd tier	5 each end on edge 16 each side on edge 7 up centre on edge	= 49
4th tier	2 each end on flat 2 each end on edge 1 each end on centre 7 rows of 5 each on flat	= 45
5th tier	5 each end on edge 16 each side on edge 7 up centre on edge	= 49
6th tier	2 each end on edge 2 each end on flat 6 rows of 4 on flat 2 across centre on flat	= 34
7th tier	8 rows of 3 on flat 1 across on flat	= 25
		270

High Sided "HJ" WAGON.

1st tier	9 rows of 4 on flat	= 36
2nd tier	2 rows of 18 across on flat	= 36
3rd tier	9 rows of 4 on flat and 1 across centre	= 37
4th tier	5 each end on edge 2 rows of 18 on edge 8 up centre on edge	= 54
5th tier	9 rows of 5 on flat 2 across centre on edge	= 47
6th tier	4 each end on edge 17 each side on edge	= 42
7th tier	4 rows of 7 on flat	= 28
		280

To ensure the tightening of the load during transit the bags should converge from ends and sides towards the centre of the wagon.


PWT HWT FWF
1x8 1x8 1x7
15x3 12x3 8x3
1x8 1x8 1x7
Total 61 52 38
First Tier
19x3 16x3 13x3
Total 57 48 39
Second Tier
Similar to floor 1x7 1x7 1x6
14x3 11x3 6x3
1x7 1x7 1x6
Total 56 47 30
Third Tier
7x6 6x6 5x5
Total 42 36 25
Fourth Tier
Similar to Fourth Tier 6x5 5x5 4x4
Total 30 25 16
Fifth Tier
Similar to Fourth Tier 5x4 4x4 0
Total 20 16 0
Sixth Tier
TOTAL FOR WAGON 266 224 148.
6th Tier
5th Tier
4th Tier
3rd Tier
2nd Tier
1st Tier
20 bags
30 "
42 "
56 "
57 "
61 "
Total 266 bags
DIAGRAM OF PWT WAGON LOADED WITH WHEAT.
QUEENSLAND RAILWAYS
METHOD OF LOADING WHEAT ON PWT, HWT AND FWF WAGONS.

Loading Logs;

METHODS OF LOADING LOG TIMBER AND OTHER LONG LENGTHS.

572. Logs and piles which can be loaded on an "S" wagon must not be loaded on two single-bolster runner wagons.

When long articles which cannot be accommodated on a single timber wagon have to be loaded on two runner wagons, with a guard truck between, guards and drivers must be specially careful during the journey to see that the train is started and stopped with care, and that there is no rough shunting, which would endanger the draw-gear. Guards should always inform drivers when they have long articles resting on more than one truck on their trains.

Log timber and other long articles requiring runners must not be loaded until the runners are coupled to the wagons.

When runner wagons of three (3) tons and under are used for the conveyance of long timber, the whole set of wagons must be placed in the rear of the train just in front of the van. In all cases where runners are used the vehicles should be placed as near the rear of the train as possible.

When bolsters are taken out of trucks to allow of free movement under the load, they must be securely fastened in such a manner as not to permit the loading to touch them.

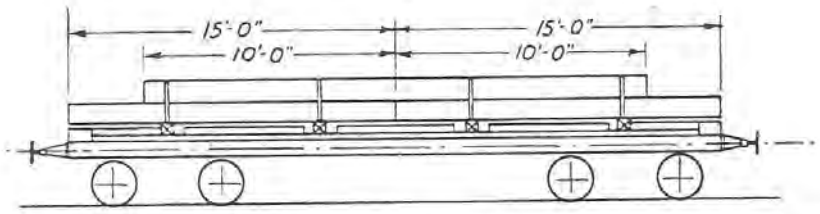
As a safeguard in the event of bolster chains or stanchions on trucks breaking or getting adrift in transit, one or more ropes, as may be required to secure safety, must be passed round the centre of each load to bind it together, but these lashings must not be fastened to the trucks.

When not in use the chains attached to bolster wagons must be coiled and made secure at the ends to prevent them working loose and slipping over the sides or ends of trucks, which would probably cause serious trouble.

(See also Clause 60 regarding the loading of long and heavy articles.)

Timber Loading Diagram No. 1.

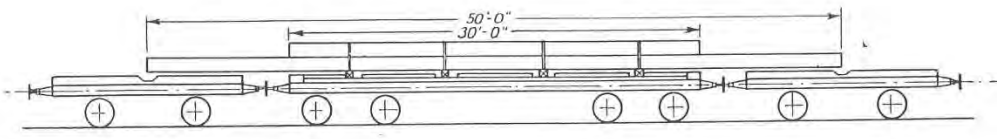
FOR LOGS 23'-0" TO 30'-0"



No. 1 diagram shows one "S" wagon for logs not less than 10 feet, and not exceeding 30 feet, the weight not to exceed the carrying capacity of the wagon. The logs should be firmly lashed to each bolster.

Timber Loading Diagram No. 2.

FOR LOGS OVER 30'-0" TO 50'-0"

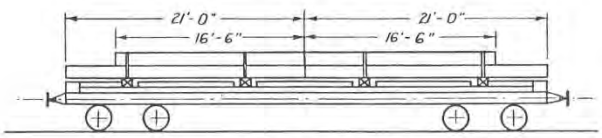


MAX. WIDTH OF LOADING 7'-0"

No. 2 diagram shows one 30 ft. "S" wagon carrying the load and two runner wagons acting as guards. Logs not more than 50 feet may be carried in this manner, the weight not to exceed the carrying capacity of the "S" wagon **and must be equally distributed over the "S" wagon** which carries the weight. The logs must be firmly lashed to all the bolsters of the "S" wagon, and, if necessary, blocked up so as to prevent all possibility of the ends fouling the runner wagons at change of grade. The logs should also be lashed together near the ends, **but not to the "runner" wagons.** The width of loading is not to exceed 7 feet.

Timber Loading Diagram No. 3.

FOR LOGS 33'-0" TO 42'-0"



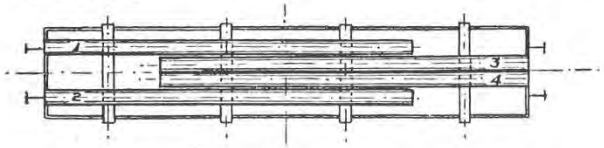
FOR LOGS 16'-6" TO 21'-0" & 33'-0" TO 42'-0"
ONE WAGON CLASS S.R. (42'-0")
MAX. LOAD - 20 TONS
MAX. WIDTH OF LOADING - 7'-0"

No. 3 diagram shows one "SR" wagon for logs not less than 16 feet 6 inches and not exceeding 42 feet. The weight not to exceed the carrying capacity of the wagon. The logs should be firmly lashed to each bolster. When used to load logs which have a length of 32 feet or under, the logs should be loaded from either end of the wagon, and only over the first three bolsters in the manner illustrated in the diagram shown hereunder.

The load must be evenly distributed over both sets of bogies so as to prevent undue stress to the centre of the underframe.

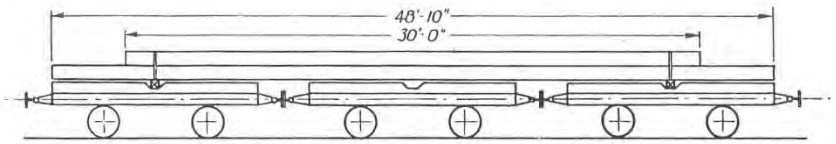
Additional logs may be loaded upon those placed on the bolsters, but these also must be loaded in similar manner, so that the load over each bogie will not exceed half the total load.

When sawn timber which is less than 31 feet in length is being loaded on to an "SR" wagon (i.e., not sufficiently long to rest on the four bolsters) the load should be limited to 15 tons.



Timber Loading Diagram No. 4.

FOR LOGS 39'-0" TO 48'-10"

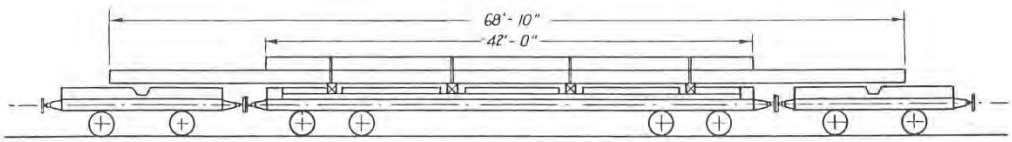


FOR LOGS 39'-0" TO 48'-10"
THREE WAGONS CLASS RUNNER
MAX. LOAD 13 TONS. 8 CWTS.
MAX. WIDTH OF LOADING 7'-0"

No. 4 diagram shows a method of loading logs not less than 39 feet and not exceeding 49 feet on three runner wagons. The bolster on middle wagon must be removed The loading must not project beyond the ends of the outer trucks and must not be wider than 7 feet. The weight must not exceed the carrying capacity of the two loaded runner wagons. The logs must be firmly lashed to bolsters and to each other at two intermediate points.

Loading Timber Diagram No. 5.

FOR LOGS OVER 42'-0" TO 68'-10"

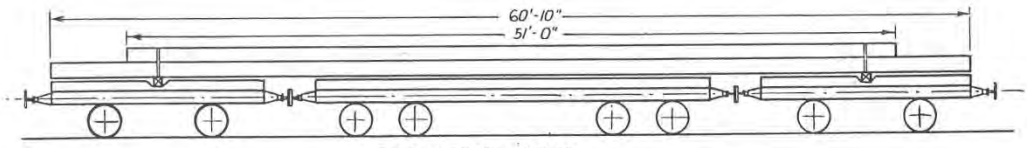


TWO WAGONS RUNNER CLASS & ONE WAGON CLASS S.R. (42'-0")
BOLSTER TO BE REMOVED FROM RUNNER WAGONS
MAX. WIDTH OF LOADING 6'-0"

No. 5 diagram shows one 42 feet "SR" wagon carrying the load and two runner wagons, acting as guards. Logs not more than 68 feet 10 inches long may be carried in this manner, the weight not to exceed 18 tons, and must be equally distributed over the "SR" wagons, which carries the weight. The logs must be firmly lashed to the bolsters of the "SR" wagon, and, if necessary, blocked up so as to prevent all possibility of the ends fouling the runner wagons at change of grade. The logs should also be lashed together near the ends, but not to the runner wagons. Bolsters to be removed from the runner wagons if used. The width of loading not to exceed 6 feet.

Timber Loading Diagram No. 6.

FOR LOGS 51'-0" TO 60'-10"

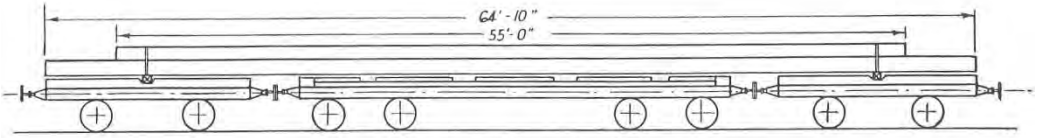


FOR LOGS 51'-0" TO 60'-10"
TWO WAGONS CLASS 'Q' & ONE WAGON CLASS 'P' (29'-5")
MAX. LOAD 13 TONS 8 CWTS.
MAX. WIDTH OF LOADING 7'-0"

No. 6 diagram shows a pair of runner wagons loaded with logs, which must not project beyond the outer ends of trucks, and be clear of the intermediate "P" wagon. Logs not less than 51 feet nor more than 61 feet in length may be loaded in this manner up to the carrying capacity of the two runner wagons; width of load not to exceed 7 feet. The logs must be securely lashed to bolsters and to each other at two intermediate points.

Loading Timber Diagram No. 7.

FOR LOGS 55'-0" TO 64'-10"

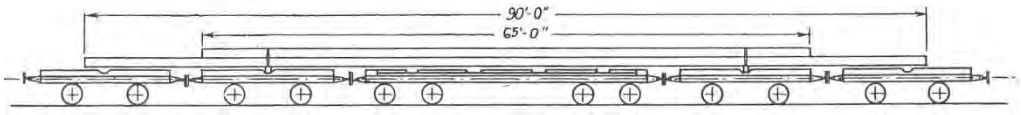


FOR LOGS 55'-0" TO 64'-10"
TWO WAGONS CLASS 'Q' & ONE WAGON CLASS 'S' (33'-5")
MAX. LOAD 13 TONS. 8 CWTS.
MAX. WIDTH OF LOADING 7'-0"

No. 7 diagram shows two runner wagons and an "S" wagon loaded in a similar manner to the two runners and "P" wagon in diagram No. 6. Logs from 55 feet to 65 feet in length may be loaded in this manner with the same precautions as set forth in previous paragraph re diagram No. 6, and the bolsters of "S" wagon removed. Width of loading not to exceed 7 feet.

Timber Loading Diagram No. 8.

FOR LOGS 65'-0" TO 90'-0"



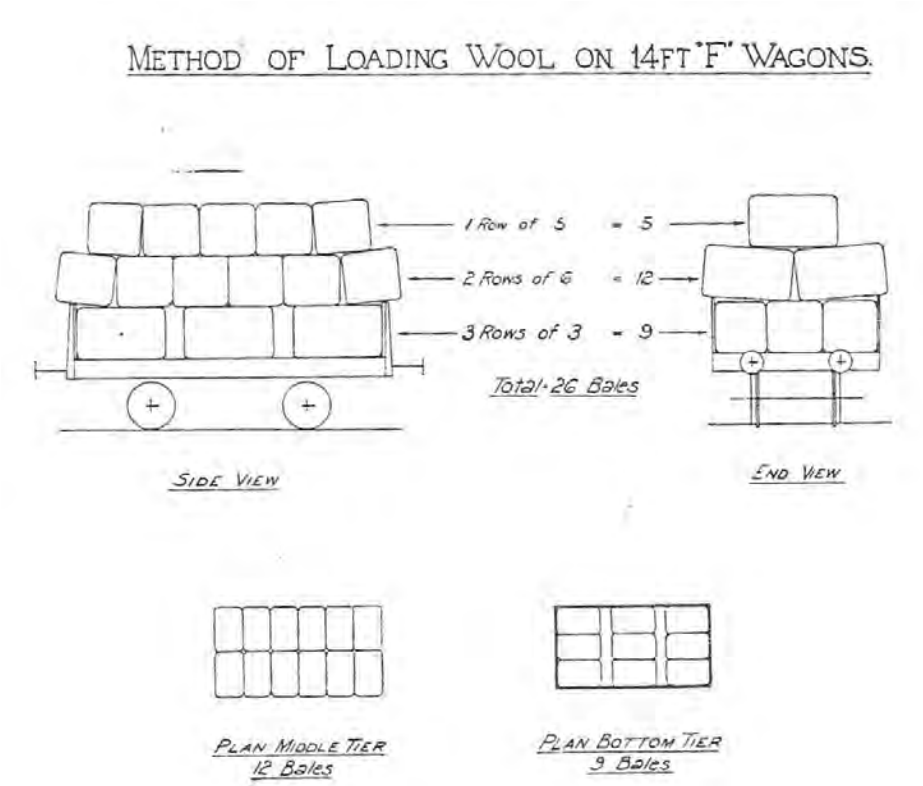
FOR LOGS 65'-0" TO 90'-0"
FOUR WAGONS CLASS 'Q' & ONE WAGON CLASS 'S' (33'-5")
MAX. LOAD 13 TONS 8 CWTS
MAX. WIDTH OF LOADING 5'-0"

No. 8 diagram shows four runner wagons and one "S" wagon; the two end runner and the "S" act as runners only and must have the bolsters removed; logs 65 feet to 90 feet may be loaded in this manner up to the capacity of the two runner wagons. The logs must be securely lashed to bolsters and to each other at the ends, and at three intermediate points between bolsters. Owing to the long overhangs the logs should be blocked up to ensure clearance. Width of load must not exceed 5 feet, and the load must be in the centre of bolsters.

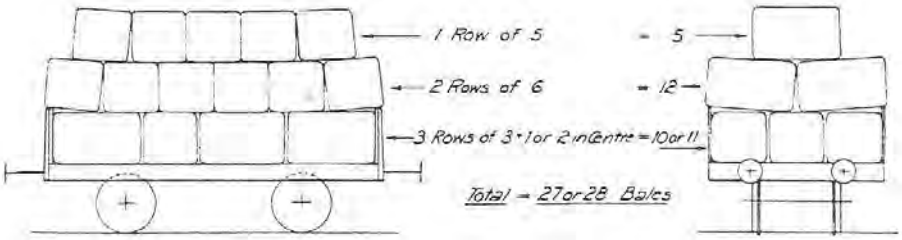
In all the diagrams except No. 2, the load on each carrying truck or bogie may be taken approximately to equal the weight of the timber on it to a point midway between the two carrying trucks or bogies. In No. 2, to equalise the load on the two bogies as much as possible the wagon should be loaded with the thick ends of alternate logs at opposite ends. In the case of an odd number of logs a margin should be allowed depending on the amount of taper of the logs.

The practice of loading logs of long lengths in wagons in more than one layer is quite safe, so long as the carrying capacity of the wagon or wagons is not exceeded and pine packing or bark is used between the upper and lower layers. For instance, where the bottom layer consists of four logs the upper layer may be comprised of three.

Loading Wool;



METHOD OF LOADING WOOL ON 15 FT. 'F' WAGONS.



SIDE VIEW

END VIEW

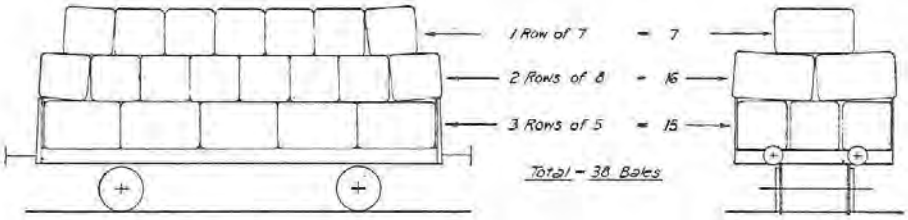
PLAN MIDDLE TIER
12 Bales

PLAN BOTTOM TIER
10 or 11 Bales

NOTE
The Middle Tier could be loaded with 3 at each end lengthwise and 6 crosswise in centre = 12
This gives a small overhang permitting 6 to be loaded on Top Tier instead of 5.

G.H. 4.3.63

METHOD OF LOADING WOOL ON "F.G." AND "F.G.M." WAGONS



SIDE VIEW

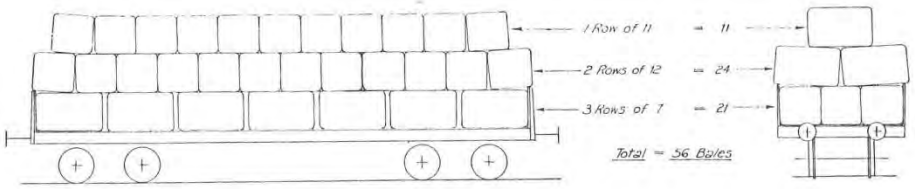
END VIEW

PLAN MIDDLE TIER
16 Bales

PLAN BOTTOM TIER
15 Bales

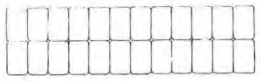
NOTE
The middle tier could be loaded with 3 lengthwise at each end + 6 + 2 rows of 5 crosswise = 10. Total = 16
This gives a 3" overhang at each end.
8 could then be loaded crosswise on top.

METHOD OF LOADING WOOL ON 30 FT. H WAGONS.

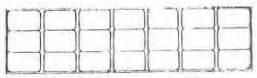


SIDE VIEW

END VIEW

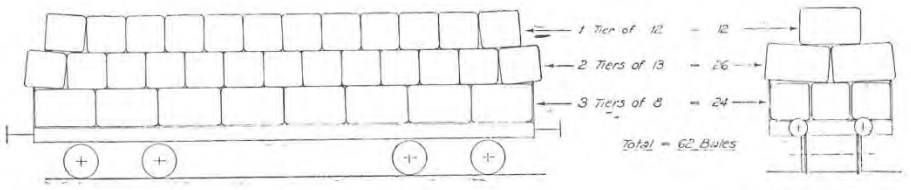


PLAN MIDDLE TIER
24 Bales



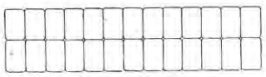
PLAN BOTTOM TIER
21 Bales

METHOD OF LOADING WOOL ON 32 FT. 'H' WAGONS
AND 'HJ' WAGONS WITH '2'6" SIDES.

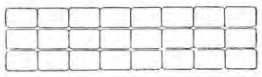


SIDE VIEW

END VIEW

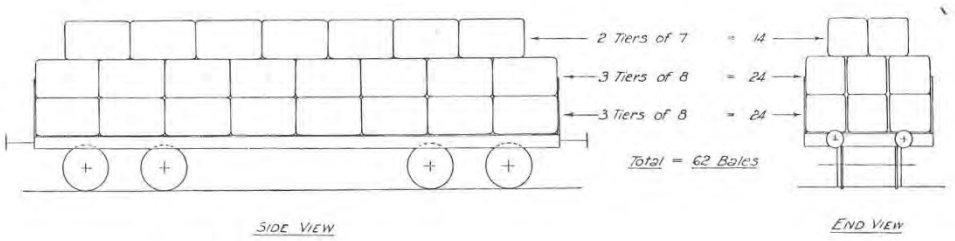


PLAN MIDDLE TIER
26 Bales



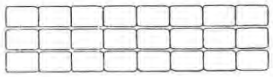
PLAN BOTTOM TIER
24 Bales

METHOD OF LOADING WOOL ON "H.J." WAGONS WITH 3'6" SIDES

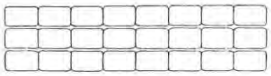


SIDE VIEW

END VIEW

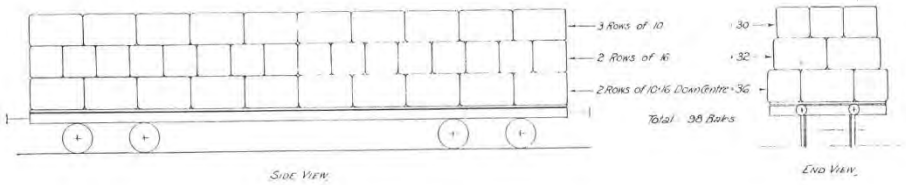


PLAN MIDDLE TIER
24 Bales



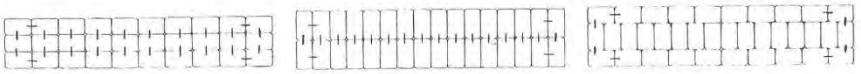
PLAN BOTTOM TIER
24 Bales

METHOD OF LOADING WOOL ON "W" WAGONS.



SIDE VIEW

END VIEW

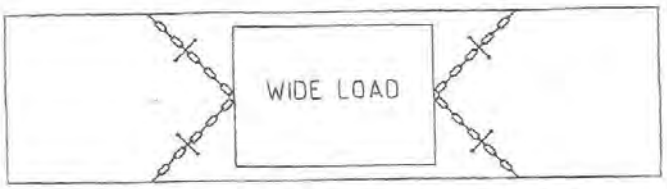


PLAN TOP TIER
30 Bales

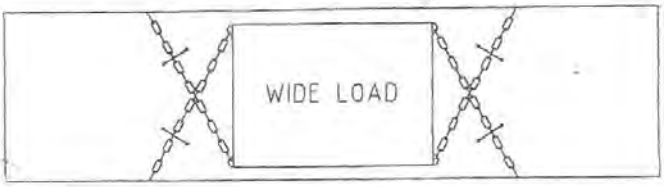
PLAN MIDDLE TIER
32 Bales

PLAN BOTTOM TIER
36 Bales

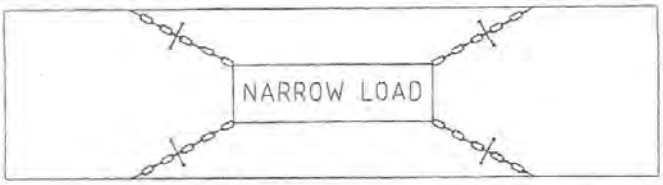
Chaining Loads;



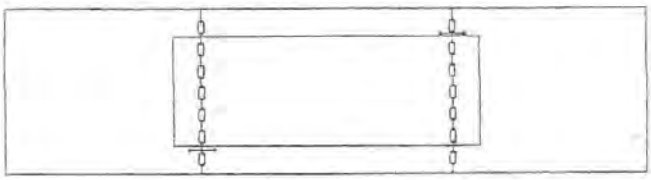
ATTACHING CHAINS TO CENTRE OF LOAD



ATTACHING CHAINS AT CORNERS OF LOAD

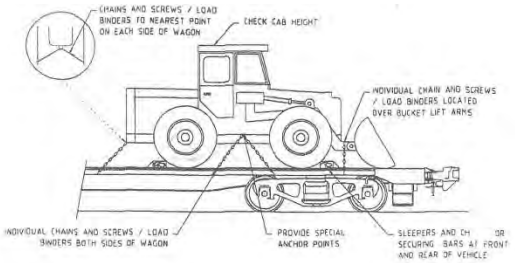


ATTACHING CHAINS AT CORNERS OF LOAD

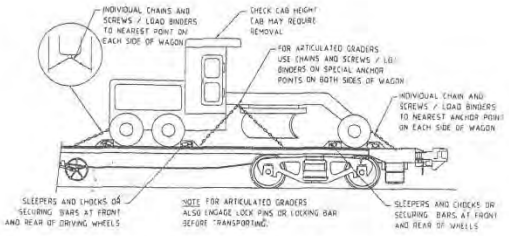


LOAD WITH NO SECURING POINTS
e.g. BOX OR CRATE

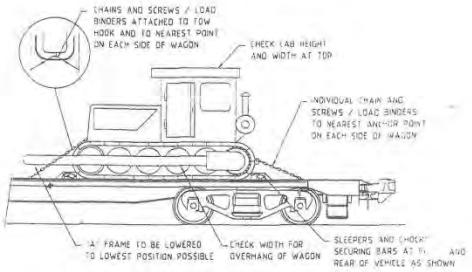
Recommended Positions For Chains



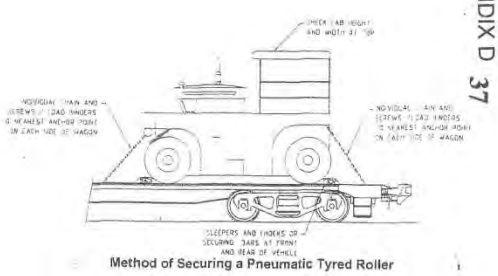
Method of Restraining a Pneumatic Tyred 4 - Wheel - Drive Loader



Method of Securing a Grader

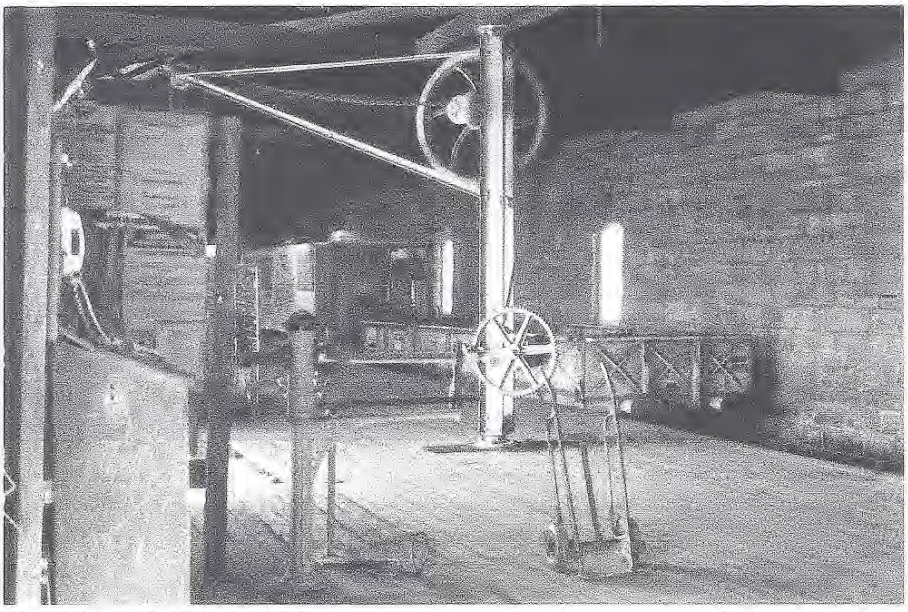


Method of Securing a Tractor Dozer



Method of Securing a Pneumatic Tyred Roller

QR Cranes;



Warwick Goods Shed Interior – 1995 Photo: Jim Hutchinson

Some of the essentials for any well equipped goods shed is seen in the above photo – hand-operated hoist, platform scales, hand trolley and of course the writing desk for all that paperwork!

YARD CRANES

Hand operated yard cranes were installed at many stations, in conjunction with the goods shed. They were placed near one end of the shed, and could be mounted on a loading platform or positioned on an isolated plinth.

There were several designs, whose lifting capacity varied between one and ten tons. Sentinel produces an HO model, but it does not appear to represent any of the Queensland types. As some cranes were of British origin, there may however be suitable OO models available.

One of the smaller types, with a capacity of one ton, was that installed at Cheepie (right).

Photo: Jim Hutchinson 1996

The British engineering firm of Cowans, Sheldon & Co. supplied many of QR's cranes, and their 3-ton model could be found in yards throughout the state. The photo to the right shows the installation at Kilkivan, on the Kingaroy branch. Here the crane was placed on an extension of the timber framed goods shed platform. Also visible are miscellaneous details for the modeller seeking additional character.

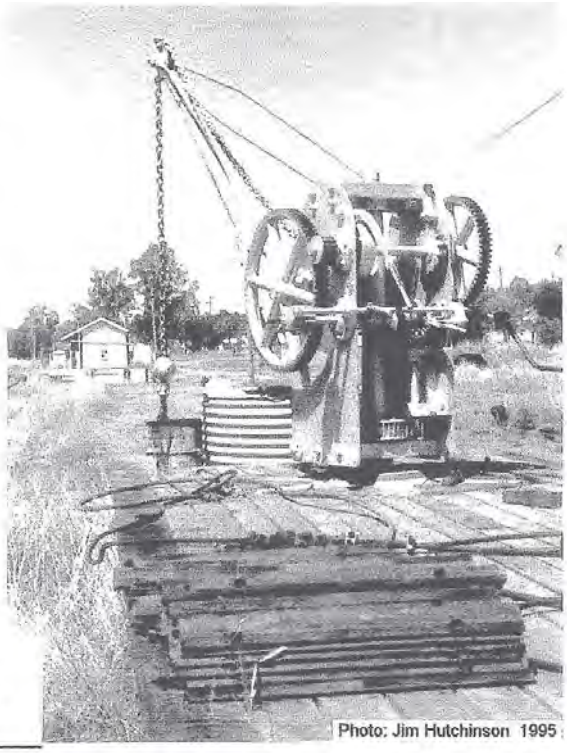
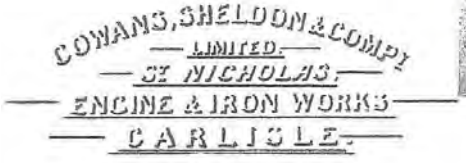
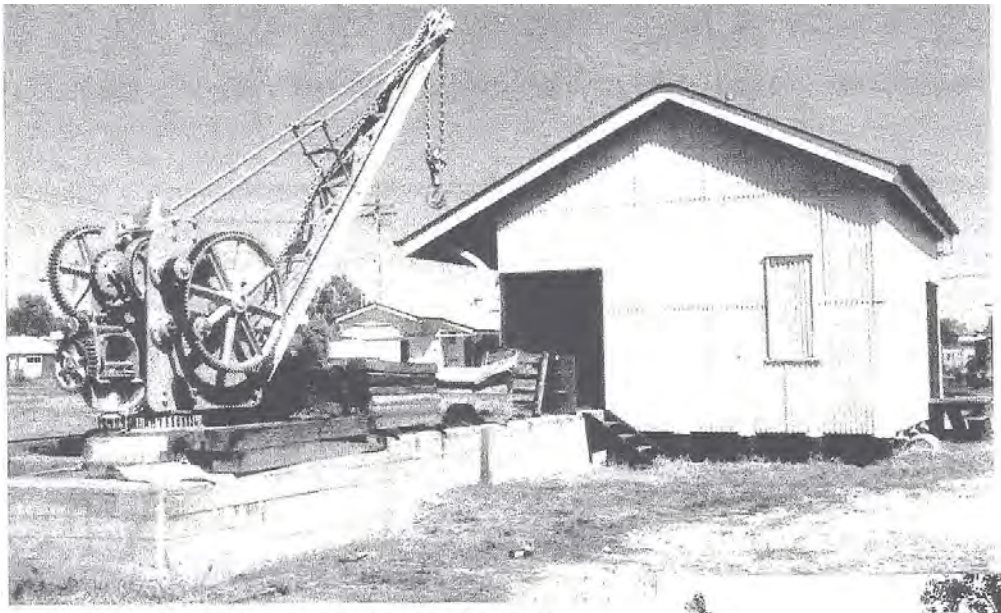


Photo: Jim Hutchinson 1995

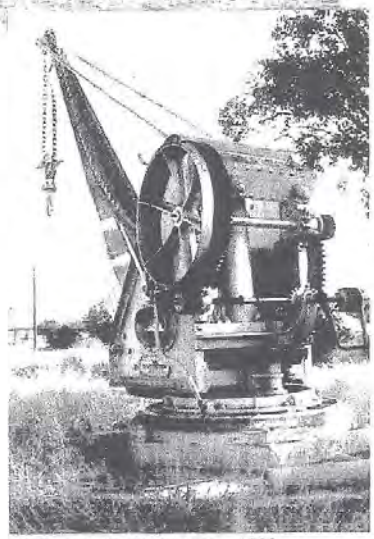




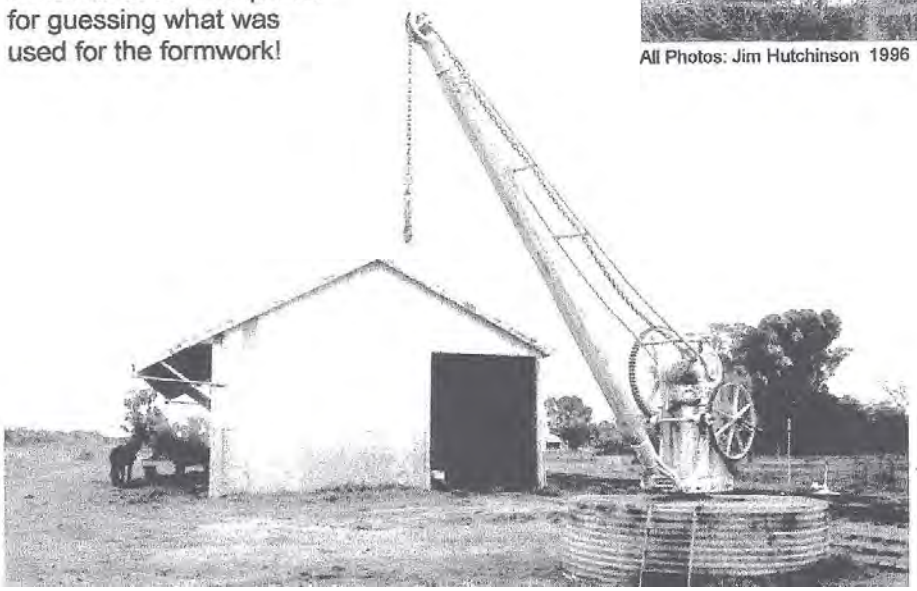
Gayndah (above) was busy enough to warrant a five ton model, which sat on a concrete faced loading platform adjoining the goods shed.

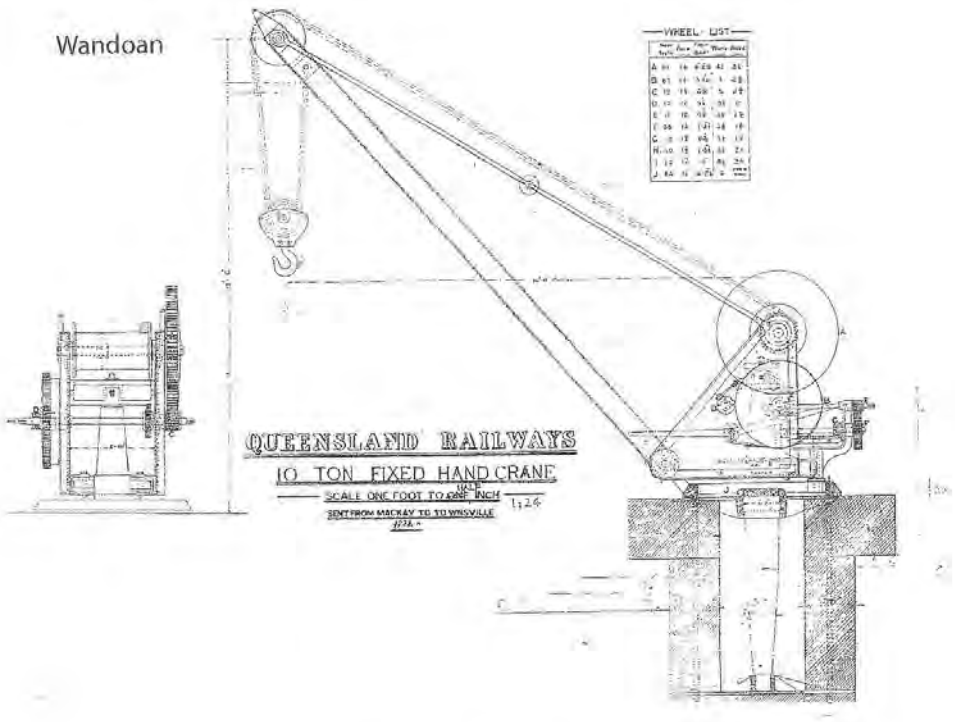
Wandoan's crane (right) was an even larger machine, with the ability to lift loads of up to ten tons.

A few cranes had unusual features. The unit below at Wyandra, between Charleville and Cunnamulla, was provided with a timber jib instead of the usual steel type. Also of interest is the circular concrete base – no prizes for guessing what was used for the formwork!

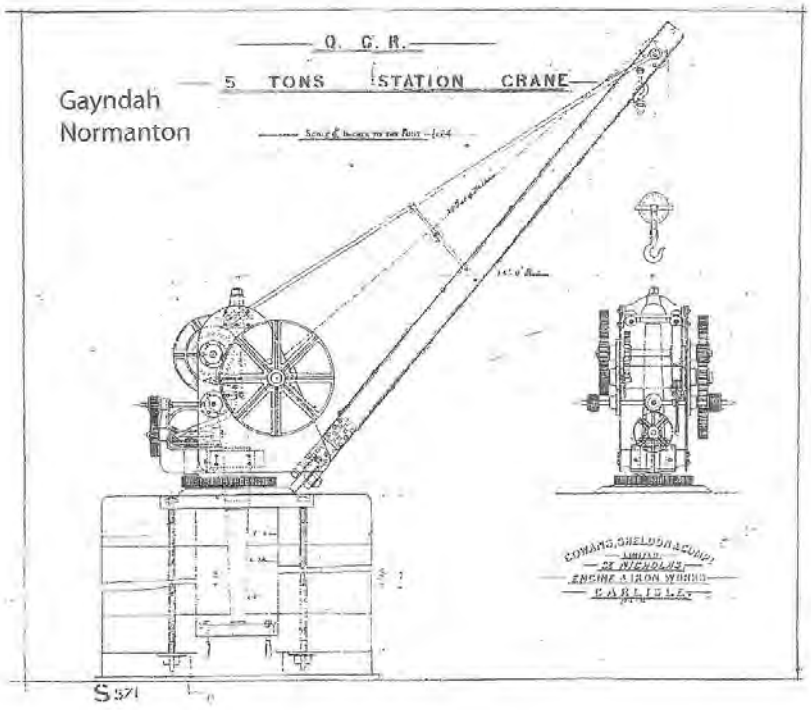


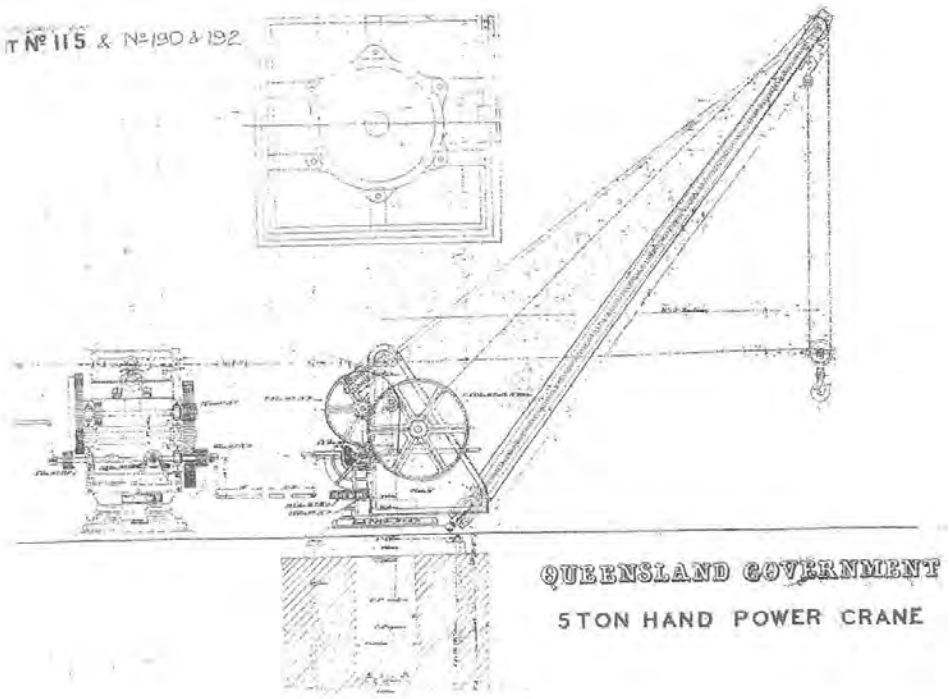
All Photos: Jim Hutchinson 1996



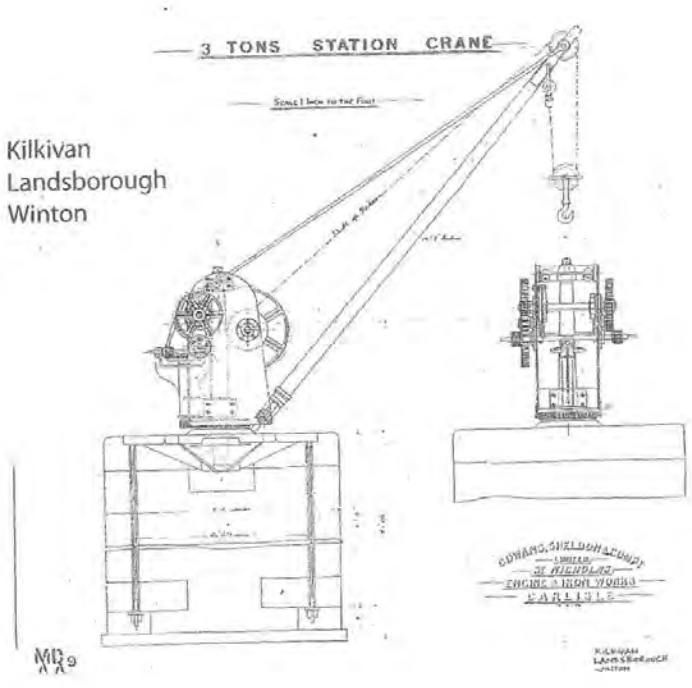


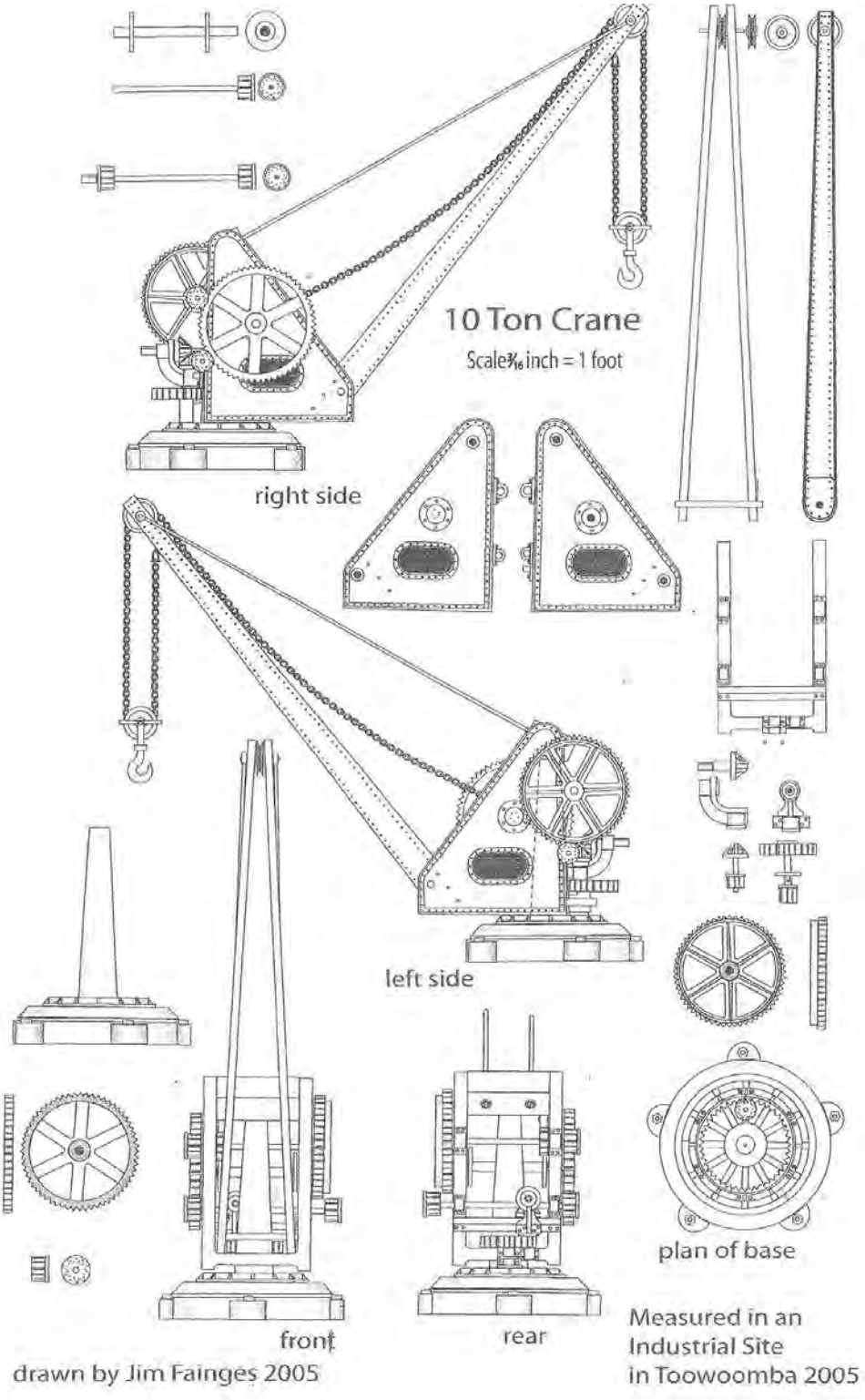
Reproductions of Q R Drawings
3/16 inch = 1 foot 1 : 64

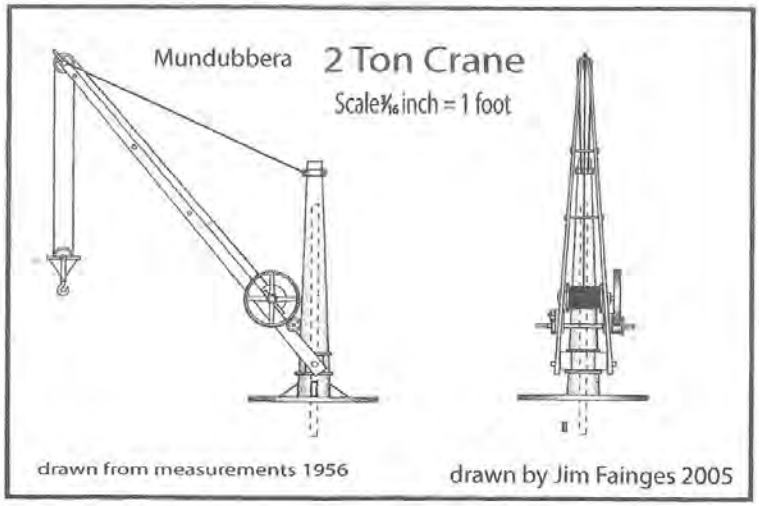




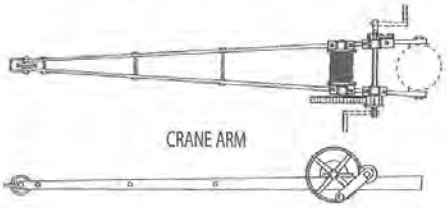
Reproductions of Q R Drawings
3/16 inch = 1 foot 1 :64

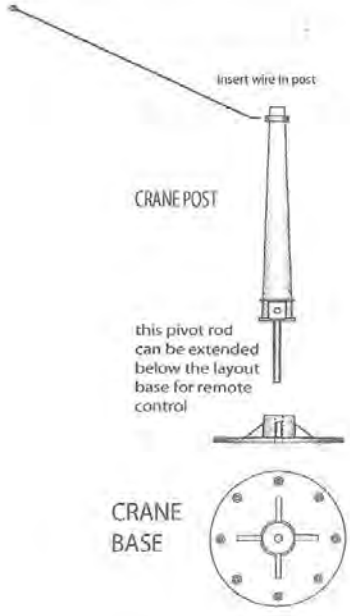


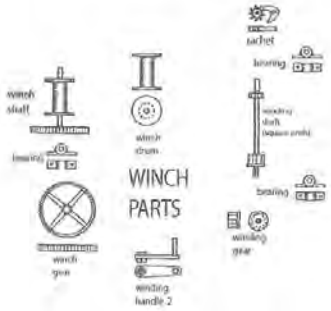

10 Ton Crane
Scale 3/16 inch = 1 foot
right side
left side
front
rear
plan of base
drawn by Jim Fainges 2005
Measured in an
Industrial Site
in Toowoomba 2005



This is a good example to build for a goods shed here are the parts

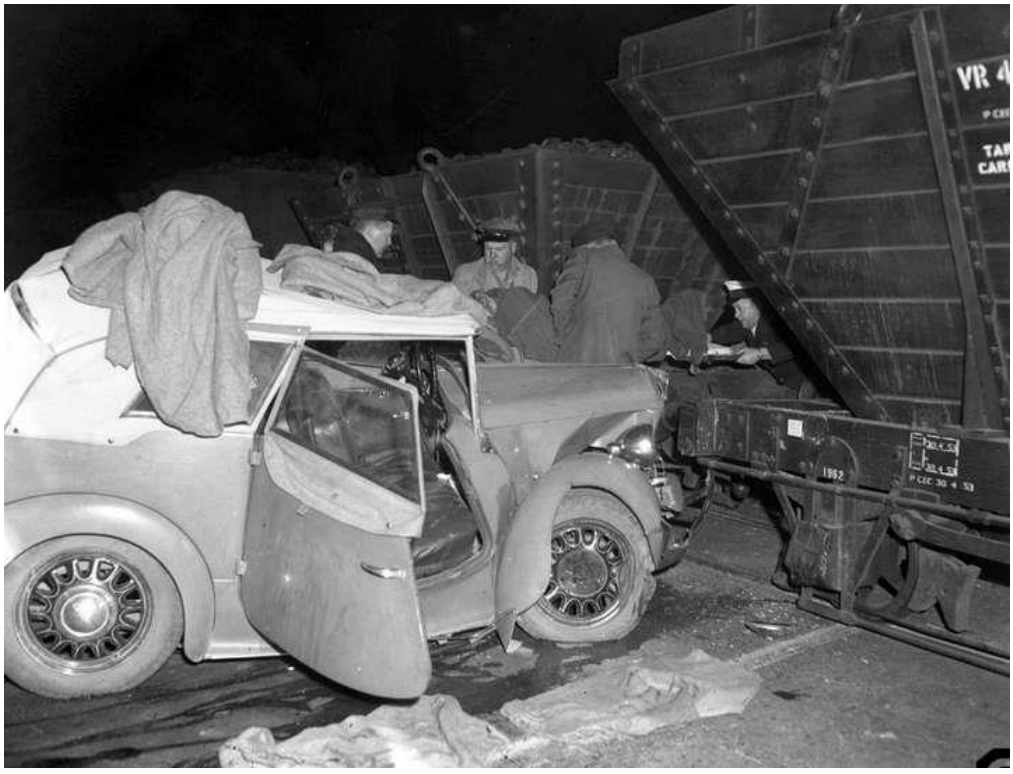






Drawn by Jim Fainges June 2006

That brings us to the end of our Presentation,



As it was for this small car.
Nothing much has changed on level crossings has it?

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It is thanks to these photographs that we can bring this information to you.
We owe those who took the photos many thanks for their efforts.

Peter Kennedy and John Lovett.
MRQC 2016.