

**QR Weed Spray Train.**

*Modelled in H0n3½*

*by Arthur Hayes*



## Arthur Hayes | QR Weed Spray Train

Grass growing between the rails can be a driver's worst nightmare. On grades trains can slip to a stand resulting in late running and delays to other trains in the area. In railway circles the train to solve this problem was called the "Poison Train".

During the steam era with water tanks every 20/30 miles, the spray unit consisted of two vehicles. A pump wagon and an auxiliary tank wagon. During this era the pump was operated from the train brake air. In some locations, smaller locomotives (PB 15) were fitted with an extra WHB pump to work the train. The pump operator control the train speed using lights fitted to the pump cabin. The pump operator travelled with the train until the whole division had been sprayed, thus a camp wagon for his comfort. Pesticide to be used was also conveyed on the train, various wagons were used, mainly an 8 wheeled "C" wagon. Some areas open wagon covered with a tarp was used. The wagon may of carried equipment for repairs, hoses, spay heads, pipe etc. The Guard's Van on the train was not anything special, and only conveyed the Guard. CB / KKB was the order for the day.

I'm aware of 3 trains operating in the 70's, Toowoomba for the SWD, Rockhampton for the CD, and Townsville for the ND. There may have been others on the network. From what I recall in western locations, the train ran about once a year and operated at night. The SED Brisbane Area spraying was carried out using a "Fairmont" section car towing a flat top which had a portable tank and pump. The unit worked the suburbs during daylight between trains.

In the mid 70's the pump unit were modified, the cabins were made larger and they were made to be self-supporting. After the steam era with water only being available in major towns, the trains had two extra tank wagons added into the consist. Each division did so with what was available.

ARHS Sunshine Express show the following; ND April 75 – UWP 4412, U 2154 (converted "S" Wagon), U 9028, U 2140 (Looks like another "S" wagon conversion). The ND had a great supply of tanks in water and molasses wagons, not two the same. SWD September 77 – Pump Unit 9694, HH 21323, LTW 35817 / 35816. Railways of Queensland an album of ... Volume Six has a photo of the train. Looks like the unit is waiting scrapping, January 84. CD Gladstone December 77 - Van BGV 855, C 11385 Camp Wagon stencilled "Weed Control", GWW 23269, \* FGW 17933, \* U 40143, \* Pump Unit 18532, \* C 5600. Wagons marked \* were stencilled "Weed Spray Unit" and were painted orange.



**CD Train. Biloela 06.01.83. Consisted off Pump Unit U 18532, U 40134, FGW 17933, GWW 23255, C 11385, C 5660.**

The 1974 "Book of Rules" By-law No. 1041 shows the following. Rule 1 – "Weed Spray Train" – A train normally pushed by the locomotive and which has been marshalled to operate with the spray compartment to be occupied by the guard, in the lead of the train. The weed spray train is fitted with braking and warning devices, and with lighting for night operation.

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Rule 279. **Pushing of vehicles by locomotive.** No employee shall cause or allow any locomotive to push any vehicle on the main line unless within station limits except as provide for in Clause 175 General Appendix and except that a “Weed Spray Train” (as defined in Rule 1 (b) may be pushed both inside and outside the limit of a station yard at a speed not exceeding 10 miles per hour (15 km/h).

By the mid 80’s the trains were scrapped, the job is now done by hi-rail trucks. The water trucks that follow steam excursions are the unit used.

### Construction of Model in H0n3½.

Three vehicles from the ND train and a camp wagon was scratch build. The camp wagon was built along the lines of SWD wagons in the 60’s. Some modellers licence was used in building the train. The photos I took of the ND train in 79 were B & W and I only had one side. After searching for information for a few year I was able to locate other photos, you would not believe it, they were all the same side. Photos of the other trains also came to light. It appears a couple wagons from the ND unit finished up working the SWD. About 12 months ago I located a photo on the net which confirmed the “Orange” colour scheme for the CD train in the 60’s. Web site <http://queenslandtrains.com.au/photo-gallery/>. Thanks Jason and Brain. The double door “C” wagon (store) was built many years ago.

For the 2008 Modelling the Railways of Queensland Convention I did a presentation on build an 8 wheeled timber framed wagon. The notes contain a scale drawing of the standard 32’ underframe. My notes for the presentation can be found on the MRQC website. [www.qldrailheritage.com/mrqc/](http://www.qldrailheritage.com/mrqc/). In the Photo section you will find Bill Blannin Collection Album, the album has photos of the SWD train.

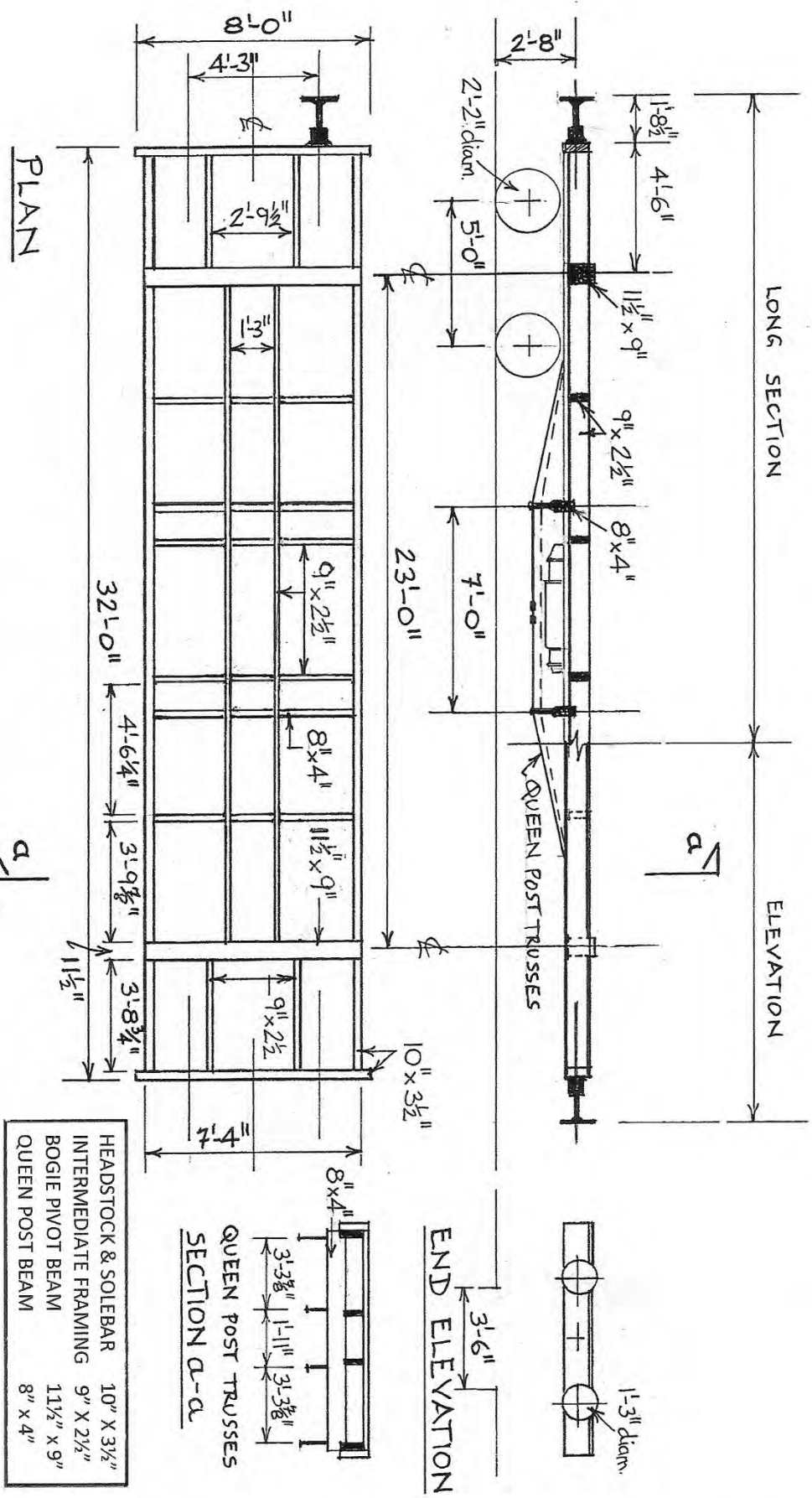
### Underframe:- All wagons except double door “C” wagon

Part	Evergreen	Size	Remarks
Headstock	8410	4” x 10”	
Solebar	145	.040 x .100	
Headstock coupler beam	148	.040 x .188	
Pivot Beam	167	.080 x .156	
Cross Braces	134	.030 x .080	
Cross brace corner angle	291	Angle .060 (1.5 mm)	Generally, I use them if I cut the brace a little short.
Centre Casting	147	.040 x .156	.030 for some bogies
Distance between buffers		4’ 3” = 15mm	
Coupling Pivot		1/8” Brass Tube	3/32 Styrene tube insert
Coupling Pivot Centre	2.5 mm drill	2.5 mm from headstock	For Kadee 58 Back of coupling jaw in line with front of buffers.
Coupling Slot in Headstock	5 mm 2.5 mm each side of centre.		

# STANDARD 32'-0" TIMBER UNDERFRAME

Based on QR Drawing No 3533 B (Ipswich)

Scale: 1:64 (S Scale)



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### Camp Wagon

Floor; Evergreen 2050 .050 "V" Groove Spacing (1.3 mm) 020 Thick (.05 mm)

Side Walls/ Ends; Evergreen 2060 .060 "V" Groove Spacing (1.5 mm) 020 Thick (.05 mm).

Door; Evergreen 2037. 3½" H0 car side, .020 Thick. Bottom H0 6" x 1', Bracing H0 3" x 1".

Bogies; Caintode Flats CFB 8 Light Passenger.

Buffer; Caintode Flats CFD 1.

Brake Cylinder; Kerroby Models 4 wheel wagon HD 0038

Queenpost; Grandt Line # 5050 H0 6" queenposts. Tichy Train Group have much the same, # 3071- 3", # 3072 - 5", # 3073 - 6" and # 3074 - 10". The spray unit I used Musted baitholder #10 fish hooks from BCF, cost \$ 4.49 for 13 hooks.

Tie Rod; Turnbuckles - Tichy Train Group H0 # 8021

Tie Rod; 0.3 mm/ 12 thou Brass Wire Main West Models BWR 12 (AR Kits).

Brake Pipe & Hose bag on end of wagon; 0.63 mm / 25 thou Brass Wire Main West Models BWR 25 (AR Kits).

Hand Brake; made from Detail Associates #2524 .010 x .030 Brass flat wire. Cut to size, folded, bent and soldered together. Caintode Flats have an etch brass one with better detail.

Roof; 040 styrene folded over a pipe with masking tape and dropped into hot water a few time. G.C.I home made using home workshop mill.

Stove Chimney; 4mm brass rod turned in the lathe.

Furniture was made from .040 styrene, the bed posts were .020 brass wire.



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### Paint.

Make	Colour	Area/Location	Remarks
Dulux Metalshield	Etch Primer (Light Grey) Rattle Can	Body. Inside & out. Roof	See below
True-color	White	Windows	See below
	Grime TCP-174	Bogies	
Model Color (Vallejo)	Bluff 120	Interior walls	See below
Floquil	Old Silver	Roof	See below
	Tuscan	Body	Used to touch up areas missed with the Oxide, added weather look of repairs ??
PGC	Oxide	Sides/ends/frame	Storm came over, light went dark, couldn't see all that well, paint not thinned enough, some spider webs. Should of went with gut feeling, but everything was out. ?
Doctor Ben's Scale Consortium Weathering Pigments	Fatigue Green # 1344	Floor	Applied over primer using "Isocol" rubbing alcohol. When dry, dry brush more power to suit your requirements.

### Method of Application

Dulux Metalshield	Spray into plastic cup, decan into airbrush paint cup for better control. (Bunnings)
True-color	Austral Model Craft. Airbrushed, Thinned with Acetone. (Bunnings)
Model Color (Vallejo)	Hobbyrama. Airbrushed/thinned with windscreen washer fluid.
PGC	PGC. PGC Thinners (Clean up with Lacquer Thinners)
Floquil	Gone for ever. Thin with Septone High Gloss All Purpose Thinners. Was available at Auto Super Cheap (come & goes).

**Life after Floquil;** Currently, I'm trying Model Color (Vallejo) acrylic paints purchased from Hobbyrama (Popular with war gamers too). They also have an "Air" brand ready for airbrushing, I like to brush figures and other parts, thus using the standard range at present. Thinning for the airbrush I used tank water, at present I trying windscreen washer fluid. Some hand brushing I tried thinning with "Isocol" rubbing alcohol. The bottle has an eye dropper in the top, one or two drops is all that is required some times. So far all is good.

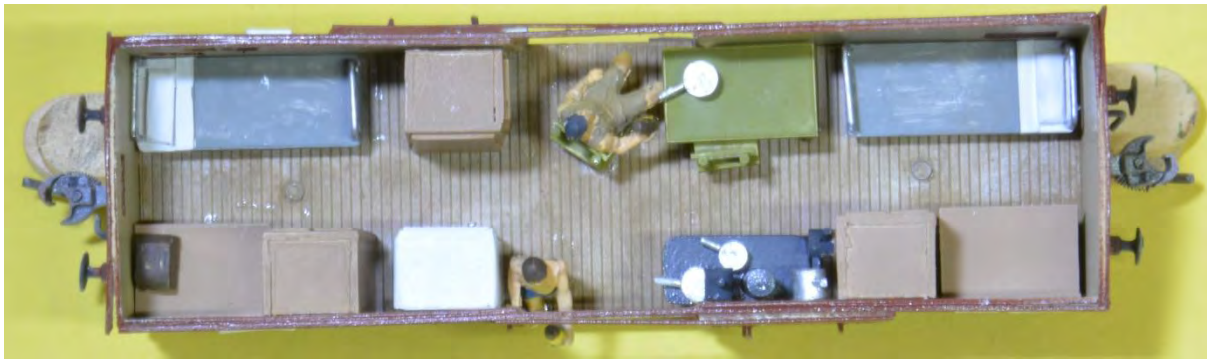
### Weathering Powers

Doctor Ben's Scale Consortium Weathering Pigments

I watched a demo at the Sydney Model Exhibition about 5/6 years ago by Dean of "Rails in Scale" and purchased 6 colours to try. A lot of fun experimenting with them, I think the jars will see me out, a little goes a long way. I mainly apply with "Isocol" rubbing alcohol. The wet left overs will dry out and can be used next time. I found an article by Jimmy Simmons on the net, Introduction to Weathering Powers, simple ways to add realism to your models.

<http://www.div8-mcr-nmra.org/site/clinic/IntrotoPowdersClinic.pdf>

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### Furniture

Make	Colour	Area/Location	Remarks
Model Color (Vallejo)	Yellow/Green 112	Table/chairs	
Tru-color	White TCP – 005	Fridge	
Model Color (Vallejo)	Flat Earth 143	Cupboards	Few drops of white # 001 add.
Floquil	E – L Gray R 157	Blankets (Bed)	
Humbrol	White 34	Pillow/sheets (Bed)	

### Weed Spray Units.

Tanks; 20mm Acrylic rod turned to 18.2 mm in the lathe.

Pipes; .07mm wire. (wire-pak from the Gardening section at Bunnings)

Pump Unit Cab, much the same as the Camp Wagon.

Tank Straps; Detail Associates 2524 Brass Flat wire, Main west Models BWR 15 0.381 / 15 thou brass wire soldered to the ends to fit a Tichy Train Group “S” scale Turnbuckle # 3504.

Tank Detail:- Relief values, Kadee spring on a pin, which is cut to length. Man Hole, sheet / tube styrene with pins for the hold down bolts. Filler hatches are 4mm brass rod turned using a photo for approx.. size.

Paint; Floquil – F 110134 SP Daylight Orange.

Weathering: Floquil – 110081 Earth, 110083 Mud, 110086 Grime. I have two bottles of Grime, both are different colours, so I used a bit from both separately.

Tru-color TCP – 005 White was used for the pesticide spray around the pump unit.

All wagons were weighted to about 50 grams. I’m able to push the unit around the layout without any derailments.

Something a little different for the layout.

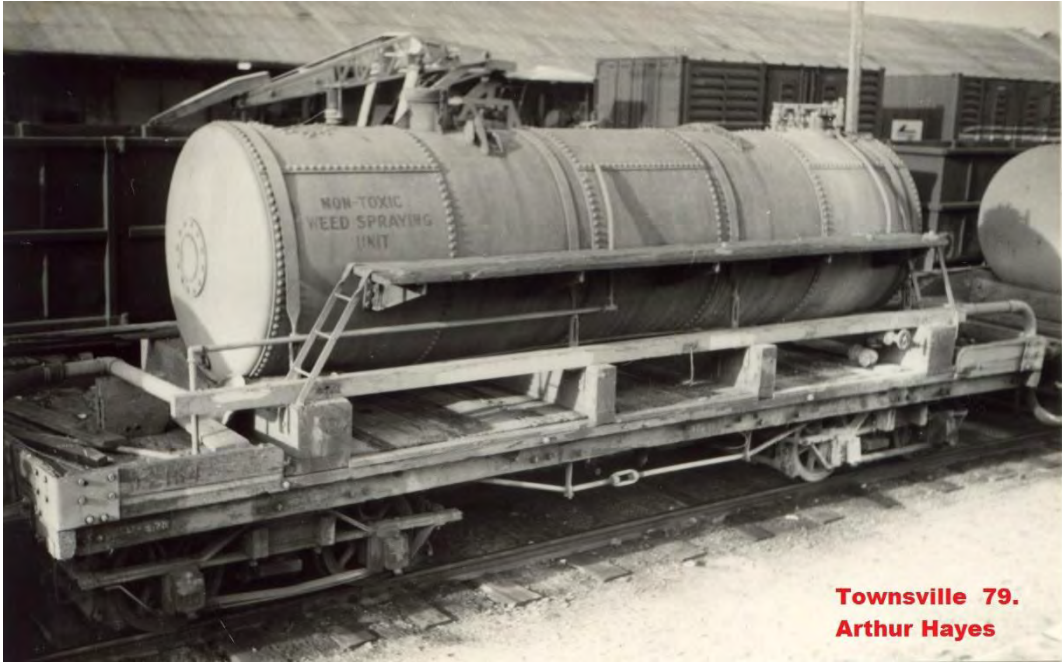


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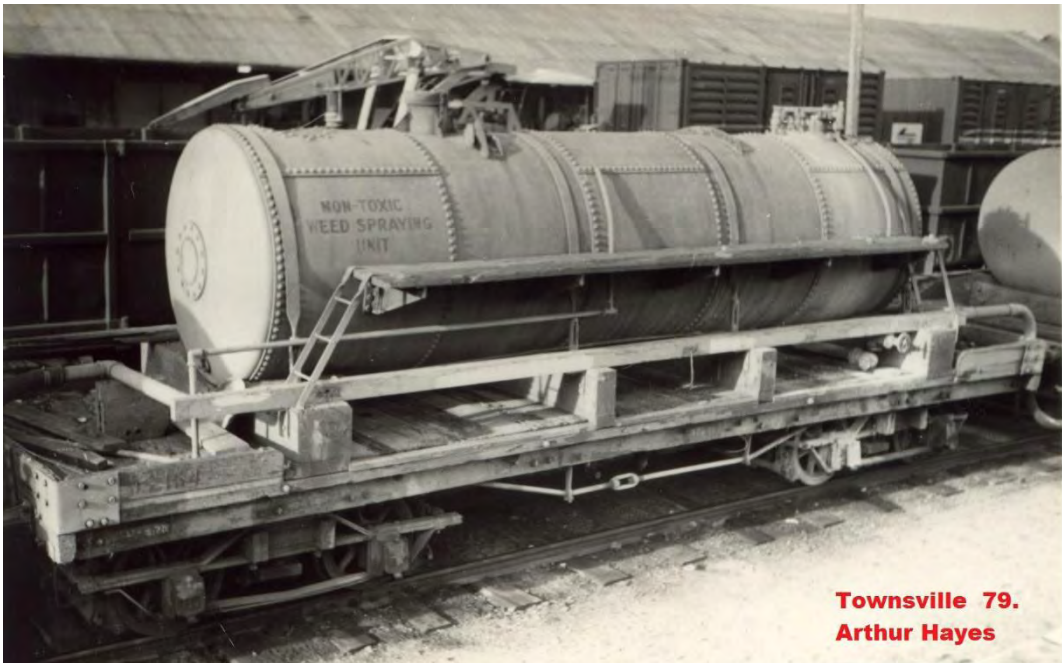




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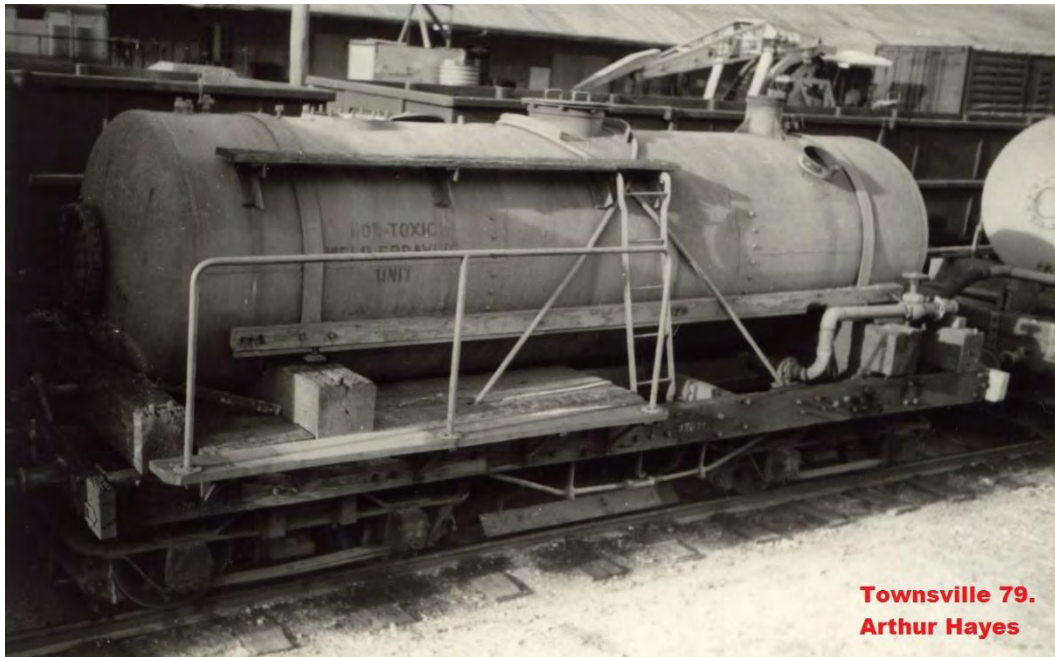


**Townsville 79.**  
**Arthur Hayes**



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