



NGSK0371 Kit 37

Wagon Kit

TTA Chemical

Tank Wagon



Kit contains plastic parts, one-piece plastic chassis, and decals

To complete this kit you will need: Liquid Plastic Cement, Superglue, Paint & Varnish

This is not a toy. Only suitable for persons over the age of 14. May contain small parts and sharp edges. Keep away from small children.

The Prototype

In 1967/8 Charles Roberts Ltd built a batch of chemical tankers designed to transport chlorine for Tank Rentals Ltd. who hired them out to Associated Octel and ICI Mond. They were numbered TRL51649 - 51723 and in their original form they were built with leaf springs and a through vacuum pipe, later becoming TOPS code TTB. When refurbished they were fitted with parabolic type springs and buffer over-ride protection, becoming TOPS code TTA. At the same time the through vacuum pipe was removed. Now allotted design code TTA051J, they are very similar to codes B,M and Q (TRL51410 - 51430 and TRL51562 – 51577).

The cover photograph shows ICI Chlorine tanker TRL51656 taken during 1989 © Huw Millington

When adding the decals it is best to refer to photographs due to the variations in markings, fonts and positioning used by different companies through the life of these wagons, the following are good reference sites online:

<http://paulbartlett.zenfolio.com/>

<http://www.flickr.com/photos/hmillington/sets/72157603195747980/?page=13>

Getting Started

First, read the instructions thoroughly all the way through and be sure you are confident that you have identified all the parts. It is recommended that you adhere to the suggested order of assembly, though with experience, you may choose to deviate. The kit has been designed to cover numerous tank wagons; decide before you start which one you wish to build.

General Notes On Construction

Naturally, the N Gauge Society wants you to achieve the best results you can. These simple guidelines should help:

- Read the instructions through fully before you begin
- Use a sharp knife to separate the parts from the sprues
- Clean off any flash or moulding pips with sharp knife and wet 'n' dry sandpaper
- Check fit before gluing
- Use a small paint brush to sparingly apply liquid plastic cement when joining parts
- Photographs of the prototypes will help you

But above all TAKE YOUR TIME!!

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Livery and Lettering

The kit has been moulded in white plastic, however for the etched components, and for those who prefer a painted finish, the appropriate colours are:

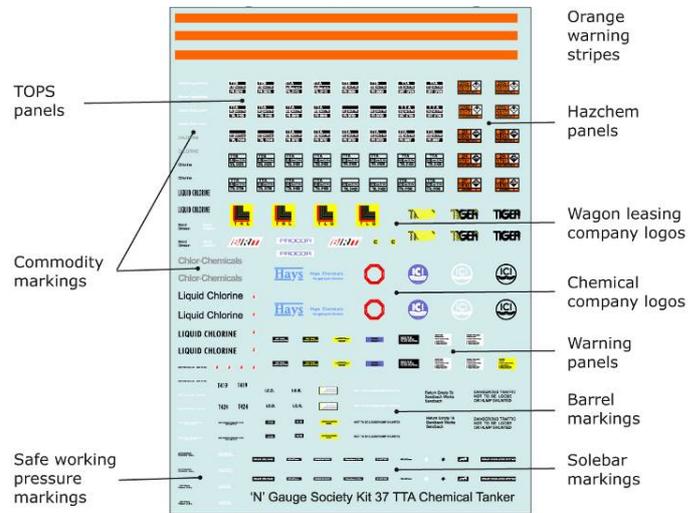
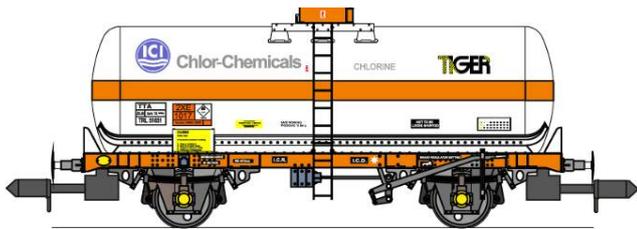
Halford's Car Aerosol
Enamel
Options

Other Commodity Options
Caustic Soda and
Sodium Hypochlorite
Sulphuric acid
Molasses

White
White tank and platform
Orange filler cover and solebars
Grey solebars

Black tank and platform
Orange solebars and ladders
Blue with black chassis
Ochre with black vertical band

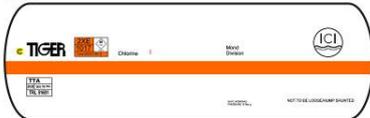
The tankers were kept fairly clean as wagons go, but would often be seen to have faded paintwork, and what appears to be partial repaints where markings were not replaced and so appeared in dirty patches. The diagram for the decal sheet shows the original version; the new version contains all the same elements but they are just arranged in a slightly different order.



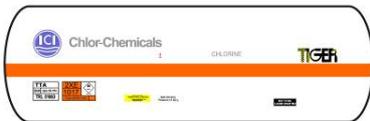
Livery Guide - Some of the many variations!

Chlorine tanker and acid tankers - parabolic ends

ICI



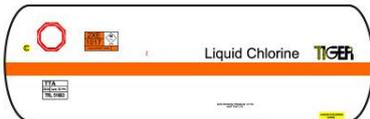
Sulphuric acid



Sodium Hypochlorite



Associated Octel



Molasses

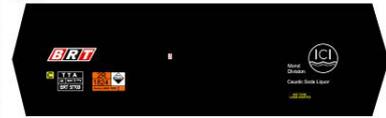


Hays Chemicals

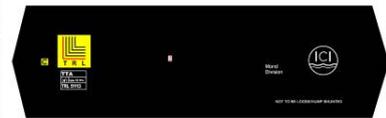


Caustic Soda tankers - conical ends

ICI



Ex Caustic Soda in use for China clay with Hazchem painted out



These illustrations show just some of the liveries seen in traffic and a guide for using the decals included in this kit.

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Construction

Only a few basic tools are required – a sharp craft knife, wet 'n' dry sandpaper, and tweezers (preferably fine point). A liquid polystyrene glue such as Mekpak is best, using a small paint brush to apply small amounts to joints.

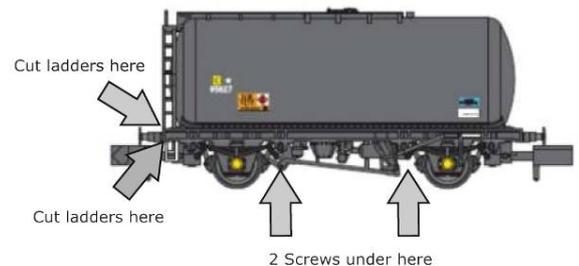
NOTE Some details are omitted from some diagrams for clarity.

Chassis

1. Assemble the Peco chassis kit that is included with this kit.
2. Glue the metal weight in place on top of the Peco chassis.
3. Put the couplings into the coupling pockets at each end of the chassis.
4. Cut the wide flat tops off the Peco coupling retainers, then put them into the coupling pockets. Make sure that the couplings sit level and then apply a small amount of glue to the top of the coupling retainers. When dry, make sure that they are flush with the top of the chassis and if not, trim flat with a knife or wet 'n' dry sandpaper

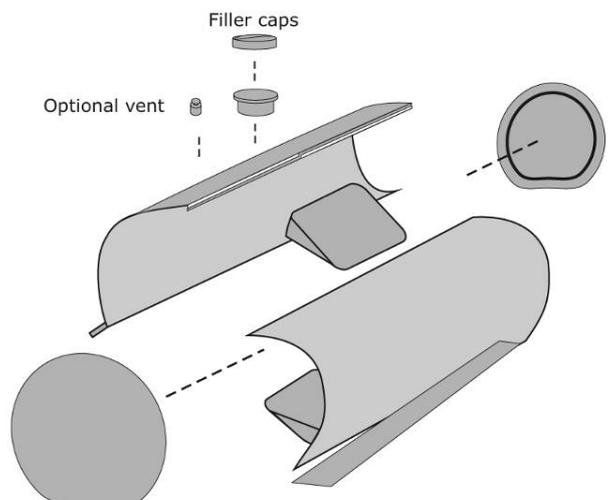
Alternate Chassis

5. The Peco chassis is slightly over scale width so the tank body may appear to be too narrow. This kit was originally designed to be used with a Graham Farish by Bachmann TTA tanker chassis, and these are still available as ready-to-run wagons, although they are an expensive alternative.
6. Unscrew the donor barrel from the chassis in two locations as shown. The ladders will need careful cutting from the chassis on both sides to release it fully. Now cut the ladder extensions from under the solebar.
7. The spare body can be used, as in real life, as a static oil or chemical store, and for this, there are parts on the sprue to make a bund wall which would be built around the tank as a protection against accidental spillage or leaks.



Body

8. The exploded diagram shows how the plastic parts go together. Because of the variations that can be built from this kit, there are alternative parts included; be sure to use the right ones for your chosen model.
9. Glue the two halves of the tank barrel together, using the interlocking section at the top as a guide to keep it square. This is best done by brushing adhesive onto the inside of the tank while holding the two parts together.
10. Fit your chosen ends, (see notes on heater tubes before proceeding with molasses tanks) either parabolic or conical (for caustic soda tanks) and fix in place. Allow the glue to set once the barrel is all true.
11. The tank filler position varies with usage, for the chlorine tank the filler is domed and fitted centrally, others are flat topped and are offset by varying amounts. The domed cap fixes on top of the flat version. The bottom section of the cap requires filing to suit the chosen platform. The cap can be used to hold the platform in position if required and should be glued once the platform is completed. Some tankers also had vents and valves, check with photos to see the exact configuration.

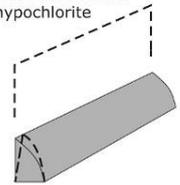


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Buffer Over-Ride Protection

12. Buffer over-ride protection was fitted to some vehicles. If modelling an early tanker they can be left off, but later wagons should have them fitted. Molasses and Sulphuric acid tankers were never fitted with them. Chlorine tankers had them fitted, but for Caustic Soda and Sodium Hypochlorite tankers the ends should be filed down to create a chamfer of 1mm at each end, making the top section 2mm narrower. Glue in position flush with the buffer beams.

Reduce by 2mm at the top only for caustic soda and sodium hypochlorite tankers



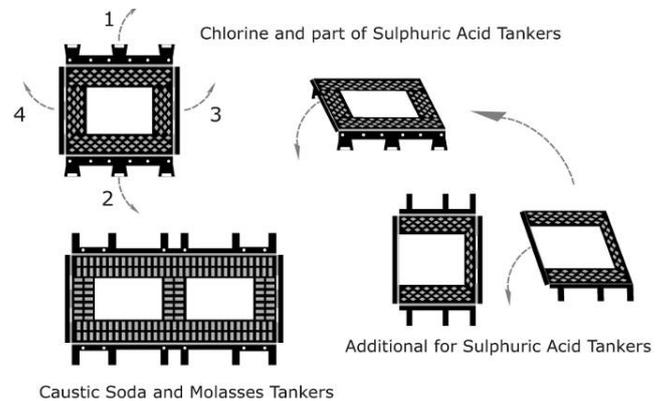
Warning And Hazchem Panels

13. Cut from the fret and fold through 90 degrees. Clean up the tabs on the non-etched areas.
14. The larger panels are for the Hazchem signs which were used by Hays. The smaller panels were fitted on all Chlorine, Caustic and Sodium Hypochlorite wagons. Check with photos for positioning.



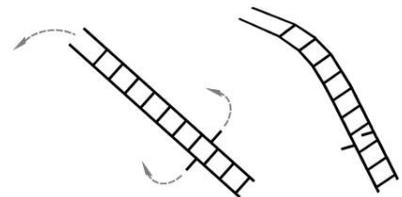
Platforms

15. Cut the platform(s) you require from the fret and clean up the tabs. For all platforms, fold down the sides through 90 degrees, followed by the ends.
16. For Chlorine tankers use just the main section of the top platform.
17. For Sulphuric Acid tankers the extension piece is also required.
18. For Caustic Soda and Molasses tankers use the large platform. Note that some Caustic Soda tankers had the legs bent back at an angle.



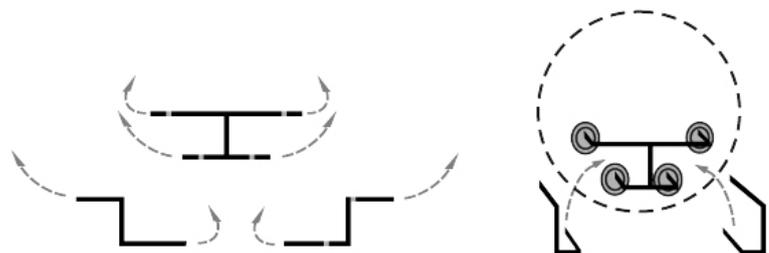
Ladders

19. Cut from the fret and carefully shape the curve at the top of each ladder.
20. The support brackets are folded back and strengthened with superglue.
21. The top of the ladders should be inserted into the required holes in the platform and bent back to hold them on the platform. The profile should be adjusted prior to bonding them in place on the solebar.



Heater Tubes

22. Molasses tankers were fitted with heating tubes to make unloading easier. These require the pipework fitting at one end.
23. Carefully cut the three pieces from the fret. The larger section has 4 folds and the 2 smaller sections have 2 each. After folding, strengthen with superglue.
24. The tubes are connected to flanges which are the small pips on the plastic sprue (glue the hollow side to tank end). These need bonding on one end to suit the etches in a pattern as shown. Use a 0.3mm drill to make 2 holes in each flange to insert the etch tubes into.

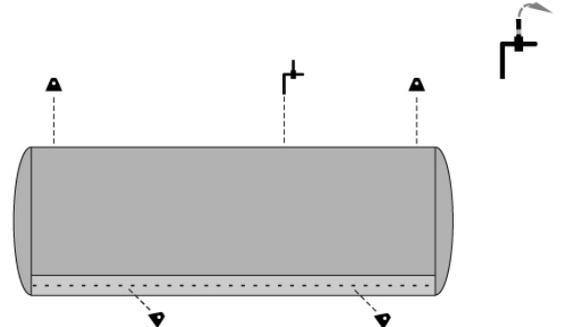


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25. The pipes are best fitted largest first and you may want to tackle this part before removing the end section from the sprue.

Other Details

26. Add the lifting eyes according to photos. Molasses and some Caustic Soda tanks had them on the top at each end, while some Chlorine and Sulphuric Acid tanks had one each end just above the solebar. Drilling a 0.3mm hole and using the etch tab will assist in placing them.
27. The tank top valve is best fitted by drilling a 0.3mm diameter hole in the required location and gluing the valve in place before folding the handle down.



Painting

The secret to a good finish is in preparation and planning ahead. Give the wagon body a coat of gloss varnish as this will help the decals to adhere.

Decals

28. Optimal results will be obtained if the surface is glossed. Cut around the transfer, place in plain tap water and allow sufficient time to soak until it can easily be separated from its backing without pulling or stretching. Place the transfer on the model and gently remove the backing paper (like the “table cloth” trick).
29. Take care not to let it soak for too long so that it drifts off freely in the water. You can place the transfer and backing onto the model and apply the water there using a brush.
30. If applying to ribbed bodysides, add a few drops of PVA glue to the plain tap water to aid bedding in. Avoid MicroSol and MicroSet.
31. Once in position, carefully expel all the moisture from beneath the transfer and leave it to fully dry.
32. Gently spray an acrylic or water-based varnish in light coats to seal the transfer (for example, Testors Dullcote). This is better than brushing with an abrasive enamel varnish.

Wheels

33. Finally, fit the wheels – place the end of one axle in an axle cup on one side, then place the other end over the axle cup on the opposite side. Use a small screwdriver to gently ease the chassis away from the wheel until it drops into the axle cup. Check for free running – sometimes, the axles can be a bit stiff, but swapping the axles or reversing them can cure this.

Congratulations! Your model is now complete.