FINESTKIND MDL'S

TRI-STAR OIL CO. KIT #110

BEFORE YOU START:

Sort and identify all the parts and visualize each step. Some of the wood parts have been cut to length for you and should need no further work. Where the wood is to be cut, the instructions will tell you what to do. Some of the castings detail parts may need to have a bit of flash removed before painting and gluing them in place. Be careful with the castings, as some are very small and can be easily broken. If you plan to stain or paint your model, this should be done before assembly, as most stains do not 'take' to the glue joints. Cut apart the templates from the rest of the drawings and fasten them so it will not shift or wrinkle.

STEP 1:TANK SUPPORT BENTS

Start the tank support bent construction by first cutting to the length needed, over the right side and left side view drawings, four pairs (16 pc) of vertical support posts. These pieces fit between the bents top and bottom caps, and can be tacked into place over the two templates once the cutting is done. Now take two each of the four precut 12" square X 8' and 12" square X 11' stock and tack these pieces to their respective locations on both templates as well as gluing to the ends of each of the vertical support posts. With these first two bents drying, cut eight pieces of 2" X 12" stock 10'6" long and glue one piece to each of the bents you just built on the templates. Once dry, remove the first set of bents from their templates and add the second piece of 2" X 12" X 10'6" to their backsides, as shown on the drawings. Repeat this procedure for building the remaining two bents needed. Once all the bents are completed locate and drill (with a #71 drill bit) and ACC into place eight Nut Bolt and Washer Castings per bent brace.

STEP 2: TANK SUPPORT FRAME

Begin building the tank support frame by first cutting seven pieces of 2" X 12" stock to 34' lengths and seven pieces of 2" X 6" stock to 11'6" lengths. Now tack (on edge) four of the seven pieces of the 2" X 12" X 34' over their respective template location. Once this is done, glue the seven pieces of 2" X 6" X 11'6" (also on edge) across the tops of the just installed 2" X 12"s. Be sure to keep their back edges even with the bent caps as shown on the drawings. Glue the remaining three pieces of 2" X 12" X 34' to the tops of these same 2" X 6"s. Starting with the first piece, hold it back from the front edge of all the 2" X 6"s by four inches (for the hand railing post). Now space the remaining two pieces equally apart using a scrap of 2" X 12" stock between each board. While this assembly is drying, begin cutting and gluing together the catwalk handrail. Start first by cutting seven pieces of 4" sq. stock to a 3'9" length, and tacking them into place over the front view drawing. Next add a 2" X 4" cap by again cutting to the 34' length needed and gluing it to the tops of these same posts. Once this small assembly has dried, glue it into place on the tanks support frame, keeping the front edge of the 4" X 4"s flush with both the ends and bottoms of all seven of the 2" X 6"s. Once again setting the entire assembly aside to dry when done.

STEP 3: SUPPORT BENT TO FRAME ASSEMBLY

With both the tank support bents and frame ready to be assembled into one unit, begin by cutting four pieces of 2" X 12" stock 34'6" long. Place each bent right side up over the tank support frame template using the top bent caps dotted lines to help locate and space each bent evenly apart. (Double-sided tape will help here) Once this is done, glue all four of the 2" X 12" X 34'6" into place above each of the bents own 2" X 12" cross brace as shown on both side views. At the same time check each bent making sure it is standing squarely upright and maintaining equal spacing at its top as well as its bottom. Next begin cutting to fit the front and back 2" X 6" diagonal cross bracing as shown on the front view drawing gluing each piece into place as you go. Once dry turn the bent assembly on its side and add as before the NBWC to the front and backs 2" X 12" and 2" X 6" bracing. With this done, turn the bent assembly upright again and glue in place on top of the bents top cap the tank support frame you made in Step 2. This is done by keeping the back edges of both the 12" sq. bent caps and the tank support frames 2" X 6" flush with one another (as shown on the tank frame template). Set the completed unit aside to dry.

STEP 4: TANK ASSEMBLY

The assembly of the tank itself is easy. But first we suggest that you lightly sand all of the plastic parts to assure a good surface for gluing and painting. Now glue both end caps to the tank tube. Once this is done, measure 6'3" from one end of the tube and drill a hole into the bottom of the tank with a 5/64" drill bit. This hole will be used later for attaching your pumphouse piping. At this time we once again suggest that you should now paint and decal the tank before deciding on which end you want the pumphouse. Then center and glue it into place on top of the support bents and frame. With the tank glued into place, add two pieces of 4" X 4" X 22'6" stops by cutting them from the 34'8" stock provided. Glue each piece to either side of the tank again as shown on the side view.

STEP 5: PUMPHOUSE ASSEMBLY

To build the pumphouse you must first take the two 8' X 11'6" board and batten and wall pieces and using the pumphouse end wall template cut them to match. Once this is done, decide on where you want the door casting (center or off-center) on the end wall that joins to the platform. Make two marks on that same wall, one 3" from the bottom for the door, and one 9'6" centered for the pumphouse piping. Using the 3" mark as a starting point, finish measuring and marking the rest of the space needed for the doors casting onto the wall. After you have marked the location and space needed for the door casting, remove all of the battens in that area to allow the casting to lay flat against the wall. Now glue the door casting in place. Once this is done, and again using a 5/64" drill bit, drill a hole at the 9'6" mark you made earlier for the pumphouse piping. Now begin gluing the four pumphouse walls together. Place the precut side walls inside the end walls and make sure that each of the corners are square and the bottom edges of the walls are flush with each other. At this time you should now add any corner bracing that may be needed using some of the scrap 4" X 4" material you have left over.

Now cut to fit between the two end walls a piece of 6" X 6" stock for the roof ridge pole and glue in place. Set the pumphouse aside to dry while you are building its roof.

STEP 6: PUMPHOUSE ROOF

This step can be done quickly by first taking two pieces of ribbed seamed roofing and cutting them into 3'6" X 8'9" panels, having some left over scrap for a ridge cap if needed. Before ACCing into place, we suggest that you weather the roofing panels as per Step 6 in our Construction & Weathering Hints. Once this is done, start at the bottom of both pieces of precut cardstock and ACC one panel to each leaving a 1/16" overhang on all three edges. After completion, add the top panel only this time starting at the top of the cardstock and overlapping onto the panel below again leaving a 1/16" overhang on the edges. With the roofing finished, carefully center each section of the roof over the pumphouse walls butting them together at the top of the roof peak and glue into place. Before setting the pumphouse assembly aside to dry, you might want to consider a roof peak cap of either ribbed seamed roofing, wire, or paper.

STEP 7: PLATFORM and PUMPHOUSE ASSEMBLY

Begin the platform assembly by first tacking into place, over the platform template, the four precut 6" X 12" X 6'6" support beams. Now cut from your remaining 2" X 6" three pieces 18'9" long and glue them (on edge) to the tops of the support beams as shown on the template. While the platform frame is drying, build two U-shaped pipe support frames. This is done by cutting four pieces of 6" X 6" stock 10'3" long and two pieces 8' long, as well as four pieces of 2" X 6" scrap for the leg braces. Now set two of the 10'3" pieces, one of the 8' pieces, and two of the leg braces aside for now, and assemble the remaining pieces as needed over the pumphouse and platform front view drawing. This is done by gluing the 8' piece to the tops of the two 10'3" pieces as well as the two 2" X 6" pieces for the leg braces. When this assembly is dry, again, and for the last time, add NBWC to the 2" X 6" leg braces.

With both the platform and pipe support frames drying, cut 11 pieces 6'6" long from your remaining 2" X 12" stock for the decking and three pieces 12'6" long from your remaining 2" X 6" stock for the pipe guides. Set them aside for now.

With the first pipe support frame dry, remove it from the template and repeat the procedure covered earlier for building a second frame. Next take the pumphouse itself, and using one of the 2" X 12" X 6'6" pieces you just cut for a guide, carefully trim away any battens that remain at the bottom edge of the pumphouse wall with the door.

Now carefully center and glue into place the pumphouse itself over the platform frame. Keep its back edge flush with the ends of the 2" X 6"s yet overhanging evenly on each side of the frame. Once the pumphouse to platform assembly is dry, remove it from the template as well as the second pipe support frame you made earlier. Carefully glue into place both pipe support frames as shown on the drawings. This is done by gluing each of the frames legs on top of the platforms 6" X 12" support beams as well as up against the 2" X 6" frame members. Make sure each frame is standing squarely upright.

STEP: 8 PIPE GUIDES AND DECKING

With the pipe support frames in place and drying, you may now add two of the three pieces of 2" X 6" X 12'6" pipe guides that you cut earlier (this will also help keep both pipe support frames evenly spaced and square). This is done by locating the center of both support frames tops and gluing each 2" X 6" piece 3" over from its center. Keep both pieces flush with the front edge of the front pipe support frame member as shown onthe drawings.

While the pumphouse and platform is still drying, glue the last piece of 2" X 6" X 12'6" in place; 11'9" up from the bottom of a bent as well as inside and across two of the outermost vertical support posts of your choice. This will determine the location (side) of the pumphouse and platform in relation to the tank itself. Once this is done, add the 2" X 12" X 6'6" decking pieces to the platform, starting under the pumphouse door and working to the left end. As you go notch each piece as needed to fit around the pipe support frames legs. With the decking completed, your model is ready for your piping and finishing touches.

Finishing Touches:

Assemble the piping set that is provided with this kit, as per the configuration that you need to connect the tank to the pumphouse and platform. If enough pipe has not been provided for your needs, we suggest using 3/64" wire or tubing to do so. Also you may want to consider running a pipe from the pumphouse to your rail siding for on and off loading of your tank cars. Next glue the entire assembly together; pipe to tank, pipe to pumphouse, pipe guides to pipe guide support. Now cut out and apply the remaining decals as you like, to the front and/or sides of the building or posts, using Walthers Solvaset making the decal snuggle onto the wood. Finish weathering the structure with some powdered chalkdust on the decking, catwalk, and around the base of the bents with an earth color. Streak some rust colors on the piping, tank, and ribbed seamed roofing. Your Tri-Star Oil Co. is now ready for your layout. We hope you have enjoyed building this kit and that it was the fine quality you expected.

LIST OF MATERIALS:

16 pcs-12" X 12" X 13'4"-Bent post
4 pcs-12" X 12" X 8'-Caps
4 pcs-12" X 12" X 11'-Caps
1 pc -2" X 4" X 34'8"-Railing
9 pcs-2" X 6" X 34'8"-Bracing,framing, and misc.
16 pcs-2" X 12" X 34'8"-Catwalk, decking, bracing, and misc. 1/32 + 3/16
3 pcs-4" X 4" X 34'8"-Railing post, misc.
7 pcs-6" X 6" X 10'9"-Pipe supports, framing
3 pcs-6" X 12" X 6'6"-Platform supports
2 pcs-7'3"w X 8'h-Pumphouse walls
2 pcs-8'w X 11'6"h-Pumphouse walls
2 pcs-8'3" X 5'6"-Pumphouse roof cardstock
1 pc -6-7/16"-Tube
2 pcs-End caps
2 pcs-8'9" X 9'-Ribbed seamed roofing
1 pc -#4030A-Door
3 pcs-#023-Nut bolt washer & castings
1 pc -Decal set
1 pc -#297-Piping set

CONSTRUCTION AND WEATHERING HINTS:

1. For best results, always use a sharp blade when cutting. A single-edge razor blade, which has a thinner section than most modeling knives, will make a cleaner cut since it does not press the ends of the wood it cuts. The use of a Shay Wood Miter or NWSL stripwood cutter is highly recommended, especially for parts to be cut to the same length. The few dollars spent for one of these tools are, in our opinion, well worth the investment.

2. Wood siding can be given a slight texture with a wire brush. We use an old brush designed for suede. After texturing, use steel wool to de-fuzz the wood. A coat of the finish color of paint applied before the final use of the steel wool will act as a sealer and make the wood fuzz more brittle, thereby easing its removal for a cleaner finish.

3. When using board and batten siding, there are several techniques that can be used to give this type of siding a very realistic appearance. A few of the battens can be lifted from the siding slightly by inserting a single edge razor blade at a very slight angle, and then lifting the batten away from the surface. (This method can also be used to raise a few random clapboards on that type of siding, or even to remove a portion of the clap-boards for a really run down look.) When this method of weathering is used, along with a few missing battens, or parts of battens, or battens of vary-ing sizes, you will hardly be able to tell that its not individual boards throughout. You might even paint a board here and there a different color from the main color. The trick here is that anything that suggests these are individual boards helps the illusion.

4. While on the subject of board and batten, this type of siding was gen-erally not painted. We used Weather It by A West to recreate a naturally aged unpainted wood finish. A coat of black shoe dye and denatured alcohol (heavily diluted) over the siding also is a good weathering agent. You may also want to put a wash of this over painted casting too.

5. For the metal and plastic castings,we suggest airbrushing them with Floquil Primer Gray before painting them the final color. You may even want to leave them the light primer gray for a more weathered and faded look.

6. The corrugated or ribbed seamed roofing can be difficult to weather, but the most realistic weathering can be achieved by etching this material with ferric chloride (found in Radio Shack stores under the name ETCHANT for printed circuit boards). Pour a quarter inch of Etchant in a large, flat bottomed plastic bowl. After the ribbed seamed roofing is cut to size, use tweezers to dip the material into the Etchant. Leave the material in the solution for only a second, remove it, and let it 'splatter' for a moment before rinsing it in a bowl of fresh water. Repeat this process until the degree of weathering you want is reached. (Careful, the material can dissolve if you do this too often). The resulting rusts, grays and blacks will only need a little dry-brush touch up after the material is installed on the model. This may be done by applying powdered chalks in lighter and darker rust colors. The powdered chalk dust is made from Rembrant Pastel chalks available in most art stores. Scrape or sand the side of the chalk and apply with a small paint brush.

7. Paint or stain everything before assembly. It adds only about an hour or less to construction time but will greatly enhance the appearance of the finished model. An airbrush or the use of Floquil Barrier when brush painting is best for lacquer on styrene. Also, soak the parts to be painted in denatured alcohol to remove finger prints and grease.

8. For adding decals to the front or sides of the buildings, use Walthers Solvaset to make the decals snuggle onto the wood sidings. After about 2 hours, use Solvaset sparingly and the decal will blend completely into the wood. After about 24 hours the decal can be weathered by gingerly going over it with fine steel wool or a very fine grade of sandpaper until the desired effect is achieved...be careful not to over do it. We also thinned some of the wall color out a bit and painted over the decal to give it a faded appearance. This has to be done very carefully, as the solvent in the paint will attack the decal. Make one brush stroke and then wait until that dries before making another one. You might want to practice on some extra decals if you have some laying around.

9. Real tarpaper comes in 3' wide rolls, the length for modeling is your choice. It is easy to apply with rubber cement. Always start the application at the bottom of the roof and work upward. Overlap each piece (row) approx. 1/16" to 3/32". A weathering suggestion for tarpaper: After you cut each strip, hold it on the edge of the work bench and lightly shave the bottom edge of the tarpaper with an old emery board held at a 45° angle. Then glue into place with each of these edges facing outward. Next, add streaks and runs of Floquil Natural Pine wash 80% Dio-sol and 20% Natural Pine. Make a few nail holes with a pin. And finally add a few patches of small pieces of tarpaper or roofing tin.

10. For dental stone castings we suggest airbrushing them first with Floquil Primer Gray, begore painting them the final color of your choice. The colors can range from Roof Brown to Boxcar Red, Caboose Red to Zinc Chromate Primer to even lighter or darker grays depending on the type of brick you are modeling as well as the area that it comes from. Once the paint has dried, various methods of weathering can be used; dusting powder, chalk, soots, other types of dirt, as well as light washes of white, beiges, and other water soluble paints. Each of these give a different and more realistic appearance.

11. Finally a word of caution, experiment on scraps of wood and extra castings with these techniques before using them on the actual model. We've tried to give you the basic ideas behind the techniques, but the application of them must be learned in most cases, with a bit of practice. We hope these hints are helpful to you in your modeling. You may have other methods that you favor for reaching the same goals. If you are comfortable with them and get the results you desire, stick with them. Enjoy, and happy model railroading!