KIT 2700

120 ton INDUSTRIAL BROWNHOIST WRECKING CRANE

N SCALE
MADE IN U.S.A.

This kit is our most ambitious to date. Although complex in appearance and highly detailed, it was engineered for easy and straight forward assembly. With careful work and a dose of patience you can be assured of perhaps the finest N Scale model yet available, and an enjoyable alternative to Ready to Run.
PLEASE READ thru the instructions to familiarize yourself with the various parts, and their location.

PLEASE READ BEFORE ASSEMBLY
Use only liquid cement for plastics.
Apply cement sparingly with a small brush.
Carefully trim and fit all parts as called for in assembly sequence.
Use only styrene compatible paint. Airbrush is recommended.
Trim all parts from runner system with a sharp modelers knife.
DO NOT TWIST them off.

TOOLS NEEDED:
Sharp modelers knife
Fine pointed tweezers
Small pointed brush
Liquid cement for plastics
Small flat file

In addition; Decals and Trucks. We recommend KADEE #1010 ARCH BARS, with couplers.

PROTOTYPE HISTORY

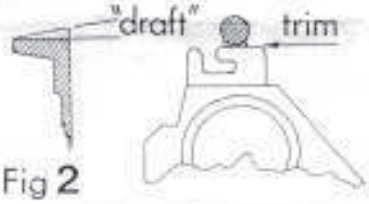
This 120 Ton capacity Wrecking Crane, AT&SF #199774, was built in 1909 by the INDUSTRIAL WORKS, Bay City, Michigan, as Company Number 2067. Representing one of the most popular crane types, they were used in large numbers by almost all American railroads, as well as in export. Many are still in use today.
There were many varieties, with a wide profusion of headlights, worklights, generators, platforms, ladders and cab curtains. These details were added by the railroad shops, and offer many superdetailing possibilities.
Dimi Trains would like to thank Dave Garcia and Mark Ellis of the ORANGE EMPIRE RAILWAY MUSEUM, present owners of the prototype for their kind and invaluable assistance, providing factory drawings and many photos. When in Southern California, plan to spend an enjoyable day at this fine operating museum, located in Perris, near Riverside, California.

Fig 1

I FLOOR/CHASSIS Fig. 1

(1) Remove "Suckers" and ejector bars from center of SIDES (2) & (3).
(2) Cement SIDES (2) & (3) and ENDS (4) & (5) to FLOOR (1). Watch fingermarks, check for squareness, set aside.

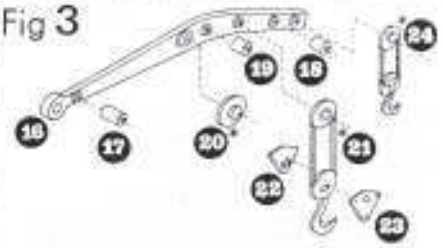
Fig 2



PARTS LIST

(1) FLOOR
(2) SIDE
(3) SIDE
(4) END
(5) END
(6) A-FRAME FLOOR
(7) A-FRAME, right
(8) CABLE DRUM
(9) A-FRAME, left
(10) REAR PLATFORM
(11) RIGHT CYLINDER
(12) LEFT CYLINDER
(13) TRUSS ROD
(14) TRUSS ROD
(15) BOOM SIDE, right
(16) BOOM SIDE, left
(17) BOOM SPACER, long
(18) BOOM SPACER
(19) BOOM SPACER
(20) PULLEY, boom
(21) LARGE HOOK/PULLEY
(22) PULLEY SIDE PLATE, left
(23) PULLEY SIDE PLATE, right
(24) SMALL HOOK
(25) BOOM PULLEY, TOP
(26) BOOM PULLEY, BOTTOM
(27) X BRACE, Top Rear
(28) X BRACE, Top Front
(29) X BRACE, Lower
(30) FORK, left
(31) FORK, right
(32) ROOF
(33) SIDE, right
(34) SIDE, left
(35) BACK
(36) STACK
(37) MANIFOLD
(38) FRICTION SPIDER
(39) WEIGHT
(40) WEIGHT RETAINER
(41) PIVOT PIN
(42) PIVOT PIN
(43) SCREW 2-56
(43a) PULLEY YOKE, Top
(44) PULLEY YOKE, Bottom
(45) THREAD

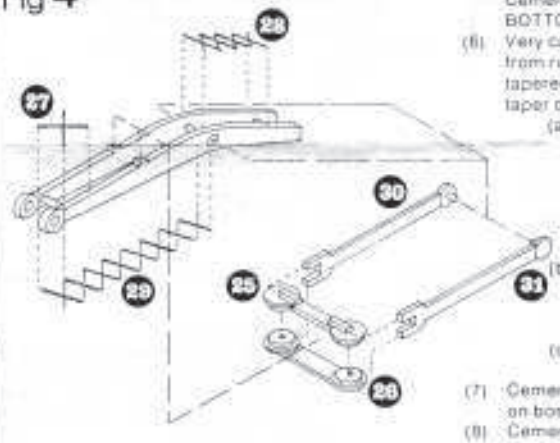
Fig 3



II BOOM ASSEMBLY Fig. 3

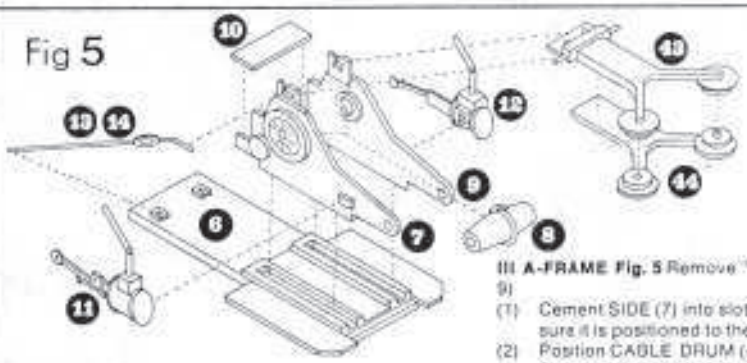
(1) "Draft" angle has been molded on the flanges of BOOM SIDES (15) & (16) to facilitate removal from the mold. Carefully scrape this draft off with a sharp knife as shown in fig. 2, to allow cementing of X braces later.
(2) Cement BOOM SPACERS (17-18-19) to LEFT BOOM SIDE (16). Note that LONG spacer (17) goes to the left, or pivot end.
(3) Cement PULLEY SIDE PLATES (22-23) to LARGE HOOK/PULLEY (21).
(4) Place, **do not cement** assembled hook (21), SMALL HOOK (24) and PULLEY (20) into position. Carefully place RIGHT BOOM SIDE (15) and cement ONLY at the spacer locations. Hold in place till cement sets.

Fig 4



(5) SEE FIGURE 4.
Cement BOOM PULLEY TOP (25) to PULLEY BOTTOM (26).
(6) Very carefully trim X BRACING (27-28-29) from runner system. Note that X bracing is tapered from one end to the other to match taper on boom.
(a) Cement LOWER X BRACE (29) in place, locating the wide end at the register mark at pivot end of boom just in front of pivot boss. It is best to tack this end in place with cement, then work slowly forward working each X in turn.
(b) Cement TOP FRONT X BRACE (28), locating "Gap" between 1st and 2nd (from front) brace directly over large hook pulley.
(c) Cement single TOP REAR X BRACE (27), locating as in step 6a.
(7) Cement assembled BOOM PULLEY (25/26) on bosses on top of boom.
(8) Cement FORKS (30-31) to each side of BOOM PULLEY and into holes on front sides of BOOM.
SET ASIDE TO DRY.

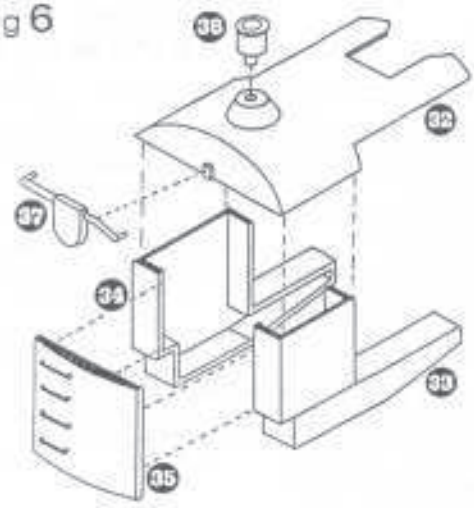
Fig 5

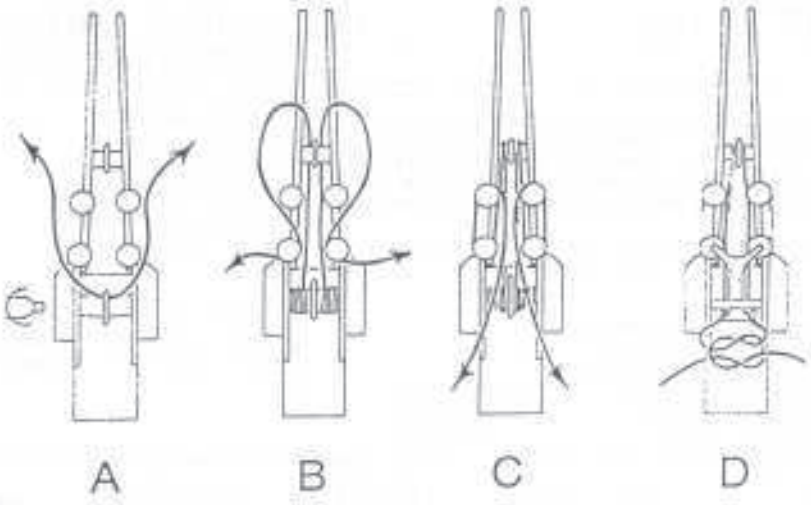


III A-FRAME Fig. 5 Remove "Suckers" from tops of SIDES (7-9).
(1) Cement SIDE (7) into slot on right side of FLOOR (6). Be sure it is positioned to the bottom and rear of slot.
(2) Position CABLE DRUM (8) in ring on inside of SIDE (7). Slot in end of DRUM should face opposite SIDE (9). Fit and cement LEFT SIDE (9) in place. DO NOT CEMENT DRUM. Make sure all is square.
(3) Cement REAR PLATFORM (10), RIGHT and LEFT CYLINDERS (11-12) and TRUSS RODS (13-14) in place.
(4) Cement TOP PULLEY (43) to BOTTOM PULLEY (44).
SET ASIDE TO DRY.

If a part is damaged during assembly, please return it to us with a self-addressed stamped envelope for a replacement.

Fig 6





IV CAB ASSEMBLY Fig. 6
Note: Due to the difficult shape of the cab, some fitting may be necessary. Also, be careful of fingermarks.

(1) Carefully file draft off top edges of END (35), and SIDES (33-34), shown shaded in fig. 6. This is very slight, so be careful —
(2) Cement SIDES (33-34) to ROOF (32).
(3) Cement back (35) to assembly.
(4) Cement MANIFOLD (37) to rear of ROOF.
(5) Cement STACK (36) to ROOF.

SET ASIDE TO DRY

V PAINTING

You now have 4 sub-assemblies, and it's time to paint. We recommend the use of an airbrush.

Almost all cranes were basic black, with some having silver boom and cab roof. Many had safety stripes on the cab back. Lettering was minimal, usually only the company logo and numbers. Your dealer can provide decals of your choice.

Use only "styrene compatible paint", or if using Floquil, apply a barrier coat first. If spraying, this is not necessary. Apply a light clear gloss coat prior to decaling. The hooks, pulleys and gears can be rusty black, with silver crosshead and cylinder covers. Allow paint to dry completely before final assembly.

VI RIGGING Figures A-B-C-D

The rigging was designed to "operate" in that the boom can be raised or lowered with WRENCH (45) and a little assistance. This is to allow you to "pose" the model.

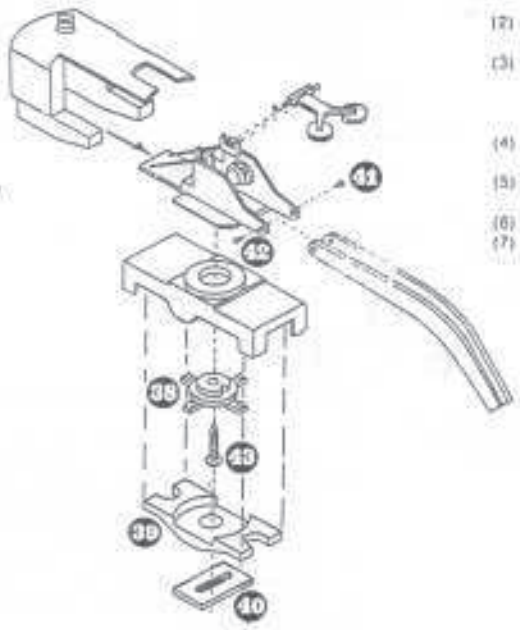
NOTE: Scrape paint from areas to be cemented, and use tweezers and your dose of patience. Follow the drawings carefully and all will go well!

(1) Assemble BOOM to A-FRAME with PIVOT PINS (41-42). Apply a small amount of cement to outside of pins, and make sure that the boom is free to pivot.
(2) FIGURE A: Find the center of thread provided, and "snatch" it onto hook molded on winding drum. Using WRENCH (45), wind about six turns onto drum in a counter-clockwise direction as you face the winding side. Thread should come UNDER the drum, facing forward, one on each side.
(3) Snap assembled PULLEY/YOKE (43-44) in place on top of A-FRAME.
(4) Bring thread under PULLEY (20) in BOOM, (Tweezer Time) up over pulley and back to INSIDE of rear pulley. FIGURE B.
(5) Bring thread around inside rear pulley, feeding it thru small hole left in yoke, around to outside of front pulleys, thread thru forks (30-31) and thru bracket of pulley assembly (25-26) on inside of front pulleys, with ends facing rear of cab.
(6) Take a stretch, massage the cramps from your fingers, and check that all is well so far.
(7) Bring ends of thread UNDER A Frame pulley yoke, and UP thru hole on each side of tab on rear of yoke.
(8) THIS IS IMPORTANT!!!
Make sure all rigging is in place and running around each pulley. Carefully pull rigging taut, and tie a double knot on top of yoke tab. It is important to get equal tension on each side of the rigging. Snip off excess.
(9) UNWIND (yourself — not the crane!)

VII FINAL ASSEMBLY

(1) Slide CAB on to A-FRAME floor, and cement in place. The fit is a little loose to allow for assembly variations. The correct location is to "push" the cab up, to where the running boards are even with the top of the extensions at the cab front.
(2) With a knife, remove sharp edge inside large hole on FLOOR (1), until A-Frame rotates freely. Easy does it!
(3) Insert A-FRAME assembly into FLOOR, place FRICTION SPIDER (39) into hole with tab lining up with notch, and screw in place. The screw will roll-form the thread, but you may prefer to tap the hole 2-56 first. This should not be necessary. Adjusting the screw will allow you to vary the firmness of rotation of the cab.
(4) The weight (39) may need to be cleaned up with a file, especially the truck boss clearance holes, and the narrow top strip with the small slot in it.
(5) Snap, and cement if you want, the WEIGHT RETAINER (40) with raised tab locating in groove in weight.
(6) Install trucks. We recommend KADEE #1010 Arch Bars.
(7) Final weathering and paint touch up. Try using pastel chalks for rust and dirt streaks, and add lots of grime.

Fig 7



TICHY TRAIN GROUP
PO BOX 220
ALAMANCE NC
27201-0220