

Kemtron

KEMTRON

CATALOG N° 8



- **Locomotives**
- **Cars**
- **Parts**

5755 E. Fountain Way Fresno, California 93727
Telephone: area code 209 - 291-6614

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★ ★ GENERAL INFORMATION ON USAGE OF *Kemtron* PARTS ★ ★

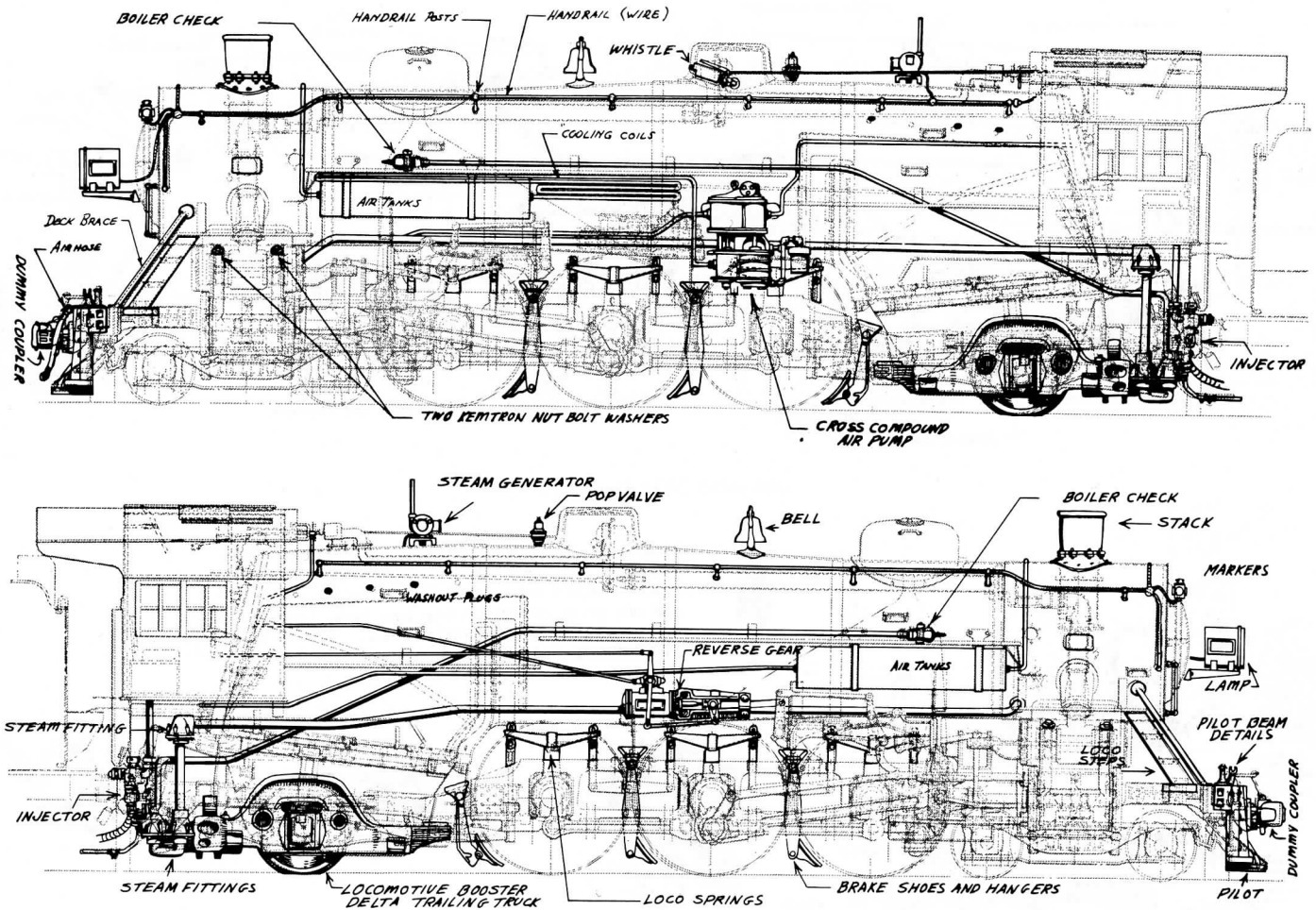
The piping diagrams and parts drawings on these pages are offered as a guide to show the modeler how, and where, to use KEMTRON parts. It should be remembered, however, that the location of a given part, or accessory, may vary on different locomotives. Even locos of the same Class on a particular railroad may show differences in arrangement of piping and fittings due to rebuilding or repairing over a period of time. This is especially true in the case of older motive power, like our C-16, of which there were numerous variations.

If you are modeling a specific locomotive, it is best to obtain photos of EACH SIDE, if possible, to use as a reference for locating details.

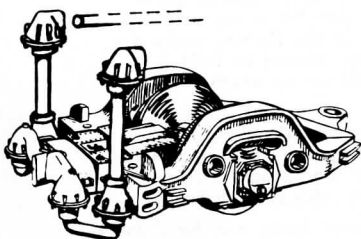
We have not shown all of the KEMTRON parts on these drawings; merely those that are typical for the locomotives illustrated. From our wide selection of highly-detailed brass castings, the modeler can choose whichever fittings suit his needs or desires best. For example, by installing the same type of pilot, headlight, bell, stack, markers, etc., you can give all of your motive power, regardless of origin, that distinct "family resemblance" so common on most real railroads.

4-6-2 PACIFIC

(USRA Light Pacific)

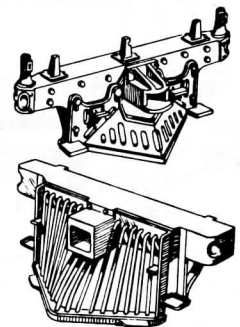


DRAWING NOT TO SCALE



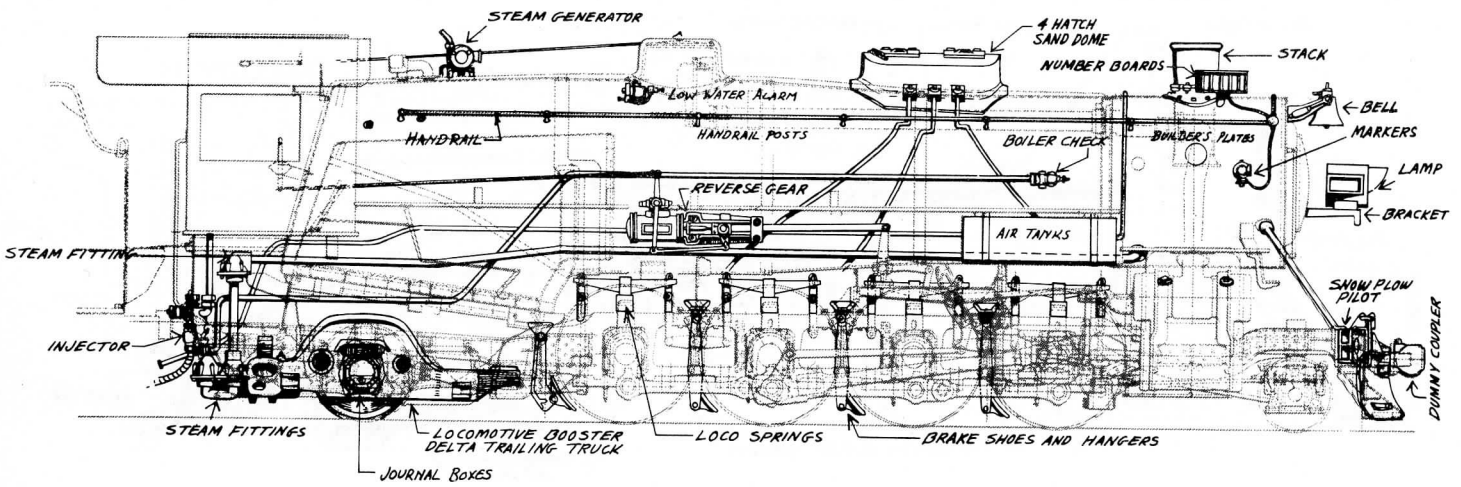
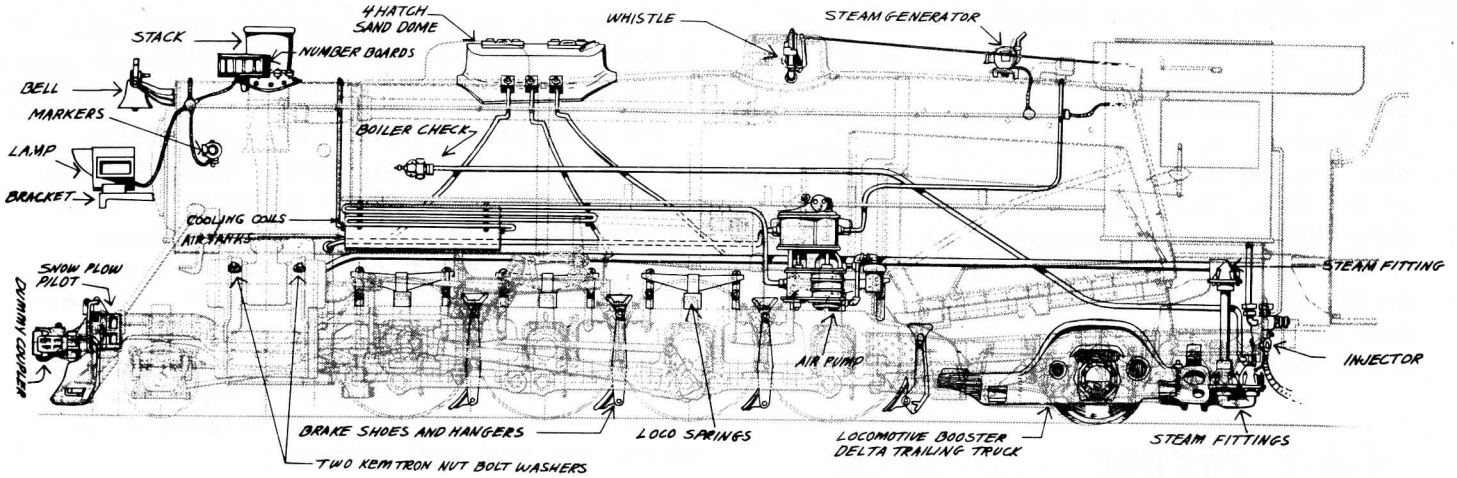
Here is a "Close-up" of the Delta trailing truck, featured on the Pacific and Mikado drawings, showing the Franklin Booster Engine often mounted on these trucks for added tractive effort when starting a heavy train. After the train reached a speed of 15 mph, the Booster was usually "cut out".

Pilots are one of the more distinctive features of a locomotive and are often "Standard" on all engines of the Road.

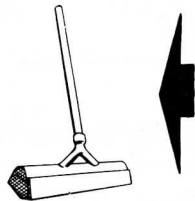
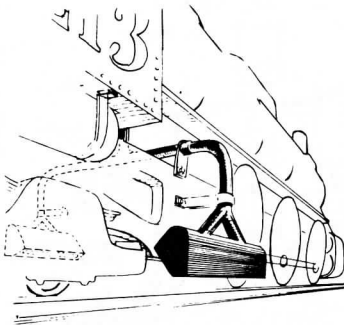


2-8-2 MIKADO

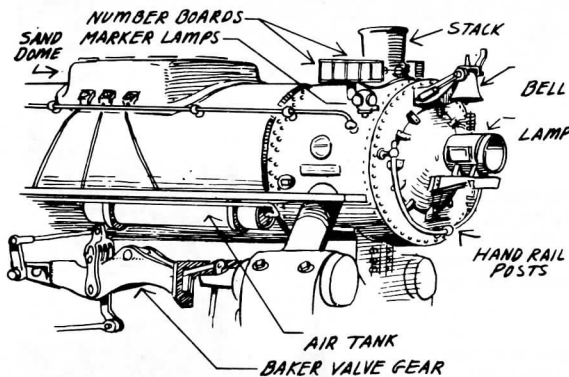
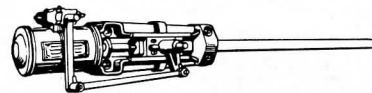
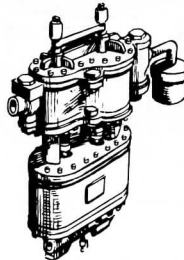
(USRA Light Mikado)



DRAWING NOT TO SCALE



Blow-down pipes, with diffusers, are used by some Roads on their more modern power. They are applied to BOTH sides, as indicated in the sketch, and are quite correct on any size loco, from the lowly switcher to giant articulateds. Just be sure the diffusers clear the trailing truck sufficiently!



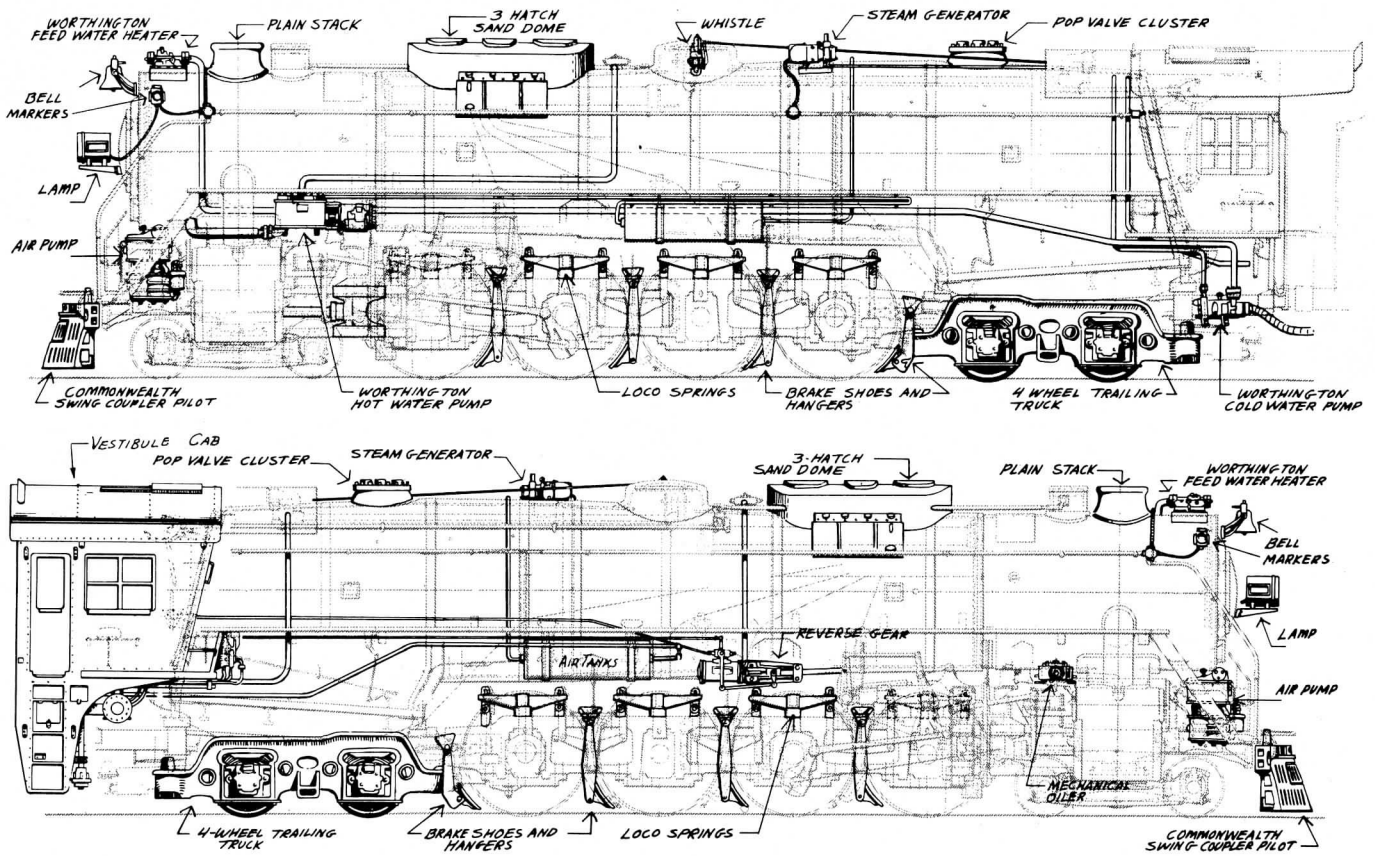
The problem of attaching brass parts to a Zamac superstructure casting is best solved by the use of an Epoxy cement. If the part has a mounting lug, or pin, drill a hole for it in the Zamac, apply the cement and install the part. It must be held in position until the Epoxy has set up which, usually requires several hours.

Should the part not have a mounting pin, it is wise to add one by soldering or by drilling a hole in the part and inserting a short length of rod. The rod can be soldered or fastened with Epoxy.

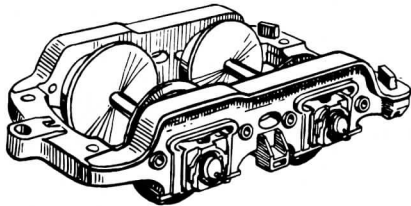
All surfaces to be joined with Epoxy must be CLEAN!

4-8-4 NORTHERN

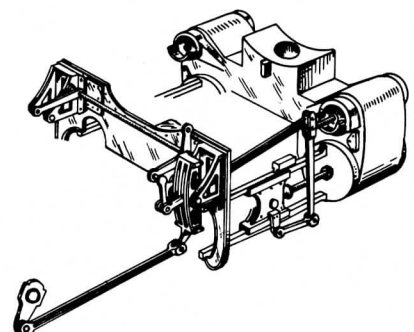
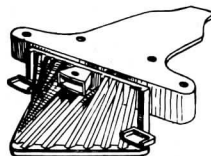
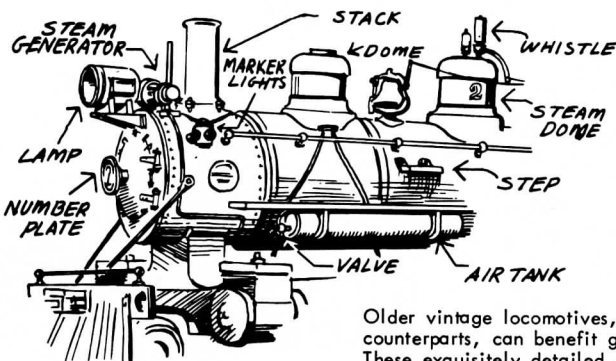
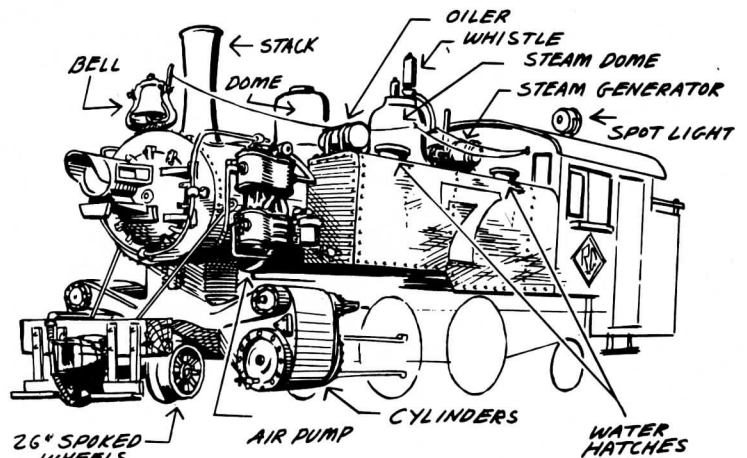
(CRI & P RR.)



DRAWING NOT TO SCALE

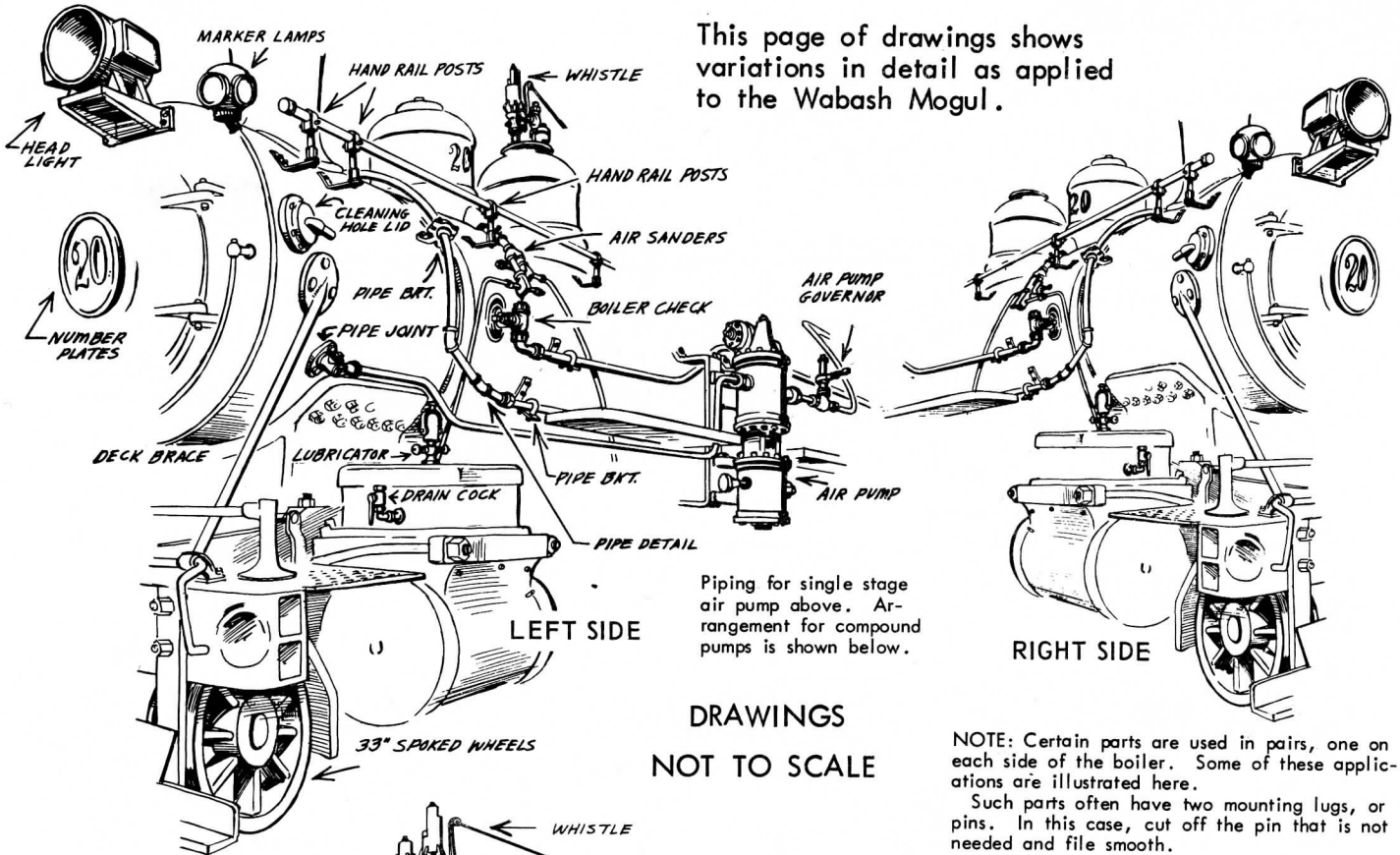


Pipe sizes depended on the purpose of the pipe, of course, but, in general, air lines were smallest, steam lines a bit larger, and water lines still larger. One of the most noticeable details of piping is the ever-present variety of valves and other fittings. A selection of these items will be found in following pages.



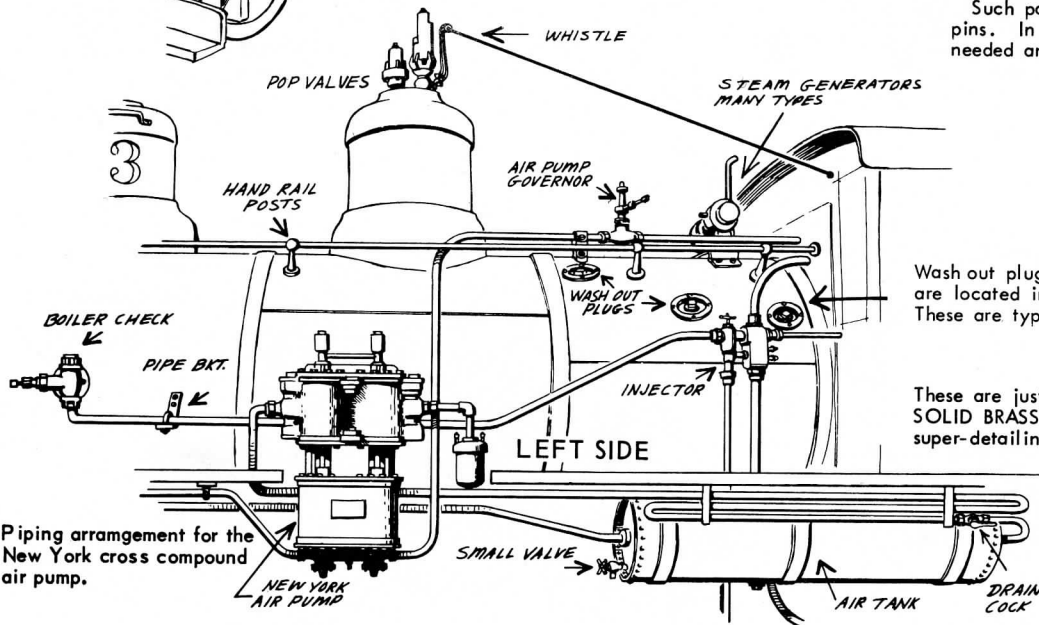
Older vintage locomotives, as well as their newer counterparts, can benefit greatly from "Kemtronizing". These exquisitely detailed castings add much to the realistic appearance of any model. Try it on one of yours, and be convinced!

This page of drawings shows variations in detail as applied to the Wabash Mogul.



DRAWINGS NOT TO SCALE

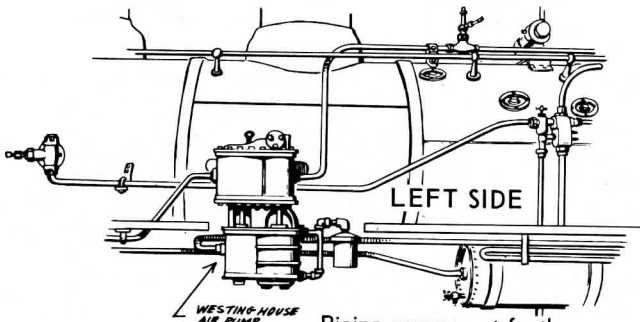
NOTE: Certain parts are used in pairs, one on each side of the boiler. Some of these applications are illustrated here. Such parts often have two mounting lugs, or pins. In this case, cut off the pin that is not needed and file smooth.



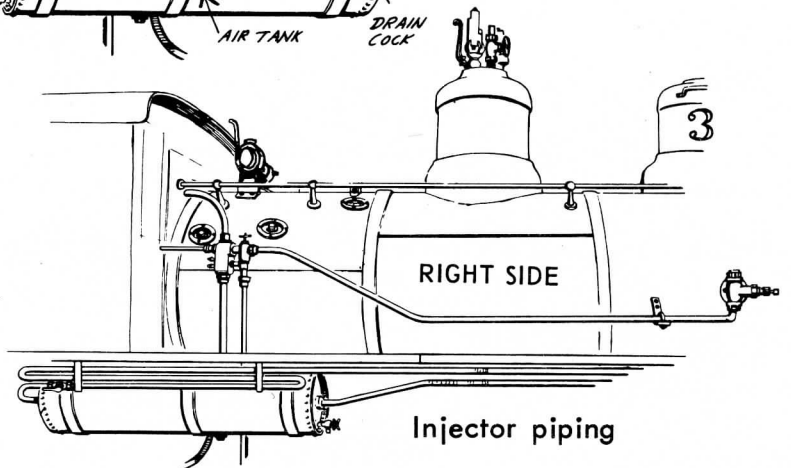
Piping arrangement for the New York cross compound air pump.

Wash out plugs are used on all locomotives and are located in various positions over the firebox. These are typical of small to medium size locos.

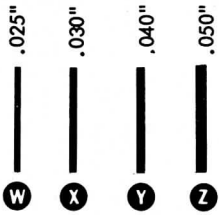
These are just a few of the many, and varied, SOLID BRASS parts produced by Kemtron for super-detailing your prize locomotives.



Piping arrangement for the Westinghouse cross compound air pump.

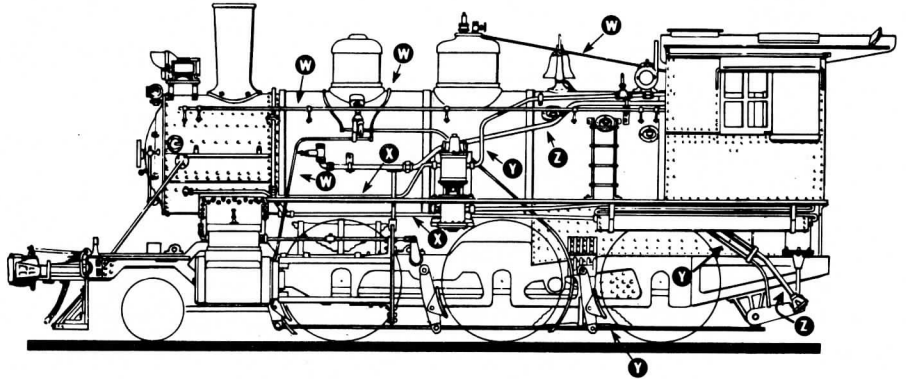


ARRANGEMENT OF PIPING ON A WABASH MOGUL

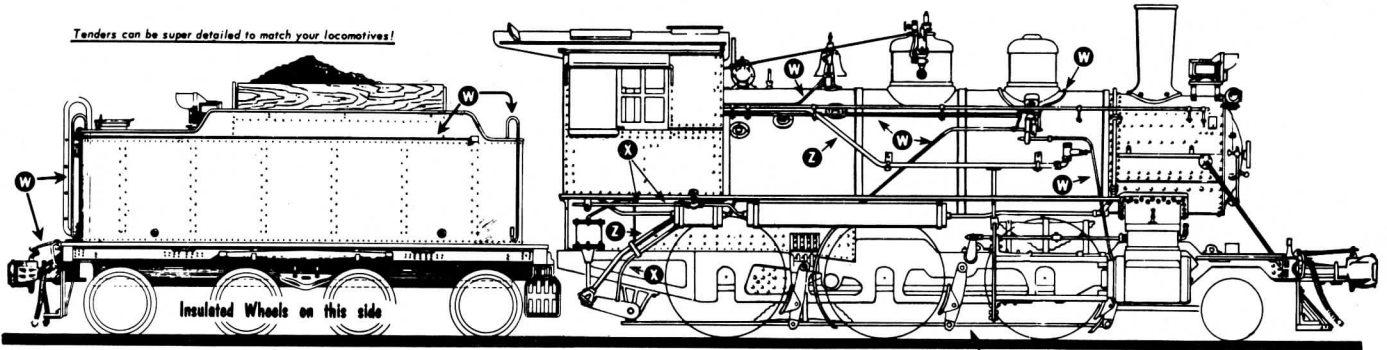


O SCALE

All piping is coded with letters W, X, Y, and Z which are coordinated with the wire sizes shown above for O scale.

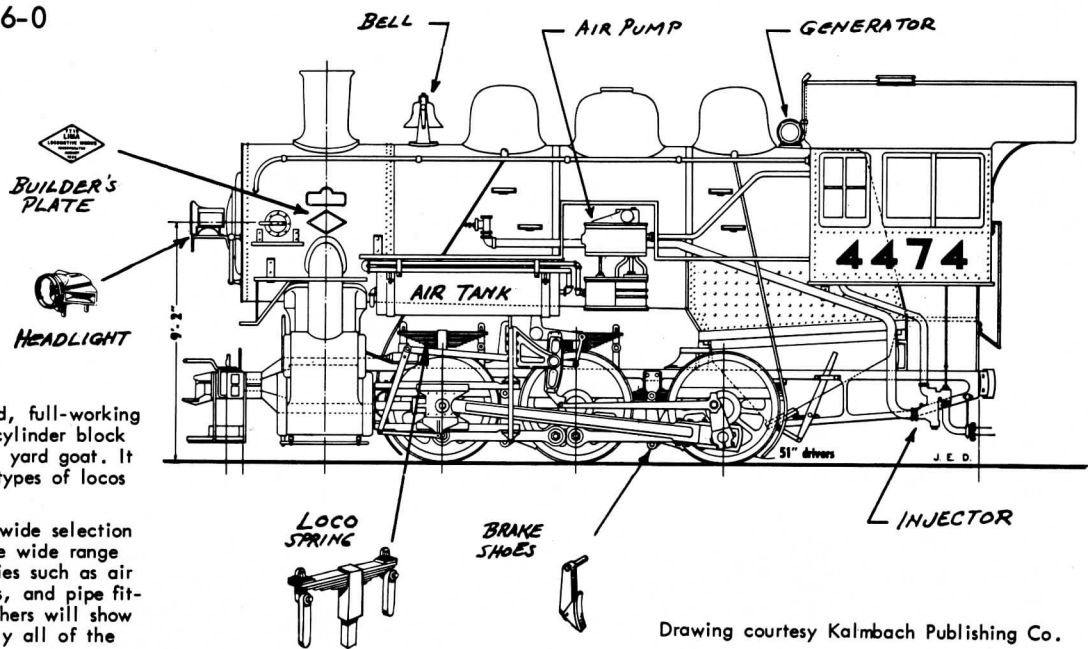


Tenders can be super detailed to match your locomotives!



DRAWING NOT TO SCALE

UNION PACIFIC 0-6-0

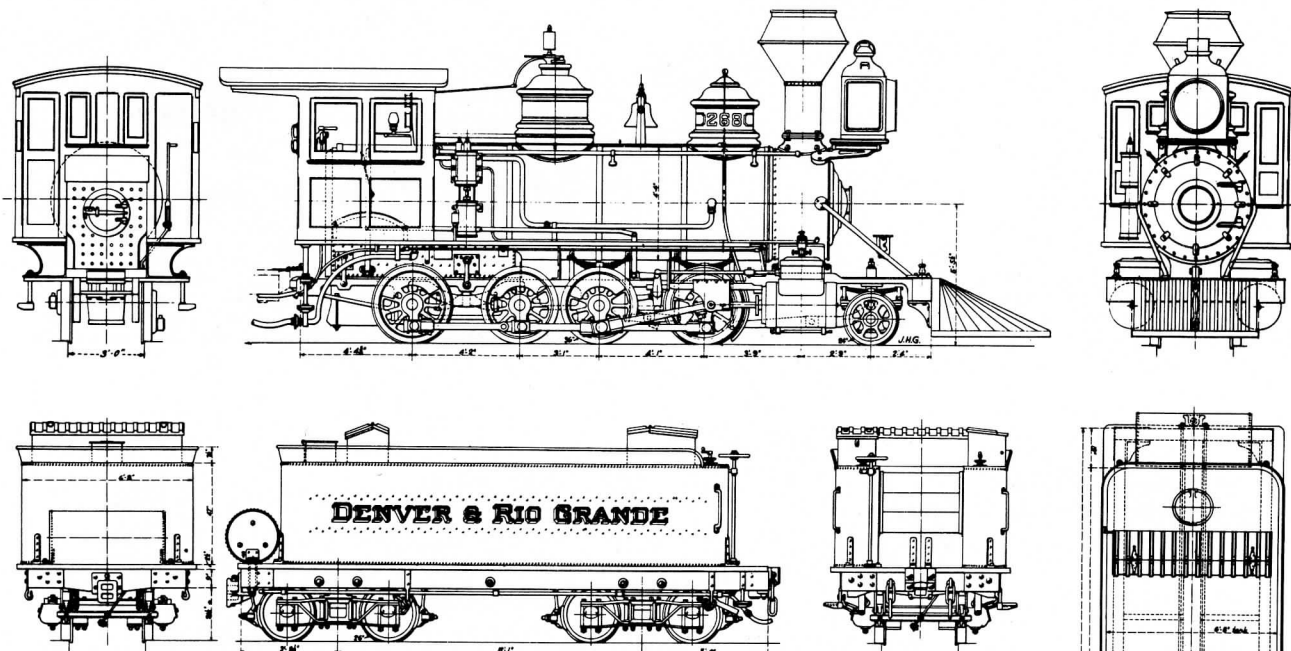


Here is our beautifully detailed, full-working Walschearts valve gear, with cylinder block to match, applied to a modern yard goat. It may be adapted to other types of locos as well.

Other parts from KEMTRON'S wide selection are illustrated pointing out the wide range of uses for "standard" accessories such as air pumps, loco springs, headlights, and pipe fittings. A study of similar switchers will show variations in location but nearly all of the parts the same!

Drawing courtesy Kalmbach Publishing Co.
Full size for HO scale.

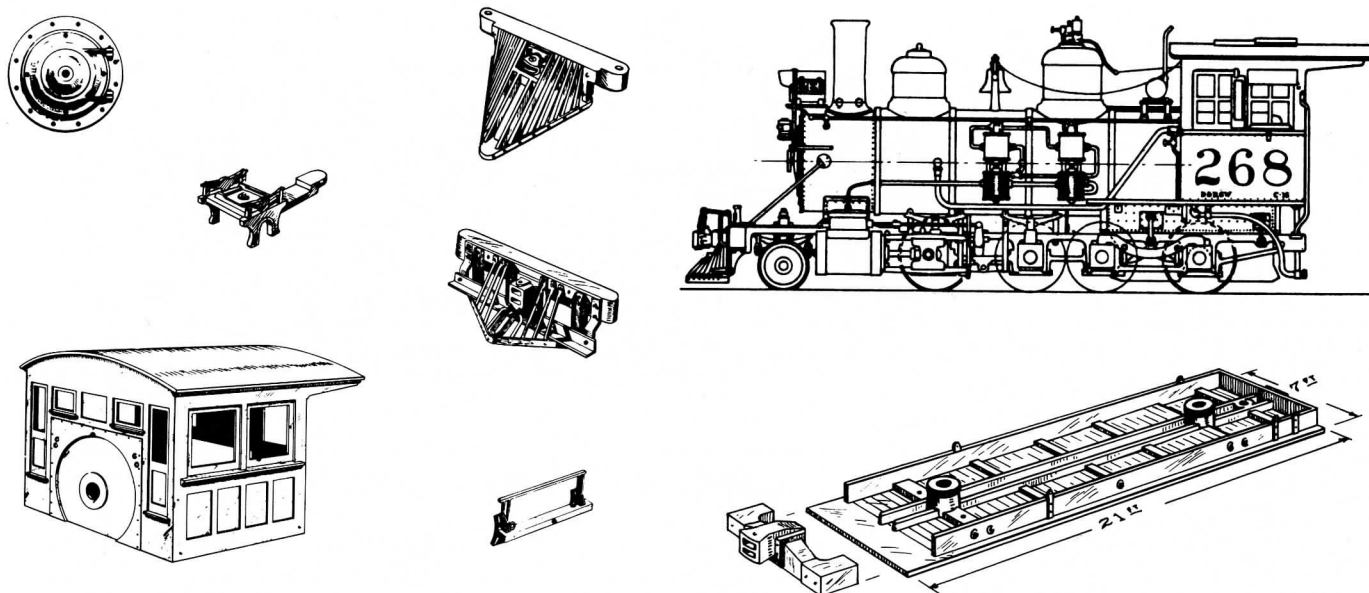
D & RGW C-16 (3 foot Gauge)

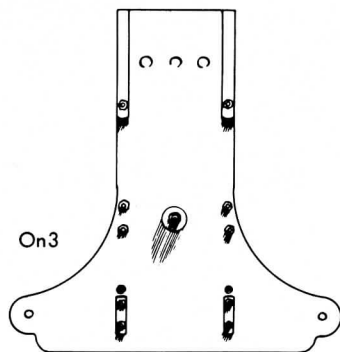


This popular narrow gauge locomotive is available from KEMTRON in three versions. The Original (above) built in 1881, an Intermediate modification of the 1890 - 1905 period, and the Modern rebuild of 1920 shown below. While these are complete kits, of course, many of the parts are usable for detailing other locomotives of similar vintage. Four different cabs, two dome designs, several pilots, and two tender trucks are among the superbly crafted BRASS castings available to scratch-builders who work in narrow gauge.

Such standard gauge items as bells, air pumps, generators, etc., are suitable for use on narrow gauge motive power, too.

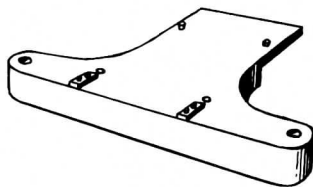
DRAWING NOT TO HO SCALE!





On3

APRON & PILOT BEAM
C-16-27 each 2.00



APRON & PILOT BEAM
X-619 each 2.00



AIRHOSE w/Fittings
X-327 pair .50



ANGLE COCKS
X-64 pair .50

AIR HOSE MATERIAL



X-66 Plastic 4ft. for .35



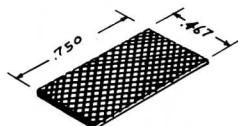
GLAD HANDS
X-65 pair .50



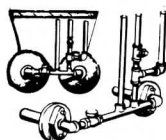
X-257 Armored (Spring)
8" piece .50



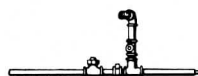
ANTI - CLIMBER (III. Term. Class C)
X-904 each 1.00



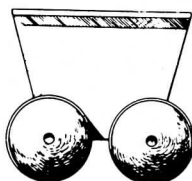
ANTI-SKID APRON PLATES
C-16-27P pr. .50
(Wabash)
X-1084 pr. .50
(5/8 x 7/8)



AIR TANK PIPES (GP-7)
X-324 each .95



AIR LINE FITTINGS (on pipe)
C-16-86 each 1.00



AIR TANK ENDS (GP-7)
X-61 pair 2.00



ANTI - CLIMBER (Hedley)
6" high, 7' span
X-903 each .65

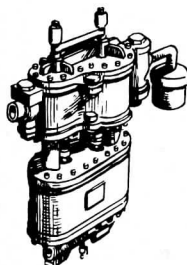
AIR PUMPS



AIR SANDER
X-1020 pr. 1.20



Westinghouse
K-418 ea. 1.00



New York
K-423 ea. 1.50



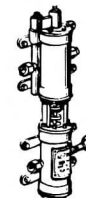
11" Single
K-421 ea. 1.00



9-1/2" Single
K-419 ea. 1.00



8" Single
K-420 ea. 1.00

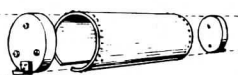


6" Single
K-422 ea. 1.00



6 x 6 Single
K-425 ea. .85

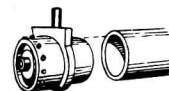
AIR TANKS



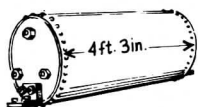
The tank comes in kit form with cast ends and flat wrapper. It has to be formed and soldered. End castings are reversible.



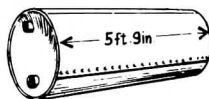
C-16-93 3 pcs. 1.00



AIR PUMP GOVERNOR
X-1012 each .50



C-16 TENDER (Original)
C-16-34 Kit 1.00



C-16 TENDER (Revised)
C-16-34 R Kit 1.00



"0" AIR TANKS
Cast ends, with brass tubing. This set makes up 3 Air Tanks of any length you select. Set = 6 ends and 6" of tubing.
X-1028 set 1.50

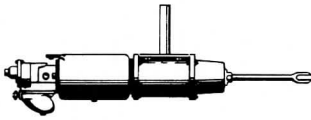


C-16-99 each .50

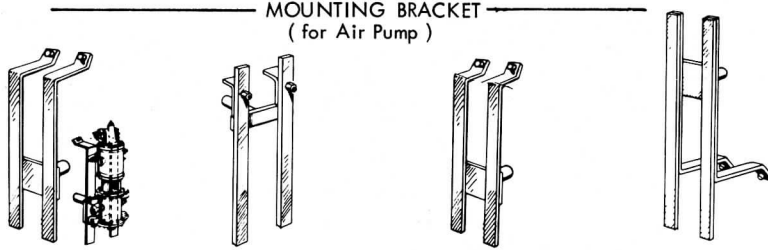


ALCO DIESEL
OA-36 pair 2.00

See SECTION "H" for AIRHORNS



BRAKE CYLINDER
West. Type C
X-384 each .85



MOUNTING BRACKET
(for Air Pump)
C-16-24 each .75 (Original)
C-16-84 each .75 (Modern)
C-16-84 E each .85 (Intermediate)
X-1074 each .75 (Wabash)



(Wabash)

SUPER - DETAILED BELLS
with "working" pistons



X-360 kit 2.00



X-29 kit 2.00



TOP MOUNT
C-16-53 each 1.50



TOP MOUNT
CP-210 each 1.50



FRONT MOUNT
X-12 each 1.25



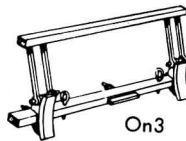
Diesel
GP-20-16 3 pcs. 1.25



OLD STYLE BELL, BRACKET,
& HEADLIGHT BRACKET
X-627 set 2.15



OLD STYLE with
ORNATE BRACKET
X-628 set 1.25



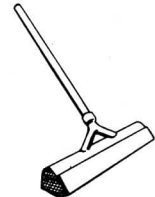
On3
BRAKE SHOES on BEAM
w/ Hanger
C-16-41 pair 1.00



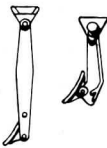
BRAKE SHOES
X-1037 Brass, 8 for 1.20
X-1038 Delrin, 8 for .40



DECK BRACE
C-16-45 pair 1.00

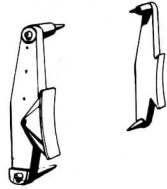


BLOW - DOWN MUFFLER
X-236. each .75



LOCO BRAKE HANGERS w/Shoes
(enough for 10 drivers)

X-243 Brass, set 3.00
X-238 Delrin, set .75

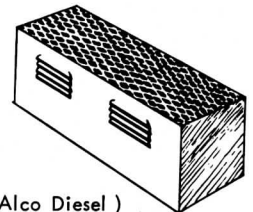


LOCO BRAKE HANGERS w/ Shoes
(enough for 6 drivers)

X-1086 Brass, set 3.00
X-1091 Delrin, set 1.00



LOCO BRAKE HANGER w/ Shoe
(Reversible)
X-255 Brass, each .75

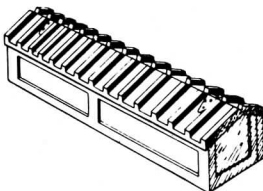


BATTERY BOX (Alco Diesel)
OA-39-a L.S. each 1.00
OA-39-b R.S. each 1.00

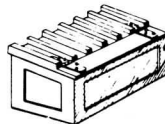
TENDER TOOL BOXES



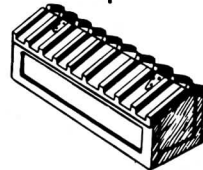
C-16-32 a each .75



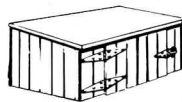
C-16-32-b each .75



C-16-32-c each .75



C-16-32-d each .75



C-16-32-e each .75



BRAKE WHEEL
C-16-42 6 for .90
C-16-42 P doz .90



BRAKE WHEEL
X-242 6 for .90
X-242 P doz .90



BRAKE WHEEL
X-688 6 for .90
X-688 P doz .90



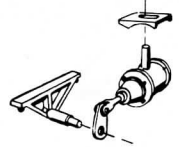
TENDER BRAKE STAFF
C-16-43 each 1.00



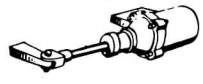
BRACKETS
C-16-36 4 for .85



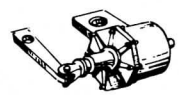
LOCO BRAKE LEVER
X-1063 pair 1.00



LOCO BRAKE CYL.
C-16-92 6 pc. set 2.00



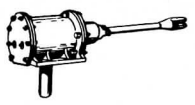
BRAKE CYL. (Truck)
OA-22 each .50



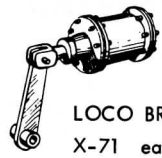
BRAKE CYL. (Truck)
OA-28 each .50



PIPE BRACKET
X-1017 6 for 1.00



LOCO BRAKE CYL.
X-1016 each .85



LOCO BRAKE CYL.
X-71 each .85



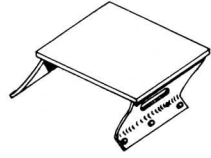
TENDER BRAKE CYL.
X-1011 each .85



AIR BRAKE LEVER
C-16-71 each .65



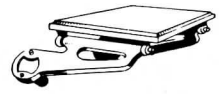
PIPE BRACKET
X-1015 6 for 1.00



HEADLIGHT BRACKET
C-16-62R each 1.00



HEADLIGHT BRACKET
X-1027 each .85



HEADLIGHT BRACKET
C-16-62 each 1.00



REAR LIGHT BRACKET
(Forney)
X-618 each 1.00



COUPLER LIFT BAR BRACKET
C-16-88 3 for .65

BOILER CHECKS



X-620 pair .70
(Early type)



C-16-68 pair .70



(Hancock vertical type)
X-338 pair 1.50

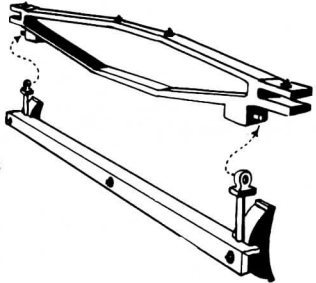


Nathan type
(Wabash)
X-1022 pair 1.50

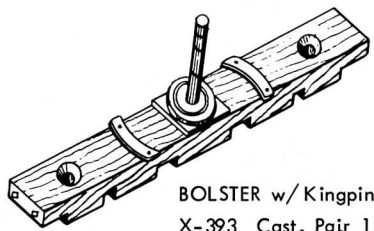


TOP FEED
X-312 each .85

TRUCK END BEAM
X-705 pair 1.20



BRAKE BEAM w/ Shoes
X-706 pair 1.20



BOLSTER w/ Kingpin
X-393 Cast, Pair 1.50

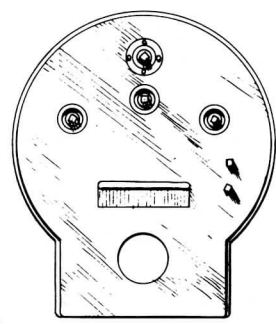


INSULATING BUSHINGS
X-818 Delrin w/ brass insert tapped
tapped 2-56, 6 for .75

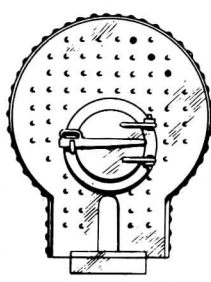


INSULATING BUSHINGS
X-1095 Delrin 10 for .40

PRICES SUBJECT TO CHANGE WITHOUT NOTICE !



BACKHEAD (Wabash)
X-1072 each 2.50

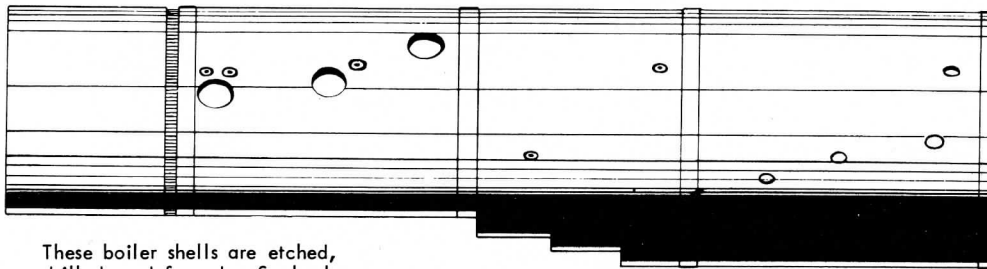


BACKHEAD (C-16)
C-16-23 each 2.00



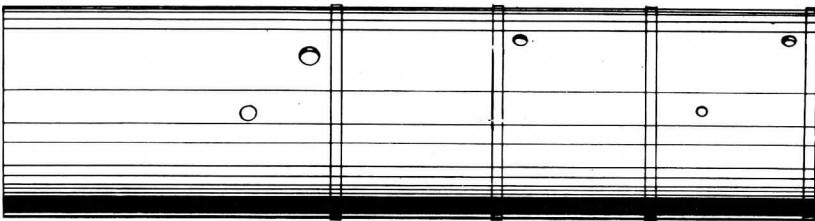
BUILDERS PLATES

In strips of 10 different numbers
X-490 American... strip 1.00
X-491 Baldwin ... strip 1.00
X-492 Lima strip 1.00

B**B**

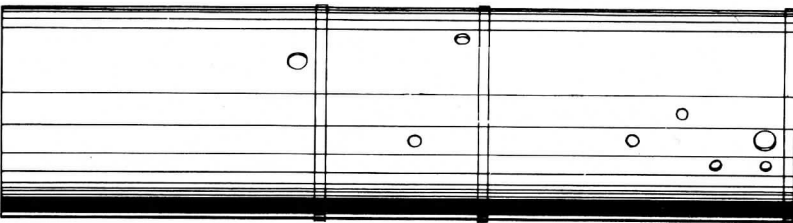
BOILER (Wabash)
X-1092 each 7.50

These boiler shells are etched,
drilled, and formed. Smoke box
is not included! See Section "S"



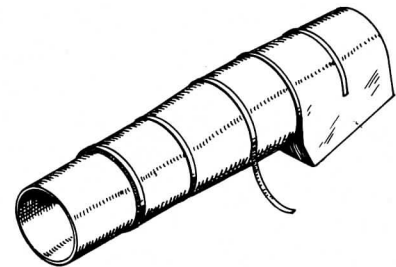
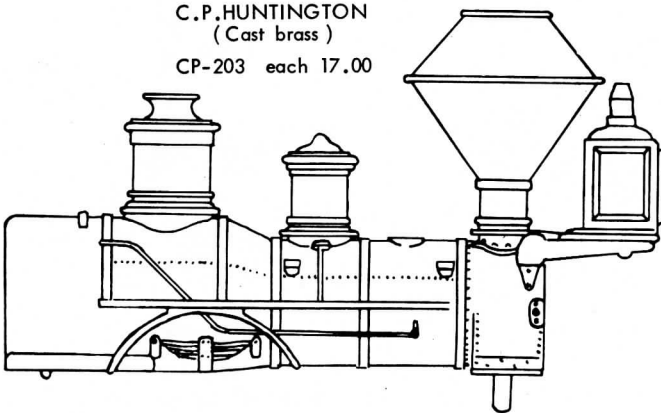
BOILER (Original)
C-16-03 each 5.00

BOILER (Intermediate)
C-16-03 E each 5.00



BOILER (Modern)
C-16-03 R each 5.00

C.P. HUNTINGTON
(Cast brass)
CP-203 each 17.00



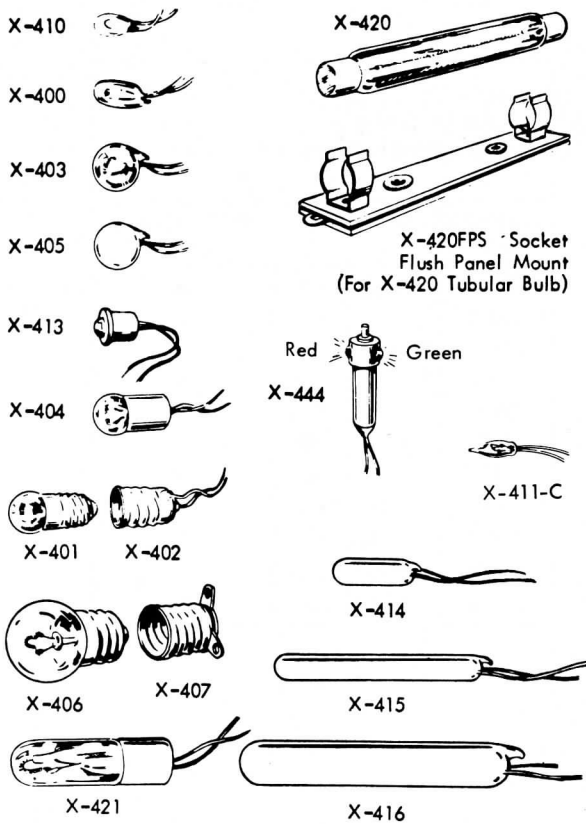
Boiler Band Material (Brass)
.006" x .040" x 4"
X-1159 6 pcs. for .90

ALL PARTS WITH A C-16- Code No. ARE On3 !!

ALL PARTS BRASS UNLESS OTHERWISE STATED

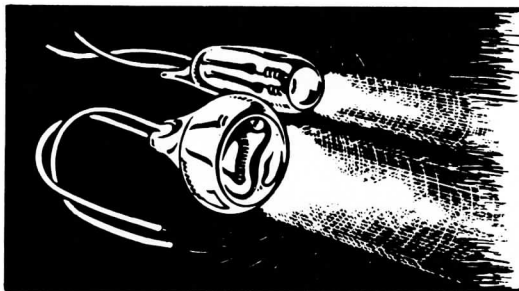


BULBS ARE DRAWN TO SIZE



**SPECIALY SELECTED BULBS
FOR ALL MODEL RAILROAD NEEDS**

X-400	Grain of Wheat, Clear (only) 1.5 volt	2 for .30
X-400	Grain of Wheat, 6, 12, 18 volt +	2 " .30
	(Clear, Amber, Green, Red)	
X-401	Small screw base, 6, 12, 18 volt	2 " .30
	(Clear, Amber, Green, Red)	
X-402	Socket for X-401 bulbs	2 " .25
X-403	Spherical bulb, Clear (only) 12 volt	2 " .30
X-404	Brass base, 12 volt (Clear, Amber, Green, Red) ...	2 " .30
X-405	Spherical, Opal, 12 volt	2 " .30
X-406	Screw base, Clear(only) 18 volt	2 " .30
X-407	Socket for X-406 bulbs	2 " .25
X-410	Grain of Rice, Clear (only) 12 volt	2 " .40
X-411-C	Mini-bulb, Clear (only) 12 volt	2 " .50
X-413	Spotlight, in brass case, Clear (only) 12 volt	2 " .50
X-414	Tubular, small, white, 12, 18 volt	2 " .50
X-415	" med., " "	2 " .50
X-416	" large, " "	2 " .50
X-420	Tubular w/end caps, 12 volts	2 " .50
	(White, Amber, Green, Blue, Red)	
X-420-FPS	Clip base, for X-420 bulbs	2 " .30
X-421	Blinker, Clear (only) 12 volt	1 " .50
X-422	Lamp post w/bulb (12 volt)	1 " 1.25
X-444	Special metal case, 6, 12 volt (Caboose, etc.)	1 " .50



Special Bulb
with LENS
12 Volts


X-417-C 2 for .30

Special Bulb
with LENS
12 Volts

X-418-C 2 for .30



Two new light bulbs incorporate a built-in lens for directional light beam. Ideal for locomotive headlights, suitable for many applications.

 BULB (Replacement for headlights)
U-146 each .20



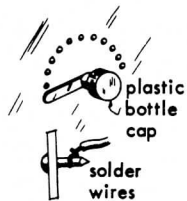
Thermal Action "FLASHER" Bulbs
New, heavy-duty type. Full 12 v rating will produce upwards of 40 flashes per minute.
Bulb and socket .50

 MICRO-BULB
1.5 v 25-30 ma
U-176 each 1.00

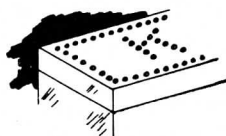
BRASS BRADS

Escutcheon pins are an extremely useful item for all kinds of model work. An example of their versatility is illustrated below. Truly, these pins have 1000 and 1 uses! The range of sizes listed will cover most needs.

Order by Catalog numberpkg .60



Contacts for Selector Switch



Decorative Brads

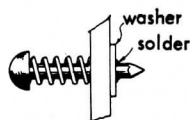


Breather Pipes for Oil Tanks

file to shape



Model Maker's Nails



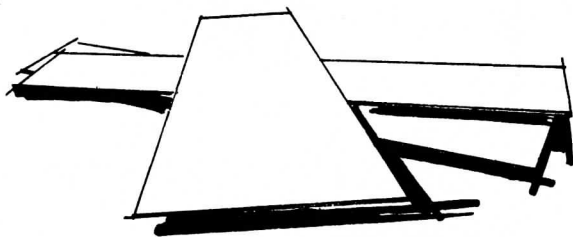
Spring Buffers



Coach Ventilators

CATALOG NUMBER	DIMENSIONS		WEIGHT COUNT (approx.)
	A	B	
X-8	1/4	.020	1,300
X-8 L	3/8	.020	900
X-801	1-9/16	.140	25
X-802	1-5/16	.071	35
X-803	7/8	.063	55
X-804	9/16	.055	105
X-805	3/4	.055	85
X-806	7/16	.047	185
X-807	11/16	.047	110
X-808	5/16	.035	330
X-809	7/16	.035	265

BRASS SHEET STOCK



Need sheet brass for scratch-building locos, cars, etc? Here's a selection of sizes to take care of almost any of your requirements. Top quality material

SPECIAL SIZE & THICKNESS	.003"	12" x any length
	.006"	12" x " "
The following thicknesses are available for special orders.	.012"	12" x " "
Width dimension is given;	.020"	18" x " "
any length you wish.	.025"	18" x " "
	.040"	18" x " "
	.050"	18" x " "
	.064"	12" x " "

Per pound, as ordered, 3.00 (Plus Postage!)

Remnant odds and ends, different thicknesses i.e., .006 - .012 - .020 - .025 - .030 - .040 - .050 - .064 Assorted pieces.

X-1598 Per pound, as available, 2.50 (Plus Postage!)

X-1599 5 lbs, as available, 10.00 (Plus Postage!)

BRASS SOLID ROD

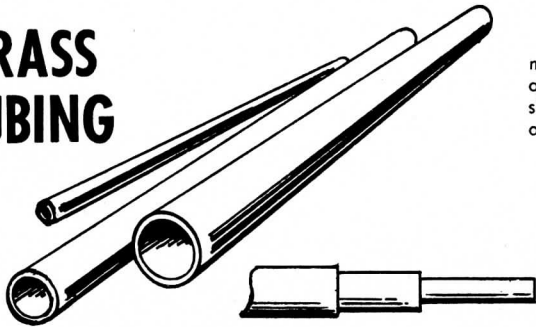


Brass rod has many uses around a model railroad. Loco piping, switch rodding, scenic details are but a few! A necessity for scratch-building!

#1659	1/16" dia.	Brass rod	12" length	ea. .10	1 doz. per pkg.	1.20	Fits into (3/32" tubing)
#1660	3/32" dia.	Brass rod	12" length	ea. .20	1 doz. per pkg.	2.40	(1/8" tubing)
#1661	1/8" dia.	Brass rod	12" length	ea. .25	1 doz. per pkg.	3.00	(5/32" tubing)



BRASS TUBING

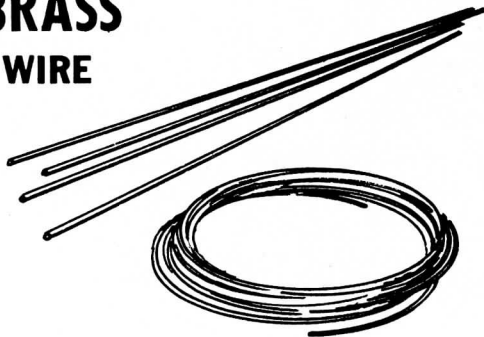


ACTUAL SIZE

Thin-wall, telescoping brass tubing is an extremely useful material for all kinds of modeling. No scratch-builder can afford to be without it! Kemtron offers this selection of sizes suitable for all scales. Straight, 12 inch lengths in any quantity you wish.

3/16" O.D. Brass tubing	ea.	.30
7/32" " " "	ea.	.30
1/4" " " "	ea.	.30

BRASS WIRE



A variety of sizes of straight brass wire suitable for loco piping, handrails, and innumerable other details on models and in scenery. Also offered in coiled, 5 ft., lengths for special needs!

ROUND BRASS WIRE (Straight) for Handrails and piping

X-485 .020"	6 pcs. 12"	1.00
X-486 .025"	"	1.00
X-487 .030"	"	1.00
X-488 .035"	"	1.00
X-489 .040"	"	1.00

ROUND BRASS WIRE (Coil) for Locomotive piping

X-177 .020"	5 ft. coil	.50
X-296 .025"	"	.50
X-297 .030"	"	.50
X-298 .035"	"	.50
X-299 .040"	"	.50
X-539 .050"	"	.65
X-540 .064"	"	.75

SQUARE BRASS WIRE Straight lengths .050" x .050"

X-493 6 pcs. 11-3/4" long	1.00
---------------------------	------

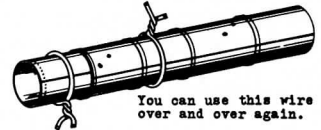
PHOSPHOR BRONZE WIRE

"Springy" enough to prevent bending on the model. Makes excellent handrails, piping, etc. Can be soldered as readily as brass. Stiff, yet easily formed. Round wire.

PHOSPHOR BRONZE WIRE

X-532 .014"	3 pcs. 18"	.50
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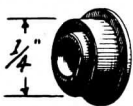
This dead soft Aluminum wire will not take solder under normal conditions, therefore, it's use will be apparent as an AID to soldering parts that must be tied down and held in position while torch soldering.



You can use this wire over and over again.

ALUMINUM WIRE

X-1307 .065 x 5" coil	.35
-----------------------	-----



FINEST QUALITY
PRECISION
BALL BEARINGS

SR-72-H 1/8" Bore	
pair	2.25

SELF-LUBRICATING SINTERED BRONZE BEARINGS

	1680 3/32" Bore	
	3/16" O.D.	pr. .25
	1755 1/8" Bore	
	3/16" O.D.	pr. .25
	1650 1/8" Bore	
	1/4" O.D.	pr. .25

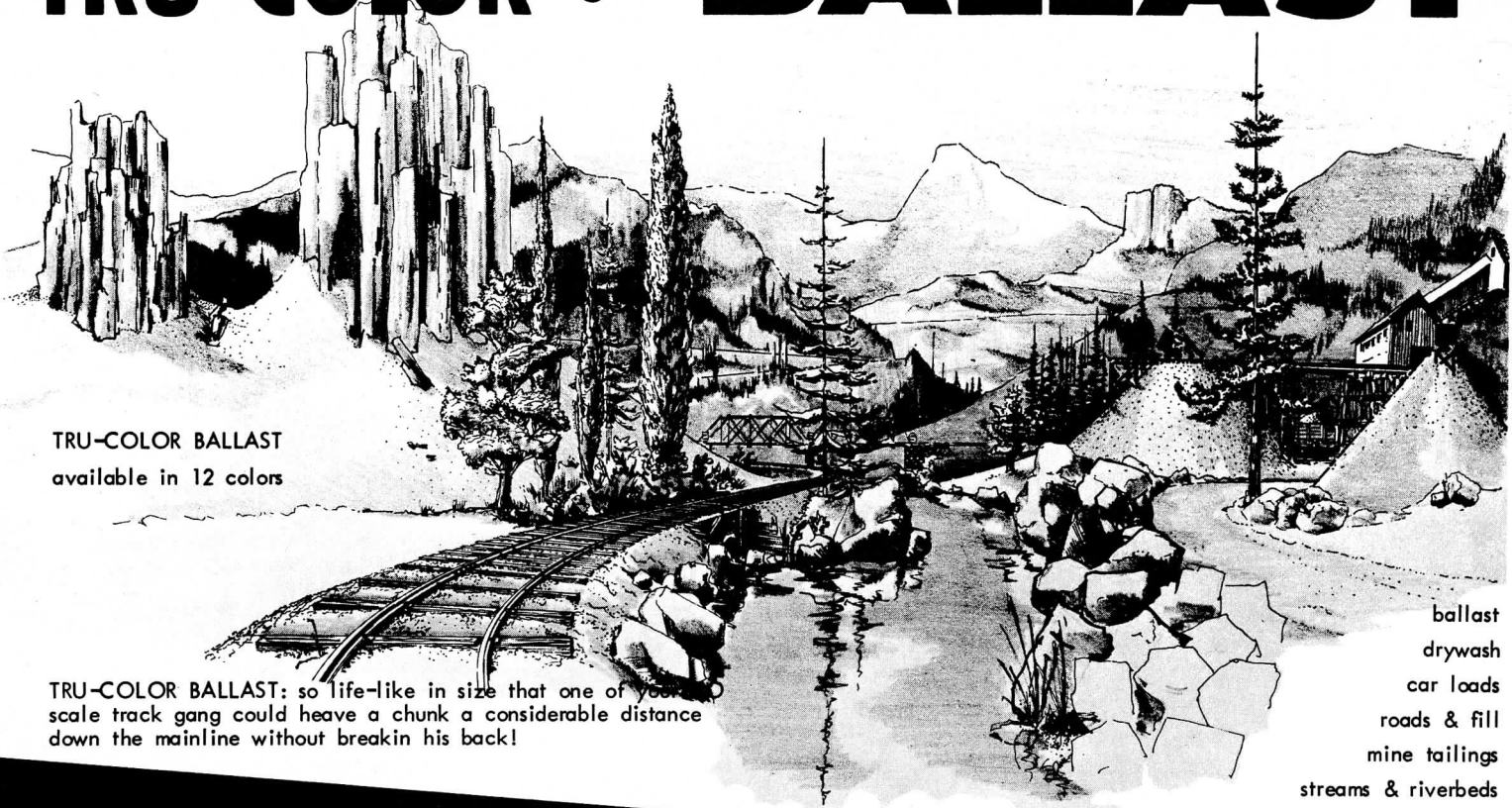
Blackener



Will blacken all alloys such as BRASS, COPPER, NICKEL SILVER. Use wherever paint will obliterate fine detail of lost wax castings, etc

X-440 each	1.00
------------	------

TRU-COLOR* BALLAST



TRU-COLOR BALLAST
available in 12 colors

TRU-COLOR BALLAST: so life-like in size that one of your scale track gang could heave a chunk a considerable distance down the mainline without breakin his back!

ballast
drywash
car loads
roads & fill
mine tailings
streams & riverbeds
eroded mountain slopes

WHAT RAILROAD?

What railroad? Pennsy Southern Logging in the pacific northwest D&RG through the rockies the raw, brute power of mainline U. P. across the western plains? Each railroad is unique. Mountains, desert, hills or whatever, every railroad has its problems. Cut, fill, grade, bridge and to ballast the tracks? Each railroad has its own answer namely: dig, scrounge and come up with the best fill obtainable.

Or does the railroad use ballast with a nice even (monotonous) black or flat uniform grey rock? or maybe some huge, quarried birdseed gravel from miles away across the continent?

Of course not!

.... and your railroad is a scale railroad. The most important feature being realism; realism starting with trackwork and carried through every phase of your pike.

HOW TO MAKE SCALE BALLAST

Here's one way. Take a rock, crush it, beat it, hammer and sift it. Get rid of the dust and the boulders and you've got some small, almost scale ballast. Almost, but not quite, because it just doesn't quite look perfect. Too rough, too varied in size, too many chips, too monotonous in color and it can also play havoc with locomotive mechanisms!

Or

Research, develop, discard, and start again. Design machinery and processes and find materials that do the job right. Take your time and come up with the right answer. Ballast that looks like ballast, even under a magnifying glass that's what Kemtron's done!

Plus

We've gone one step further. Take ballast that looks like ballast (even to the various shades and tones) and process it in a dozen different colors. Why? 'cause no two railroads are alike. No terrain is consistant. Granite, anthracite, sandstone, cinderfill, or plain old dirt, Pennsy mainline and logging branch lines just don't look alike. So choose the color that suits your railroad, or better still, mix and match from the basic colors. Create the exact tru-color to suit your own railroad.



See for yourself...next trip to your hobby shop, take along your magnifying glass and enjoy a close look...Tru-color defies comparison!

12 COLORS & O SCALE COAL

BALLAST

X-1250	Desert sand	pkg	.79
X-1251	Light brown	pkg	.79
X-1252	Dark brown	pkg	.79
X-1253	Rust (Iron ore)	pkg	.79
X-1254	Russet	pkg	.79
X-1255	Pale gold	pkg	.79
X-1256	Goldenrod	pkg	.79
X-1257	Sage	pkg	.79
X-1258	Green	pkg	.79
X-1259	Light gray (Crushed stone) .	pkg	.79
X-1260	Medium gray (Crushed stone)	pkg	.79
X-1261	Black (Cinderfill)	pkg	.79
X-1265	Black (O scale coal)	pkg	.79
X-1262	Red gravel	pkg	.79



Cleaners

- TYPE A Brass Cleaner will give your models the "satin" finish of custom work. If the brass is to remain unpainted, the retarding agent in TYPE A will slow up tarnishing.



X-1303 each .75

- TYPE B Brass Cleaner removes the oxides and prepares the brass for painting or plating. TYPE B is grease-free.

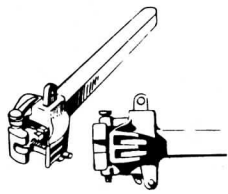


X-1304 each .75

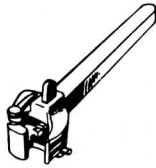
IF YOU CAN'T FIND WHAT YOU ARE LOOKING FOR
TRY THE INDEX !



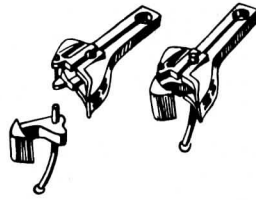
COUPLERS



FULL WORKING KNUCKLE
X-9 pair 1.75



This is the same as X-9 except the knuckle is not notched for link and pin!
X-9-SD pair 1.75



WORKING KNUCKLE (On3)
X-101 pair 1.25



(Dummy)
X-125 pr. 1.25



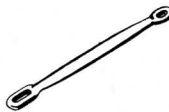
(Dummy)
OA-44 pr. 1.25



SHORT SHANK (Tender)
C-16-40 pair .75



SHORT SHANK (Loco)
X-184 pair .75
(Use with X-183 pocket for No. 38 Pilot)



DRAW BAR (for X-9)
X-9-A each .50



DRAW BAR
No. 2 A each .50

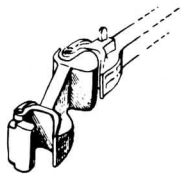
(Draw bars are used with link and pin pockets such as X-129, X-183, etc.)



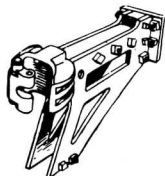
LOCO (Wabash)
X-1099-A each .75



TENDER (Wabash)
X-1099-B each .75



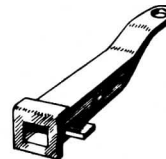
ADAPTER (for Log Buggy)
X-712 each .50



(for C-16 Modern pilot - On3)
C-16-01-C ea. .75



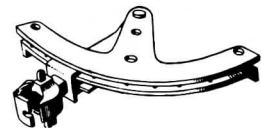
"SHARON M.C.B." TRACTION (Working Knuckle)
X-921 pair 1.70



CARRIER (for X-921)
X-922 pair 1.25



RADIUS BAR (Traction)
X-923 each 2.00



COMPLETE UNIT (Traction) (Full operating)
X-930 Kit, 6 pcs. each 6.00

ALL PARTS BRASS UNLESS OTHERWISE STATED

COUPLER POCKETS



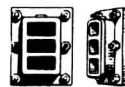
LINK & PIN (On3)
X-129 pair .50



LINK & PIN
X-183 pr. 1.00



LINK & PIN (On3)
C-16-39 each .35



SHAY (On3)
SH-18 pr. .50



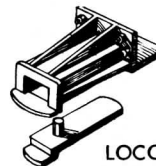
X-128 pair .70



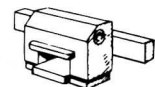
X-1035 each .75



COUPLING PIN (for Draw bars)
X-385 pair .45

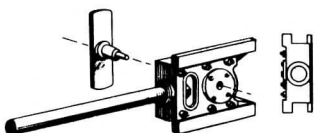


LOCO (Wabash)
X-1009 each .85



ALCO DIESEL
X-131 pr. 1.75

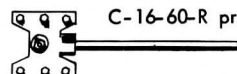
CROSSHEADS



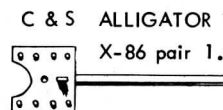
WABASH
X-1062 4 pcs. 2.25



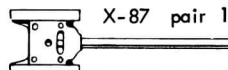
C-16 Original
C-16-60 pr. 1.50



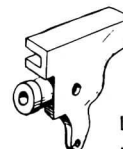
C-16 Revised
C-16-60-R pr. 1.50



C & S ALLIGATOR TYPE
X-86 pair 1.50



C & S ALLIGATOR TYPE
X-87 pair 1.50



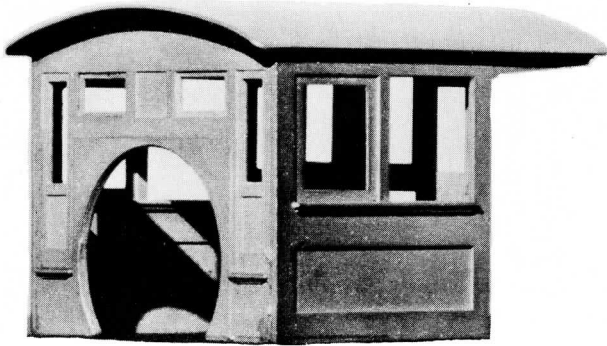
LAIRD TYPE
X-145 pair 1.00



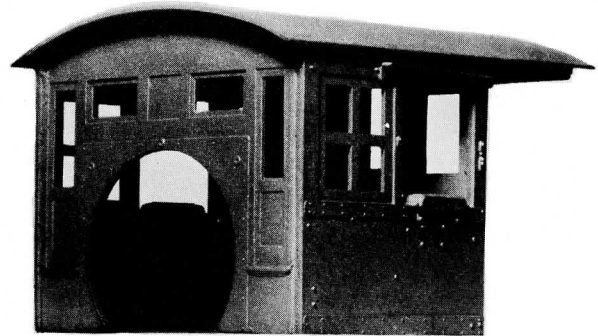
CABS & PARTS

There were numerous variations in the cab design of the D.&R.G.W. C-16 "Consolidations", as built, and rebuilding, after wrecks, introduced further discrepancies. We offer five versions, taken from the builder's drawings, so that your model can be as authentic as possible for a given era in history.

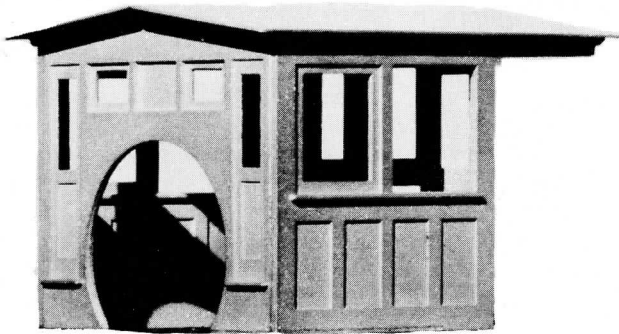
Each cab "set" contains four cast brass walls, plus a stamped brass roof. Sharply detailed!



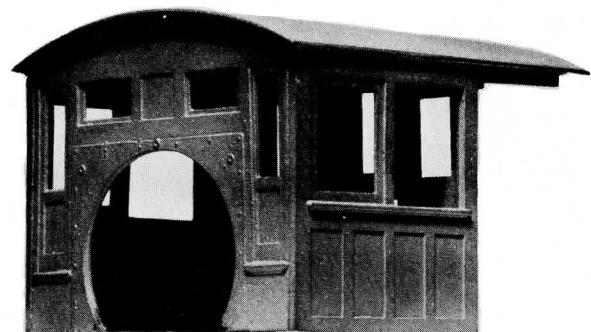
CAB "A" (Inter.)
C-16-10 set 6.00



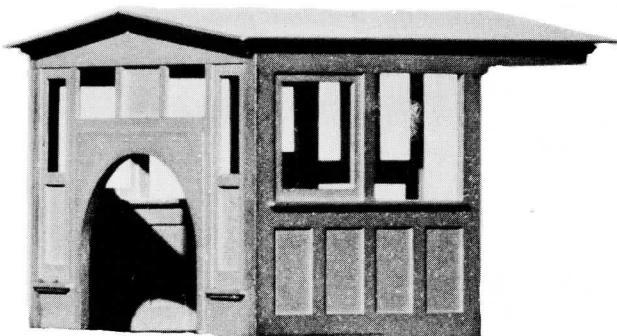
CAB "D" (Modern)
C-16-09 set 6.00



CAB "B" (Orig.)
C-16-11 set 6.00



CAB "E" (Inter.)
C-16-97 set 6.00



CAB "C" (Inter.)
C-16-12 set 6.00

Parts for these cabs are available separately, as follows:

FRONT

C-16-78	for Cabs "A", "D", "E"	each	1.50
C-16-95 A	for Cab "B"	each	1.50
C-16-95 C	for Cab "C"	each	1.50

REAR

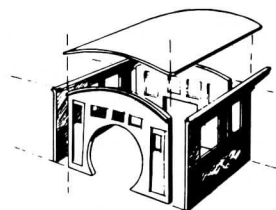
C-16-79	for Cabs "A", "D", "E"	each	1.50
C-16-95 B	for Cab "B"	each	1.50
C-16-95 D	for Cab "C"	each	1.50

SIDES

C-16-80	for Cabs "B", "C", "E"	pair	3.00
C-16-80 A	for Cab "A"	pair	3.00
C-16-90	for Cab "D"	pair	3.00

ROOF

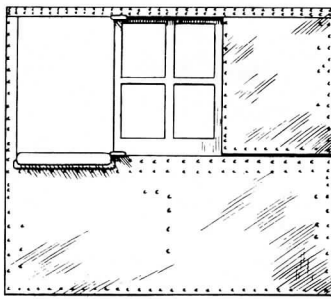
C-16-81	for Cab "A", "D", "E"	each	1.00
C-16-81 B	for Cab "B"	each	1.00
C-16-81 C	for Cab "C"	each	1.00



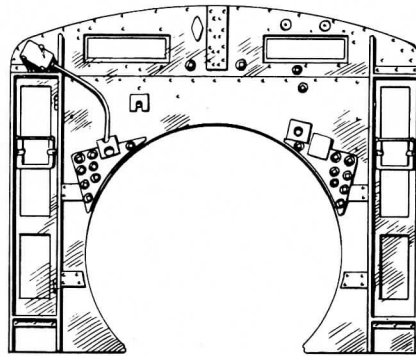
(All parts on this page are for On3)



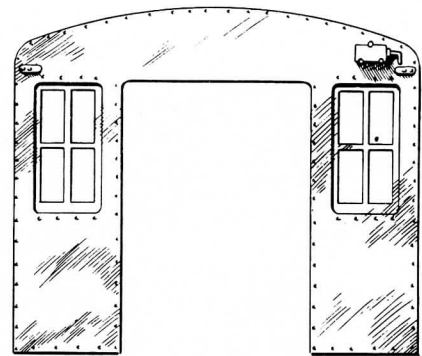
CABS & PARTS



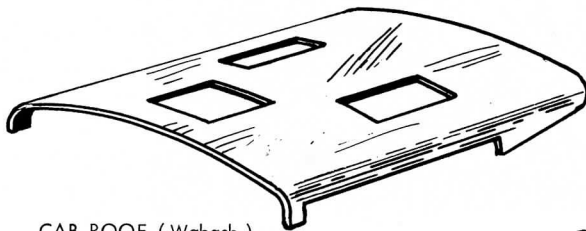
CAB SIDES (Wabash)
X-1034 each 1.50



CAB FRONT (Wabash)
X-1032 each 2.00



CAB REAR (Wabash)
X-1033 each 2.00



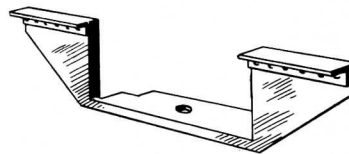
CAB ROOF (Wabash)
X-1043 each 1.00



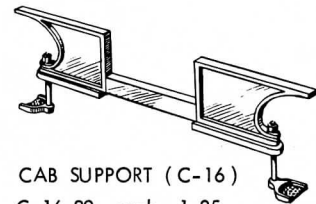
ROOF HATCH (Wabash)
X-1044 each .40



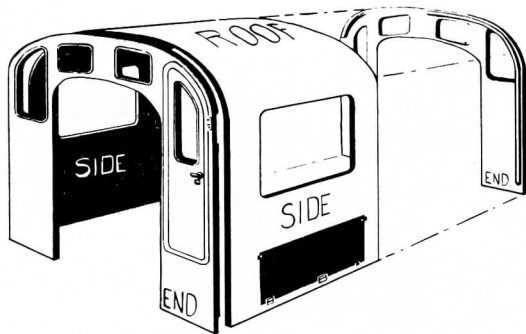
ROOF HATCH (Wabash)
X-1045 each .40



CAB SUPPORT (Wabash)
X-1071 each 1.00



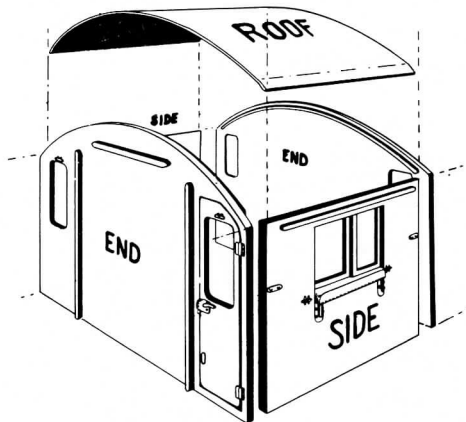
CAB SUPPORT (C-16)
C-16-29 each 1.25



ALCO 'RS' CAB (Complete)
OA-11 3 pcs. 6.00



SMOKE LIFTER
(Wabash)
X-1093 each .25

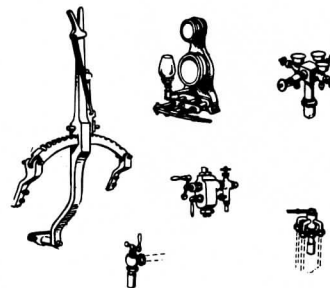


GP-7 CAB (Complete)
X-48-C 5 pcs. 7.00

CAB ENDS (GP-7)
X-48 pair 3.00

CAB SIDES (GP-7)
X-49 pair 3.00

CAB ROOF (GP-7)
X-50 each 1.00

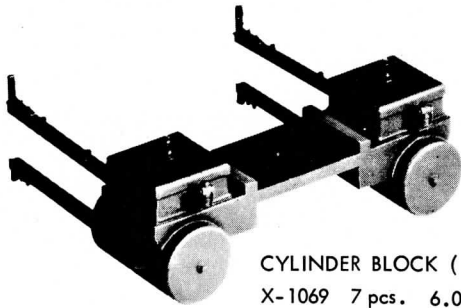


CAB DETAILS (C-16)
X-1132 9 pcs. 6.00

ALL PARTS BRASS UNLESS OTHERWISE STATED



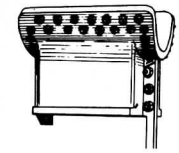
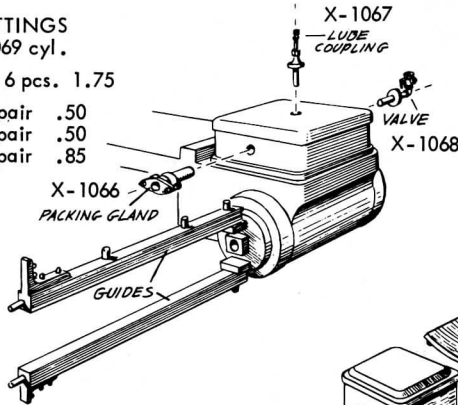
CYLINDER BLOCKS & PARTS



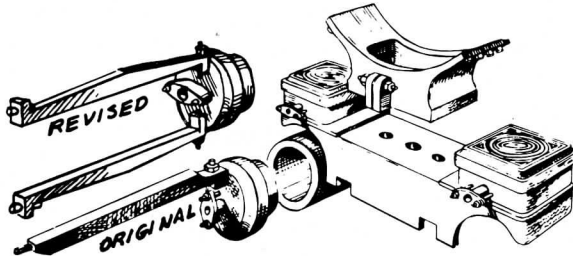
CYLINDER BLOCK (Wabash)
X-1069 7 pcs. 6.00
(Fittings NOT included)

CYL. FITTINGS
for X-1069 cyl.

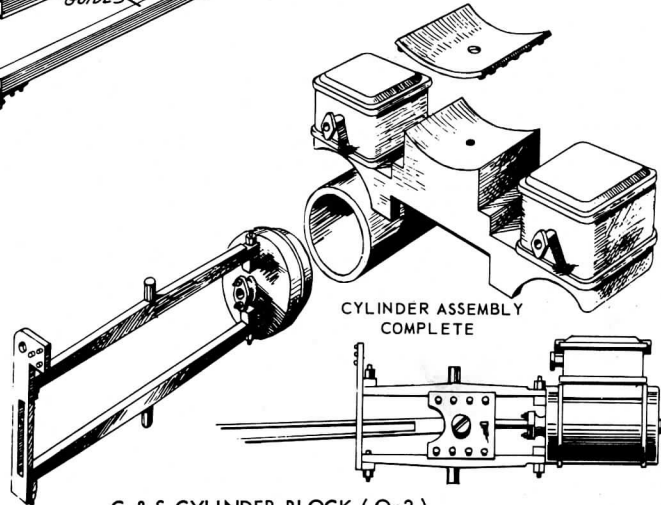
- X-1060 6 pcs. 1.75
- X-1067 pair .50
- X-1066 pair .50
- X-1068 pair .85



CYLINDER SADDLE
(Wabash)
X-1064 each 2.00

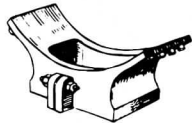


CYLINDER BLOCK (On3)
for D & RGW C-16
Complete w/ guides
C-16-25 Original, 6 pcs. 4.75
C-16-26 Revised, 6 pcs. 4.75

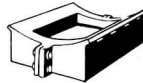


C & S CYLINDER BLOCK (On3)
Complete w/ guides
X-124 5 pcs. 5.00

(X-86 Crosshead
NOT included)



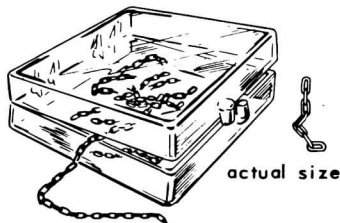
CYLINDER SADDLE (On3)
C-16-25 S each 1.00



CYLINDER SADDLES
X-622 each .65 X-395 each .65



MISCELLANEOUS



LARGE CHAIN
X-259 10 inches .50
(18 links per inch)



SMALL CHAIN
X-232 10 inches .50
(20 links per inch)

X-822 10 in. .50
(28 links per in.)

4" CHAIN & 3 HOOKS



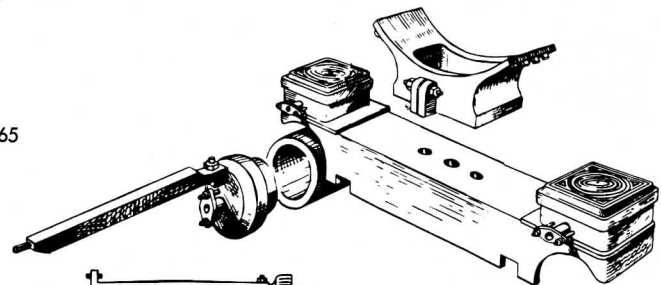
X-468 set .75



X-469 set .75

HOOK ONLY
X-471 3 for .50

HOOK ONLY
X-470 3 for .50



CYLINDER BLOCK (O)
Complete w/ guides
ALLIGATOR TYPE
C-14-26 8 pcs. 4.75
LAIRD TYPE
C-14-25 8 pcs. 4.75
(C-14 was standard gauge
version of the C-16)



CLEANING HOLE LID
(Smokebox)
X-252 pair .70



CRANK PIN SCREWS
C-16-49-L pr. .40
C-16-49-S pr. .40



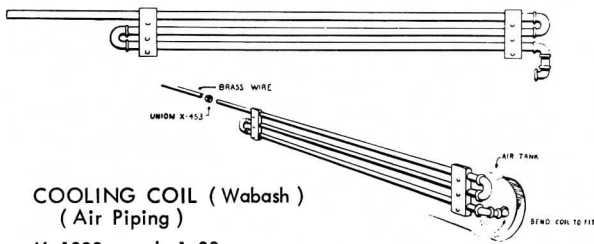
CORNER PLATES
(Tender end sill)
C-16-38 pair .70



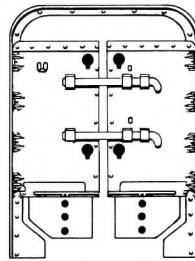
CHAIN HANGERS
C-16-47 4 for .75



MISCELLANEOUS



COOLING COIL (Wabash)
(Air Piping)
X-1088 each 1.00



COAL BUNKER DOOR (Wabash)
X-1059 each 1.50



COAL BUNKER (Front)
Wabash
X-1054 each .25



COAL BUNKER (Front)
C-16-94 A each .10



COAL BUNKER (Side Boards)
Wabash
X-1052 pair .50



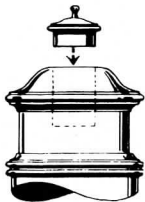
COAL BUNKER (Rear)
Wabash
X-1053 each .25



COAL BUNKER (Rear)
C-16-94 B each .10



DOMES



SAND DOME
C-16 Original
C-16-07 ea. 1.00



STEAM DOME
C-16 Original
C-16-06 ea. 1.00



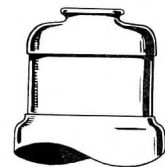
SAND DOME
C-16 Revised
C-16-07 R ea. 1.00



STEAM DOME
C-16 Revised
C-16-06 R ea. 1.00



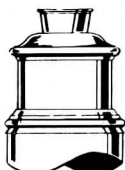
SAND DOME
Wabash
X-1029 ea. 1.00



STEAM DOME
Wabash
X-1024 ea. 1.00



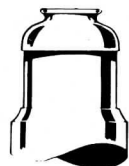
SAND DOME
Forney Original
X-611 ea. .85



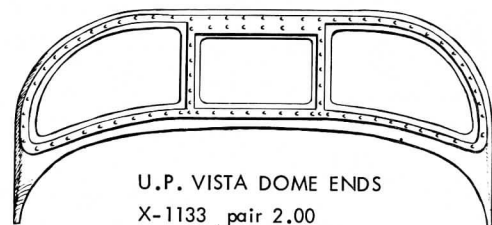
STEAM DOME
Forney Original
X-613 ea. .85



SAND DOME
Forney Revised
X-612 ea. .85



STEAM DOME
Forney Revised
X-614 ea. .85



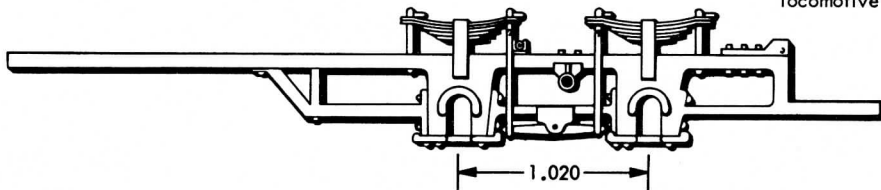
U.P. VISTA DOME ENDS
X-1133 pair 2.00

ALL PARTS BRASS UNLESS OTHERWISE STATED

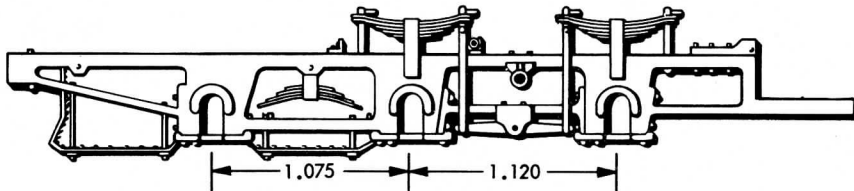


LOCOMOTIVE MAIN FRAMES

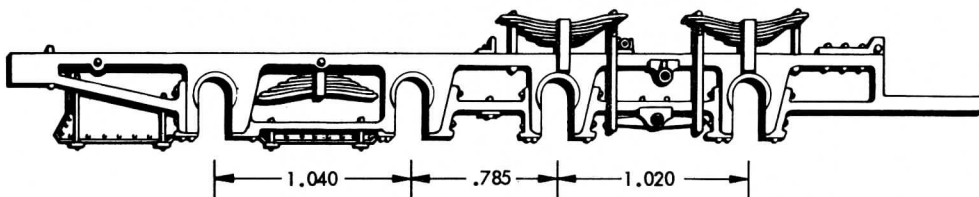
These frames are marvelously detailed brass castings which can be used equally well in both standard and narrow gauge locomotive models.



SIDE FRAMES (Forney)
X-608 Unmachined, pr. 5.00



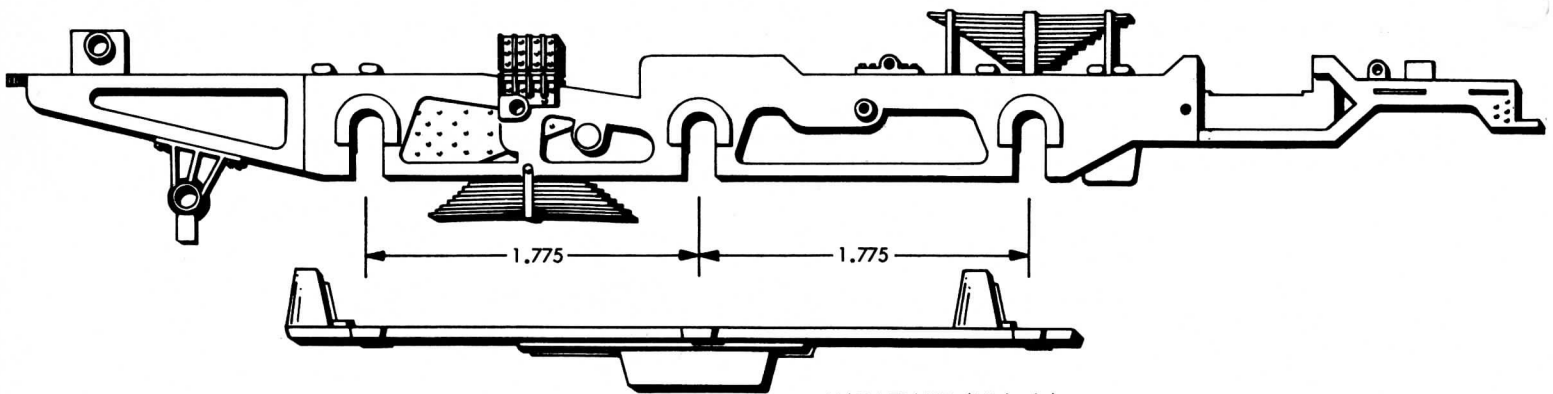
SIDE FRAMES (Mogul)
X-606 Unmachined, pr. 5.00



SIDE FRAMES (C-16)
C-16-15 Unmachined, pr. 5.00
C-16-15 M Machined, pair 6.50

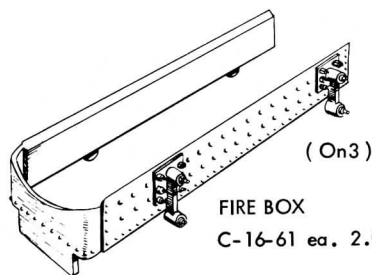


COVER PLATE
C-16-15 C each 2.00



MAIN FRAME (Wabash)
(Complete)

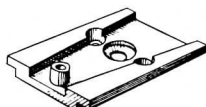
- X-1077 A Assembled & Machined, each 18.50
- X-1077 Side frames only pair 7.50
- X-1078 Front end only pair 3.00
- X-1079 Rear end only pair 3.00
- X-1080 Cover plate each 2.50
- X-1080 A Cover plate for 47:1 gear, each 2.50



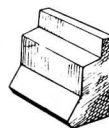
FIRE BOX
C-16-61 ea. 2.00



FRAME SPACER (Rear)
C-16-52 each .50



FRAME SPACER (Front)
C-16-48 each .75
C-14-48 each .75



FIRE BOX END
C-16-77 ea. .95



FLEXIBLE SPRING COUPLING
(fits 3/32" shaft)
X-1104 each .50



NEW!

"Outsands" anything you've ever used!



AMAZING

FLEX-I-GRIT®

TOUGH ABRASIVE COATED MYLAR*



SAND ANY SURFACE

Wood • Plastic • Metal • Paint

FIT TO ANY SHAPE

Won't Crack, Peel, or Clog

FLEX TO CLEAN

Use Over and Over—Wet or Dry

Handy 5-sheet packets have assorted grits for all fine finishes!

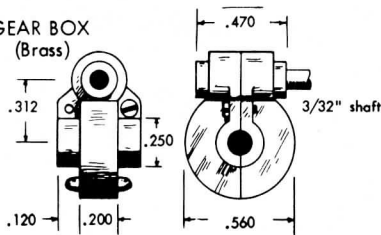
X-1306 5 sheets per packet .49

PRICES SUBJECT TO CHANGE WITHOUT NOTICE !



GEARS & GEAR BOXES

GEAR BOX
(Brass)



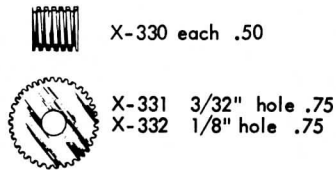
X-1106-L 1/8" axle hole ea. 2.75

Includes X-330, X-331-2 gear set and shaft

GEAR BOX only

X-389-L 1/8" axle hole ea. 1.85
X-389-S 3/32" " ea. 1.85

STEEL WORM-BRONZE GEAR (37:1)



X-330 each .50
X-331 3/32" hole .75
X-332 1/8" hole .75

HELICAL GEARS (1:1)



(Bronze & Steel)
X-500 pr. 1.00

BRASS WORM-NYLON GEAR (13:1)



L-1279 each .50 L-1280 each .50

STEEL WORM-BRONZE GEAR(13:1)



L-96 A each .50 L-95 each .50
L-96 B Long, each .50

BRASS SPUR GEARS



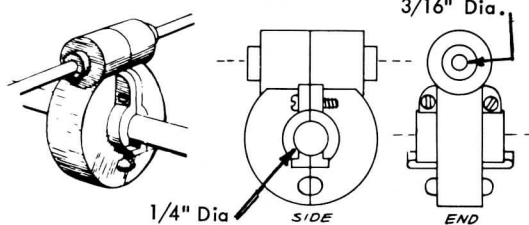
25 tooth
X-679 .50



20 tooth
X-678 .50

3/32" hole

L-1432 set 1.00



C-16-55 Gear Box, 2 pcs. each 1.00
C-16-57 Shaft, 4" long each .25
C-16-56 Worm, Steel each .50
C-16-58 Gear, 30:1 brass each .75
C-16-58 SP Gear, 40:1 brass each .75
C-16-56 SP Worm, Steel each .50

STEEL WORM-BRONZE GEAR 24:1

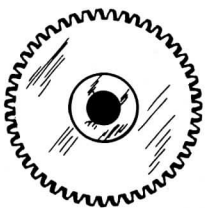


L-514 each .50 L-513 each .50

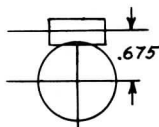


STEEL WORM
(Fits X-501 motor shaft)
X-502 each .50
(Use X-331 or X-332
Worm Gear - 37:1)

(Wabash)



WORM GEAR (Brass)
47 teeth 3/16" hole
X-1057-A .. each 1.25



WORM (Steel)
Single thread 1/8" hole
X-1057-B .. each .75



STEEL WORM MICARTA WORM GEAR
3/16" hole 30 Teeth, 3/16" Hole
X-390 each .75 X-390 A each .75

(This 30:1 gear set originally used in Wabash kit - if ordered for replacement please specify - gear then specially drilled! Otherwise shipped as is.)

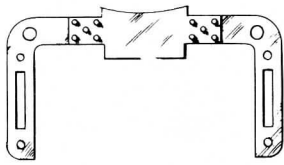
WORM & GEAR SET (Ratio=47:1) (This worm and gear not used in gear boxes.)
X-1057 set 2.00

PRICES SUBJECT TO CHANGE WITHOUT NOTICE !

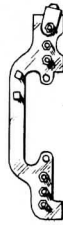
IF YOU CAN'T FIND WHAT YOU ARE LOOKING FOR TRY THE INDEX !

G**G**

GUIDE YOKES (See GUIDES under "Cylinders")



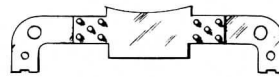
ALLIGATOR (On3)
C-16-74 R each 1.00



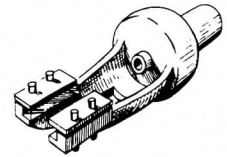
ALLIGATOR (Wabash)
X-1070 pair 1.25



GUIDE YOKE BRACE
X-1076 pair 1.25



LAIRD (On3)
C-16-74 each .75



GUIDE (Valve)
X-74 pair 1.50

GENERATORS



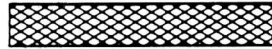
SUNBEAM
X-215 each .85



PYLE-NATIONAL
X-216 each .85



GRAB IRON (Cab)
C-16-50 pair .50



GRILL (Diesel)
(All-Nation F-3)
X-197 pair .50



GOVERNOR (Air Pump)
C-16-99 each .50

X-1012 each .50



GRAB IRON (Fr. Car)
X-114 dozen .35



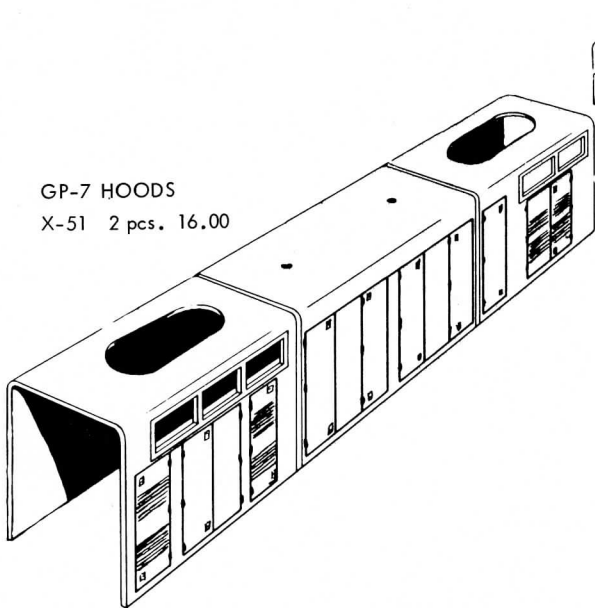
GLAND (Packing)
X-1066 pair .50



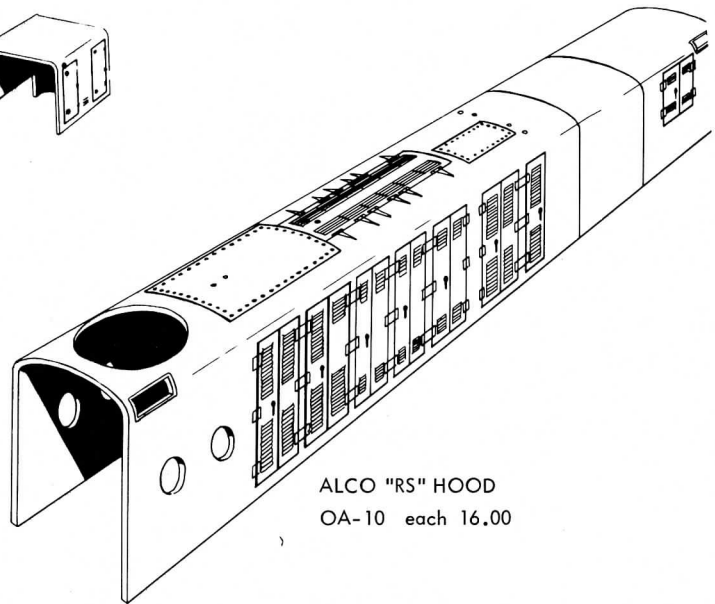
STEAM GUAGE
w/ Throttle
C-16-72 each 1.25

**H****H**

GP-7 HOODS
X-51 2 pcs. 16.00

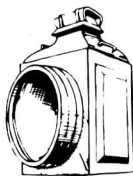


ALCO "RS" HOOD
OA-10 each 16.00





HEADLIGHTS



C-16 Original
C-16-04 ea. 1.50



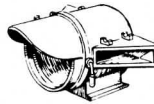
TR-5 ea. 1.50



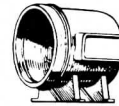
TR-6 ea. 1.25



TR-10 ea. 1.00



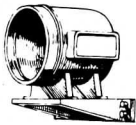
TR-23 ea. 1.50



TR-11 ea. 1.25



TR-24 ea. 1.35



Pennsy
TR-4 ea. 1.25



Pyle-National
TR-13 ea. 1.50



Northern Pacific
N-1 ea. 1.00



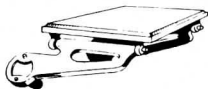
Ohio Traction
TR-12 ea. 1.00



DUAL (GP-7)
X-46 A pr. 1.00



BACK-UP LIGHT
(Wabash Tender)
X-1047 ea. .85



HEADLIGHT BRACKET
C-16-62 each 1.00



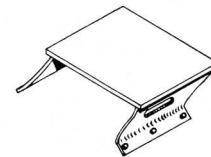
HEADLIGHT BRACKET
X-629 each 1.00



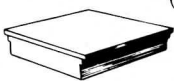
REAR LIGHT BRACKET
(Forney)
X-618 each 1.00



HEADLIGHT BRACKET
X-1027 each .85



C-16 Modern
C-16-62 R each 1.00

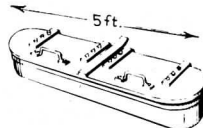


ROOF HATCH
X-1044 each .40

(Wabash)



ROOF HATCH
X-1045 each .40



Wabash
X-1036 ea. .95

WATER HATCHES



C-16 Orig. & Inter.
C-16-33 each .65



C-16 Modern
C-16-33 R each .95



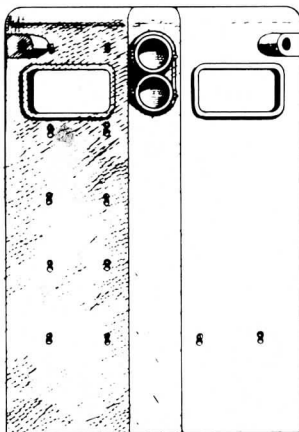
Forney
X-624 each .50



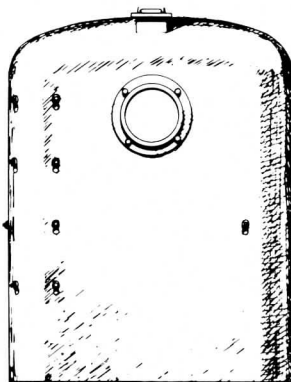
SAND HATCH
(Diesels)
X-47 pair 1.00



X-328 ea. .30



HOOD END (GP-7)
X-46 pair 5.00



HOOD END (Alco "RS")
OA-17 pair 5.00

IF YOU DO NOT FIND AN ITEM
WHERE YOU THINK IT SHOULD BE,
TRY ANOTHER SECTION--YOU
MAY BE USING THE WRONG NAME!



AIR HORNS (Diesel)



OA-33 pair .75



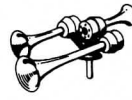
GP-7
X-54 pair .75



X-391 pair .75



X-326 each .50

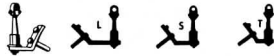


3 Chime type
GP-20-17 4 pcs. 1.50

HANDRAIL STANCHIONS



X-484 doz. 1.00



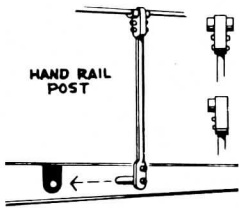
X-1018 L X-1018 S X-1018 T
(Wabash) Any style, 6 for 1.00



X-483 dozen .75



AT-5 D dozen .55



GP-7

X-58 E pair .50
X-58 24 for 6.00
X-59 E pair .50
X-59 4 for 1.00

← THRU POST
← END POST



Alco "RS"

OA-32 pair .50
OA-32 S 22 for 5.50



Alco "RS"

OA-32 FR 4 for 1.50

4" CHAIN & 3 HOOKS



X-468 set .75



X-469 set .75



HOOK ONLY

X-471 3 for .50



HOOK ONLY

X-470 3 for .50



CHAIN HANGERS
C-16-47 4 for .75



AIRHOSE
X-327 pair .50



ANGLE COCKS

X-64 pair .50

GLAD HANDS

X-65 pair .50

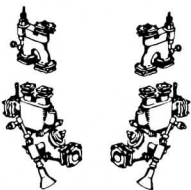


AIR HOSE MATERIAL

X-66 Plastic 4ft. for .35

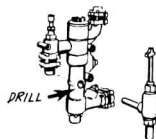
X-257 Armored (Spring)
8" pc. .50

ALL PARTS BRASS UNLESS OTHERWISE STATED
PRICES SUBJECT TO CHANGE WITHOUT NOTICE !



Hancock Non-Lifting
INJECTOR & STARTER
VALVE

X-357 R & L set 2.50



Nathan Non-Lifting
INJECTOR

X-309 R & L set 2.00



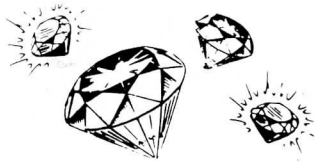
Old style Lifting
INJECTOR

C-16-67 pair 1.70



INSULATOR (Traction)

X-928 6 for 1.50



JEWELS for Marker Lamps

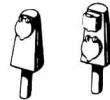
- ML-235 Red
- ML-236 Green
- ML-237 White
- ML-238 Amber
- ML-239 Blue

Any color ... dozen .50

ELECTRICAL JUNCTION BOXES
(for Steam Locos) (for Diesel Locos)



X-1098 4 pcs. .85



X-367 pair .85



JOURNAL BOX LID
(Old style)

X-908 8 for 1.50



JOURNAL
(Hyatt R. B. Type)

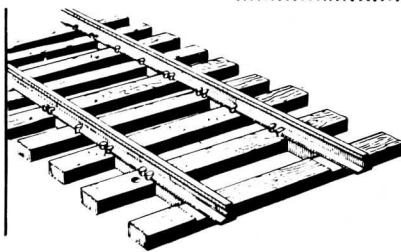
X-72 4 for 1.50



NEW!

Kem-trak

Ties and Spikes
are DELRIN



The easy, time-saving way to lay track! Kem-trak can be curved, either way, to any radius and, if desired, straightened again. Rails are always held in proper gauge and ties cannot slip out of place. Plastic ties are "grained" and feature a "natural" irregularity of spacing and alignment typical of the prototype. At least two "believable" spike heads hold the rail fast to every tie. Holes provide for fastening the track to the roadbed with brads, if you wish. What more could we possibly do except lay it for you?



On3 NARROW GAUGE

KEM-TRAK

CODE 100

w/Code 100 rail

X-998 36" lengths, pkg. of 12 18.00

KINGPIN

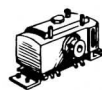
X-394 Cast, pr. .75



TENDER LADDER
Wabash
X-1051 each 1.00



ENGINE LADDER
Wabash
X-305 each 1.00



LUBRICATOR
X-95 each .75



C-16-69 pair 1.30



Wabash
X-1067 pair .50



CAB LUBRICATOR
(Old style)
C-16-65 each .85



WHISTLE LUBRICATOR
(Steam Chest)

Set of brass turnings for C.P. Huntington
X-445 18 pcs. 1.00

6 of each



LIFT RINGS
(Eyebolts)

X-657 X-658 X-659 X-660
Any size, Doz. .90



"LOUVERS"
(See FAN GUARDS)

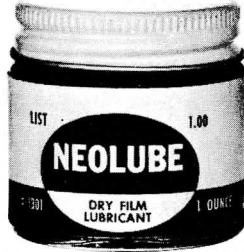


X-396 6 for .75

Lubricants



X-159 each .75



X-1301 each 1.00



X-103 each .50

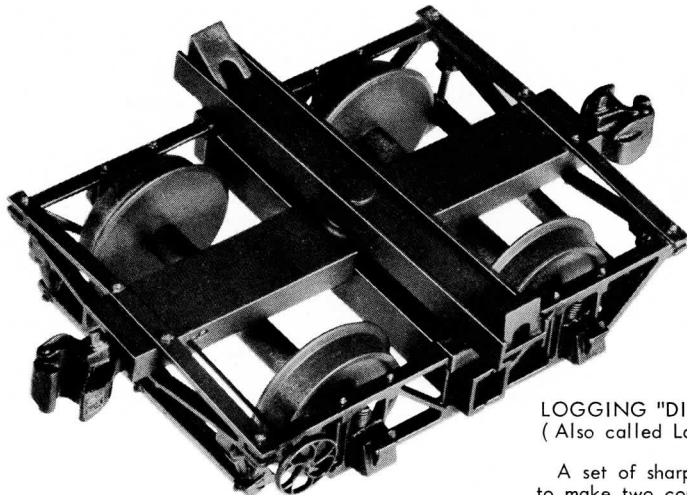
- LUBRIPLATE
One of the finest lubricants available for small mechanisms such as model railroad equipment. Long-lasting, ideal for Nylon, Delrin, etc.
- NEOLUBE
A pure graphite that you can "paint" on! Leaves a film of dry lubricant. Perfect for automatic couplers or for painting smokeboxes.
- MOLUB-ALLOY
A superior lubricant that will not harden in gear boxes. Protects all wearing surfaces with a tenacious, slippery film that stays put!

LOCTITE

Sealant for bearings and telescoping brass thinwall tubing, packaged complete with instructions.

1823 pkg (10 vials) 2.00





(Standard Gauge)

LOCOMOTIVE KIT ... listings start on Page



LOGGER'S TOOLS
X-26 3 pcs. .50

LOGGING "DISCONNECT"
(Also called Log "Buggy")

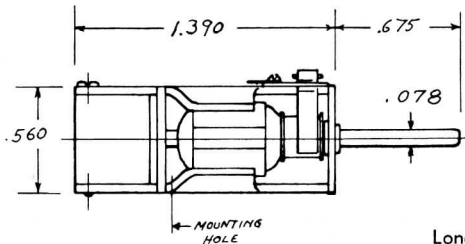
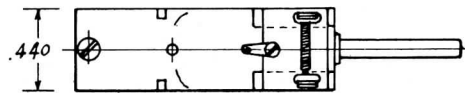
A set of sharply detailed castings to make two complete trucks with sprung journals. Wheels and couplers included.

X-700 Kit 10.35



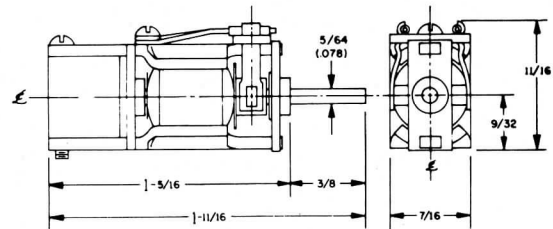
MOTORS

(All Motors are PERMANENT MAGNET Type)



U-82 each 3.75

Long, slim permag type.
5 Poles, 12 volt DC,
High quality motor for
all scales.



X-501 each 3.75

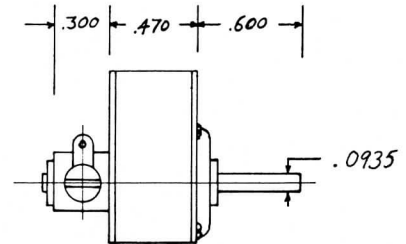
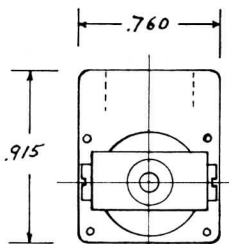
A very small, powerful motor for light duty in O and On3. 5 pole armature assures good starting and smooth running characteristics. 12 volts DC permag type.



BRUSH ASSEMBLY
for U-82 Motor
U-83 each .50



ELECTRICAL
HOOK-UP WIRE
X-155 5' coil .35



U-81 each 3.95

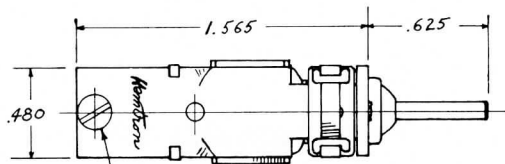
Compact, laminated field type.
5 Poles, 12 volt DC, High
torque. Ideal for narrow gauge.

(Continued on next Page)



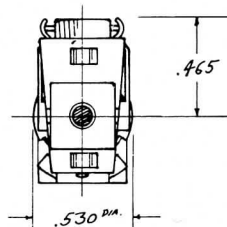
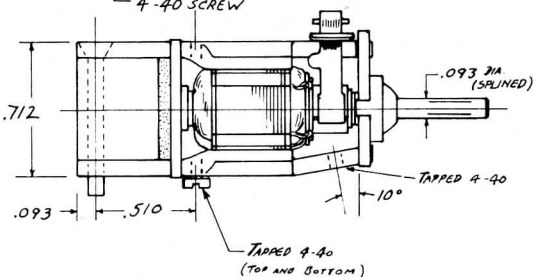
MOTORS (Continued)

● Although the motors on this, and the previous page, were originally intended for HO scale, they are also quite suitable for use in small, light-weight O scale power units especially in the field of narrow gauge! With proper gearing, all have adequate power.



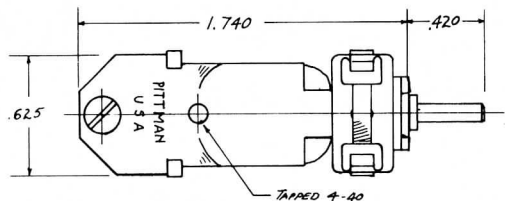
X-1499

ALL DRAWINGS ACTUAL SIZE

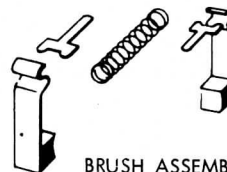


Precision-built, 5 pole motor with splined shaft for sure grip on worm. Mounting holes are provided on both top and bottom. Powerful, smooth running!

X-1499 12 volt DC motor each 4.95



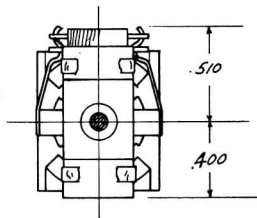
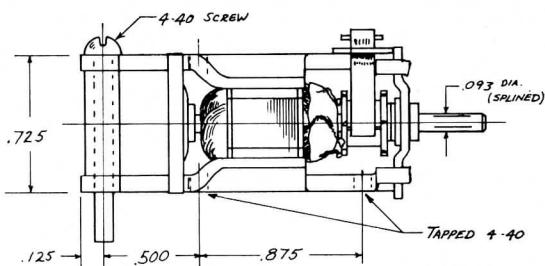
PM-66



BRUSH ASSEMBLY

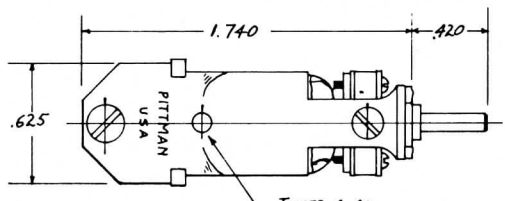
X-779 each 1.00

(For Pittman PM-66, DC-195, DC-196, and DC-65 motors)

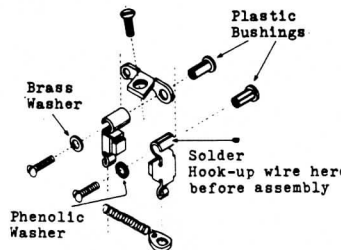


Here is a slightly larger motor manufactured by Pittman whose reputation for high standards in quality and motor design have long been established. 5 poles, splined shaft, extra mounting holes, high torque!

PM-66 12 volt DC motor each 4.50



M-66



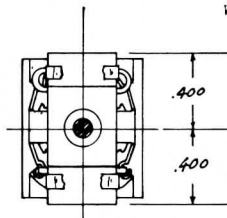
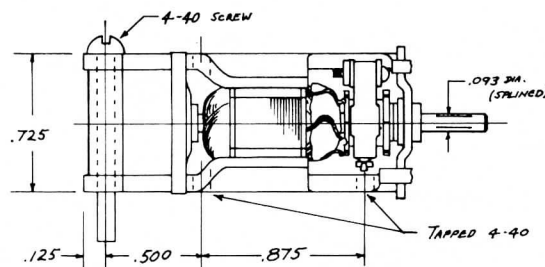
SPECIAL BRUSH RIG

X-585 Kit 1.95

(For M-66 motor)

REPLACEMENT BRUSHES w/Tension spring

X-107 set .50



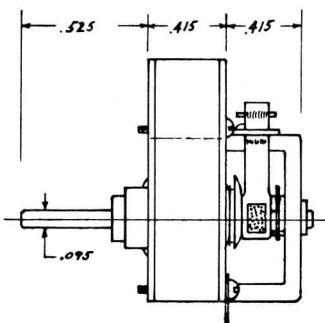
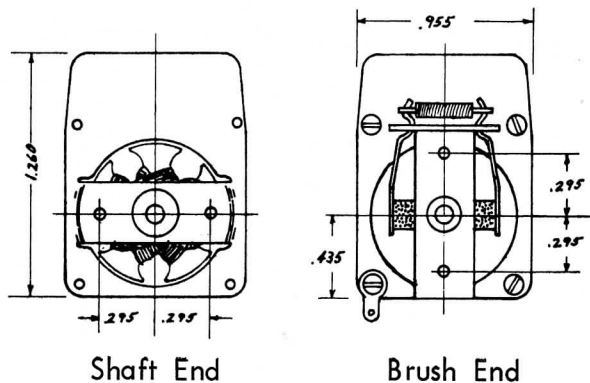
The same fine motor as above with our own brush rig in place of the standard mounting arrangement. This appreciably reduces the clearance requirements for the shaft end of the motor allowing it to be used where the PM-66 might not fit!

M-66 12 volt DC motor each 7.50

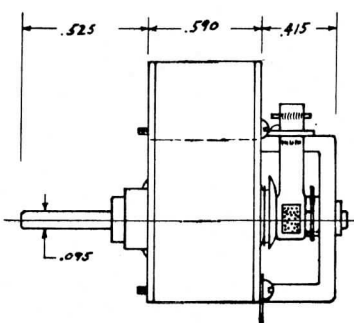


MOTORS (Continued)

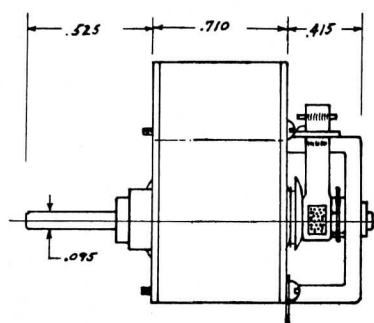
A 12 volt, DC motor of exceptional quality, made by KTM. 5 poles for smooth power, oilite bearings, large brushes. Can be mounted at either end. 3 sizes handle all power requirements. An excellent motor for small to medium O scale locos.



U-161 12 v Motor.. ea. 2.65

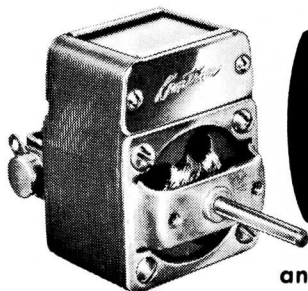


U-162 12 v Motor.. ea. 3.25



U-163 12 v Motor.. ea. 3.95

Kentron X-503

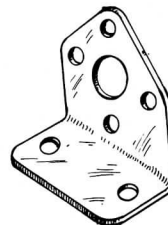


NOW ONLY **4.95**

an even more improved X-503

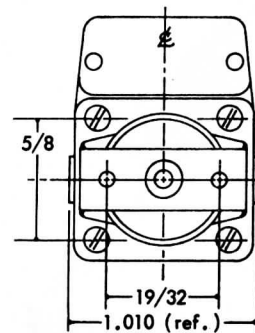
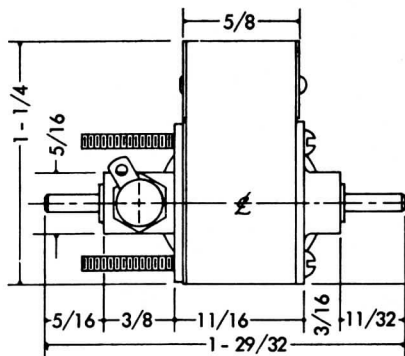
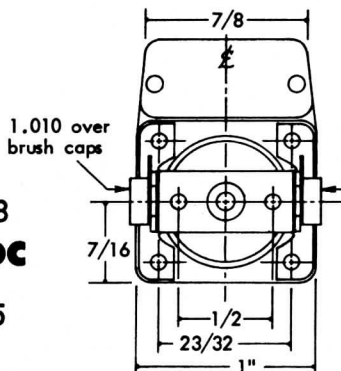
GREATER RELIABILITY from larger brushes and new internal bearings.

EASIER INSTALLATION with front and rear mounting holes.



MOTOR MOUNT for X-503-18 as used in C-16
C-16-16 each .75

X-503-18
18 volt DC
list 4.95





MARKER LIGHTS

jewels included
but not mounted



w/ jewels
OA-16 pair .75



w/ jewels
ML-99 pair .75



w/ jewels
ML-100 pair .75



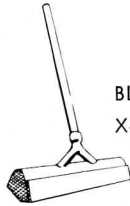
Hollow for bulb
less jewels
ML-109 pair 1.25
w/ 12 v G.O.R. bulb
ML-109 C pair 1.55



less jewels
ML-107 pair 1.25



w/ jewels
(Wabash)
X-1008 pair .75



BLOW - DOWN MUFFLER
X-236 each .75



NUT-BOLT-WASHERS



HEX or SQUARE

Use brass NBW detail on models requiring soldering or extreme durability. The more economical plastic type is suitable for use with all materials; ideal on styrene models!

X-568	Sq B	Medium	19 for	.60
X-569	Hex B	Medium	19 "	.60
X-574	Sq P	Medium	50 "	.60
X-575	Hex P	Medium	50 "	.60
X-570	Sq B	Small	19 "	.60
X-571	Hex B	Small	19 "	.60
X-576	Sq P	Small	50 "	.60
X-577	Hex P	Small	50 "	.60
X-572	Sq B	Very small	19 "	.60
X-573	Hex B	Very small	19 "	.60
X-578	Sq P	Very small	50 "	.60
X-579	Hex P	Very small	50 "	.60

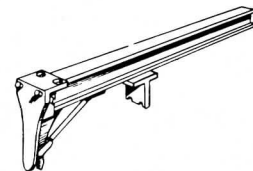
X-203	Sq B	Large	1 doz.	.60
X-204	Sq B	Medium	1 "	.60
X-205	Sq B	Small	1 "	.60
X-198	Sq P	3 sizes	4 doz.	.60
X-198-A	Sq P	Large	3 "	.60
X-198-B	Sq P	Medium	4 "	.60
X-198-C	Sq P	Small	4 "	.60

ALL SIZES .60 per package

B = BRASS P = PLASTIC

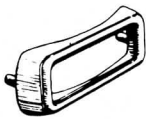


NUT on BOLT
(Brass)
X-386 dozen .75



NEEDLE BEAM (Traction)
inc. 2 turnbuckles
X-906 4 pcs. 3.00

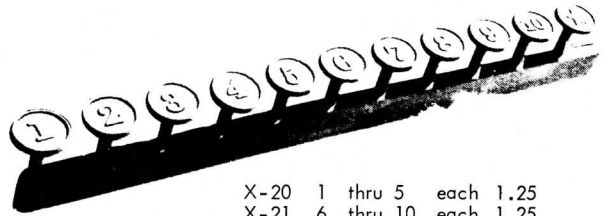
NUMBER BOARDS..NUMBER PLATES



Diesel (EMD)
X-117 pair .70



Diesel (Alco "RS")
OA-15 pair .50



X-20 1 thru 5 each 1.25
X-21 6 thru 10 each 1.25
X-22 11 thru 15 each 1.25
X-23 16 thru 20 each 1.25



Wabash X-456	D & RGW X-457	U.P. X-458	P.R.R. X-459	X-104 each .20
-----------------	------------------	---------------	-----------------	----------------

Any style... each .35

IF YOU CAN'T FIND WHAT YOU ARE LOOKING FOR
TRY THE INDEX!

PIPE FITTINGS



PIPE CONNECTION (Wabash)
X-1013 each40



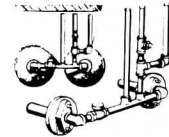
AIR SANDER (Wabash)
X-1020 pair 1.50



SANDER PIPES
(Use w/C-16-07 R sand dome)
C-16-83 pair 1.00



SANDER PIPES
(Use w/C-16-07 sand dome)
C-16-82 pair 1.00



AIR TANK PIPES (GP-7)
X-324 each .95



PIPE w/ FITTINGS (Wabash)
X-1021 each .35



GLAND (Packing)
X-1066 pair .50



PIPE BRACKET
X-1017 6 for 1.00



PIPE BRACKET
X-1015 6 for 1.00



AIR PUMP GOVERNOR
X-1012 each .50



C-16-99 each .50

UNIONS



Cast in clusters of 12

- | | | |
|-------|-----------|------|
| X-451 | .105 dia. | wire |
| X-452 | .090 " | " |
| X-453 | .062 " | " |
| X-454 | .051 " | " |
| X-455 | .045 " | " |
| X-833 | .040 dia. | wire |
| X-832 | .030 " | " |
| X-831 | .025 " | " |
| X-830 | .020 " | " |
| X-829 | .014 " | " |

Any size, 12 for .85

PIPE FITTINGS
(6 Unions, 3 Tees, 3 Elbows)
C-16-98 set .85



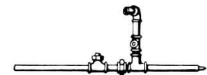
PIPE "EL"
X-269 12 for .85



PIPE "T"
X-294 12 for .85



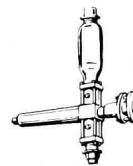
POP VALVE
X-28 pair .50



AIR LINE FITTINGS
(on pipe)
C-16-86 each 1.00



GLOBE VALVE
w/ hole thru
X-295 each .40



CROSSHEAD WATER PUMP
X-621 each .85



POLING POLE (Wabash)
X-1050 each 1.00



POLING POCKETS
X-929 4 for .50



SMALL PULLEYS
X-821 6 for .50



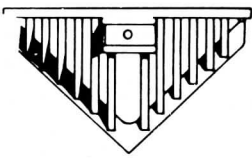
BRASS PULLEYS
X-246 1 each .50

P

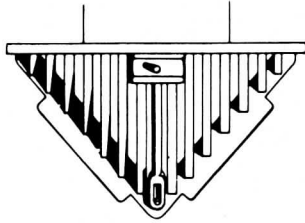


P

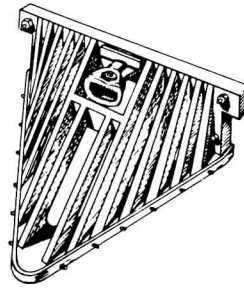
PILOTS (Continued)



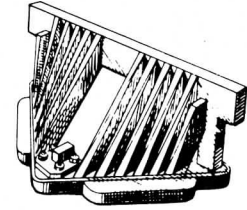
On3
#2 each 1.75



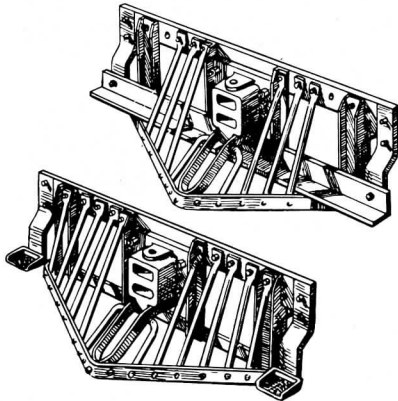
C.P. Huntington
#1 eqch 2.00



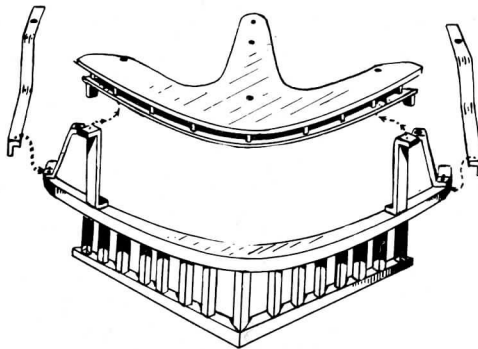
C-16 Original (On3)
#19 each 2.00



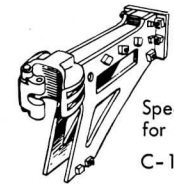
C-16 Revised (On3)
C-16-01 R each 2.00



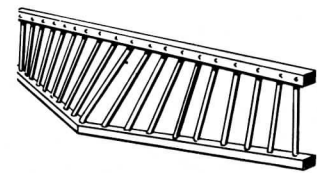
C-16 Modern (On3)
#38 4 pcs. 2.95
(Makes either version)



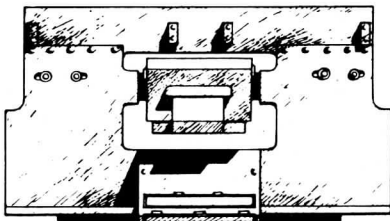
ILLINOIS TERMINAL (Traction)
(Use w/ X-923 Radius Bar as shown)
X-941 Pilot and braces only, set 2.00



Special Coupler
for C-16 Revised
C-16-01 C each .75



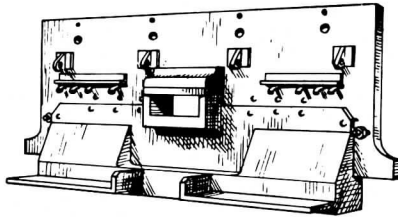
ILLINOIS TERMINAL (Traction)
(Truck-mounted type)
X-905 each 1.25



ALCO DIESEL
#12 pair 6.00



SKIRT for Alco #12
(Goes behind steps)
#12 S pair 1.50
(Half Size)



GP-7 DIESEL
#22 pair 6.00
(See Sect. S for
matching steps)

PILOT BEAM FITTINGS



X-253 6 pcs. .75



Wabash
X-1010 7 pcs. 1.00

FLAG HOLDERS



C-16-08 Original, pr. .50



C-16-08 R Modern, pr. .50

Q



Q

QUEEN POSTS



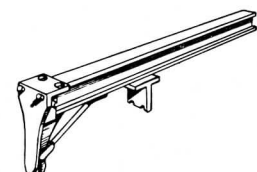
REVERSE QUADRANT (C-16)
C-16-66 each 1.25



X-36 X-37 X-38
Any style, 8 for .75



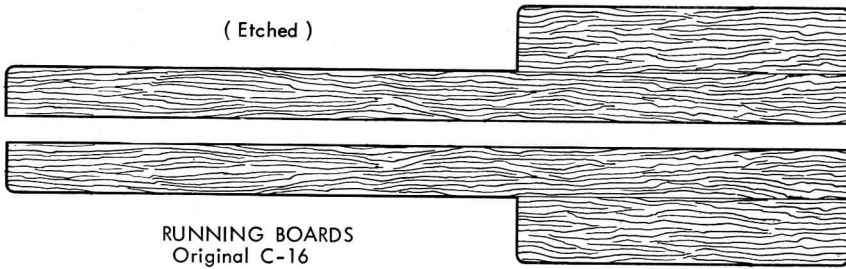
X-767 4 for .50



NEEDLE BEAM (Traction)
inc. 2 turnbuckles
X-906 4 pcs. 3.00



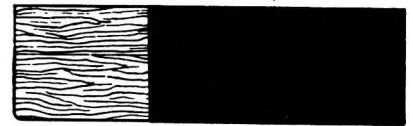
(Etched)



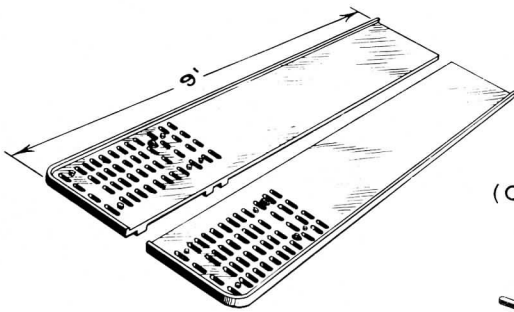
RUNNING BOARDS
Original C-16
C-16-13 2 pcs. 1.00



RUNNING BOARDS
Intermediate C-16
C-16-13 E 4 pcs. 1.00

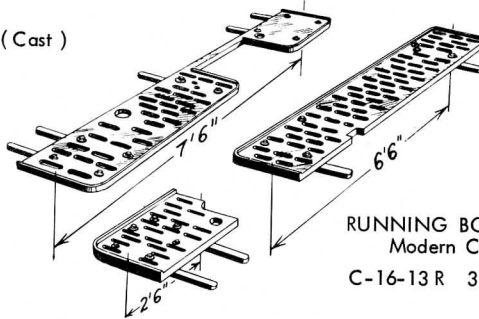


(Etched)



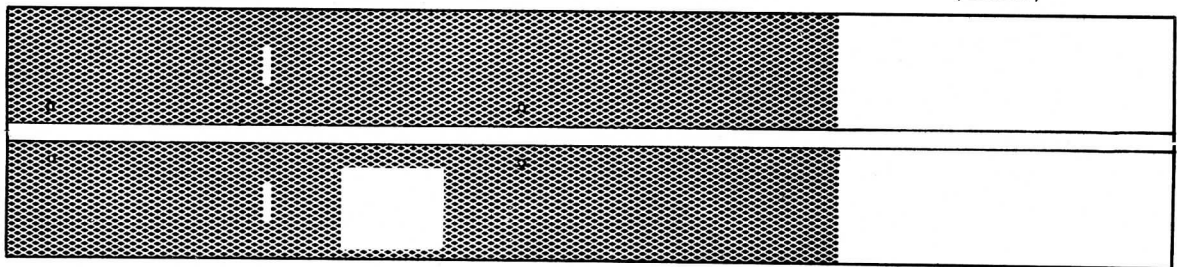
CAB RUNNING BOARDS
Modern C-16
C-16-73 2 pcs. 2.00

(Cast)



RUNNING BOARDS
Modern C-16
C-16-13 R 3 pcs. 3.00

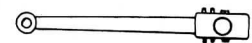
(Etched)



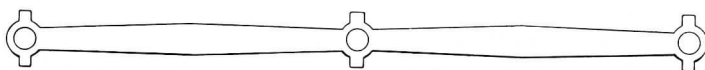
RUNNING BOARDS
Wabash
X-1073 2 pcs. 2.00



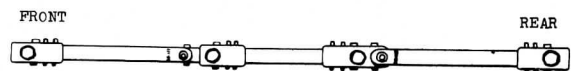
MAIN ROD (Wabash)
X-1030 pair 1.00



MAIN RODS (C-16)
C-16-64 pair 1.00



SIDE RODS (Wabash)
X-1031 pair 2.50



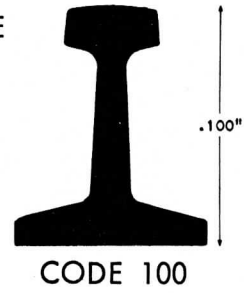
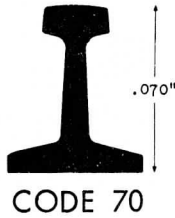
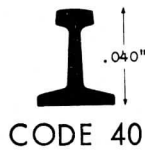
SIDE RODS (C-16)
C-16-63 pair 2.50



CRANKPIN SCREWS
C-16-49 L long, pair .40
C-16-49 S short, pair .40



COMPARISON OF RAIL SIZES - NOT TO SCALE



NICKEL SILVER RAIL

Kemtron pioneered the development of both Code 40 and Code 70 nickel silver rail. It's true-to-scale cross section and superior running qualities have made it the standard for all the gauges from TT to O scale. Code 100 nickel silver rail fills the needs of the larger scales in the group.

● NICKEL SILVER RAIL (3-foot lengths)

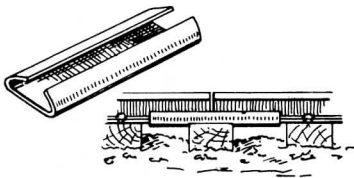
X-430	Code 40	90 ft. "	6.50
X-447	Code 70	99 ft. "	7.45
X-443	Code 100	99 ft. "	7.25

RAIL JOINERS

Rail joiners are a must for proper track alignment and electrical continuity.

● RAIL JOINERS

X-176	for Code 70 rail Nickel Silver	50 for	.50
X-434	for Code 100 rail, Nickel silver	100 for	.85
X-441	for Code 125 rail, Nickel Silver	50 for	1.00



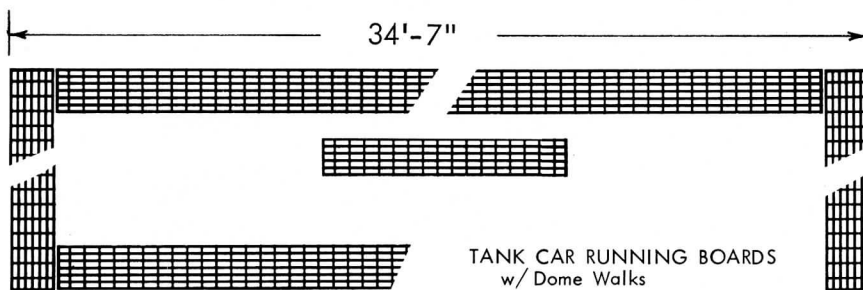
See Section K for On3 KEM-TRAK

See Section S for SPIKES

See Section T for TIE PLATES



FROGS (Rerail)
X-162 pair .50



X-1136 Complete set 2.00

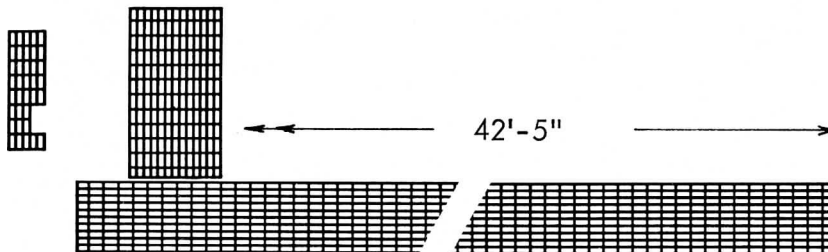


RELIEF VALVE (Cyl.)
X-1068 pair .85

HEX HEAD RIVETS
for valve gear, etc.



X-239 Doz. .50



X-1137 Complete set 2.00



REVERSE QUADRANT (C-16)
C-16-66 each 1.25

Etched to a depth that realistically simulates the original Blaw-Knox walkways. Not etched all the way through. .020" stock used.



SPIKES

Round
X-195



Designed for use with Code 70 rail, our X-195 spike has a special, thin head which will not foul wheel flanges. It's small diameter body minimizes the hazard of splitting ties. The perfect spike for all rail sizes in all scales!

For those who prefer them, we supply heavier types for the Lindsay spiker and large rail sizes.

SPIKES

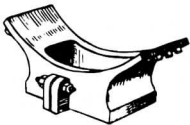
X-195	.. Special small head for all sizes of rail	1 oz.	1.00
X-195-A		1/4 lb.	3.90
X-195-B		1/2 lb.	7.25
X-195-C		1 lb.	14.00

X-693-A	.. Long	1/4 lb.	3.50
X-693-B		1/2 lb.	6.00
X-693-C		1 lb.	10.00
X-693-D		Approx 1000 for	1.95

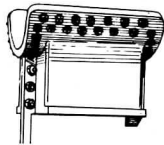


L-1087-A	Lindsay, for Spiker (L-1090)	2 oz.	1.00
L-1087-B		4 oz.	1.95
L-1087-C		1 lb.	7.35

X-1105-A	Special for Code 100 rail	4 oz.	1.50
X-1105-B		8 oz.	2.60
X-1105-C		1 lb.	4.95



CYLINDER SADDLE (On3)
C-16-25 S each 1.00



CYLINDER SADDLE (Wabash)
X-1064 each 2.00

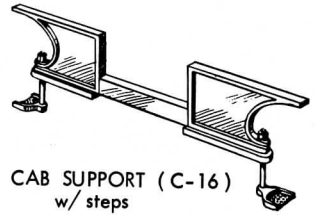


X-622 each .65



X-395 each .65

CYLINDER SADDLES



CAB SUPPORT (C-16)
w/ steps
C-16-29 each 1.25



SANDER PIPES
(Use w/ C-16-07 sand dome)
C-16-82 pair 1.00



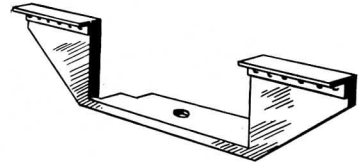
SANDER PIPES
(Use w/ C-16-07 R sand dome)
C-16-83 pair 1.00



AIR SANDER (Wabash)
X-1020 pair 1.50



TENDER STEP (Wabash)
X-1019 each .85



CAB SUPPORT (Wabash)
X-1071 each 1.00



STIRRUP (Fr. car)
On3
X-24 dozen .50



STIRRUP (Fr. car)
X-369 dozen .50



TENDER STEP (C-16)
C-16-37 pair .90



TENDER STEP (C-16)
C-16-91 pair .90



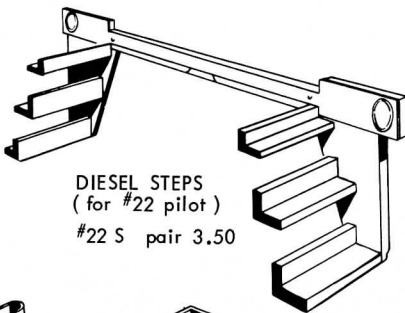
INTERURBAN PASSENGER CAR STEPS
X-67 pair 1.70



DIESEL STEPS
All-Nations F-3
X-374 3 for 1.00



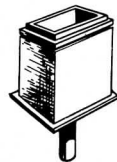
DROP STEP (GP-7)
X-254 pair .75



DIESEL STEPS
(for #22 pilot)
#22 S pair 3.50



EXHAUST STACK
Steam Gen. - Alco "RS"
OA-42 each .85



VENT (Alco "RS")
OA-34 each 1.00



GP-7
X-56 each .85



Alco "RS"
X-120 each .60



GP-7
X-55 pair .85



Alco "RS"
OA-46 each .25

DIESEL VENTS

OA-47 each .25

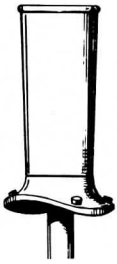
OA-48 each .25



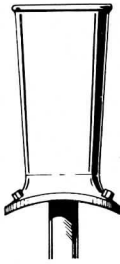
X-392 each .60



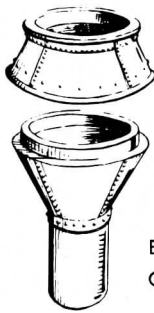
BODY STAY (Tender)
C-16-36 4 for .85



Wabash
X-1023 each 1.25



X-39 each 1.25



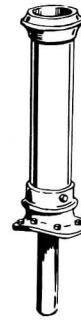
C-16 Original
C-16-05 C 2 pcs. 1.95



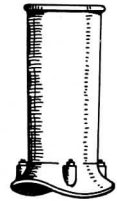
BASE ONLY
C-16-05 B each .35



C-16 Modern
C-16-05 R each 1.25

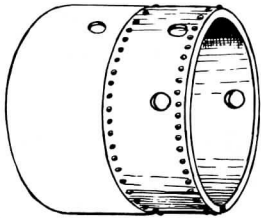


X-616 each 1.25

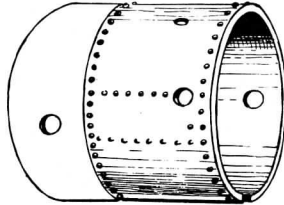


B & O C-16 a
(0-4-0)
X-607 each 1.25

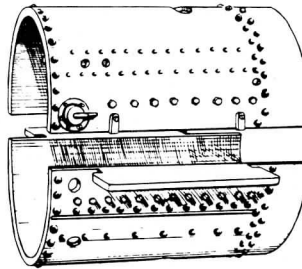
SMOKE BOXES



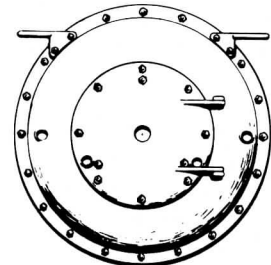
C-16 Original
C-16-51 each 1.35



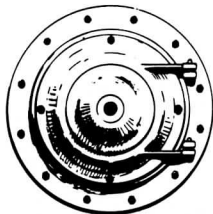
C-16 Modern
C-16-51 R each 1.35



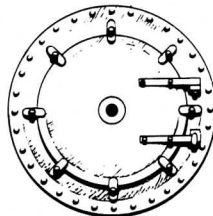
Wabash
X-1039 each 3.50



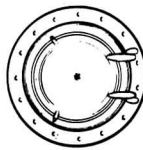
Wabash
X-1026 each 1.50



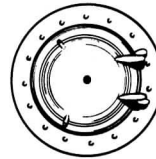
C-16 Original
C-16-02 each 1.50



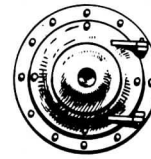
C-16 Modern
C-16-02 R each 1.50



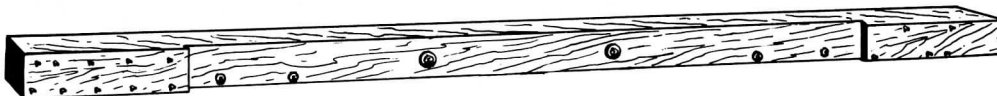
X-625 each 1.00



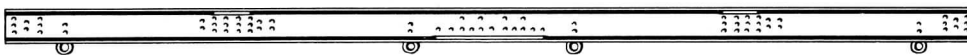
X-626 each 1.00



FORNEY
X-623 each 1.00



SIDE SILL (C-16 Inter. Tender)
C-16-96 pair 4.00



SIDE SILL (Wabash Tender)
X-1046 pair 3.50



COIL SPRINGS
X-436 4 for .30



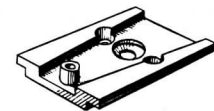
LEAF SPRINGS
X-497 dozen 1.20



SOLDERING LUG
X-282 doz .50



FRAME SPACER (Rear)
C-16-52 each .50



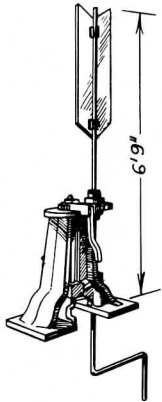
FRAME SPACER (Front)
C-16-48 each .75
C-14-48 each .75



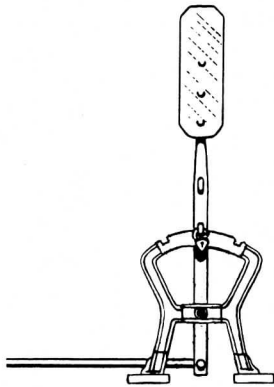
STAKE POCKETS
X-141 dozen .60
(Brass stampings)



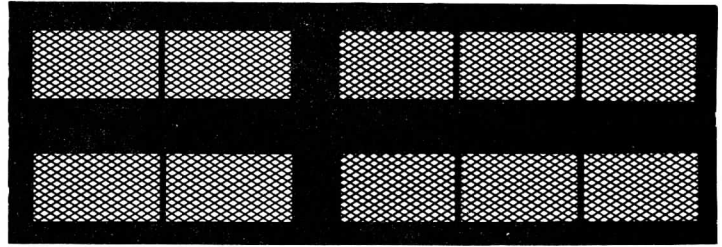
SPIKES
X-172 350 for .50
X-173 1/4 lb. 1.50



SWITCH STAND
X-460 Kit 1.50

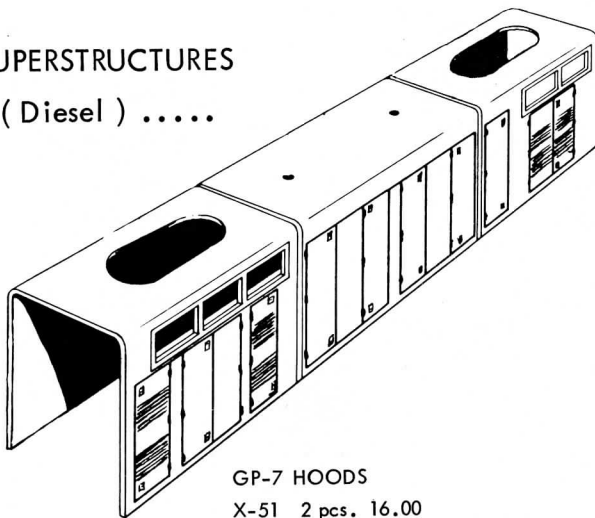


HARP SWITCH STAND
X-473 Kit 1.95

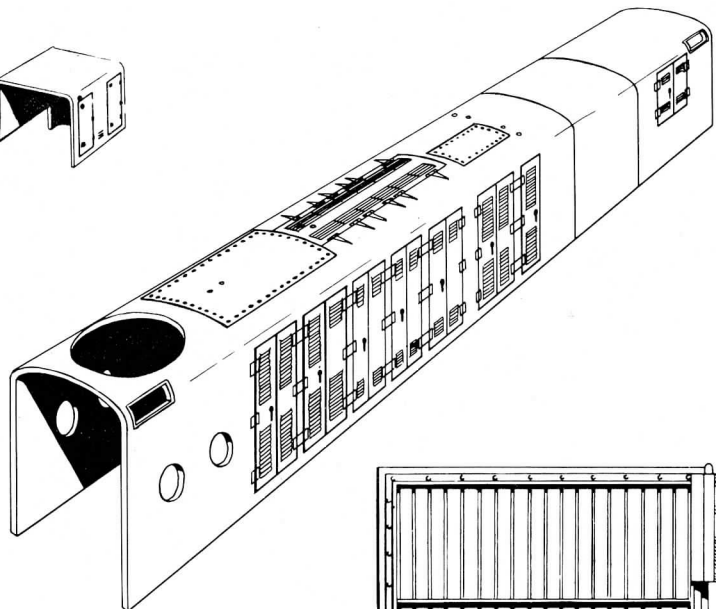
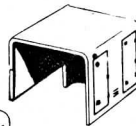


GP-7 SCREENS
X-53 each 2.00

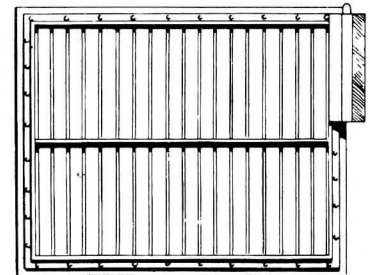
SUPERSTRUCTURES
(Diesel)



GP-7 HOODS
X-51 2 pcs. 16.00



ALCO "RS" HOOD
OA-10 each 16.00



RADIATOR SHUTTERS
Alco "RS"
OA-14 pair 3.00



SMOKE LIFTER
(Wabash)
X-1093 each .25

For On3 SHAY parts see Special SHAY CATALOG

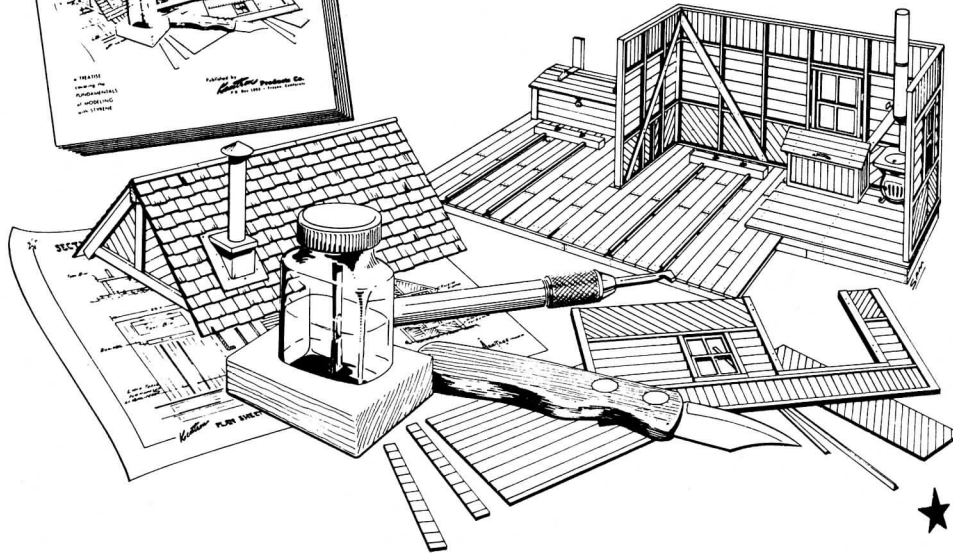


Styrene Fabrication is written and illustrated by Al Armitage, successful professional model builder for nearly a quarter of a century.

Mr. Armitage, noted also as author and illustrator, is well known to model railroaders for the many models he has constructed from styrene...many of which are shown in the handbook.

This fully illustrated, important reference handbook, explains all the simple techniques developed and employed by the author in professional model building. Mr. Armitage goes to great detail to explain the "how, when & why" to help beginners as well as advanced modelers in the use of this versatile material.

Styrene Fabrication is printed on heavy 24 pound stock, standard 8-1/2 x 11 inch size in loose-leaf form...ready for insertion in your own reference binder.



X-650 "STYRENE FABRICATION" each 2.25

For further information on styrene we suggest you read the following articles in Model Railroader:

page 42	August	1959	by Al Armitage
page 48	Nov.	1959	by Al Armitage
page 74	Dec.	1959	by Al Armitage
page 38	Sept.	1960	by Al Armitage
page 34	Nov.	1960	by Al Armitage
page 60	Dec.	1960	by Al Armitage
page 66	Jan.	1961	by Al Armitage
page 26	Sept.	1961	by Al Armitage
page 27	May	1963	by John Chapp

STYRENE

The "wonder" material for model building! No grain, no warping, no splinters! And no bother about sanding or sealing, either!

Styrene can be cut with a knife, scraped, sawed, filed, drilled, tapped, carved, bent, formed, and machined like metal. Moisture proof, too!

Styrene bonds together in seconds allowing you to assemble as fast as you can make parts.

Styrene can be used to modify or to add detail to existing plastic car and structure kits. Ideal for scratch-building in any scale.

Amazingly adaptable, styrene can reproduce wood, metal, stone, and brick textures with a high degree of fidelity. Unlimited versatility!

Kemtron offers the scratch-builder a selection of sheets and rods most suited to his needs. Supplied in convenient sizes for storage and use.

STYRENE KNIFE



While styrene can be cut satisfactorily with almost any style of knife used in model making, it is more efficient to use one designed specifically for the purpose. Kemtron's Styrene Knife has a stainless steel, hollow-ground blade anchored firmly in a wood handle. Newly designed blade is heavier, stiffer, and will hold an edge longer than the knife offered in the past. Instructions for proper honing included with each knife!

★ OPAQUE WHITE SHEET

Approx. 6 1/2" x 10"

CODE	THICKNESS	LIST PRICE 12 Sheets per pkg
X-592	.010	1.20
X-593	.015	1.80
X-594	.020	2.40
X-595	.040	4.20
X-601	.060	6.00
X-602	.080	7.80
X-603	.100	9.60

★ CLEAR RODS

Approx. 11 1/2" long

CODE	DIAMETER	PRICE PER LENGTH
X-640	1/2"	1.25
X-642	1"	2.95

★ CLEAR SHEET

Approx. 6 1/2" x 10"

CODE	THICKNESS	LIST PRICE 12 Sheets per pkg
X-599	.015	2.40

★ ASSORTMENT of SHEETS

2 sheets of all thicknesses Opaque White +

2 sheets of Clear = 16 sheets total.

X-596 assortment, 5.90

X-597 1 each .060"-.080" sheets 1.00

X-591 2 each .010, .015, .020
1 each .040 (Total: 7 sheets) 1.25

X-598 Styrene Knife each .75



SCALE RULERS

Scale rulers are a "must" for model building. This 12" stainless steel rule is graduated for both O and HO scales. The reverse side has a 64ths scale, a millimeter scale, a table of decimal equivalents, and tap and drill sizes.



X-211 12" Dual scale rule, each 1.85

JEWELERS SAW



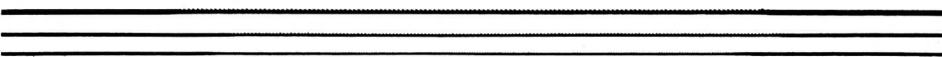
An indispensable tool for scratch-building. Cuts any material with ease and proficiency. Ideal for cutting irregular contours from brass or plastic sheet stock, slicing thin-wall tubing, etc.

Adjustable to various blade lengths. A high quality tool!

X-580 Jeweler's saw each 5.00

Three different blades are offered for use with the JEWELERS SAW. No. 2 is for use on wood, cardboard, plastic, etc. No. 5 is for average use. No. 3/0 is our most popular blade. Its small teeth will not snag when cutting thin brass or thin wall tubing. Yet it will cut thru any thickness!

- | | |
|---------|-------|
| No. 2 | X-582 |
| No. 5 | X-583 |
| No. 3/0 | X-581 |



list 1 dozen .75

& BLADES

HEX SOCKET WRENCHES



- | | | | |
|-------|-------|-----|-----|
| X-233 | 3/32" | ea. | .50 |
| X-234 | 5/64" | ea. | .50 |

PRICES SUBJECT TO CHANGE WITHOUT NOTICE



Solder & Flux

● Kemtron's SOLDER PAINT is the favorite of many modelers. The perfect material for sweat soldering! Use anywhere for strong, neat joints without fuss! You only use a little at a time so a jar goes a long way! Try it, you'll swear by it!



X-1300 each 1.00

● SAL-MET is generally conceded to be the best all-purpose flux for model building. Unexcelled for brass, also solders steel, zamac, and other metals. Sal-Met is non-corrosive, easy to clean.



X-249 each 1.00

SCREWS & NUTS

ASSORTED SCREWS USEFUL IN MODELING

MACHINE SCREWS

0-80 x 1/4"	Fil. H.	Brass
0-80 x .300"	Fil. H.	Brass
0-80 x 1/2"	R. H.	Brass
2-56 x 1/8"	R. H.	Brass
2-56 x 1/4"	R. H.	Brass
2-56 x 1/4"	F. H.	Brass
2-56 x 5/16"	R. H.	Brass
2-56 x 1/2"	F. H.	Steel
2-56 x 3/4"	F. H.	Brass
2-56 x 3/4"	R. H.	Steel
2-56 x 15/16"	R. H.	Brass
2-56 x 1"	R. H.	Brass
2-56 x 1-1/2"	R. H.	Brass
4-36 x 1/8"	Fil. H.	Brass
4-36 x 3/16"	R. H.	Steel
4-36 x 1/2"	Fil. H.	Steel
4-36 x 1/2"	F. H.	Brass
4-36 x 1/2"	R. H.	Brass
4-36 x 5/8"	F. H.	Steel
4-36 x 5/8"	R. H.	Steel
4-36 x 5/8"	R. H.	Brass
4-36 x 3/4"	F. H.	Brass
4-36 x 3/4"	R. H.	Brass
4-36 x 3/4"	Fil. H.	Steel
4-36 x 1"	Fil. H.	Steel
4-36 x 1"	R. H.	Brass
4-40 x 1/8"	R. H.	Brass
4-40 x 3/16"	R. H.	Steel
4-40 x 1/4"	R. H.	Brass
4-40 x 5/16"	R. H.	Brass
4-40 x 3/8"	R. H.	Brass
4-40 x 1/2"	Fil. H.	Brass
4-40 x 1"	R. H.	Steel
4-40 x 1-1/8"	R. H.	Brass
4-40 x 1-1/4"	F. H.	Steel
6-32 x 5/16"	R. H.	Brass
6-32 x 1/2"	R. H.	Steel
6-32 x 5/8"	R. H.	Brass
6-32 x 3/4"	F. H.	Brass

MACHINE SCREW NUTS

- 2-56 Hex nuts
- 4-40 Hex nuts
- 5-40 Hex nuts

ANY SIZE 2 Dozen in pkg. .60

WOOD SCREWS

#0 x 3/8"	R. H.	Brass
#1 x 1/4"	R. H.	Steel
#1 x 3/8"	R. H.	Brass
#2 x 3/16"	R. H.	Steel
#2 x 1/4"	R. H.	Brass
#2 x 3/8"	R. H.	Brass
#2 x 5/8"	R. H.	Steel

ANY SIZE 1 Dozen in pkg. .60

SELF-TAPPING SCREWS

#0 x 3/16"	Flat head
#1 x 1/8"	Pan head
#1 x 3/16"	Pan head
#1 x 3/8"	Flat head
#1 x 3/8"	Pan head
#2 x 1/4"	" "
#2 x 3/16"	" "
#2 x 5/16"	" "
#2 x 3/8"	" "

ANY SIZE 1 Dozen in pkg. .60

R. H. = Round Head
F. H. = Flat Head
Fil H. = Fillister Head

Order by SIZE and LENGTH!

ALL ITEMS SOLD ONLY AS PACKAGED!

CRANK PIN SCREWS

Any size .30 pr.

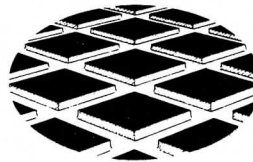
	Enlarged	
X-506		
X-505		Actual Size
X-504		

Sizes under 1".....1 Dozen in pkg. .60

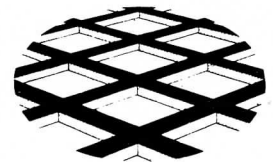
1" and larger1 Dozen in pkg. .75



SAFETY TREAD

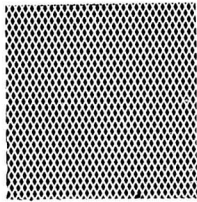


RAISED DIAMOND
(grid is etched into the brass)

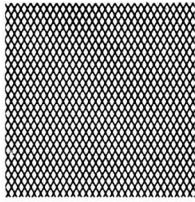


RAISED GRID
(diamond is etched into the brass)

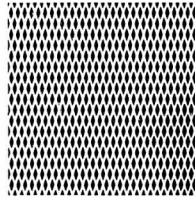
.025" Thick



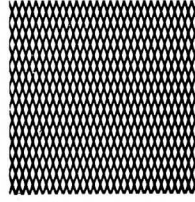
Raised Diamond
5" x 7"
X-1102 ea. 3.00



Raised Grid
5" x 12"
X-1103 ea. 4.00



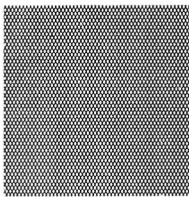
Raised Diamond
3-3/4" x 10"
X-1142 ea. 3.00



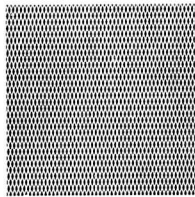
Raised Grid
3-3/4" x 10"
X-1143 ea. 3.00

Here is a detailing item to add that extra touch of reality to your finest models. Safety tread is used extensively on locomotives, cars, and all sorts of buildings and structures, for stairs, walkways, and platforms. Two types, as shown above, provide for most needs.

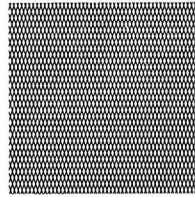
.020" Thick



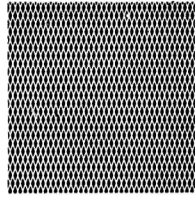
Raised Grid
4-1/2" x 5-1/2"
X-1100 ea. 3.00



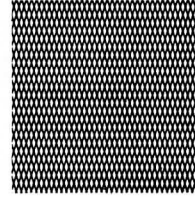
Raised Diamond
5" x 7"
X-1140 ea. 3.00



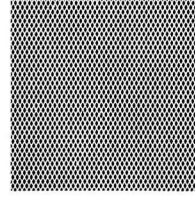
Raised Grid
5" x 7"
X-1141 ea. 3.00



Raised Diamond
4-1/4" x 8-1/2"
X-1144 ea. 3.00



Raised Grid
4-1/4" x 8-1/2"
X-1145 ea. 3.00



Raised Diamond
5" x 7"
X-1147 ea. 3.00

BRASS WIRE SCREEN

3 Textures Available

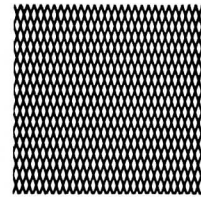
Fine mesh screen is often useful where expanded metal is too large or the wrong texture. Try it for spark arresters on logging locomotives or screen doors on buildings!

.025" Thick

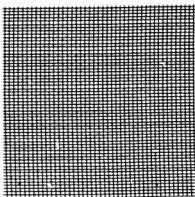


Raised Diamond
1/2 x 12
X-375 2 pcs. .75

.006" Thick

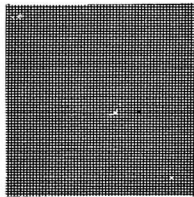


Open Grid (Etched thru)
3-3/4" x 10"
X-1146 ea. 5.00



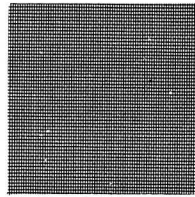
#60

4 x 6
X-1156 each 1.50



#70

4 x 6
X-1157 each 1.75



#80

4 x 6
X-1158 each 1.95

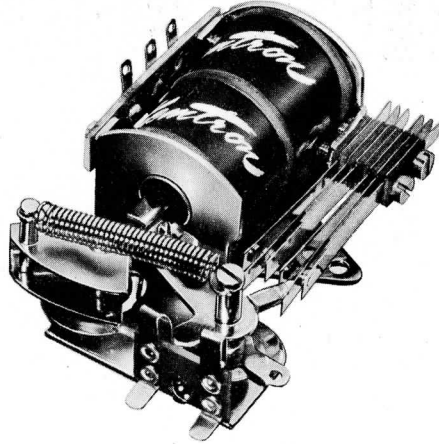
IF YOU CAN'T FIND WHAT YOU ARE LOOKING FOR
TRY THE INDEX!



In-built Quality

One of the
Finest SWITCH MACHINES

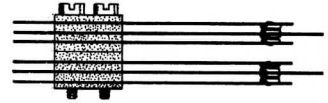
Ever offered to
Model Railroaders



- Kemtron's NEW X-250 Switch Machine is a
- superb product of electro mechanical engineering.
- Silver Contacts for long trouble free operation.
- 12 Volt DC or AC operation.
- Mounts over or under your layout.
- Two sets of contacts, PLUS POLARITY CONTROL

X-250 each 2.65

Kemtron CORPORATION
5755 E. Fountain Way Fresno, California 93727



EXTRA CONTACT BLADES
X-250 CB set .75

THE IDEAL "SWITCH MOTOR" FOR ALL SCALES!

● The diagram at the right is taken from the Instruction Sheet packaged with each switch machine. It explains the method of wiring for actuating the turnout, as well as the circuit for controlling an accessory device such as signals, panel indicator lights, etc. Note too, that the polarity control is automatic and electrical continuity is not dependent on the switch points. The "positive lock" feature holds the turnout firmly in either position.

The two sets of extra contacts, which make possible the accessory circuits, are standard features of the X-250, though NOT found in most other switch machines.

A top-quality product for dependable, trouble-free operation.

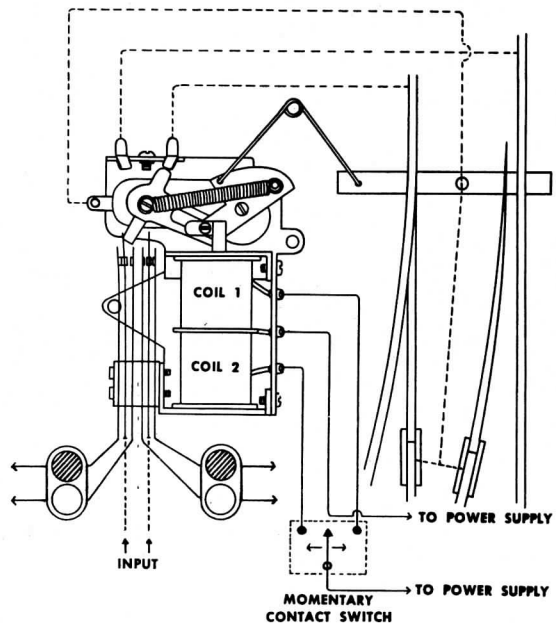
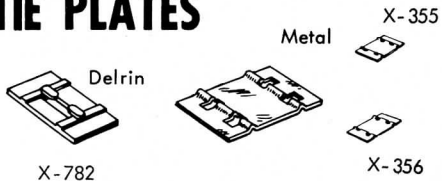


Fig. 1



TIE PLATES



Tie plates add a tremendous amount of realism to main-line track. Use them at strategic places on your layout especially at turnout locations. Tie plates help keep the track in proper gauge, too!

TIE PLATES

X-782 for Code 40 rail (Delrin)	.....	Approx 150 for	1.00
X-355 for Code 70 rail (Metal)	.....	100 for	1.00
X-356 for Code 100 rail (Metal)	.....	100 for	1.00
X-730 for Code 125 rail (Metal)	.....	100 for	1.00

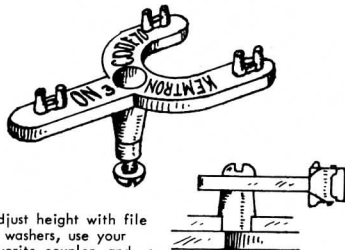


TIE PLATES (Code 172) Plastic

X-27 P 150 for 1.00

TRACK GAUGES

SHOWN UPSIDE DOWN



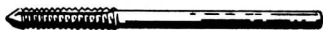
Adjust height with file or washers, use your favorite coupler, and you have a coupler-height gauge!

TRACK GAUGES

X-718	On3	Code 100	each	.75
X-719	On3	Code 125	each	.75
X-727	On3	Code 70	each	.75
X-725	O	Code 125	each	1.00
X-726	O	Code 172	each	1.00

These track gauges are made with a 3-point design which widens the gauge of the track on curves. They also serve the dual purpose of coupler height gauge as shown.

TAPS



Precision Taps in the small, hard-to-get sizes

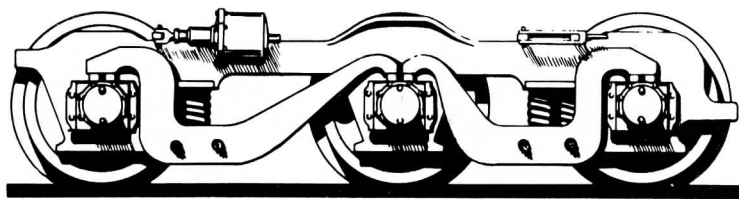
2-56 TAP		
1677	ea	.50
0-80 TAP		
1678	ea	.50

PRICES SUBJECT TO CHANGE WITHOUT NOTICE!

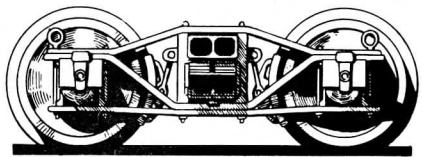


STANDARD GAUGE TRUCKS

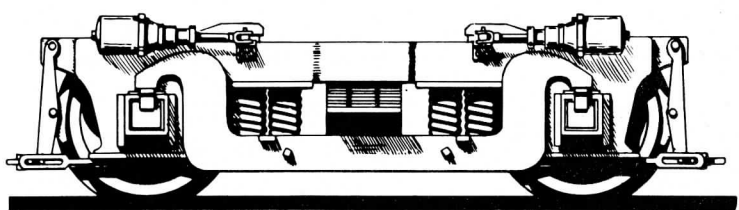
(ALL TRUCKS ARE IN KIT FORM)



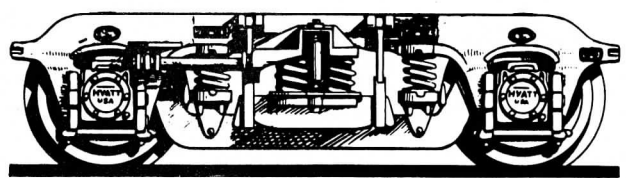
ALCO "RS" 6-WHEEL
40" Wheels 11'-6" W.B.
OA-30 pair 18.50



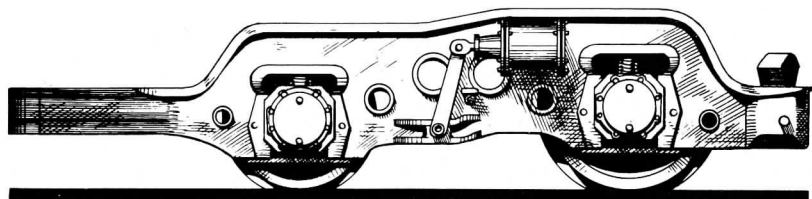
ARCH BAR TENDER (Wabash)
33" Wheels 5'-8" W.B.
X-1040 pair 6.35



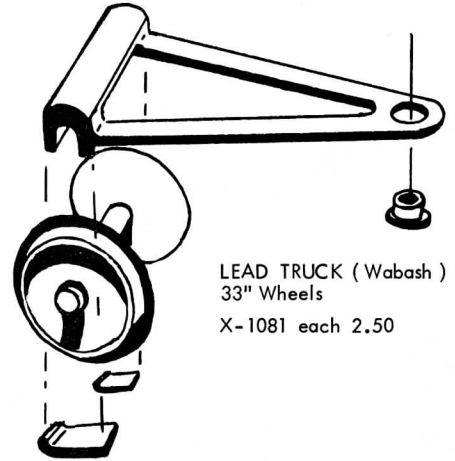
ALCO "RS" 4-WHEEL
40" Wheels 9'-3" W.B.
OA-25 pair 15.75



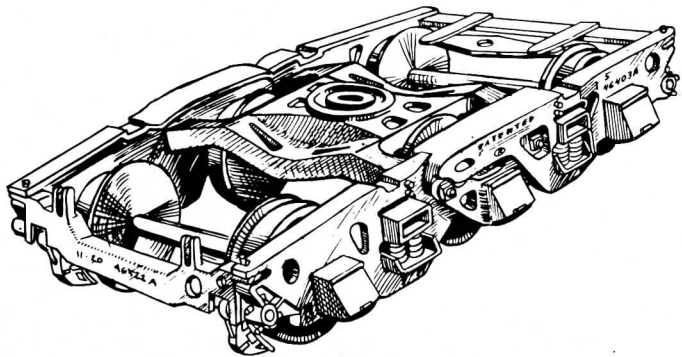
U.P. STREAMLINE PASSENGER
36" Wheels 9'-0" W.B.
(Sprung and equalized)
TK-300 pair 14.50
TK-300 A less wheels, pair 12.50



TRAILING TRUCK
33" and 40" wheels
7'-0" Wheelbase
X-70 each 7.50



LEAD TRUCK (Wabash)
33" Wheels
X-1081 each 2.50

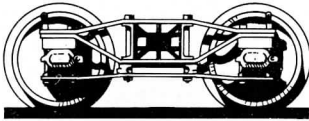


HEAVY DUTY BUCKEYE
33" Wheels 8'-9" W.B.
TK-301 pair 11.00

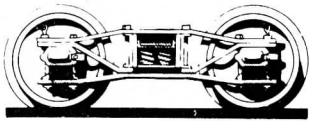


On3 TRUCKS

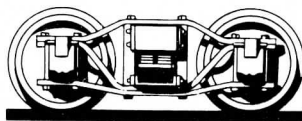
(ALL TRUCKS ARE IN KIT FORM)



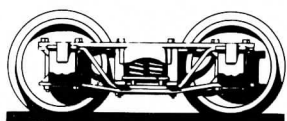
C-16 Modern (On3)
26" Wheels, 4'-0" W.B.
C-16-87 pair 4.85



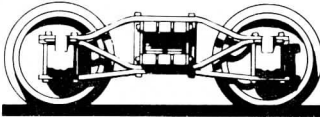
C-16 Original (On3)
26" Wheels, 4'-0" W.B.
C-16-44 pair 4.85



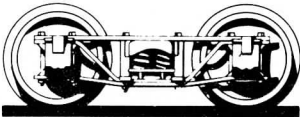
D & RGW TENDER
26" Wheels, 4'-0" W.B.
TK-475 pair 4.85



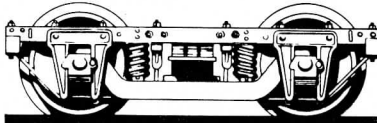
D & RGW SHORT ARCH BAR (On3)
26" Wheels 3'-7" W.B.
TK-479 pair 4.85



C & S TENDER (On3)
26" Wheels 4'-5" W.B.
TK-477 pair 4.85



D & RGW ARCH BAR (On3)
26" Wheels 4'-0" W.B.
TK-478 pair 4.85



PASSENGER CAR (On3)
26" Wheels 4'-9" W.B.
TK-476 pair 4.85



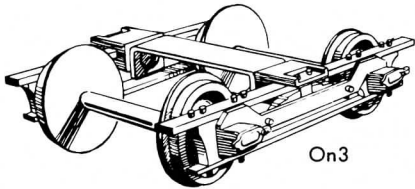
ANDREWS (On3)
26" Wheels, 4'-6" W.B.
TK-474 pair 4.85



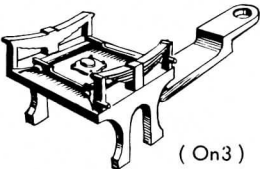
LIGHT ARCH BAR (On3)
20" Wheels 4'-0" W.B.
TK-481 pair 4.85



LIGHT ARCH BAR (On2)
20" Wheels 4'-0" W.B.
TK-482 A pair 4.85
TK-482 Side frames only 2.00

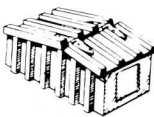


FORNEY TRAILING TRUCK
24" Wheels, 4'-0" W.B.
X-609 each 2.45
(Standard gauge)
X-610 each 2.45

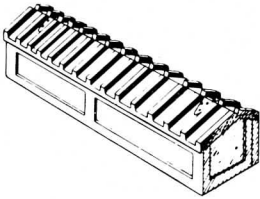


LEAD TRUCK (C-16)
24" Wheels
C-16-22 each 1.75

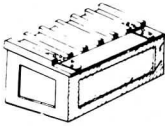
TENDER TOOL BOXES (C-16)



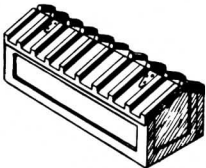
C-16-32 a each .75



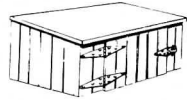
C-16-32-b each .75



C-16-32-c each .75



C-16-32-d each .75



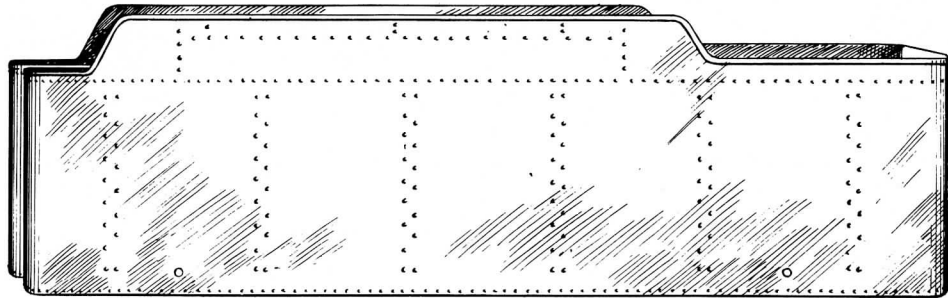
C-16-32-e each .75



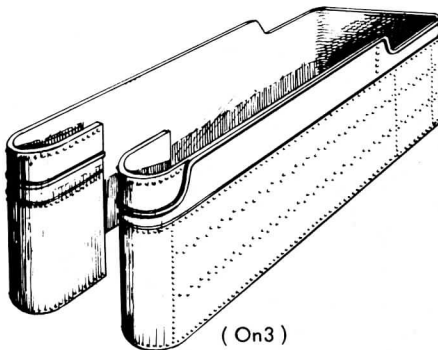
TENDER TANK TOP (Wabash)
X-1055 each 2.00



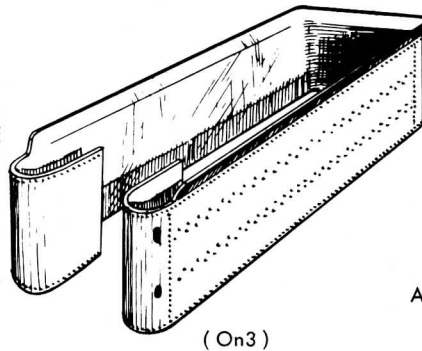
TENDER SHELL (Wabash)
X-1025 each 5.00



TENDER STAY
X-1048 pair .70



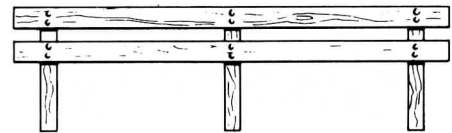
TENDER SHELL (Modern)
C-16-28 each 4.75



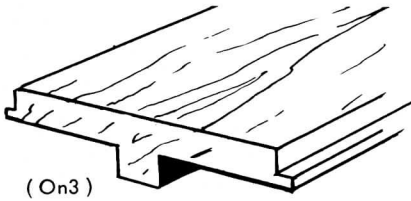
TENDER SHELL (C-16 Orig. & Inter.)
C-16-30 each 4.75

TENDER TANK TOPS
(C-16 Orig. & Inter.)
C-16-31 each 1.00
(C-16 Modern)
C-16-31 R each 1.00

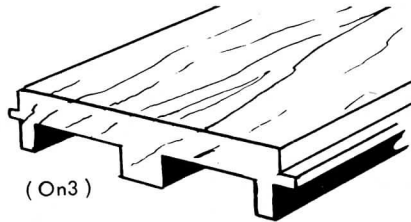
ALL PARTS BRASS UNLESS OTHERWISE STATED



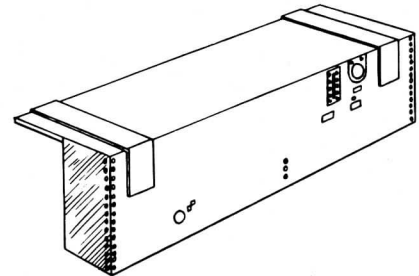
TENDER FENCE
X-105 pair 1.50



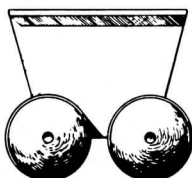
TENDER FLOOR (Wood) (Revised)
C-16-59 R each .75



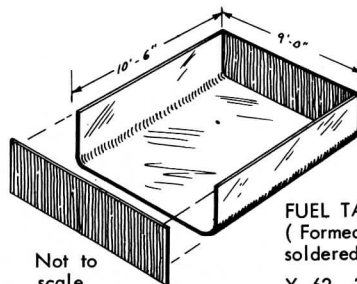
TENDER FLOOR (Wood) (Original)
C-16-59 each .75



WATER TANK (Alco "RS")
OA-38 pair 2.00
OA-40 Large for Santa Fe,
pair 2.50

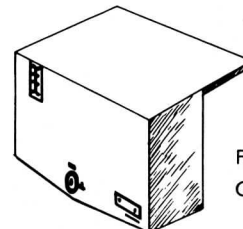


AIR TANK ENDS (GP-7)
X-61 pair 2.00



Not to scale

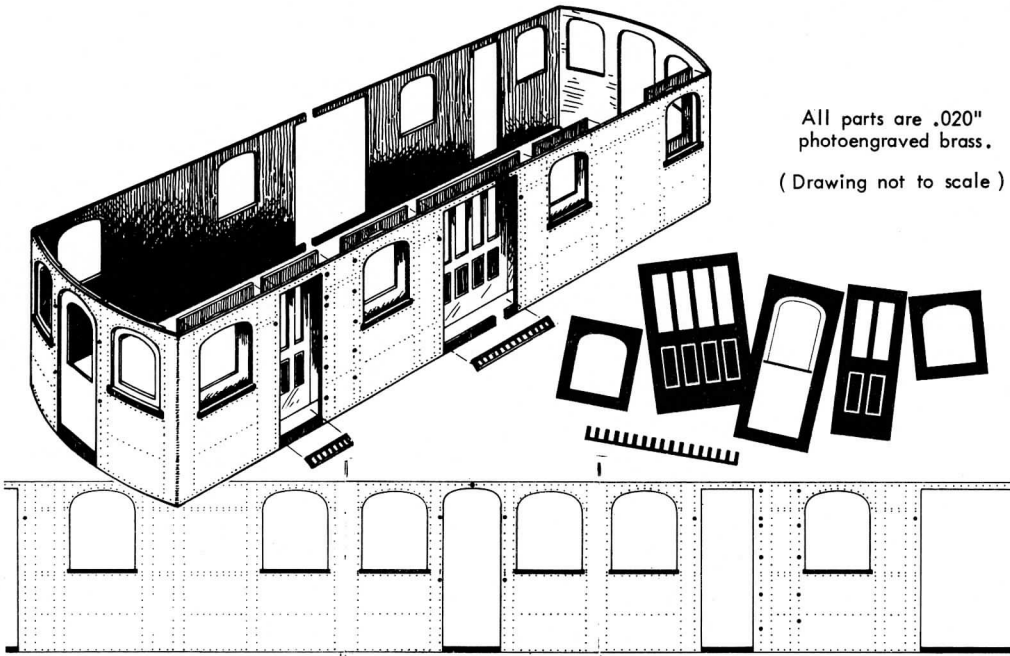
FUEL TANK (GP-7)
(Formed but must be
soldered and trimmed)
X-62 3 pc. kit 2.00



FUEL TANK
OA-37 pair 2.00



TRACTION (Continued)



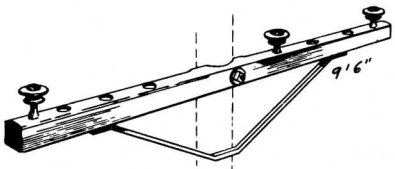
All parts are .020" photoengraved brass.
(Drawing not to scale)

SUPERSTRUCTURE for
ILLINOIS TERMINAL CO.
Class B or C Motor
X-960 set ... 10.00

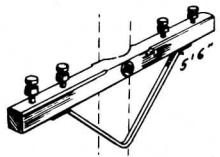
These parts are for the body shell, only,
as shown. All doors and windows included
but no roof or floor. Openings must be cut
out and forming done by the modeler



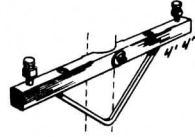
TRACTION (Continued)



LONG CROSS ARM
(High Voltage)
X-911 each .80



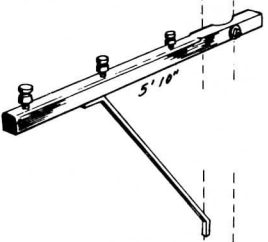
MEDIUM CROSS ARM
(Communication)
X-915 each .75



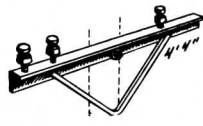
SHORT CROSS ARM
(High Voltage)
X-913 each .75



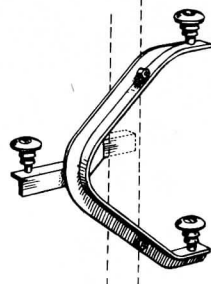
WESTERN UNION BRACKET
(Communication)
X-916 4 for 1.00



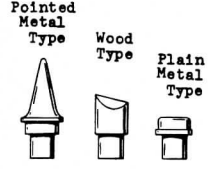
"ALLEY" TYPE CROSS ARM
(Communication)
X-914 each .75



ANGLE IRON CROSS ARM
(Feeder Lines)
X-912 each .75

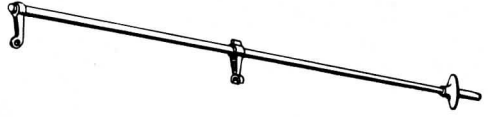


HUBBARD "Bo-Arrow" Type
(for High Voltage AC)
X-918 each 1.50



Pointed Metal Type Wood Type Plain Metal Type
X-931 X-932 X-933
POLE CAPS (Traction)
Any style, 6 for 1.50

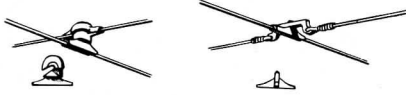
LINE POLE MATERIAL (Traction)
Brass tubing 3/16" O.D. x 9-1/2"
X-940 each25



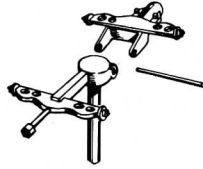
TROLLEY WIRE BRACKET
X-917 each .85



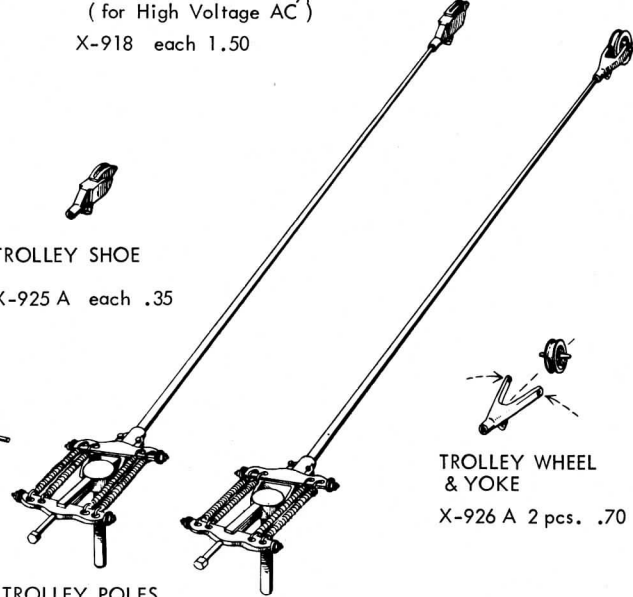
TROLLEY SHOE
X-925 A each .35



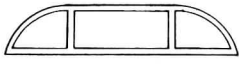
TROLLEY WIRE HANGERS
X-901 straight track, dozen 1.50
X-902 curved track, dozen 1.50



TROLLEY POLES
SHOE TYPE WHEEL TYPE
X-925 kit 1.95 X-926 kit 2.25



TROLLEY WHEEL & YOKE
X-926 A 2 pcs. .70



ARCH WINDOWS
(Clerestory)
X-946 A 6 for 2.00



AIR HORN
X-942 pair .50

Lost-wax castings in brass and beryllium copper. Full working, exquisite detail. Complete with springs and roof bushing. Exploded view shows assembly. Comes in kit form.



ROOF BUSHING
(Delrin)
X-950 4 for .95



HEADLIGHT
Ohio Traction
TR-12 ea. 1.00



ROOF VENT
X-947 8 for 1.00



ROOF VENT
X-948 6 for 1.00



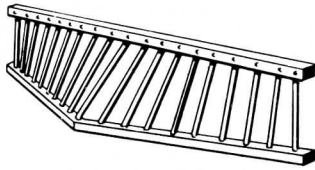
SMOKE JACK
X-949 6 for 1.00



TROLLEY RETRIEVER
X-924 each .60



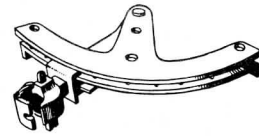
TRACTION (Continued)



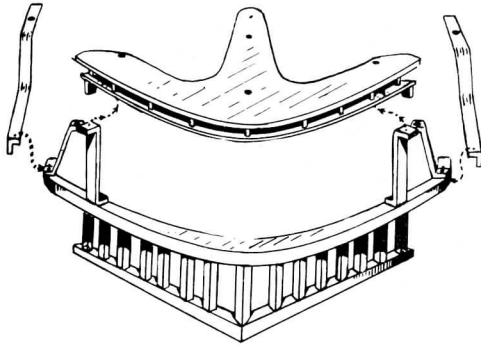
ILLINOIS TERMINAL (Traction)
(Truck-mounted type)
X-905 each 1.25



RADIUS BAR (Traction)
X-923 each 2.00



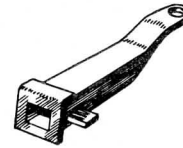
COMPLETE UNIT (Traction)
(Full operating)
X-930 Kit, 6 pcs. each 6.00



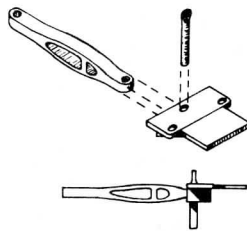
ILLINOIS TERMINAL (Traction)
(Use w/ X-923 Radius Bar as shown)
X-941 Pilot and braces only, set 2.00



"SHARON M.C.B." TRACTION
(Working Knuckle)
X-921 pair 1.70



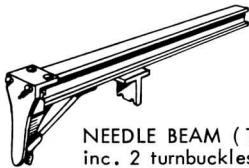
CARRIER (for X-921)
X-922 pair 1.25



LINK & PIN DRAWBAR
(Allows sharper curves)
X-944 6 pcs. 1.50



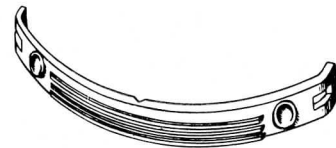
ANTI - CLIMBER (Hedley)
6" high, 7' span
X-903 each .65



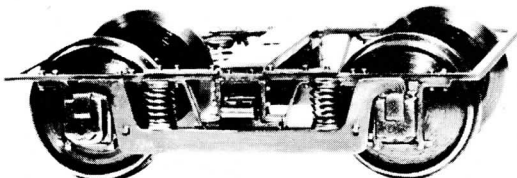
NEEDLE BEAM (Traction)
inc. 2 turnbuckles
X-906 4 pcs. 3.00



TURNBUCKLE
X-907 4 for .50



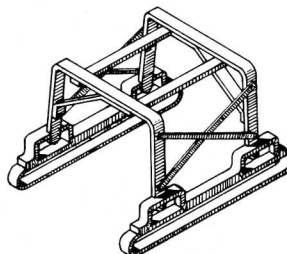
ANTI - CLIMBER (Ill. Term. Class C)
X-904 each 1.00



BALDWIN "MCB" INTERURBAN
36" Wheels 6'-6" W.B.

X-927 A less wheels, pair 6.00

This truck is fully sprung and equalized. It comes in kit form with journals shown in upper photo. Journal lids in lower photo are added by filing off original lids and soldering on X-908 old-style lids.



COMPRESSOR CARRIER
X-945 each 1.75

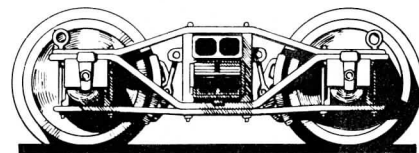


INTERURBAN
PASSENGER CAR STEPS
X-67 pair 1.70



JOURNAL BOX LID
(Old style)

X-908 8 for 1.50

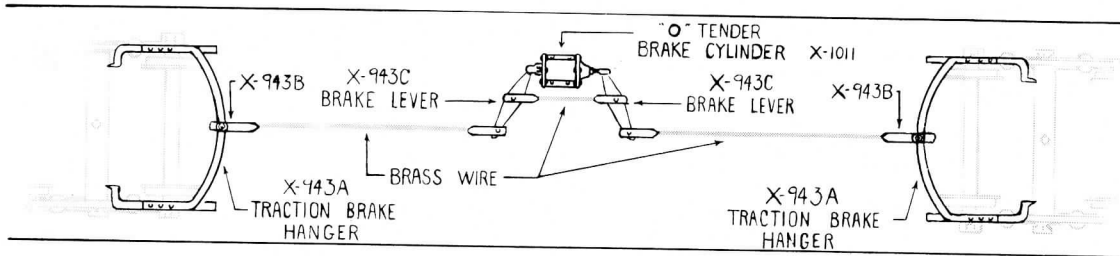
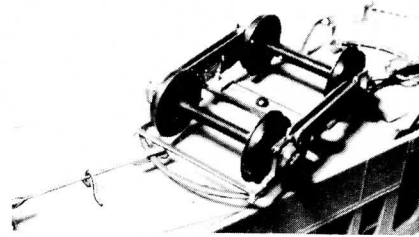
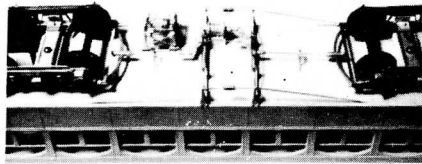


ARCH BAR TRUCK
33" Wh. 5'-8" W.B.
X-1040 pair 6.35

Many Interurban lines used cabooses, box cars, and other types of equipment with arch bar trucks.



TRACTION (Continued)



UNDERBODY DETAIL KIT

(For Trolley and Interurban Cars)

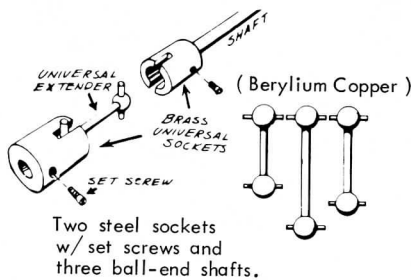
X-943 Complete kit 4.95

Parts may be ordered separately

- 2 X-943 A Brake hanger ea. 1.50
- 2 X-943 B Clevis ea. .35
- 2 X-943 C Brake lever...ea. .50
- 1 X-1011 Brake cyl. .. ea. .85
- 2 .025 x 6" Brass wire .. ea. .10



UNIVERSAL COUPLINGS



Two steel sockets w/ set screws and three ball-end shafts.

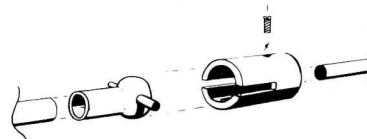
DOUBLE BALL JOINT SET
X-163 set complete 1.00



SINGLE BALL JOINT
w/ Flexible Tubing
X-291 set .85



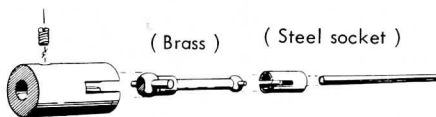
FLEXIBLE SPRING COUPLING
(fits 3/32" shaft)
X-1104 each .50



BALL JOINT NYLON SOCKET
X-1108 each .40 X-1107 each .55
X-1109 set of one each above .90
X-1110 set of 2 X-1108 and 3/32" shaft 1.00
X-1111 set of 2 X-1108, 2 X-1107 and 3/32" shaft 1.75



NEOPRENE TUBING
X-285 2 inches .15
(for 3/32 shaft)

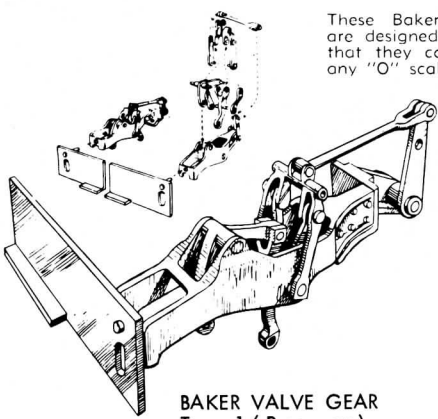


(Nylon socket)
DOUBLE BALL JOINT
w/ Steel Shaft
M-61 set 1.35

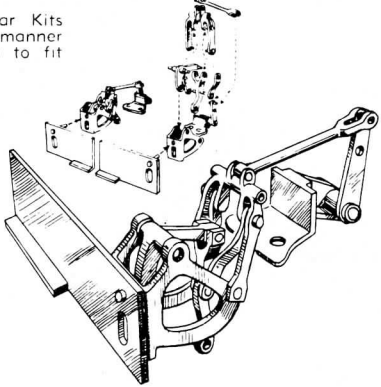


VALVE GEAR

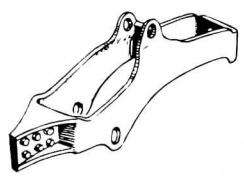
These Baker Valve Gear Kits are designed in such a manner that they can be made to fit any "O" scale loco.



BAKER VALVE GEAR
Type 1 (Passenger)
X-73 kit 6.50



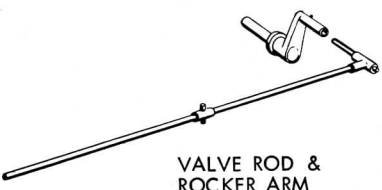
BAKER VALVE GEAR
Type 2 (Freight)
X-68 kit 6.50



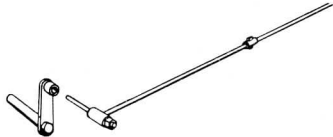
VALVE GEAR FRAME
Baker type
X-92 pair 1.00



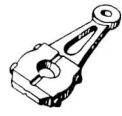
WALSCHERTS LINK
X-91 pair 1.00



VALVE ROD &
ROCKER ARM
(Wabash)
X-1061 4 pcs. 3.00



VALVE ROD &
ROCKER ARM
C-16-75 4 pcs. 3.00



ECCENTRIC CRANK
X-93 pair .70



PIPE w/ VALVE
X-361 each .35

VALVES



POP VALVE
X-28 pair .50



TURRET VALVE
C-16-70 pair 1.30



WATER VALVE
C-16-46 pair .50



BRAKE VALVE (C-16)
C-16-71 each .65



SMALL VALVE
X-248 4 for .50



RELIEF VALVE (Cyl.)
X-1068 pair .85



← TWICE the actual size and you still can't see all the detail.



X-98 X-99 X-100
X-98 pair .75
X-99 pair .50
X-100 pair .75



GLOBE VALVE
w/ hole thru
X-295 each .40



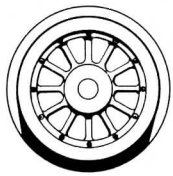
VALVE WHEELS
X-652 6 for .90
(Plastic)
X-652 P doz .90



DRAIN COCK
X-1014 pr. .75

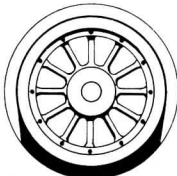


UNMACHINED CASTINGS



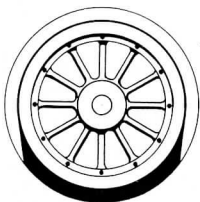
33"

X-351 pair 1.20



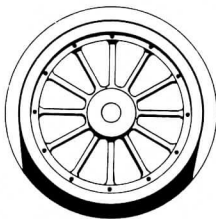
36"

X-352 pair 1.20



40"

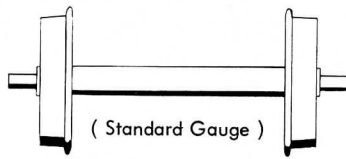
X-353 pair 1.50



45"

X-354 pair 1.60

WHEEL SETS (Solid)



(Standard Gauge)

BLUNT AXLES

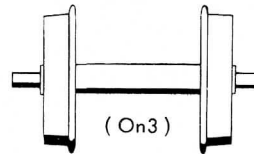
- WA-203 33" each .60
- WA-204 36" each .60
- WA-205 40" each .60
- WA-221 26" each .60
- WA-222 24" each .60

FLUSH AXLES

- WA-209 24" each .60
- WA-220 26" each .60

X-1094 33" each .60
(Wabash lead truck)

WHEEL SETS (Solid)

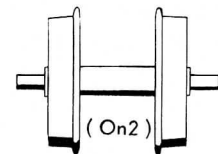


(On3)

BLUNT AXLES

- WA-210 24" each .60
- WA-211 26" each .60
- WA-213 20" each .60

WHEEL SETS (Solid)



(On2)

BLUNT AXLES

WA-214 20" each .60

ALL WHEEL SETS ARE STEEL

"GALLOPING GOOSE" WHEELS
(R.G.S. - On3)

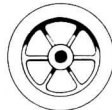
Centers only, Unmachined



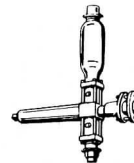
FRONT
X-137 pair 1.00



POWER TRUCK
X-138 pair 1.00



REAR
X-139 pair 1.00



CROSSHEAD WATER PUMP
X-621 each .85



WASH - OUT PLUGS

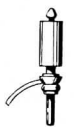
- X-345 Standard
 - X-346 Small
 - X-357 No Flange
- Any style, 6 for .60



WRENCHES (Hex Socket)

- X-233 3/32" each .50
- X-234 5/64" each .50

WHISTLES



X-89 each .85



X-90 each .85



C-16-76 each .85



WHISTLE LUBRICATOR

Set of brass turnings for C.P. Huntington
X-445 18 pcs. 1.00

6 of each



CHIME WHISTLES
(4 different mounting
positions on dome)



X-337 Top X-480 Left X-481 Rear X-1075 Right
(Wabash)

Any style, each .85

See SECTION "B" for BRASS WIRE
See SECTION "F" for FLEXIBLE WIRE
See SECTION "G" for WORMS



The "SCRATCH BUILDER'S LIBRARY" of

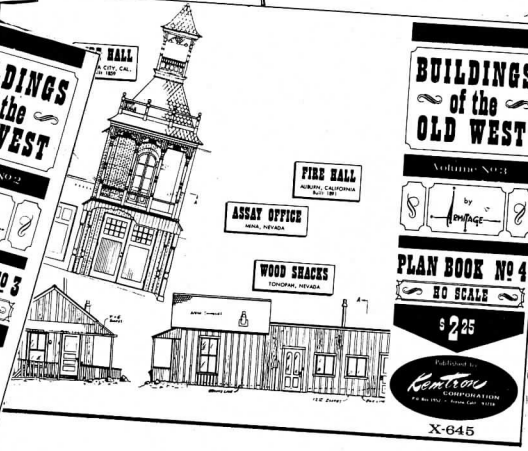
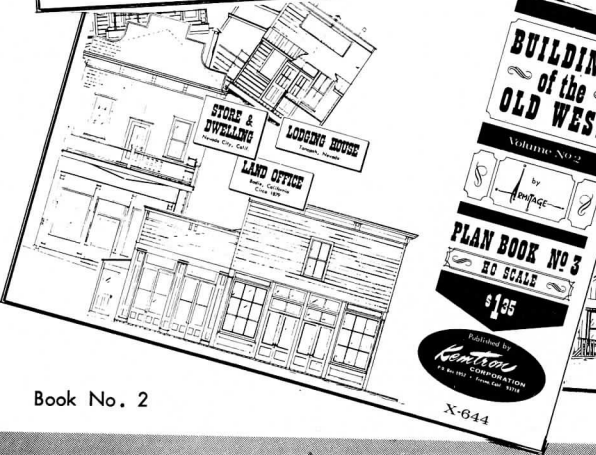
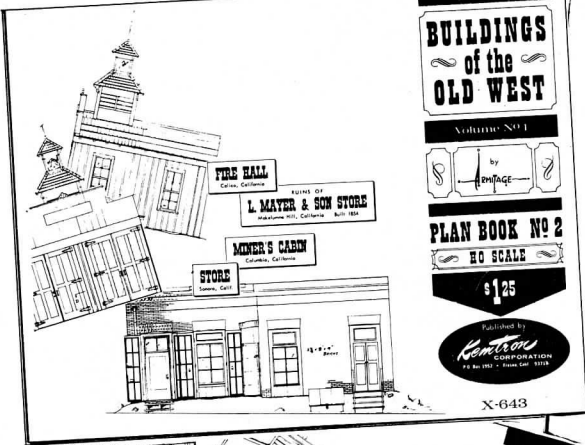
PLAN BOOKS

by AL ARMITAGE

This expanding series features scale drawings of a wide variety of authentic buildings, carefully chosen from the author's files for their adaptability to railroad modeling. You'll find structures to fit into almost any era, or "period", as well as all sorts of scenic arrangements. The latest additions to the series offer hard-to-get data on donkey engines and logging cars for the logging railroad fan. Future books will cover such items as wagons, trucks, and other vehicles.

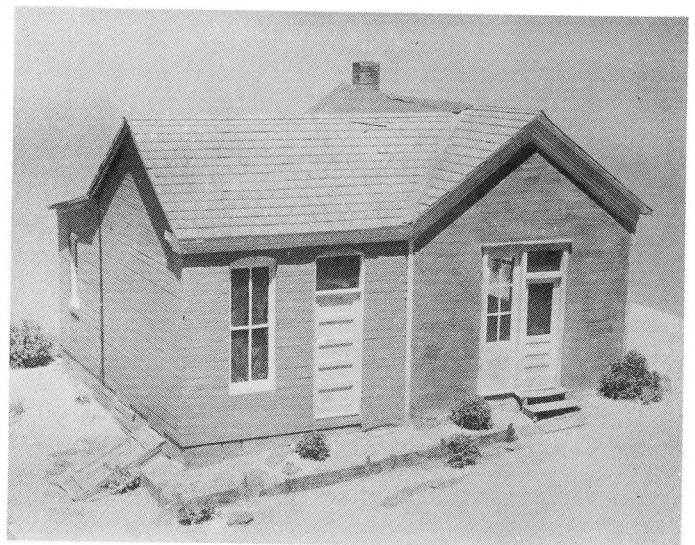
Each plan includes photos of the prototype as well as pertinent data and a brief history of the subject. Some Plan Books contain several structures, or pieces of equipment, while others are limited to an extensive coverage of one subject of complex nature.

All books are loose-leaf, printed on one side only. Pages are numerically indexed and packaged in a protective envelope...ready for insertion in your own binder.



Book No. 2

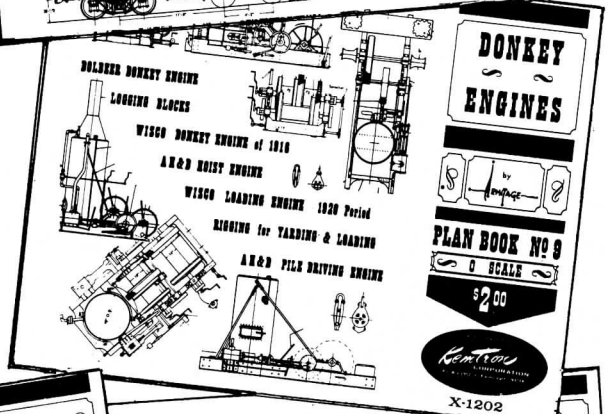
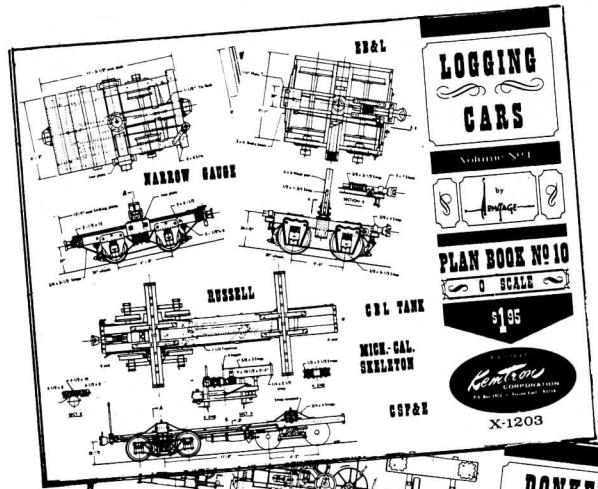
Book No. 7





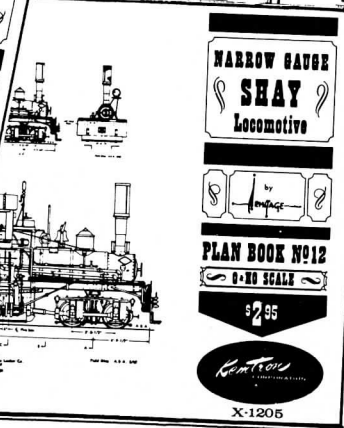
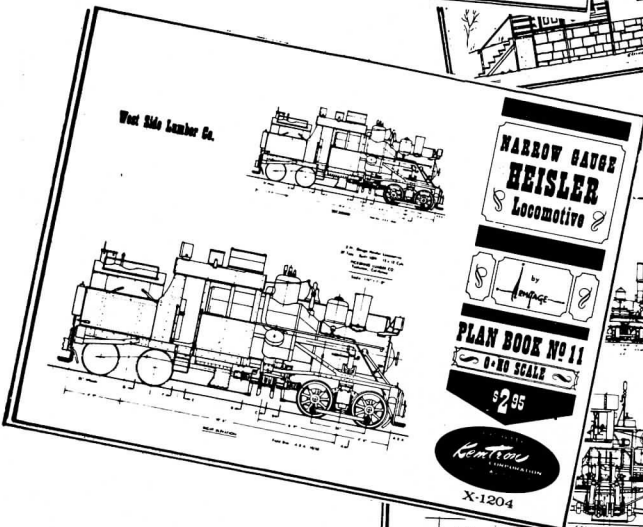
AVAILABLE NOW! 13 BOOKS!!

- No. 1 X-600 Railroad Structures, Vol. 1 2.25
- No. 2 X-643 Buildings of the Old West, Vol. 1 ... 1.50
- No. 3 X-644 Buildings of the Old West, Vol. 2 ... 1.50
- No. 4 X-645 Buildings of the Old West, Vol. 3 ... 2.25
- No. 5 X-646 J. S. Cain Residence, Bodie, Calif. ... 2.50
- No. 6 X-647 Sacramento Dwelling 1.50
- No. 7 X-648 Brick Dwellings, Eureka, Nev. 1.75
- No. 8 X-649 Churches 2.25
- No. 9 X-1202 Donkey Engines 2.25
- No. 10 X-1203 Logging Cars 1.95
- No. 11 X-1204 Heisler Locomotive (3ft. gauge) 2.95
- No. 12 X-1205 Shay Locomotive (3ft. gauge) 2.95
- No. 13 X-1206 Climax Locomotive (Standard gauge) 3.25



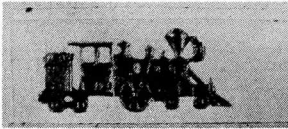
MORE COMING!!!!

Published by

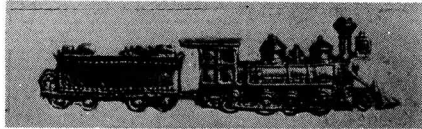




JEWELRY & DECORATIVE ITEMS



C. P. HUNTINGTON



MONTEZUMA

Beautiful, intricate detail in STERLING SILVER!

Make: Cuff links, Tie pins, Earrings, Lapel pins.

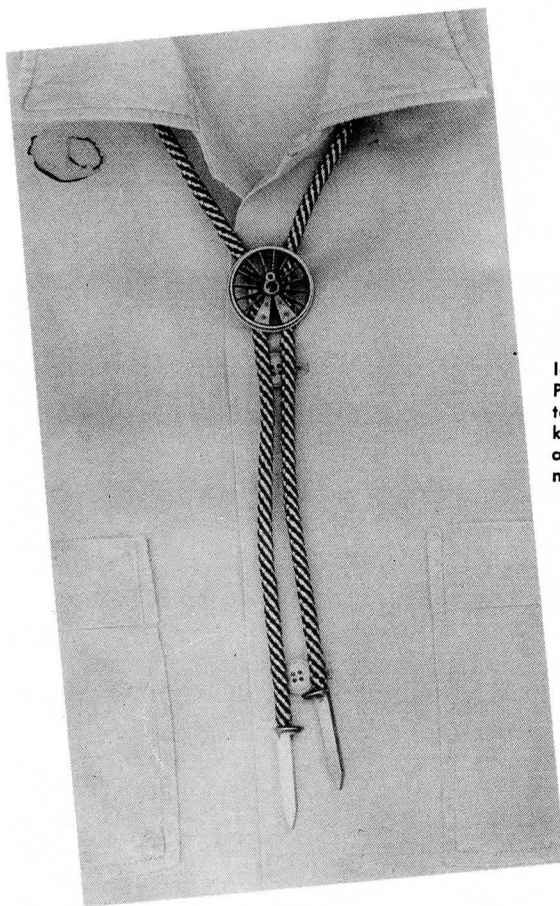
Decorate: Letter openers, Money clips, Belt buckles.

C. P. Huntington

- JY-106 Sterling (Casting only) ea. 2.00
- JY-107 Brass (Casting only) ea. .85
- JY-108 Sterling w/Tie clip ea. 2.35
- JY-109 Brass w/Tie clip ea. 1.25

Montezuma

- JY-104 Sterling w/Tie clip ea. 2.35
- JY-105 Brass w/Tie clip ea. 1.25



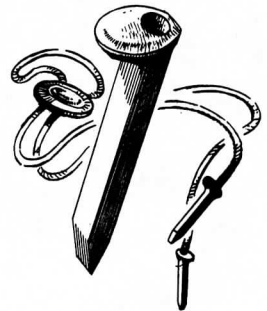
BOLO TIES

IN THE RAILROAD MOOD!

Ideal gift.
Perfect way
to let others
know that you
are a fellow
model railroader



Brass Bolo-Tie Spikes



You can use these brass spikes on any BOLO TIE. Remove old ones and cement in place. Holes provided.

X-692 Spikes pr. 1.00

Bolo tie with boiler front and number plate. Brass!

X-200 complete kit ea. 1.95

Bolo tie complete with old style driver, cord, and spikes. Cast in brass.

JY-102 complete kit ea. 2.75

Depending on the facilities at your disposal, there are several types of "finish" you may choose for any of the brass, or silver, jewelry items on these pages.

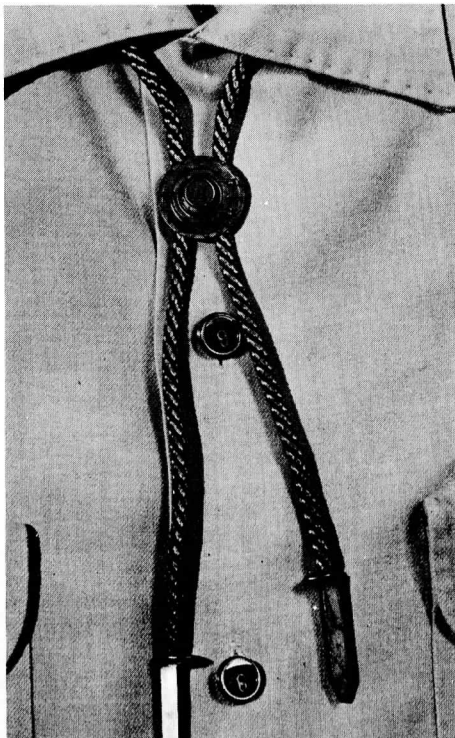
- 1 Sandblasting with fine grit - for a "Satin sheen".
- 2 Powered wire wheel - for brushed effect.
- 3 Buffing with rouge - for high polish.
- 4 Plating - Chrome, Nickel, Gold, Silver, etc.
- 5 Painting to represent prototype.

Plating is only as good as the surface under it! If you wish a highly polished chrome, for instance, you must put a high polish on the brass. After blasting, brushing, or buffing, we suggest you coat the piece with clear laquer to prevent oxidation. Care should be exercised in brushing, or buffing, so as not to obliterate fine detail.



JEWELRY & DECORATIVE ITEMS

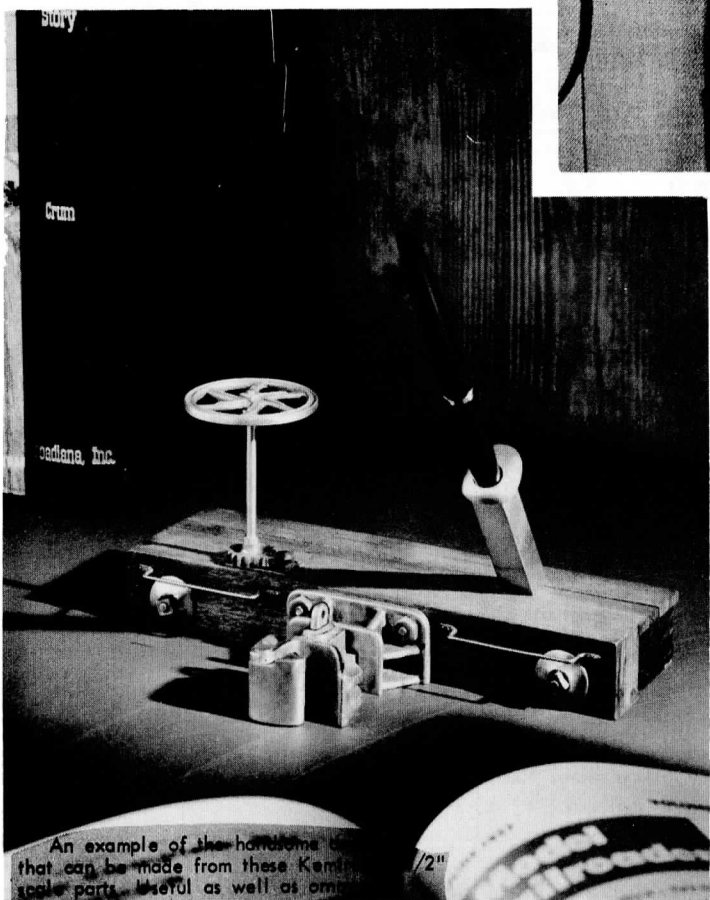
DESIGNED
 ESPECIALLY
 FOR MODEL
 RAILROADERS !



Note: All buttons have provision for sewing to shirt or coat.

"DRIVER" BUTTONS

- Cast of BRASS
 X-466 For shirts set of 6 1.95
 X-467 For coats set of 4 1.95
- Cast of SILVER
 X-448 For shirts set of 6 4.25
 X-449 For coats set of 4 4.25



An example of the handsome that can be made from these Kern scale parts. Useful as well as ornamental.

- Parts available in kit form:
- X-680 Brake wheel..... ea. 2.25
 - X-681 Brake ratchet..... ea. 1.00
 - X-682 Ratchet pawl..... ea. .40
 - X-683 Ratchet base plate..... ea. .60
 - X-684 Nut, Bolt, Washer casting pr. 1.00
 - X-685 Coupler pocket ea. 3.00
 - X-686 Coupler ea. 3.00
- (Spike is not available)
- X-687 Complete kit ea. 9.95



The most unique tie clip ever offered for railfans! Impressive and "different". In kit form.

X-335 complete ea. 4.95



JEWELRY & DECORATIVE ITEMS

Kemtron **BELL**

1" SCALE and 1-1/2" SCALE

A scaled-down miniature of the Baldwin locomotive bell that is a superb example of the model makers' art. Crafted in Brass!

Supplied in kit form, it can be polished completely or can be painted like the real thing. A "conversation piece" for the Railroad den or office. An ideal gift for your favorite railfan!

Here are but a few of the many uses for these large-scale bells!



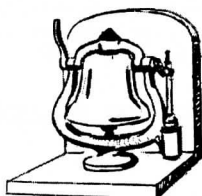
DESK LAMPS



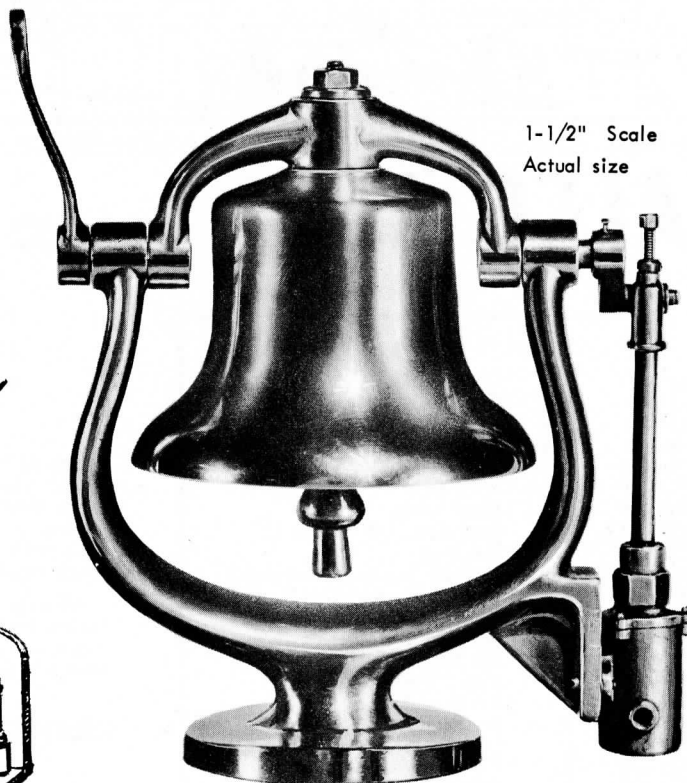
PEN SET



DESK PIECE

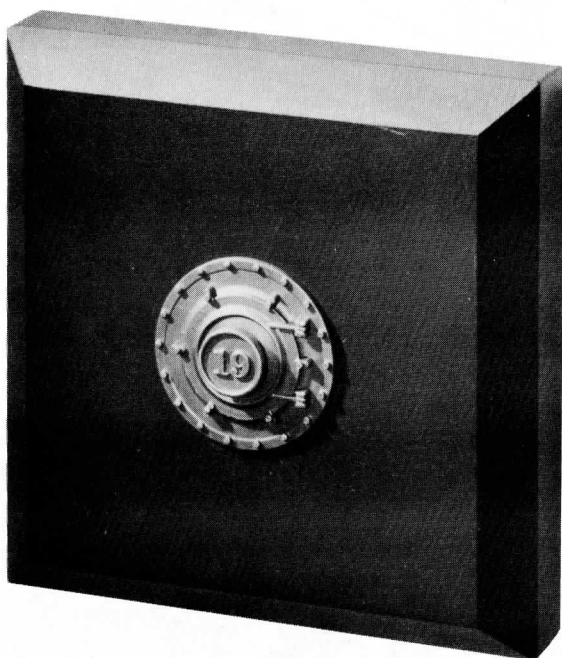


BOOK ENDS



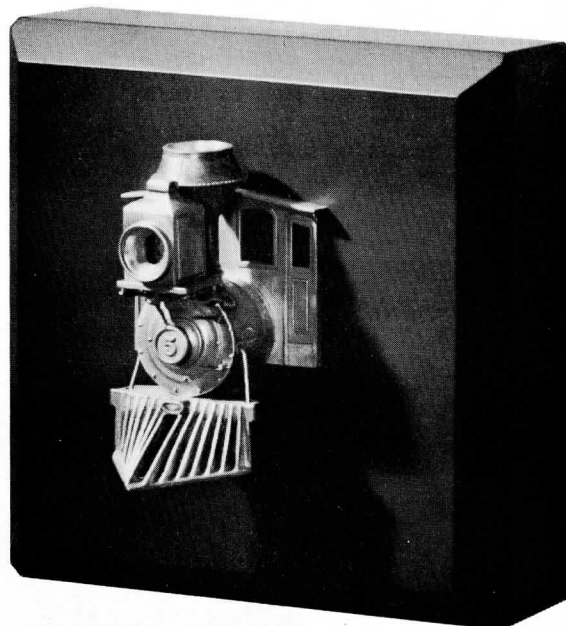
1-1/2" Scale
Actual size

X-1115 One and one half inch scale ea. 17.50
B-1000 One inch scale ea. 12.95



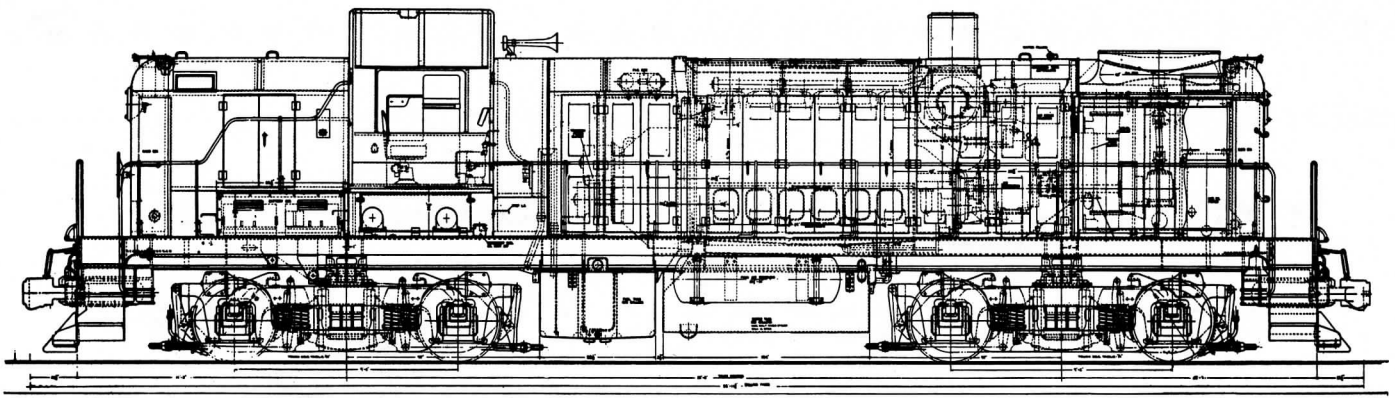
BOILER FRONT WALL PLAQUE
(Wood is not furnished)

X-691 Brass castings set 1.25



LOCOMOTIVE WALL PLAQUE
(Wood is not furnished)

X-690 Brass castings. set 4.75



ALCO 'RS' DIESEL ROAD SWITCHER IN O SCALE

PARTS LIST		
OA-10	1	Superstructure (Hoods)
OA-11	1	Cab
OA-14	1 pr	Radiator Shutters
OA-15	2 pr	Number Boards
OA-16	2 pr	Marker lights
OA-17	1 pr	Hood Ends
OA-18	1	Main Frame
OA-18 A	2	Brass Bars, 1/8 x 3/8 x 12
OA-23	1	Fan Ring
OA-25	1 pr	4 wheel Trucks (OA-1 only)
OA-30	1 pr	6 wheel Trucks (OA-2 only)
OA-32 FR	1 set	Handrail Stanchions (4 pcs.)
OA-32 S	1 set	Handrail Stanchions (22 pcs.)
OA-33	2	Air Horns
OA-34	1	Vent (Stack)
OA-35	1	3 bladed Fan
OA-36	2	Air Reservoirs
OA-37	2	Fuel Tanks (OA-1 only)
OA-38	2	Water Tanks (OA-1 only)
OA-39 A	1	Battery Box (Left)
OA-39 B	1	Battery Box (Right)
OA-40	2	Water Tank, Large (OA-2 only)
OA-41	1	Fan Screen
OA-42	1	Stack (Steam Generator)
OA-43	2	Insulating Bolsters
OA-44	2	Couplers (Dummy)
OA-46	1	Vent
OA-47	1	Vent
OA-48	1	Vent
#12	2	Pilots w/ steps
#12 S	2	Pilot Skirts
X-131	2	Coupler Pockets
5 pcs.	5 pcs	Handrail Wire (.025 x 12)
	1 pc	Handrail Wire (.020 x 12)
	2	Wood Blocks
	16	Assorted Screws
		Instructions

OA-1 w/4 wheel Trucks, Complete Kit, each 75.00

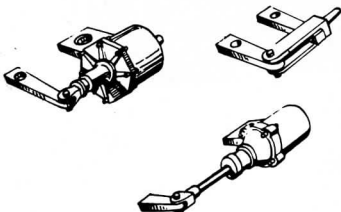
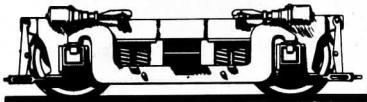
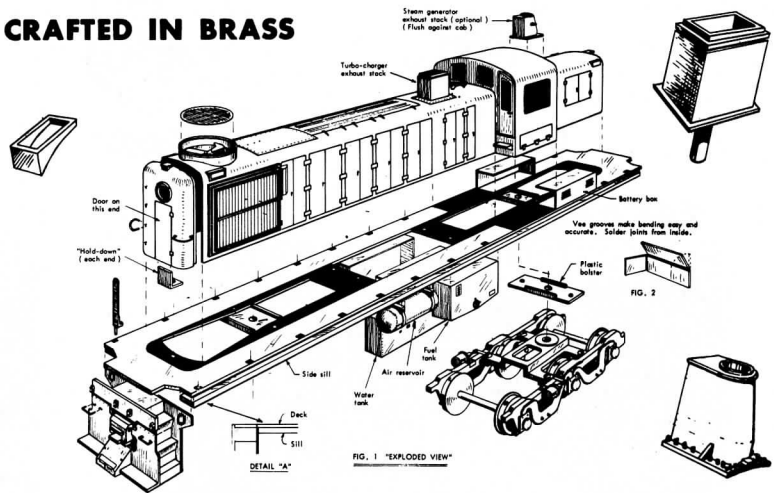
OA-2 w/6 wheel Trucks, Complete Kit, each 80.00

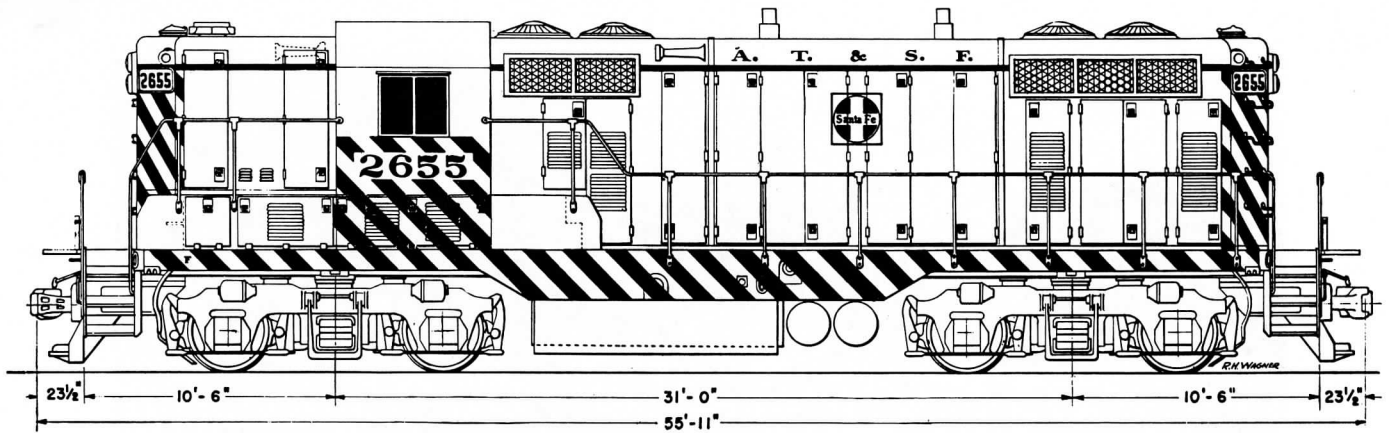
NOTE: Dummy trucks only and motor is not included)

One of the most popular diesels ever built! Nearly every railroad in the country used them in both main line and branch line service. Many variations existed in this "standard" design depending on the road and the type of service. Kemtron's kit provides the main parts necessary to construct the basic "RS" locomotive, with either four or six wheel trucks, plus much of the detail found on most of the models from the RS-1 to the later RSD-4 types.

Although this is a non-powered model, provision is made so a motor and geared trucks can be installed, if desired. Kit is a combination of photo-engraved hoods, tanks, etc., and sharply detailed lost wax castings. Assembly instructions with each kit.

CRAFTED IN BRASS





EMD GP-7 DIESEL ROAD SWITCHER

IN O SCALE

PARTS LIST

X-43	1	Main Frame
X-44	2	Side Frames
X-45	2	Cab Bases
X-46	2	Hood Ends
X-47	2	Sand Hatches
X-48	2	Cab Ends
X-49	2	Cab Sides
X-50	1	Cab Roof
X-51	1 set	Superstructure (Hoods)
X-52	1 set	Detailing Parts (Etchings)
X-53	4	Screens
X-54	2	Air Horns
X-55	2	Exhaust Stacks (Type A)
X-56	1	Exhaust Stack (Type B)
X-57	4	Fan Guards
X-58	24	Handrail Stanchions (Type A)
X-59	4	Handrail Stanchions (Type B)
X-60	1 pr	Trucks (Dummy)
X-61	2	Air Tank Ends
X-62	1	Fuel Tank (Kit)
X-125	2	Couplers (Dummy)
X-324	2	Air Tank Pipes
X-327	2	Air Hose w/ Fittings
#22	2	Pilots
#22 S	2	Pilot Steps
OA-43	2	Insulating Bolsters
	2	Wood Blocks
	4	2-56 x 1/2" Fil. Hd. Screws
	3	2-56 x 3/8" RH Screws
	4	2-56 Hex Nuts
	3	#2 x 3/8" RH Wood Screws
	5 pcs	.025 x 12" Brass Wire
	1 pc	.063 x 9/16 x 2-3/16" Brass
		Instructions

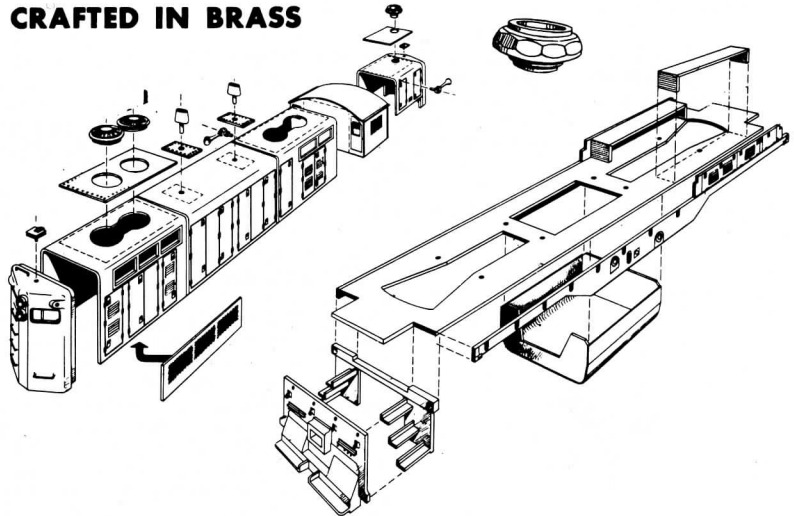
GP-7 Complete Kit, each 75.00

NOTE: Dummy trucks only and motor is not included)

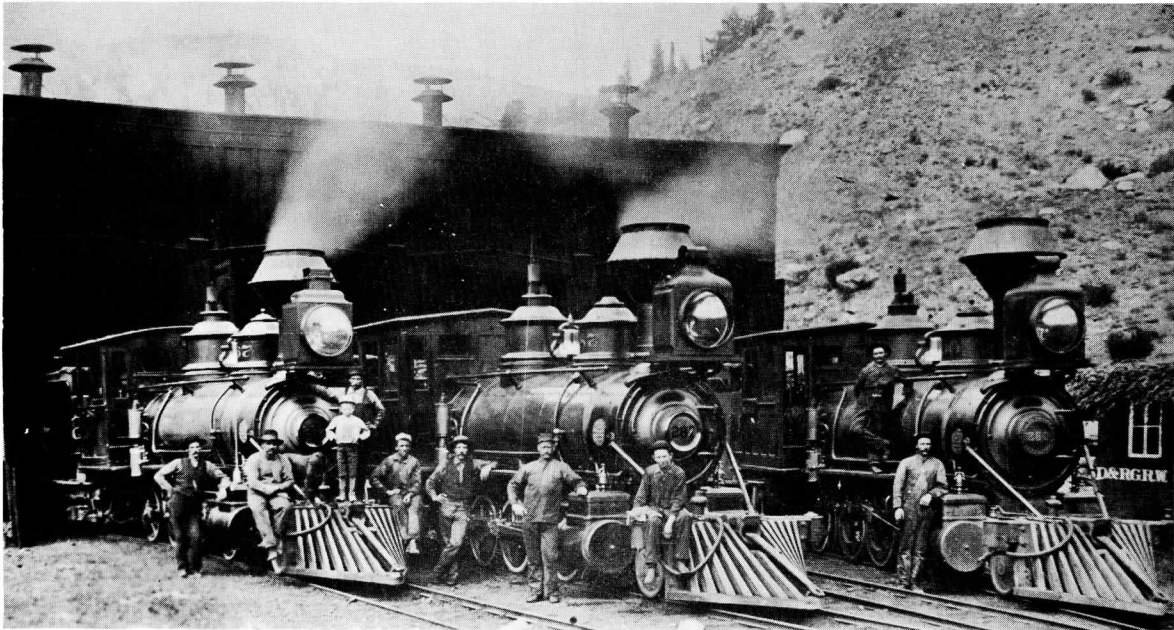
The famous "Geep", Electromotive's general purpose power package! Used in all types of service by many of the nation's carriers. Can be built with numerous variations in detail such as extra headlights, dynamic brake housing, etc. Kit provides all standard parts in highly detailed photoengravings and superlative lost wax castings.

A non-powered model with provision for installing your choice of motor and drive trucks if you wish. Assembly instructions included with each kit.

CRAFTED IN BRASS



(Not included in kit)



D & RGW CLASS C-16

NARROW GAUGE

CONSOLIDATION IN

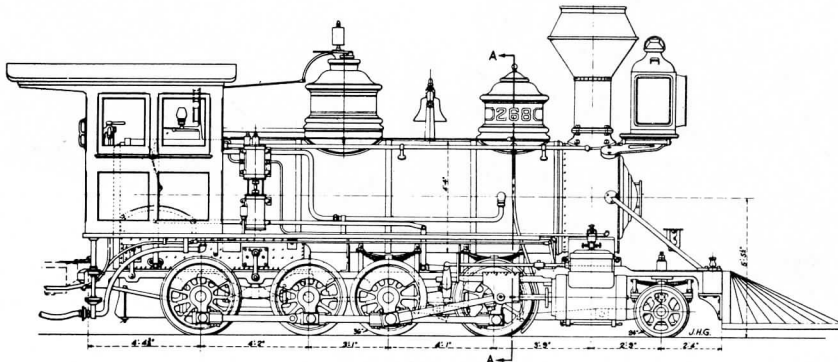
On3

First built in 1873, the C-16 Class "Consolidation" locomotives soon formed the bulk of the D & RGW narrow gauge motive power. In 1882, the road had in service 128 Baldwin-built engines, plus 28 more delivered by the Grant Locomotive Works. Considered "standard" heavy power, the C-16's worked the far-flung lines of the slim gauge empire for many years. When the Rio Grande changed part of its trackage to standard gauge, in 1889, many of these little engines were sold to other narrow gauge roads. A C-16 still pulls the "Silverton" train out of Durango, Colorado, during the summer months, and a couple of others are in regular service at Knott's Berry Farm near Los Angeles, California.

THREE
VERSIONS
AVAILABLE!

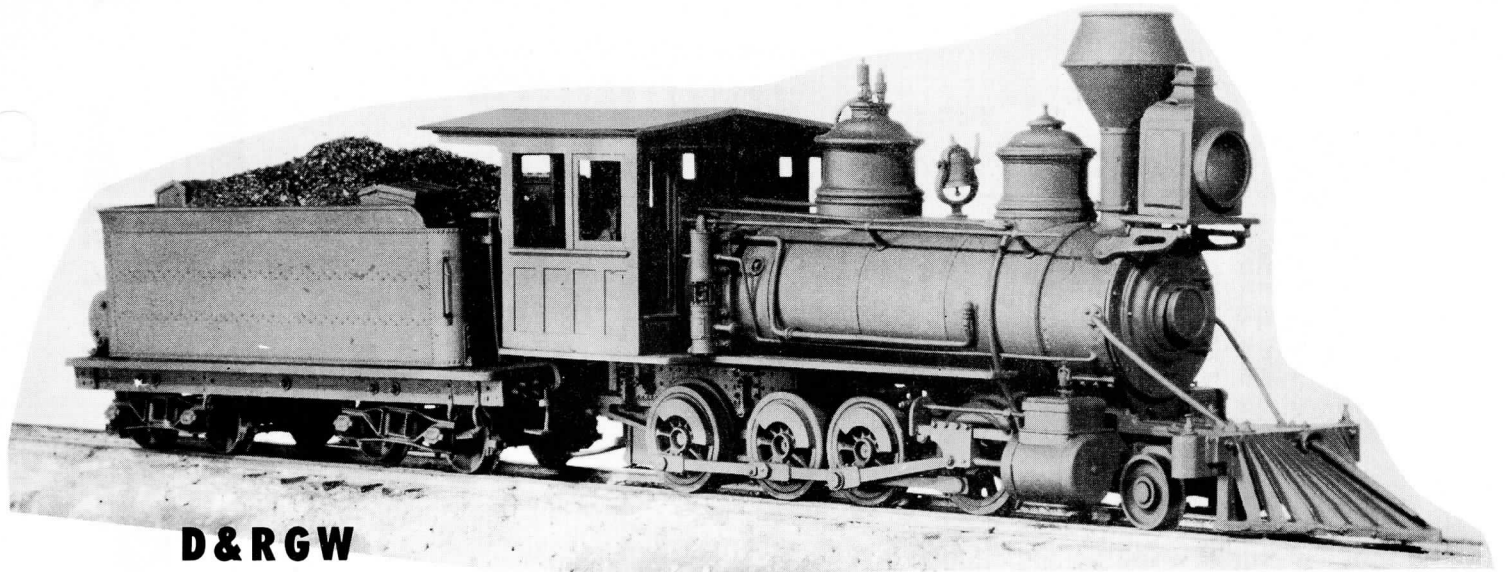


Kemtron has reproduced the fabled C-16 with fantastic fidelity to detail. Years of researching the prototype and developing the master patterns, and dies, for the exquisite investment castings make this one of the most authentic models ever offered to the railroad hobbyist. We offer our C-16 kit in three different versions so that you may build your model to suit whatever period in the Rio Grande's long, and colorful, history may appeal to you. The "Original", of course, closely follows the builder's design for the Class, having been developed from actual drawings of the prototype. However, as in the case of most motive power, changes in detail and construction occur in the course of a given locomotive's life span. Accessories are often relocated, new ones added and, should the engine be involved in a wreck, for instance, a new boiler and a different style cab might be applied, changing its appearance considerably. Then, too, engines were up-graded, from time to time, with the latest advances in design which, also, altered their looks somewhat. Our "Intermediate" kit is typical of such modification, with room for further change if you so desire. The "Modern" version represents the later development of the C-16 from wood burner to coal burner with larger pumps, automatic couplers, and Alligator crossheads, to name a few of the modifications. Enough parts are available to build almost any variation, from the earliest to the latest, with a fair degree of accuracy. Truly, a most remarkable contribution to the field of narrow gauge modeling! See the following pages for listings of kits and parts.



SCRATCH-BUILDERS NOTE!

If you would like to design a free-lance loco, similar to the C-16, for your own railroad, you will find the Parts Listings of invaluable aid in determining the items you will require. All are available, separately, as packaged and listed in the parts section of this catalog, along with a number of other items useful to the scratch-builder.



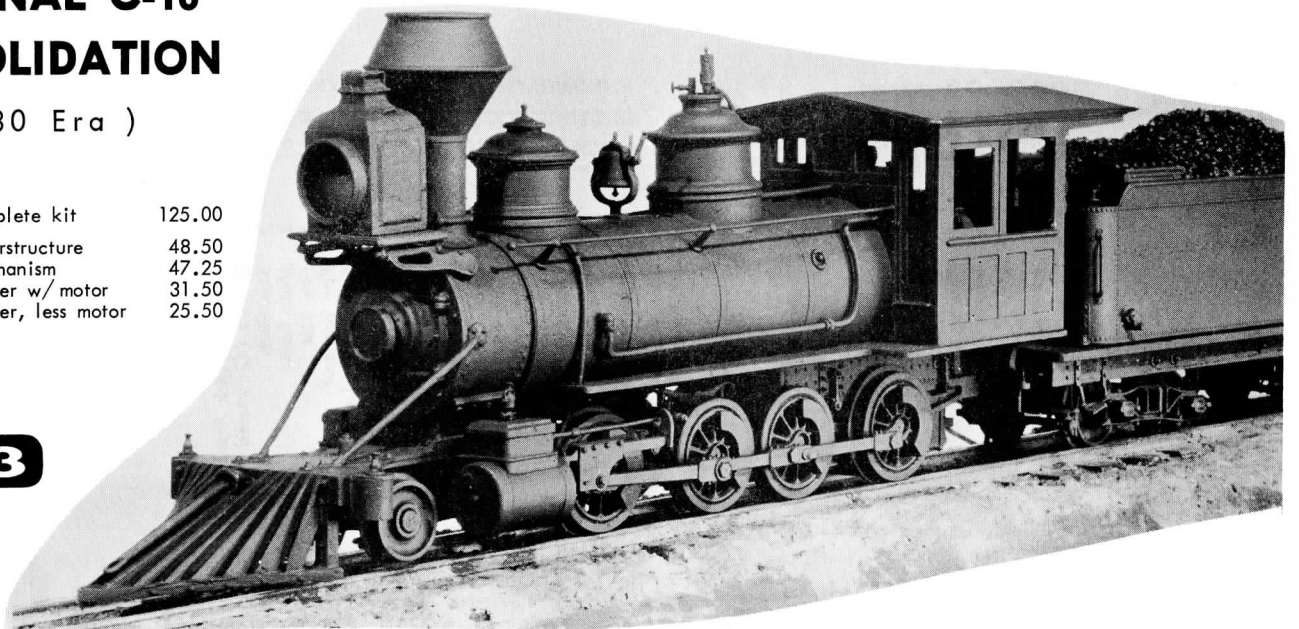
D & R G W

**'ORIGINAL' C-16
CONSOLIDATION**

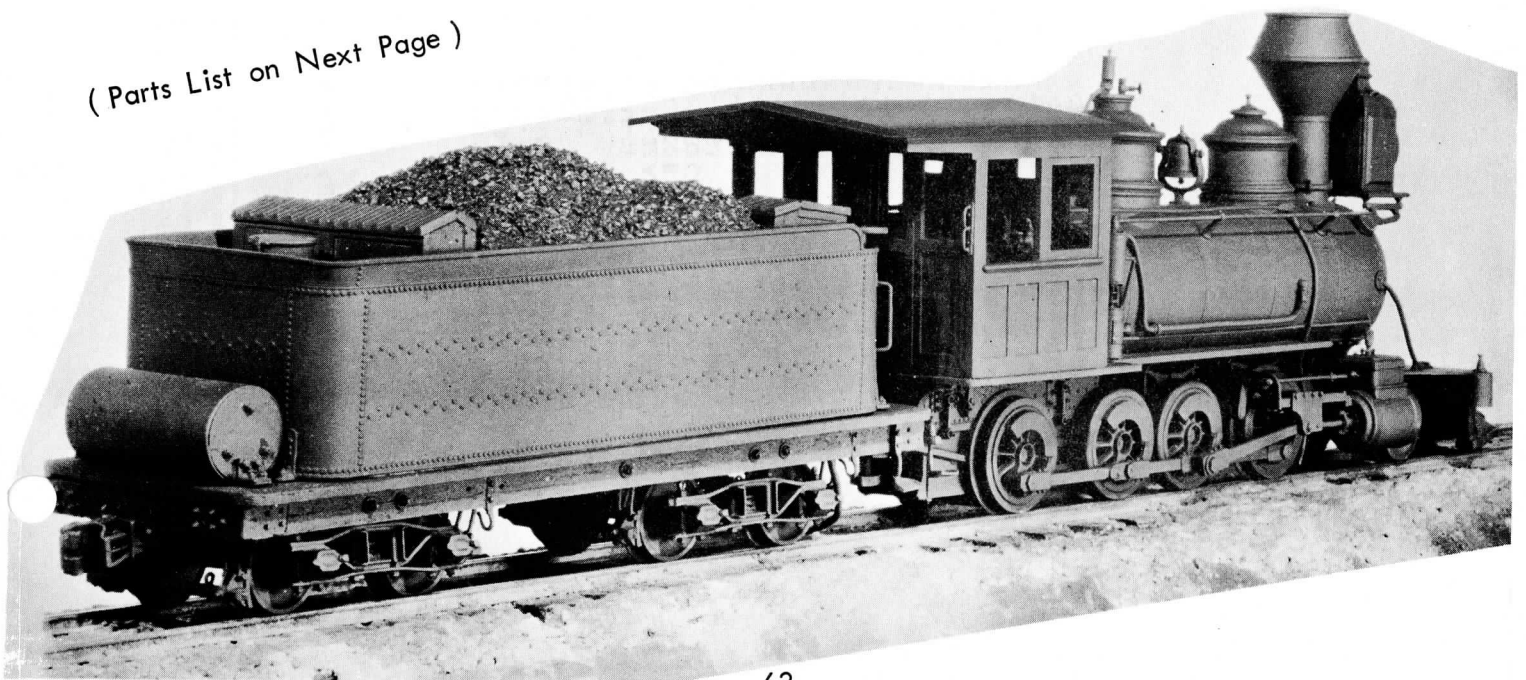
(1880 Era)

C-16-100	Complete kit	125.00
C-16-101	Superstructure	48.50
C-16-102	Mechanism	47.25
C-16-103	Tender w/ motor	31.50
C-16-104	Tender, less motor	25.50

On3



(Parts List on Next Page)



PARTS LIST

for

ORIGINAL C-16



C-16-100	Complete kit	125.00
C-16-101	Superstructure	48.50
C-16-102	Mechanism	47.25
C-16-103	Tender w/ motor	31.50
C-16-104	Tender, less motor	25.50

NOTE: When ordering separate parts for this kit, refer to Catalog listing for price and packaging! Be sure to use proper Code number!

X-1300 Solder Paint included with each complete locomotive kit (C-16-100)

SUPERSTRUCTURE

#19	1	Pilot
X-129	1	Coupler Pocket
X-9 A	1	Drawbar
C-16-27	1	Apron and Pilot Beam
C-16-03	1	Boiler Shell
C-16-51	1	Smoke Box Shell
C-16-02	1	Smoke Box Front
X-483	4	Handrail Stanchions
C-16-05 C	1	Stack
C-16-05 B	1	Stack Base
C-16-04	1	Headlight
C-16-62	1	Headlight Bracket
C-16-53	1	Bell w/ Bracket
C-16-13	pr.	Running Boards (R & L)
C-16-68	2	Boiler Checks
C-16-11	set	Cab "B" Parts
C-16-52	2	Cab Grabrons
K-422	1	Air Pump
C-16-23	1	Backhead
C-16-07	1	Sand Dome
C-16-06	1	Steam Dome
X-28	2	Pop Valves
C-16-76	1	Whistle
C-16-45	2	Deck Braces
C-16-29	1	Cab Support
C-16-24	1	Air Pump Bracket
X-346	2	Washour Plugs
X-104	2	Number Plate
C-16-08	2	Flag Holders
X-452	2	Unions
X-295	2	Valves
C-16-25 S	1	Cylinder Saddle
	1	.020 x 3/64 x 4" Brass
	1	.020 x 1/8 x 4" Brass
	1	.020 x 1 x 1" Brass
	1	.015 x .040 x 2" Brass
	3	.025 x 12" Brass Wire
	3	.040 x 12" Brass Wire
	1	2-56 x 1/2 R.H. Screw

MECHANISM

C-16-25	1	Cylinder Block Assembly
C-16-21	8	Drivers (Quartered on Axles)
C-16-63	2	Side Rods
C-16-64	2	Main Rods
C-16-61	1	Fire Box
C-16-77	1	Fire Box End
C-16-60	2	Crossheads (Latrid)
C-16-56	1	Worm
C-16-57	1	Worm Shaft
C-16-74	1	Guide Yoke
C-16-75	set	Valve Gear
C-16-69	2	Lubricators (Steam Chest)
C-16-22	1	Lead Truck Assembly (24" Wheels)
C-16-55	1	Gear Box
C-16-52	1	Rear Frame Spacer
C-16-48	1	Front Frame Spacer
C-16-49 S	6	Crankpin Screws (Short)
C-16-49 L	2	Crankpin Screws (Long)
C-16-15 M	2	Main Frame (R & L)
X-280	1	Universal Coupling Socket
	2	.010 x 5/16 x 3/8 Brass
	1	.025 x 12" Brass Wire
	1	1/4 x 1/16 Brass Washer
	1	2-56 x 1/4" Fil. H. Screw
	1	2-56 x 3/4" R.H. Screw
	1	0-80 x 1/4" R.H. Screw
	2	0-80 x 1/2" Fil. H. Screw
	1	2-56 x 1/2" F.H. Screw

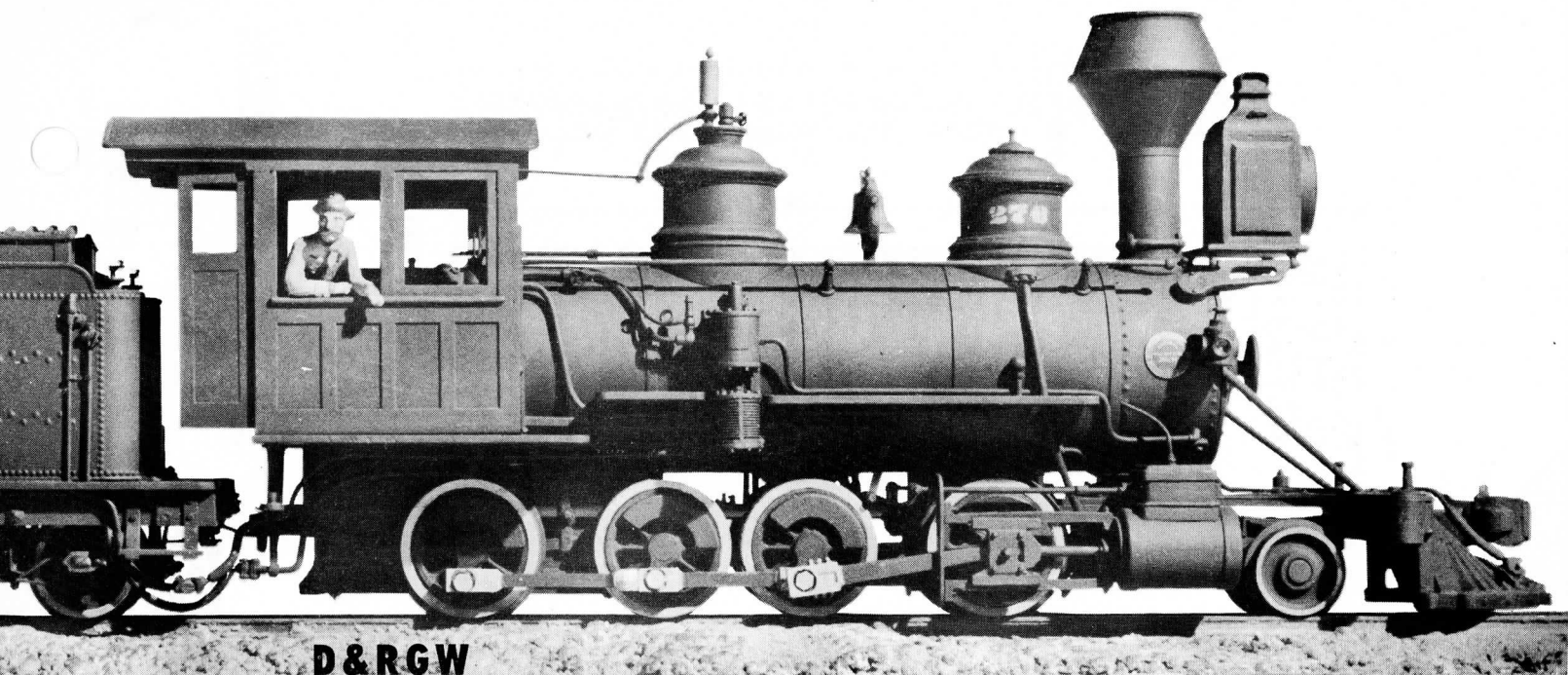
X-1132 CAB INTERIOR DETAILING KIT

(Included in Complete Locomotive Kit (C-16-100))

C-16-66	1	Reverse Quadrant
C-16-55	1	Lubricator
C-16-67	2	Lifting Injectors
C-16-70	2	Turret Valves
C-16-71	1	Air Brake Lever
C-16-72	1	Steam Gauge and Throttle
X-99	3	Valves

TENDER

X-155	10"	Hook-up Wire
X-503-18	1	18 v Motor
C-16-16	1	Motor Mount
C-16-59	1	Floor (Wood)
L-74	1	Soldering Lug (Small)
X-282	1	Soldering Lug (Large)
C-16-30	1	Tank Shell
C-16-31	1	Tank Top
C-16-32 A	1	Tool Box
C-16-32 B	1	Tool Box
C-16-32 C	1	Tool Box
C-16-33	1	Water Hatch
C-16-34	1	Air Tank
C-16-36	4	Body Stays
C-16-37	2	Tender Steps
C-16-39	1	Coupler Pocket
C-16-40	1	Coupler
C-16-41	4	Brake Rigging
C-16-42	1	Brake Wheel
C-16-43	1	Brake Staff
C-16-44	2	Tender Trucks
C-16-46	2	Water Valves
C-16-47	4	Chain Hangers
X-204	set	Nut-Bolt-Washer (Brass)
X-100	1	Globe Valve
C-16-85	1	End Sill (Front)
C-16-89	1	End Sill (Rear)
X-281	1	Universal Coupling Shaft
X-285	1	Neoprene Tubing (Coupling)
X-232	2"	Chain
	2	.020 x 7/32 x 3" Brass
	1	.030 x 1/4 x 1" Brass
	1	.065 x 3/8 x 3" Brass
	7	#2 x 3/16 R.H. Wood Screws
	1	2-56 x 1/4 R.H. Screw
	1	2-56 x 1/8 R.H. Screw
	1	2-56 x 3/4 R.H. Screws
	2	4-40 x 3/16 R.H. Screw
	2	2-56 Hex Nuts
	1	1/4 x 1/16 Brass Washer



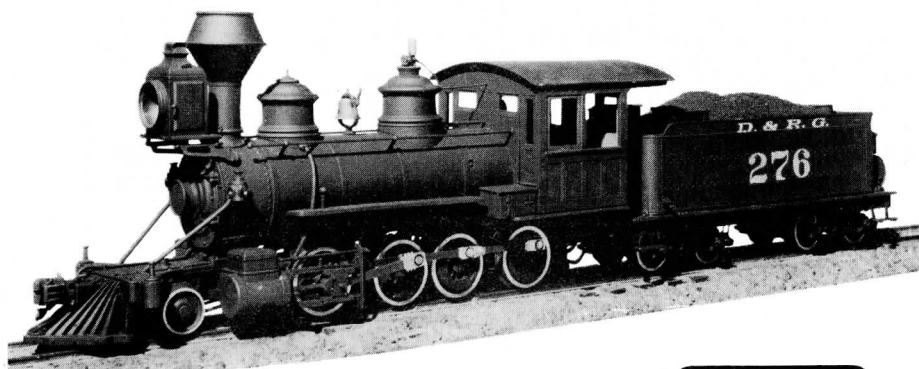
D & R G W

'INTERMEDIATE'

C-16

CONSOLIDATION

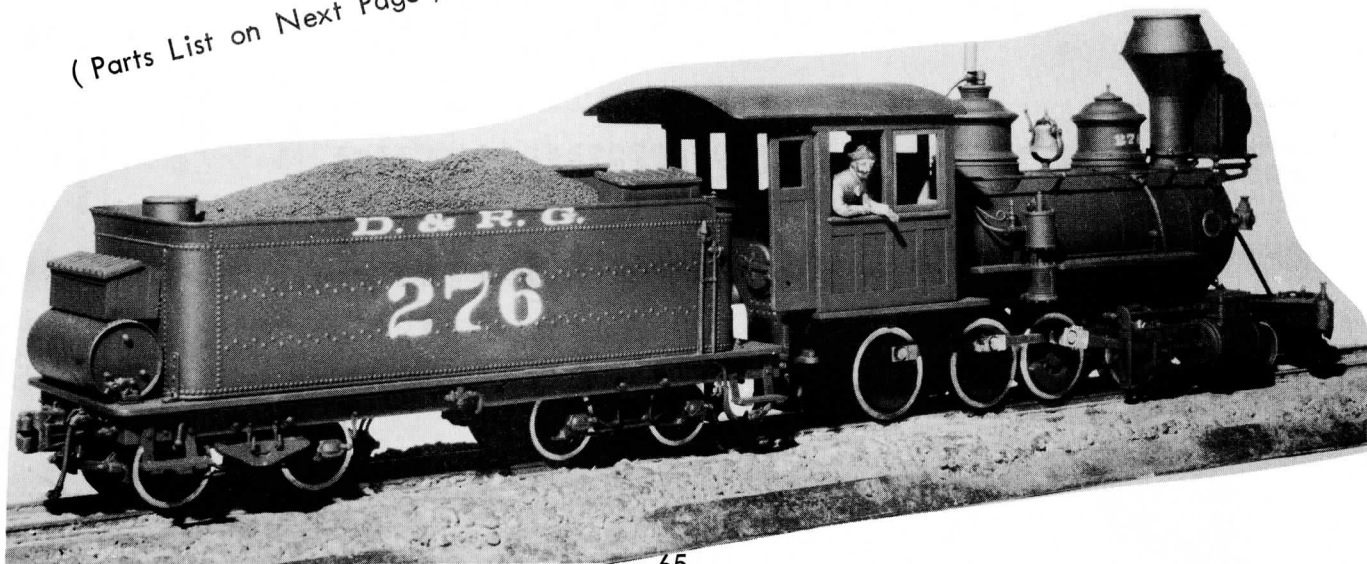
(1890 Era)



C-16-105	Complete kit	125.00
C-16-106	Superstructure	48.50
C-16-107	Mechanism	47.25
C-16-108	Tender w/ Motor	31.50
C-16-109	Tender, less Motor	25.50

On3

(Parts List on Next Page)



PARTS LIST

for

INTERMEDIATE C-16

On3

C-16-105	Complete kit	125.00
C-16-106	Superstructure	48.50
C-16-107	Mechanism	47.25
C-16-108	Tender w/ Motor	31.50
C-16-109	Tender, less Motor	23.50

X-1300 Solder Paint included with each complete locomotive kit (C-16-105)

NOTE: When ordering separate parts for this kit, refer to Catalog listing for price and packaging! Be sure to use proper Code number!

SUPERSTRUCTURE

C-16-01 R	1	Pilot
X-183	1	Coupler Pocket
X-184	1	Coupler
X-183 A	1	Coupler Pin
C-16-27	1	Apron and Pilot Beam
C-16-03 E	1	Boiler Shell (Formed)
C-16-51	1	Smoke Box Shell (Formed)
C-16-02	1	Smoke Box Front
X-483	4	Handrail Stanchions
C-16-05 C	1	Stack
C-16-05 B	1	Stack Base
C-16-04	1	Headlight
C-16-62	1	Headlight Bracket
C-16-53	1	Bell w/ Bracket
C-16-13 E	2	Running Boards (R & L)
C-16-68	1	Boiler Checks
C-16-97	set	Cab "E" Parts
C-16-50	2	Cab Grab Irons
K-419	1	Air Pump
C-16-23	1	Backhead
C-16-07	1	Sand Dome
C-16-06	1	Steam Dome
X-28	1	Pop Valve
C-16-76	1	Whistle
C-16-45	2	Deck Braces
C-16-29	1	Cab Support
C-16-84 E	1	Air Pump Bracket
X-346	2	Washour Plugs
X-104	1	Number Plate
C-16-08 R	2	Flag Holders
X-452	2	Unions
X-295	2	Valves
C-16-99	1	Air Pump Governor
C-16-25 S	1	Cylinder Saddle
ML-99	2	Marker Lamps
C-16-32 E	1	Loco Tool Box
C-16-88	3	Coupler Lift Bar Brackets
X-327	1	Airhose

MECHANISM

C-16-26	set	Cylinder Block Assembly
C-16-21	8	Drivers (Quartered on Axles)
C-16-63	2	Side Rods
C-16-64	2	Main Rods
C-16-61	1	Fire Box
C-16-77	1	Fire Box End
C-16-60 R	2	Crossheads (Alligator)
C-16-56	1	Worm
C-16-57	1	Worm Shaft
C-16-74 R	1	Guide Yoke
C-16-75	set	Valve Gear
C-16-22	set	Lead Truck Parts (24" wheels)
C-16-55	1	Gear Box
C-16-48	1	Front Frame Spacer
C-16-49 S	6	Crankpin Screws (Short)
C-16-49 L	2	Crankpin Screws (Long)
C-16-52	2	Rear Frame Spacer
C-16-15 M	2	Main Frames (R & L)
X-280	1	Universal Coupling Socket

2	.010 x 5/16 x 3/8 Brass
1	.025 x 1/2" Brass Wire
1	1/4 x 1/16 Brass Washer
1	2-56 x 1/4 Fil H. Screw
1	2-56 x 1/2 F.H. Screw
1	2-56 x 3/4 R.H. Screw
1	0-80 x 1/4 R.H. Screw
2	0-80 x 1/2 Fil H. Screws

CAB INTERIOR DETAILING KIT

X-1132	1	Reverse Quadrant
C-16-66	1	Lubricator
C-16-55	2	Lifting Injectors
C-16-67	2	Turret Valves
C-16-70	1	Air Brake Lever
C-16-71	1	Steam Gauge and Throttle
C-16-72	3	Valves
X-99	3	Valves

TENDER

X-155	10"	Hook-up Wire
X-503-18	1	18 v Motor
C-16-16	1	Motor Mount
C-16-59 R	1	Floor (Wood)
L-74	1	Soldering Lug (Small)
X-282	1	Soldering Lug (Large)
C-16-30	1	Tank Shell
C-16-31	1	Tank Top
C-16-32	1	Tool Box
C-16-32 D	1	Tool Box (Rear)
C-16-33	1	Water Hatch
C-16-34	1	Air Tank
C-16-36	4	Body Stays
C-16-39	1	Coupler Pocket
C-16-40	1	Coupler
C-16-41	4	Brake Rigging
C-16-44	2	Tender Trucks (Arch Bar)
C-16-46	2	Water Valves
C-16-47	4	Chain Hangers
X-295	1	Globe Valve
C-16-85	1	End Sill (Front)
C-16-89	1	End Sill (Rear)
C-16-91	4	Tender Steps
X-327	1	Air Hose
C-16-96	2	Side Sills
C-16-88	3	Coupler Lift Bar Brackets
X-183 A	1	Coupler Pin
X-162	2	Rerrail Frogs
ML-99	2	Marker Lamps
X-1014	1	Drain Cock
X-281	1	Universal Coupling Shaft
X-285	1	Neoprene tubing
X-1068	1	Valve
X-232	2"	Chain
C-16-32 A	1	Tool Box

9	#2 x 3/16 R.H. Wood Screw
1	2-56 x 1/8 R.H. Screw
1	2-56 x 1/4 Drawbar Screw
2	2-56 x 3/4 R.H. Screws
2	2-56 Hex Nuts

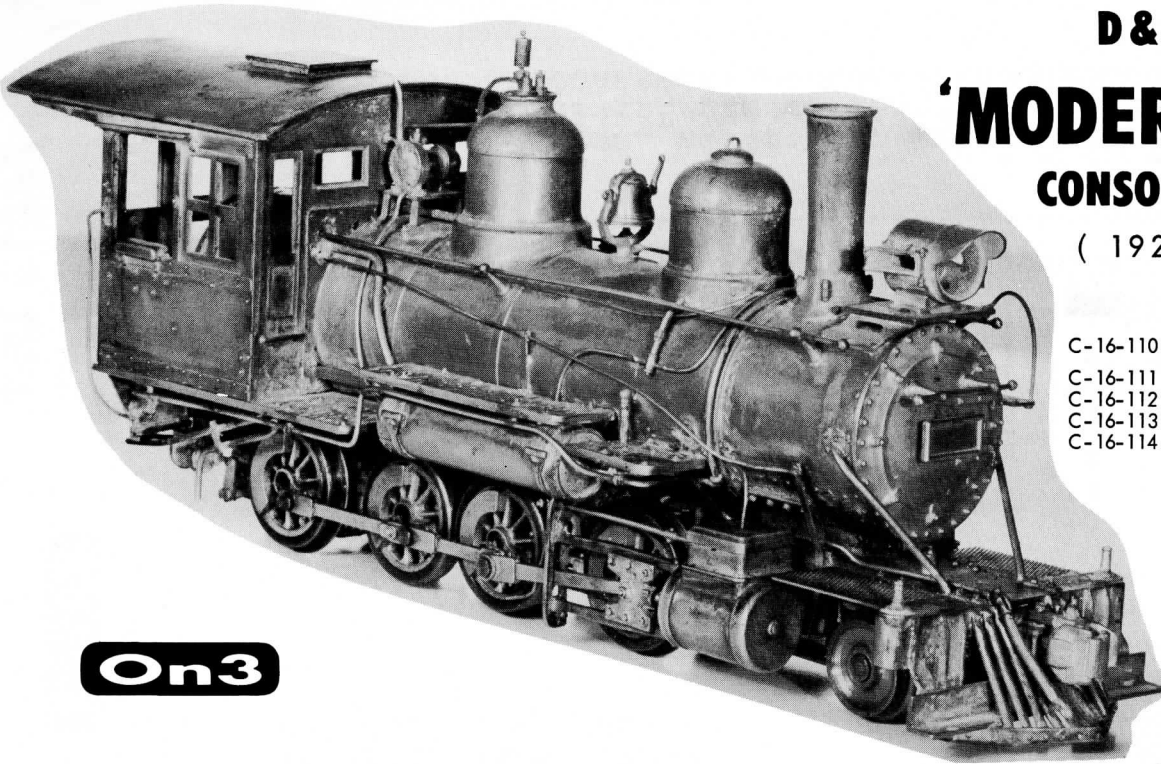
D & R G W

'MODERN' C-16

CONSOLIDATION

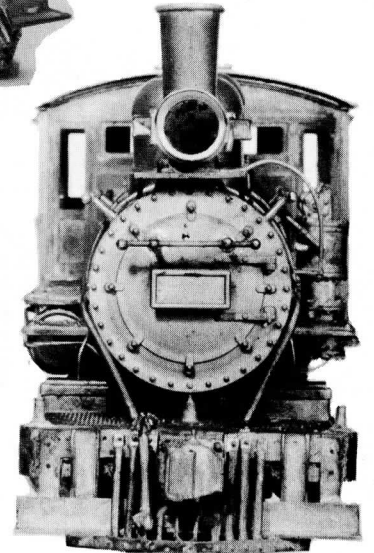
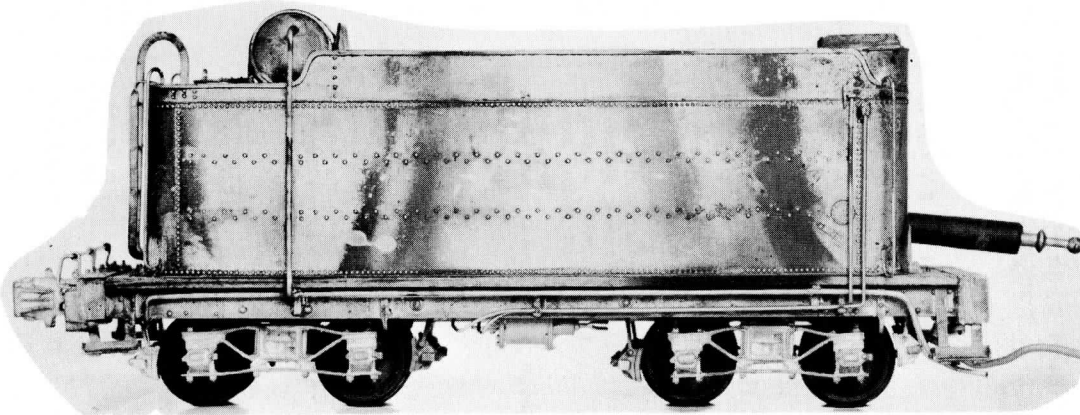
(1924 Era)

C-16-110	Complete Kit	125.00
C-16-111	Superstructure	48.50
C-16-112	Mechanism	47.25
C-16-113	Tender w/ Motor	31.50
C-16-114	Tender, less Motor	25.50

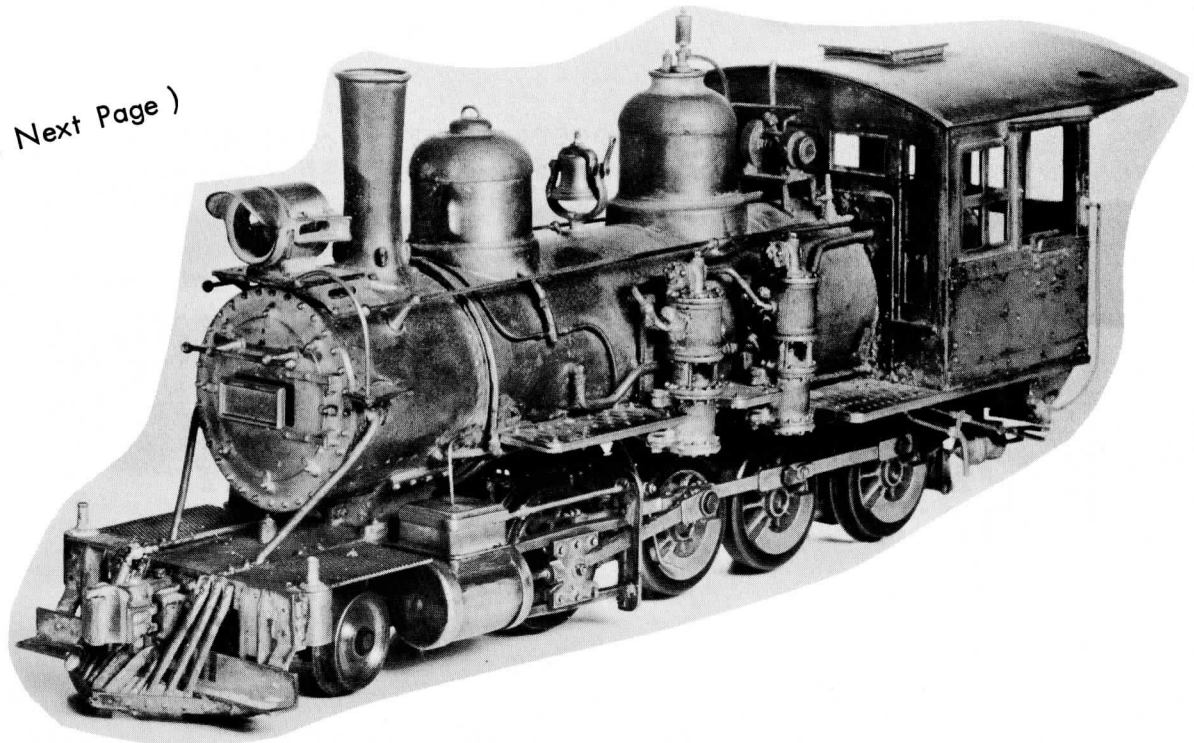


On3

↙ ACTUAL SIZE



(Parts List on Next Page)



PARTS LIST for MODERN C-16



C-16-110	Complete Kit	125.00
C-16-111	Superstructure	48.50
C-16-112	Mechanism	47.25
C-16-113	Tender w/Motor	31.50
C-16-114	Tender, less Motor	25.50

SUPERSTRUCTURE

#38	1	Pilot
X-184	1	Coupler
X-183 A	1	Coupler Pin
C-16-27	1	Apron
C-16-27 P	2	Apron Plates (Safety Tread)
C-16-51 R	1	Smoke Box Shell (Formed)
C-16-03 R	1	Boiler Shell (Formed)
C-16-02 R	1	Smoke Box Front
X-457	1	Number Plate
X-483	12	Handrail Stranchions
C-16-05 R	1	Stack
TR-23	1	Headlight
C-16-26 R	1	Headlight Bracket
C-16-07	1	Sand Dome
C-16-06 R	1	Steam Dome
C-16-83	2	Sander Pipes
C-16-53	1	Bell w/Bracket
X-1027	1	H. Bracket (for Generator)
X-215	1	Generator
C-16-09	1	Cab "D" Parts
X-1044	1	Hatch
K-421	1	Air Pump
C-16-86	1	Air Piping w. Fittings
C-16-98	12	Unions, Tees, Elbows
C-16-99	1	Air Pump Governor
C-16-84	1	Air Pump Bracket
C-16-93	1	Air Tank
C-16-23	1	Backhead
C-16-25 S	1	Cylinder Saddle
X-346	4	Washout Plugs
X-28	1	Pop Valve
C-16-76	1	Whistle
X-452	2	Unions
C-16-73	2	Cab Running Boards
C-16-13 R	3	Boiler Running Boards
C-16-29	1	Cab Support
C-16-29 P	1	Aux. Cab Support Plate
X-453	12	Unions
C-16-88	3	Coupler Lifter Bar Brackets
C-16-45	2	Deck Braces
C-16-68	2	Boiler Checks
C-16-08 R	2	Flag Holders

MECHANISM

C-16-26	1	Cylinder Block Assembly
C-16-21	8	Drivers (Quartered on Axles)
C-16-63	2	Side Rods
C-16-64	2	Main Rods
C-16-61	1	Fire Box
C-16-77	1	Fire Box End
C-16-60 R	2	Crossheads (Alligator)
C-16-56	1	Worm
C-16-57	1	Worm Shaft
C-16-74 R	1	Guide Yoke
C-16-75	1	Valve Gear
C-16-22	set	Lead Truck Assembly (24" wheels)
C-16-55	1	Gear Box
C-16-48	1	Front Frame Spacer
C-16-48 S	6	Crankpin Screws (Short)
C-16-49 L	2	Crankpin Screws (Long)
C-16-52	1	Rear Frame Spacer
C-16-15 M	2	Main Frames (R & L)
C-16-92	2	Loco Brake Detail
X-280	1	Universal Coupling Socket

2	.010 x 5/16 x 3/8 Brass
1	.020 x 1/16 x 4" Brass
1	.025 x 12" Brass Wire
1	.040 x 3" Brass Wire
1	1/4 x 1/16 Brass Washer
1	2-56 x 1/4 R.H. Screw
1	2-56 x 1/2 F.H. Screw
1	2-56 x 3/4 R.H. Screw
1	0-80 x 1/4 R.H. Screw
2	0-80 x 1/2 Fil H. Screws

X-1132 CAB INTERIOR DETAILING KIT

(Included in Complete Locomotive Kit (C-16-100))

C-16-66	1	Reverse Quadrant
C-16-55	1	Lubricator
C-16-67	2	Lifting Injectors
C-16-70	2	Turret Valves
C-16-71	1	Air Brake Lever
C-16-72	1	Steam Gudge and Throttle
X-99	3	Valves

X-1300 Solder Paint included with each complete locomotive kit (C-16-110)

NOTE: When ordering separate parts for this kit, refer to Catalog listing for price and packaging! Be sure to use proper Code number!

TENDER

C-16-41	4	Brake Rigging
C-16-87	2	Tender Trucks (Arch Bar)
X-295	1	Globe Valve
C-16-96	2	Side Sills
C-16-89 R	1	End Sill (Rear)
C-16-85 R	1	End Sill (Front)
C-16-47	4	Chain Hangers
X-281	1	Universal Coupling Shaft
X-285	1	Neoprene Tubing
X-1051	1	Tender Ladder
X-1011	1	Brake Cylinder
X-1014	1	Drain Cock
X-1015	1	Pipe Joint
X-269	2	Elbows
X-232	2	Chain
X-162	2	Rencil Frogs
X-327	1	Air Hose
X-155	10"	Hook-up Wire
X-503-18	1	18 v Motor
C-16-16	1	Motor Mount
C-16-59 R	1	Floor (Wood)
X-282	1	Soldering Lug (Large)
L-74	1	Soldering Lug (Small)
C-16-28	1	Tank Shell
C-16-31 R	1	Tank Top
C-16-33 R	1	Water Hatch
C-16-34 R	4	Body Stays
C-16-36	1	Air Tank
C-16-91	4	Tender Steps
C-16-88	3	Coupler Lift Bar Brackets
C-16-94 A	1	Coal Bunker, Rear (Slope Sheet)
C-16-94 B	1	Coal Bunker, Front
X-183	1	Coupler Pocket
X-184	1	Coupler
X-183 A	1	Coupler Pin
X-1068	1	Valve

1	.020 x 7/32 x 4" Brass
1	.020 x .045 x 4" Brass
1	.030 x 1/4 x 1" Brass
1	.065 x 3/8 x 3" Brass
1	.025 x 24" Brass Wire
1	.035 x 24" Brass Wire
9	#2 x 3/16 R.H. Wood Screws
1	2-56 x 1/4 Drawbar Screw
1	2-56 x 1/8 R.H. Screw
2	2-56 x 3/4 Fil H. Screws
2	2-56 Hex Nuts
1	4-40 x 3/16 R.H. Screw
1	1/4 x 1/16 Brass Washer



WABASH MOGUL

IN O SCALE

X-1000	COMPLETE KIT	145.00
X-1001	Locomotive only	110.00
X-1002	Tender only	34.80
X-1003	Chassis only	64.00
X-1004	Superstructure only	48.50

(Will traverse 48" radius curve)

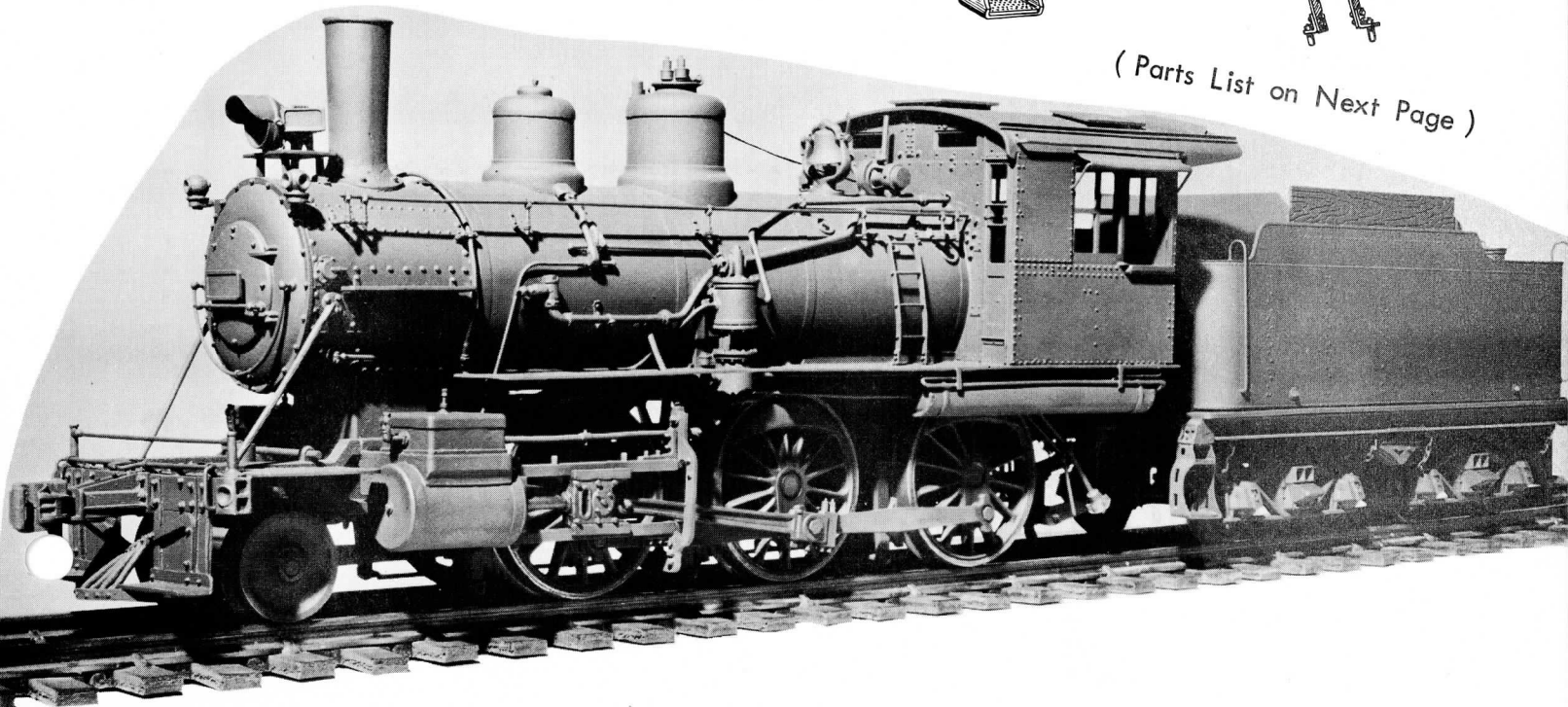


The exquisite detail showing in the photos of this model has never been equaled in any custom model or kit. 15 years of experience and "know-how" has made the Wabash Mogul the ultimate among scale models. Richly detailed photoengravings and beautiful, sharp lost wax castings are the answer!

Powerful Pittman DC 81 motor combined with 47:1 gear ratio for smooth, quiet operation. Assembly instructions included.



(Parts List on Next Page)



PARTS LIST for WABASH 'MOGUL' IN O SCALE

SUPERSTRUCTURE

CHASSIS

TENDER

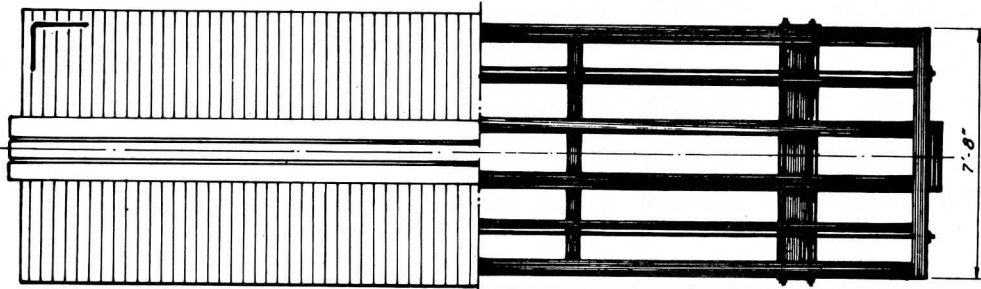
X-1092	1	Boiler (Etched)	X-1077 A	1	Locomotive Frame	X-1025	1	Tank Shell (Etched, Formed)
X-1039	1	Smokebox	X-1085	1	Motor Mounting Bracket	X-1087	1	Brass Floor
X-1026	1	Smokebox front	X-1005	6	Drivers (Quartered on Axle)	X-1046	2	Underframe Sides (Stills)
X-1096	1	Clip (for S.B. Front)	X-1080 A	1	Cover Plate	X-1042	1	End Still (Rear)
X-1073	1	Running Boards (Etched)	X-1031	2	Side Rods	X-1041	1	End Still (Front)
X-1064	1	Cylinder saddle	X-1030	2	Main Rods (R & L)	X-1055	1	Tank Top
X-1072	1	Backhead	X-327	1	Air Hose	X-1098	1	Elec. Junction Boxes
X-1034	2	Cab Sides	#39	1	Pilot	X-1054	1	Coal Bunker (Front)
X-1032	1	Cab Front	X-1010	1	Pilot Beam Details	X-1053	1	Coal Bunker (Rear)
X-1033	1	Cab Rear	X-1009	1	Coupler Pocket	X-1052	2	Coal Bunker Sides
X-1043	1	Cab Roof	X-1099 A	1	Coupler (Dummy)	X-1059	1	Coal Bunker Door
X-1093	1	Cab Roof	X-1081	1	Lead Truck Frame	X-1089	1	Center Still (Brass)
X-1045	1	Smoke Lifter	X-1082	1	Lead Truck Pivot	X-1090	1	Center Still (Wood)
X-1044	2	Cab Roof Hatches (Rect.)	X-1097	1	Lead Truck cover Plate	X-1049	2	Foot Boards
X-1093 A	2	Cab Roof Hatch (Square)	X-1070	2	Guide Yokes	X-1019	2	Steps
X-1028	3	Brass Angles (for Cab Roof)	X-1094	1	Lead Truck Wheel set 33"	X-1035	1	Coupler Pocket
X-1024	1	Air-Tanks (Kit)	X-1086	6	Brake Shoes	X-1099 B	1	Coupler (Dummy)
X-1029	1	Stream Dome	X-1083	2	Brake Levers	X-228	1	Drawbar (Plastic)
X-360	1	Sand Dome	X-1016	2	Firebox Sides	X-259	8"	Chain
X-215	1	Ball	X-1063	2	Brake Cylinders	X-327	1	Air Hose
X-1023	1	Stream Generator	X-1084	2	Brake Levers	X-162	2	Rail Frogs
TR-13	1	Stack	X-1065	1	Anti-skid Apron Plates (Pilot)	X-1050	1	Poling Pole
X-1027	1	Headlight	X-1069	1	Cylinder Block	X-1011	1	Brake Cylinder
K-421	1	Headlight Bracket	X-1067	2	Cylinder Heads and Guides	TR-13	1	Headlight
X-1074	1	Air Pump	X-1067	2	Cylinder Lube Fittings	X-1027	1	Headlight Bracket
X-1071	1	Mounting Bracket (Air Pump)	X-1068	2	Packing Glands	X-1036	1	Water Hatch
X-305	1	Cab Support	X-1061	1	Relief Valves (Cyl)	X-1052	1	Ladder
C-16-45	2	Engine Ladder	X-1062	1	Valve Gear	X-1048	2	Tank Stay
X-456	1	Deck Braces	C-16-49 L	2	Crankheads	X-1047	1	Back-up Light
X-1022	2	Number Plate	C-16-49 S	4	Crankpin Screws (Long)	X-282	2	Soldering Lugs
X-1075	1	Boiler Checks	X-1057	1	Worm and Gear, 47:1 ratio	X-1038	8	Brake Shoes (Plastic)
X-28	2	Whistle	X-1088	1	Cooling Coil (Air Piping)	X-204	4	Nut-Bolt-Washer
X-100	1	Pop Valves				X-1040	1	Arch-bar Trucks
X-1020	2	Globe Valve				X-1095	1	Insulating Bushings
X-345	6	Sander Fittings				X-400	1	GOW Bulb
X-212	2	Washour Plugs						
X-1013	1	Steam Fittings						
X-1076	2	Pipe Fitting						
X-1021	2	Guide Yoke Braces						
X-1015	3	Pipe Sections						
X-1017	3	Pipe Brackets						
AT-5 D	5	Handrail Stanchions (Smokebox Front)						
X-1018 L	4	Handrail Stanchions (Boiler)						
X-1018 S	12	Handrail Stanchions "						
X-1008	2	Marker Lamps w/Jewels						
X-1012	1	Air Pump Governor						
X-400	1	GOW Bulb						
	1	Brass Strip .020 x .063 x 4"						
	2	Brass pcs. .006 x 1/8 x 1/2						
	3 ft	Hook up Wire						
	2	Brass Wire .025 x 12"						
	4	Brass Wire .030 x 12"						
	2	Brass Wire .050 x 12						
	3 in	Brass Wire .040						

NOTE: When ordering separate parts for this kit, refer to Catalog listing for price and packaging! Be sure to use proper Code number!

NARROW GAUGE BOX CAR

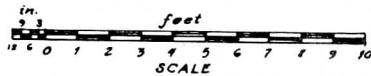
HARDWARE KIT

A number of these cars were used on the SP narrow gauge line in Owens Valley, California. An article describing the construction of #131, by Ulrich B. Graff, appears on Page 29 of the December 1959 "Railroad Model Craftsman".

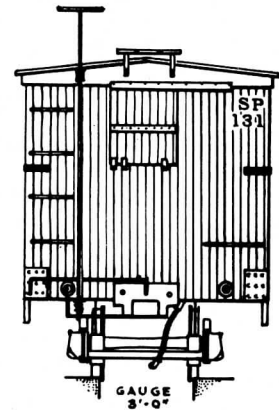
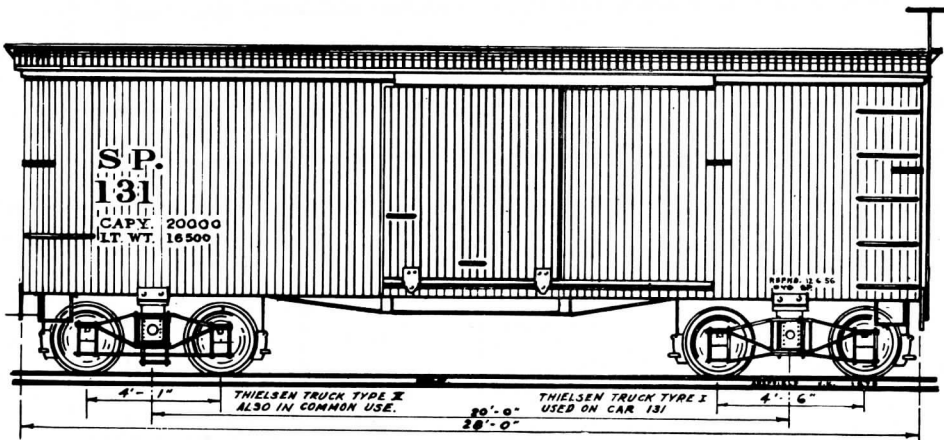


SOUTHERN PACIFIC
DOUBLE SHEATHED
BOX CAR

Drawing by U.B. Graff



On3



A FULL SIZE drawing is included with each kit

NOTE: This is a HARDWARE kit only!
It does not contain material for the frame or body of the car.

PARTS LIST for On3 Box Car Hardware Kit

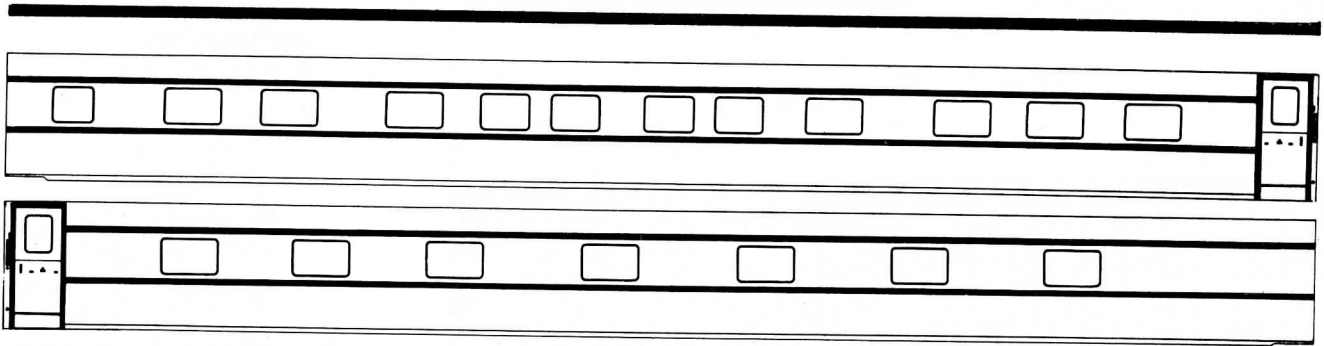
X-1200 \$7.50

1	X-242	Brake Wheel
24	X-114	Grab Irons
3 doz.	X-198	Nut-Bolt-Washers
4	X-24	Car Steps (Stirrups)
4	X-907	Turnbuckles
24	X-8	Escutcheon Pins
4	X-929	Poling Pockets
2	X-393	Bolster w/kingpin
4	X-767	Queen Posts
2	X-721	Striking Plate #1
1 pr.	TK-477	Trucks
4	C-16-41	Brake Hangers w/shoes
3	.025" x 4"	Brass Wire

U. P. PASSENGER CARS "O" Scale

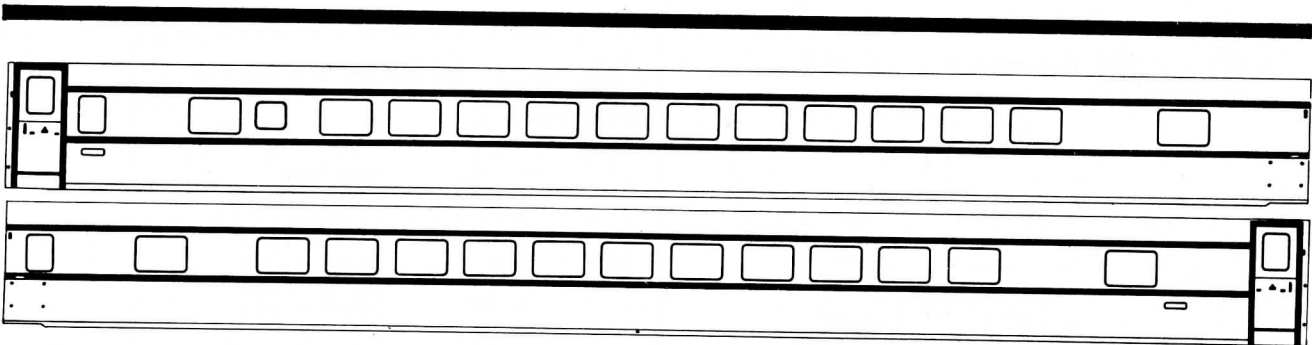
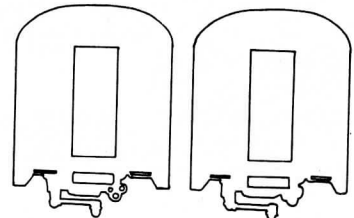
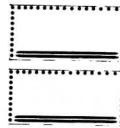
Kemtron has developed nine superb Union Pacific cars consisting of highly accurate photo-engraved sides, roof & detail parts with lost-wax cast ends, complete with integral cast train air and steam fittings. These cars are sold as is, without trucks, couplers, underbody detail or instructions. Following is a complete list of the cars. Trucks, couplers and parts listed on Page 75.

X-1501	Pullman.....	\$16.75
X-1502	Coach.....	16.75
X-1503	Baggage.....	16.75
X-1504	10 Bedroom 6 Section Pullman....	16.75
X-1505	11 Bedroom Pullman.....	16.75
X-1506	5 Bedroom Club Sleeper.....	16.75
X-1507	Dome Observation (less one end)	17.75
X-1508	Dome Coach.....	19.95
X-1509	Dome Diner.....	19.95



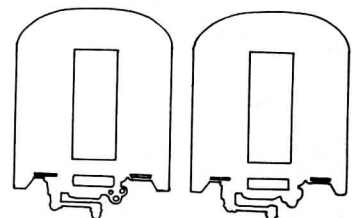
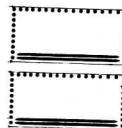
This group of PARTS is for the X-1501 PULLMAN...list \$16.75

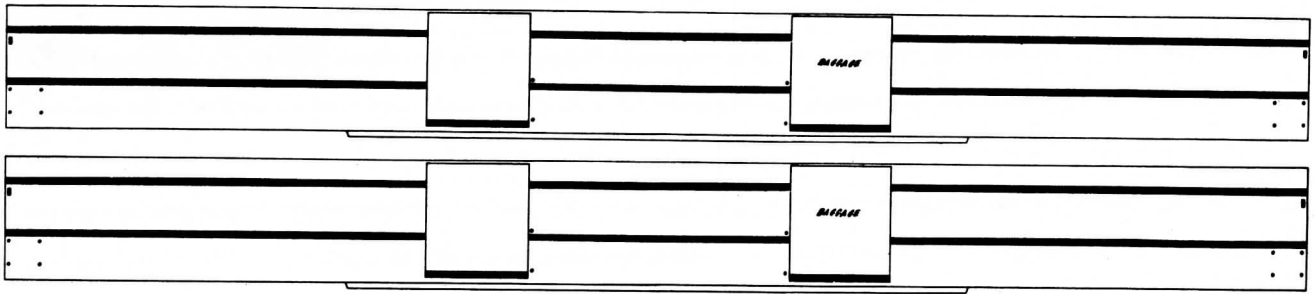
Roof & roof walk is supplied with all cars.



This group of PARTS is for the X-1502 COACH...list \$16.75

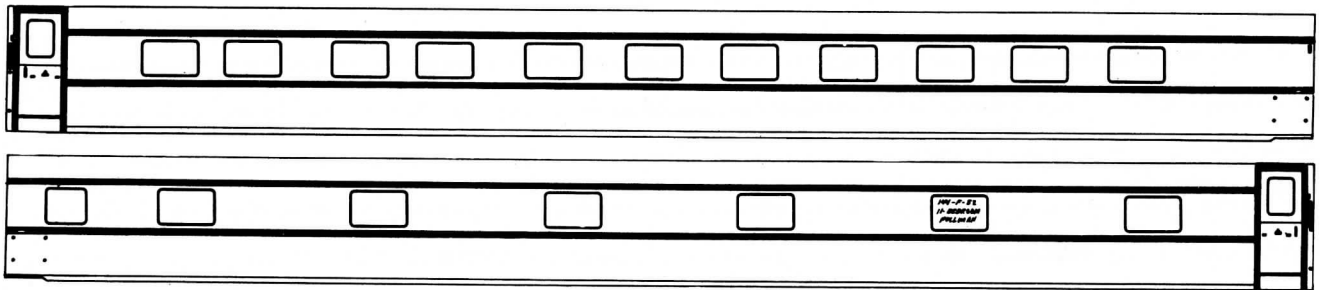
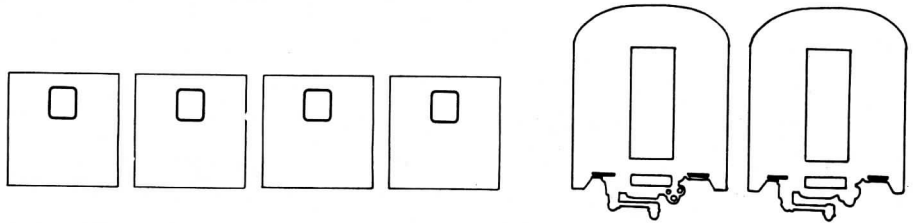
Roof & roof walk is supplied with all cars.





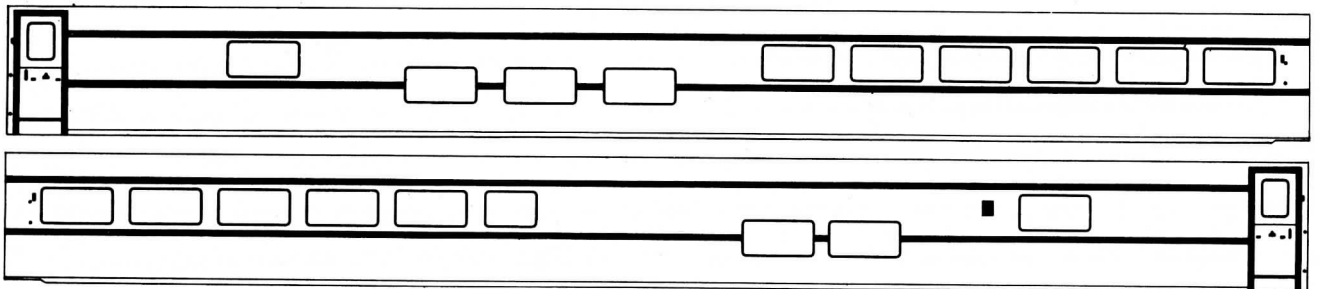
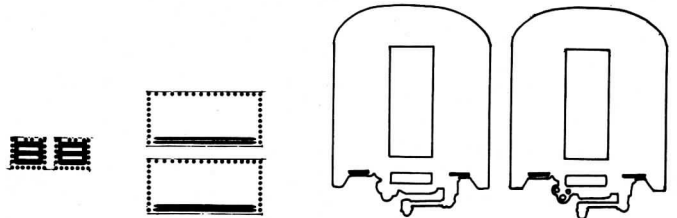
This group of PARTS is for the X-1503 BAGGAGE...list \$16.75

Roof & roof walk is supplied with all cars.



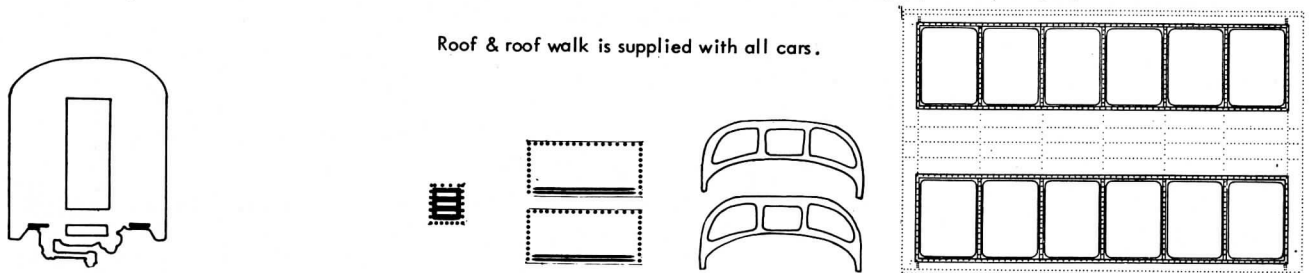
This group of PARTS is for the X-1505 11 BEDROOM PULLMAN...list \$16.75

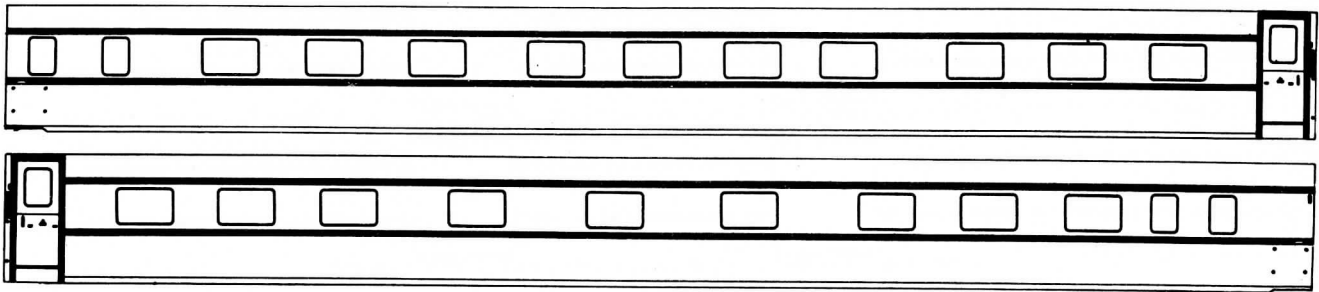
Roof & roof walk is supplied with all cars.



This group of PARTS is for the X-1507 DOME OBSERVATION...list \$17.75

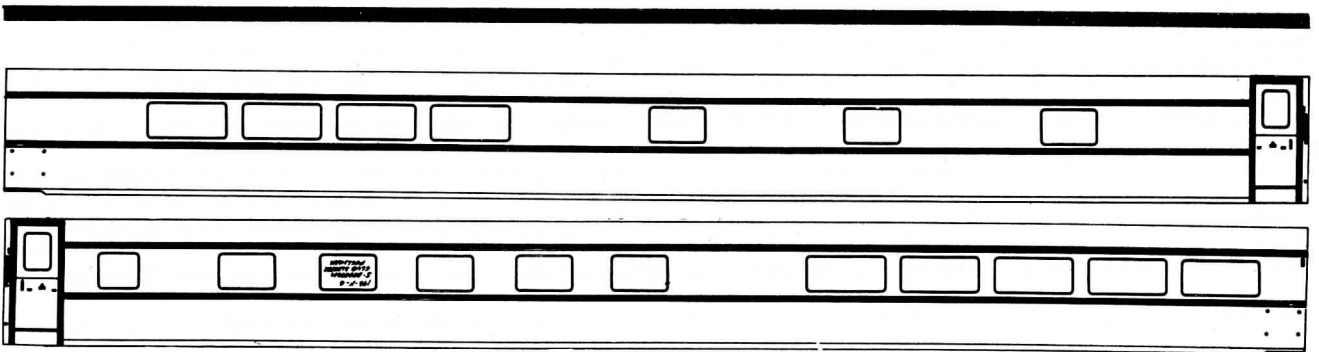
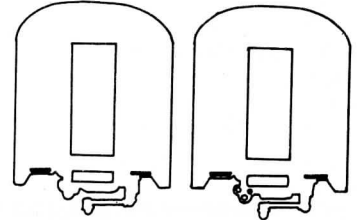
Roof & roof walk is supplied with all cars.





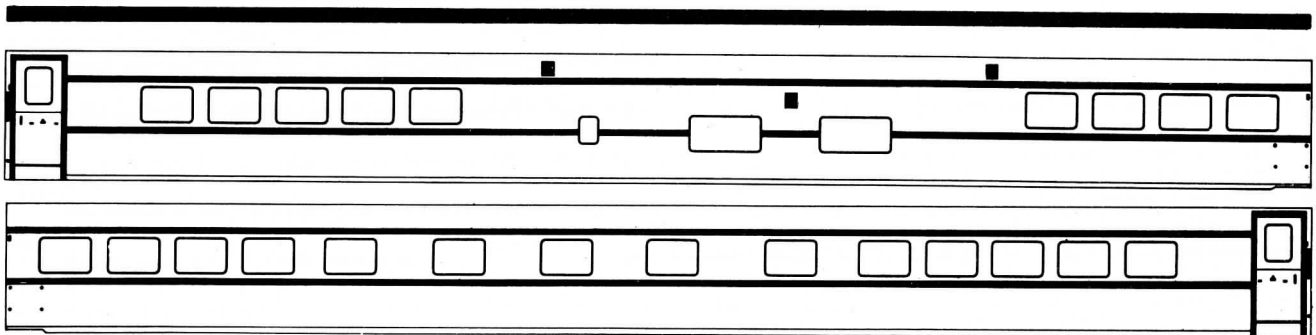
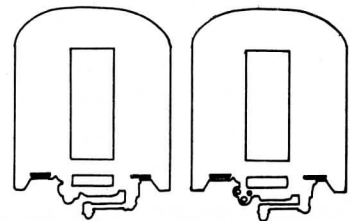
This group of PARTS is for the X-1504 10 BEDROOM 6 SECTION PULLMAN...list \$16.75

Roof & roof walk is supplied with all cars.



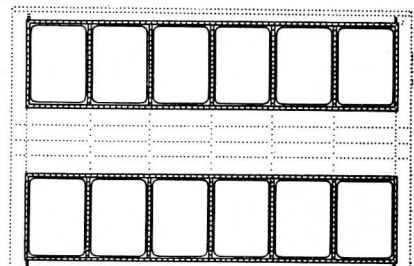
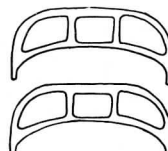
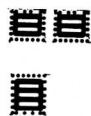
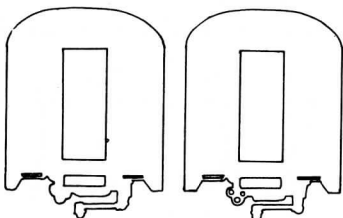
This group of PARTS is for the X-1506 5 BEDROOM CLUB SLEEPER...list \$16.75

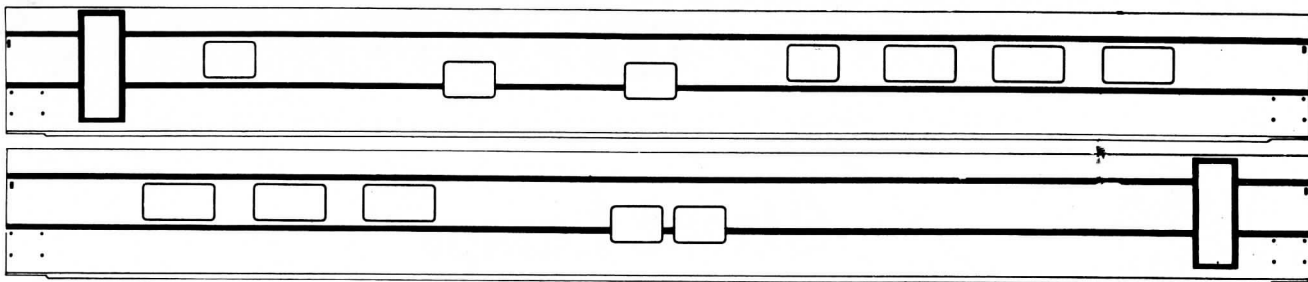
Roof & roof walk is supplied with all cars.



This group of PARTS is for the X-1508 DOME COACH...list \$19.95

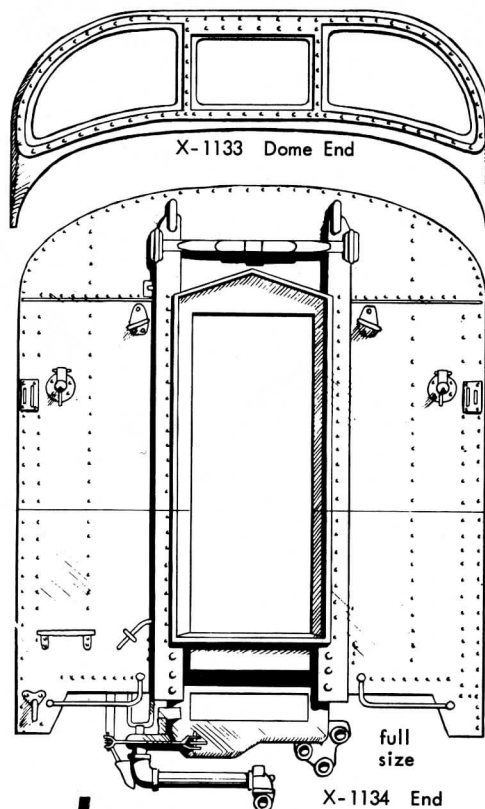
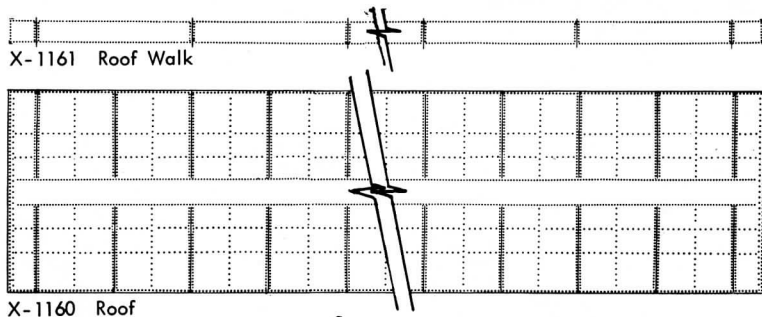
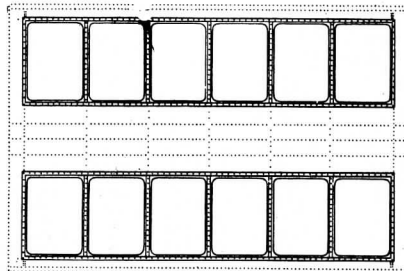
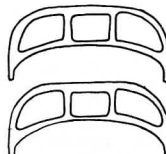
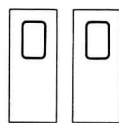
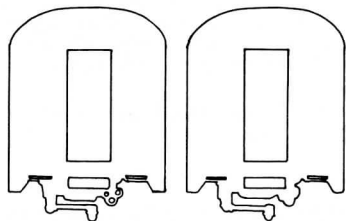
Roof & roof walk is supplied with all cars.





This group of PARTS is for the X-1509 DOME DINER...list \$19.95

Roof & roof walk is supplied with all cars.



U.P. Parts

Roof and roof walk (supplied on all cars) are illustrated here to avoid repetition. Drawing is foreshortened to conserve space.



Dummy
OA-44



Working
X-9SD

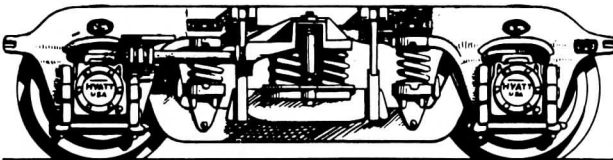


full
size

X-1160	Roof.....	ea	4.75
X-1161	Roof Walk	ea	1.00
X-1162	Sides (specify car*).....	pr	6.00
X-1134	Ends.....	pr	6.00
X-1163	Dome Wrapper (UP).....	ea	3.00
X-1164	Dome Wrapper (GN).....	ea	8.00
X-1133	Dome Ends.....	pr	2.00
X-1165	Detail Set (specify car*)..	set	.20

*i. e.; X-1162 Coach, X-1165 Baggage, etc.

OA-44	Dummy Coupler	pr	1.25
X-9SD	Working Coupler	pr	1.75



U.P. Trucks

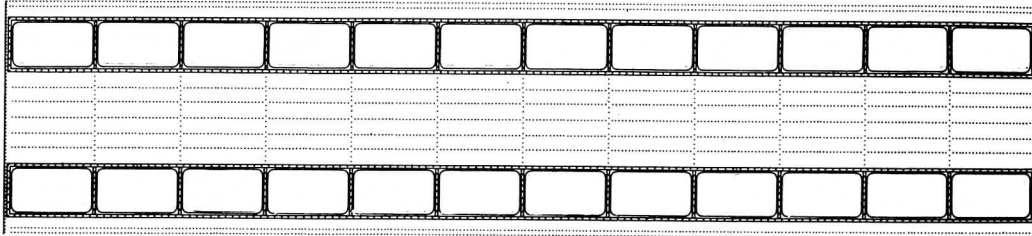
TK-300	U. P. Streamline.....	pr	14.50
TK-300A	U. P. Streamline (less wheels)	pr	12.50

(Note: Truck journals are fully sprung & equalized.)

G.N. Vista Dome Wrapper

At the request of "O" Scale modelers, we have produced a "full length" dome wrapper. Used with our UP car parts, it makes a fairly accurate version of the Great Northern vista dome cars.

X-1164.....ea \$8.00





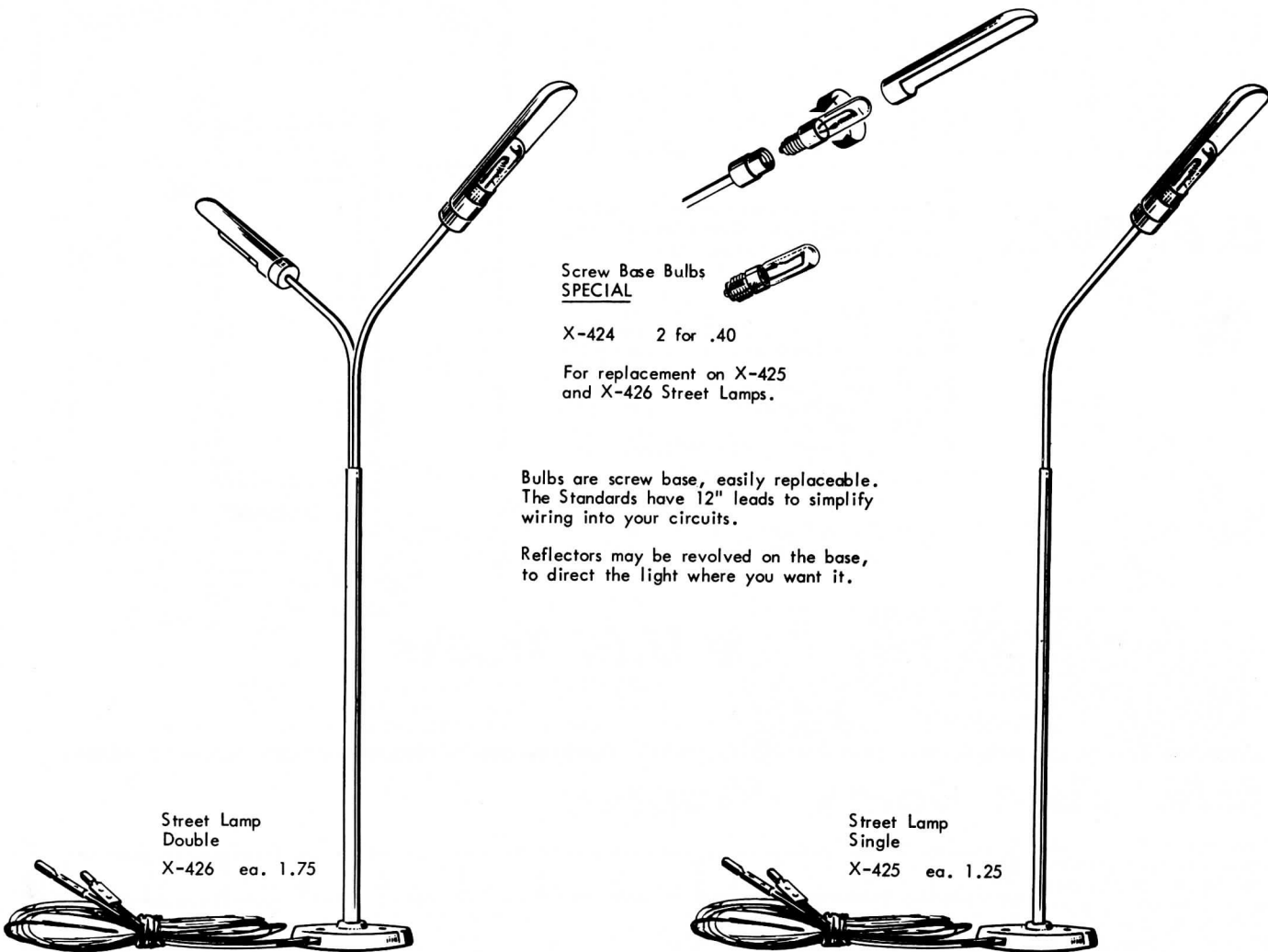
Street Lamps

by *Komtron*

Single and double light standards, such as these ultra modern ones, find many uses in model railroading. The most obvious, of course, is street lights but what about parking lots, ball parks, railroad stations, yards, and engine terminals?

Made of brass, completely wired, ready to install.

Limited supply! Order yours NOW, before they're all gone!



Screw Base Bulbs
SPECIAL

X-424 2 for .40

For replacement on X-425
and X-426 Street Lamps.

Bulbs are screw base, easily replaceable. The Standards have 12" leads to simplify wiring into your circuits.

Reflectors may be revolved on the base, to direct the light where you want it.

Street Lamp
Double
X-426 ea. 1.75

Street Lamp
Single
X-425 ea. 1.25



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when sold out. ORDER YOURS NOW!**

If your pike operates oil burning steam locos,
you must have fuel oil columns along with the
other servicing facilities required. Most roads
spot them wherever water columns are needed
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These O scale columns are all-brass con-
struction, top quality craftsmanship. Imported
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