

# BOWSER - PARTS

**A**

70044 Air compressor    70111 Air compressor    70192 Air compressor mounting brkt.

70191 Air compressor    70273 Air compressor

726 Air compressor    3601 Air compressor for 2/56 tapped hole    3600 Air compressor 00-90 tapped hole    70066 Air tank

70028 Air tank

70064 Air tank    70187 Large air tank    70275 Dual air tanks

727 Air tank    70188 Short air tank    70274 Small air tank    91021 Air tank

70145 Air reservoir M-1 for solid pilot    70048 Air reservoir    70116 Reservoir, #1 main

3500 Air reservoir    70115 Reservoir #2 main    70110 Reservoir equalizing    70114 Reservoir emergency supply

70247 L-1 Front Tank for 2-56 screw    821 Front tank for 0 screw    603 Front tank    91029 Front tank

836 3/32" Brass needle point axle    849 3/32" Non magnetic stainless needlepoint axle

1620 Axle 1/8 dia x .780 long    842 Steel Axle, 3/32" dia. knurled  
 1621 Axle 1/8 dia x .780 long knurled    844 Steel Axle, 3/32" dia.  
 1622 Axle 1/8 dia x .820 long  
 1623 Axle 1/8 dia x .820 long knurled  
 1624 Axle 1/8 dia with .093 shoulders

**B**

15011 Bearing, driver 1/8" hole    15012 Bearing, driver, square, 1/8" hole, for .040 side rails on underframe    908 Brass bearing, 3/32" hole

1510 Bearing 3/32" hole

100511 Back plate for LEAD Cast K-4    100611 Back Plate for E-6, H-9

101011 Back Plate for T-1    100661 Back Plate, LIRR or PRR G-5

428 Bulb headlight    35103 Insulation terminal    70264 Drawbar bushing    3703 Bushing, wheel insulation

**C**

4220 Coupler, w/spring 3/32" hole    2778 Coupler pocket cover    4224 Coupler pocket    70254 Coupler pocket cover A-5 tender

70230 Dockside coupler pocket cover

2311 Coal load, high side tender

2310 Coal board

2312 Coal load, low side tender

2331 Coal load, long haul tender

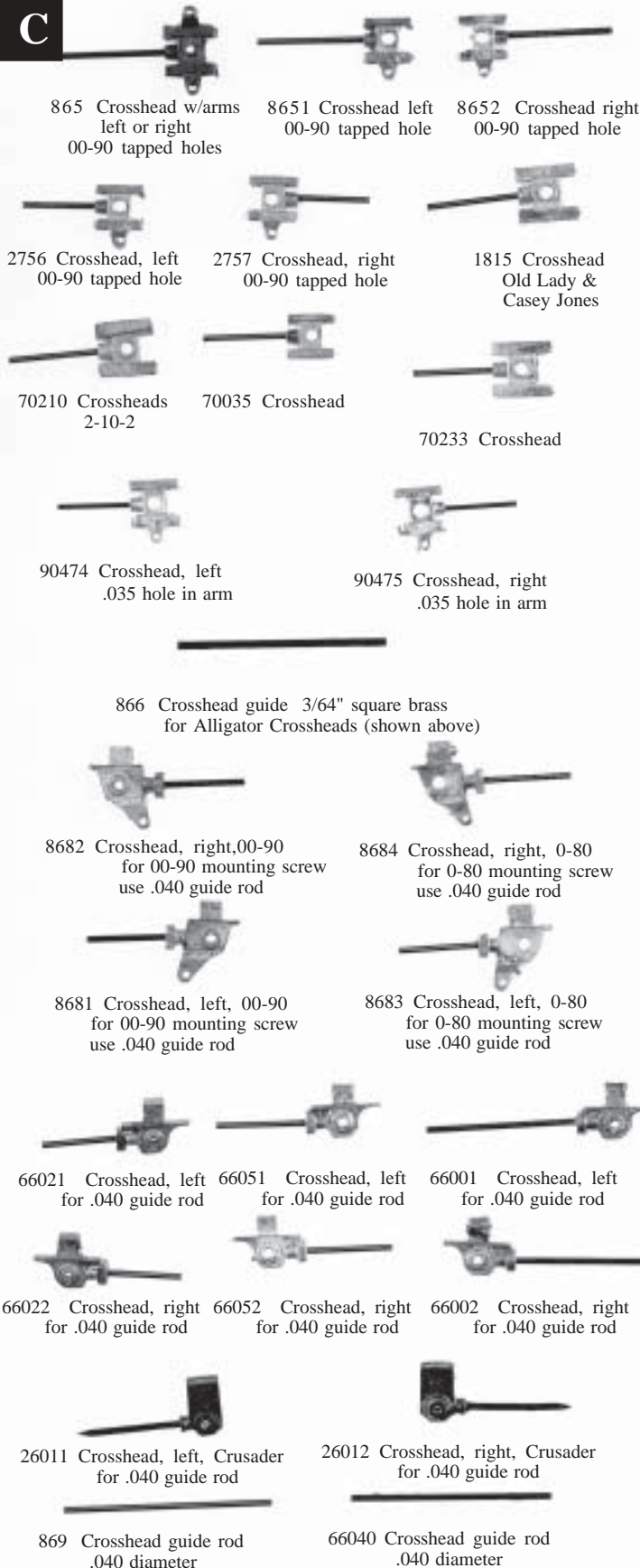
**B**

610 Bell    740 Bell    90301 Bell

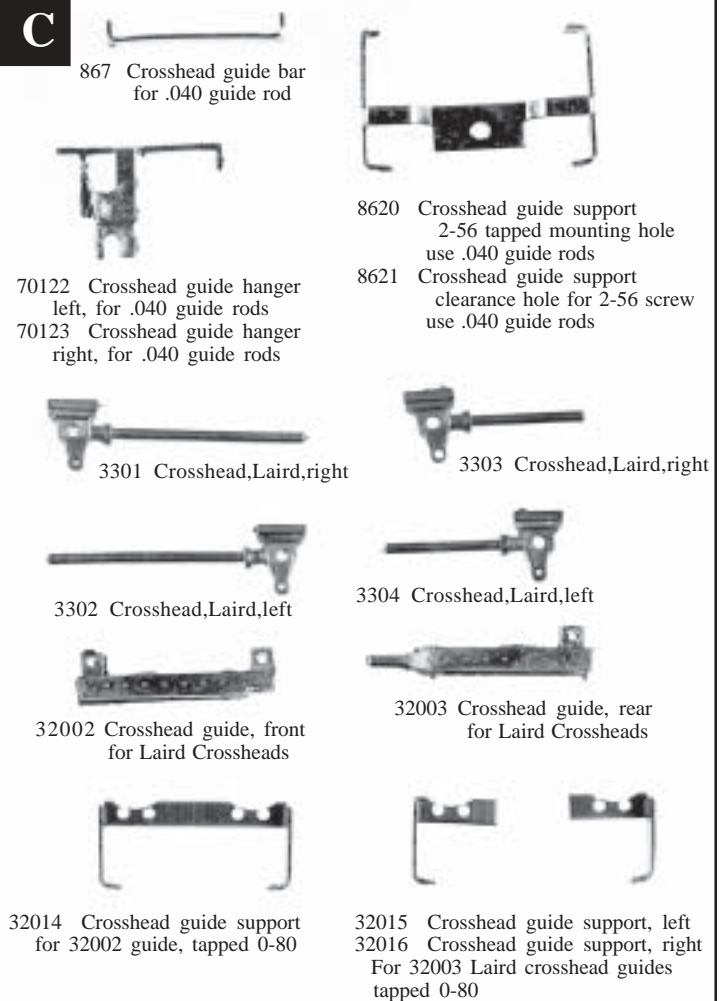
30031 Bell, brass    30032 Bell Bracket

# BOWSER - PARTS

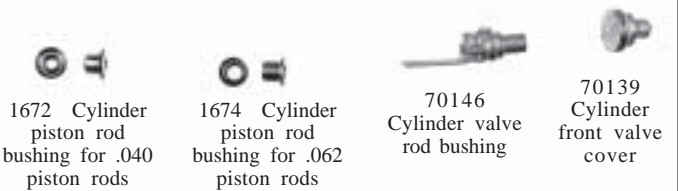
**C**



**C**



**CYLINDERS** - SEE THE EXPLODED VIEW DRAWING OF EACH LOCOMOTIVES



Drivers are assembled (quartered) on 1/8" diameter steel axles.  
Crankpin holes are tapped 0-80. With or without Bearings



**Spoked**



**Box Pox**



**Scullen**



15012 Square bearing



15011 Round bearing

**69" BOX POX DRIVERS**

**69" Box Pox Driver with 15011 bearings**

- 16531 69" Light
- 16533 69" Medium
- 16535 69" Heavy
- 16532 69" Light w/gear 51005
- 16534 69" Medium w/gear 51005
- 16536 69" Heavy w/gear 51005

**69" Box Pox Drivers Flanged no bearings**

- 16521 69" Light
- 16523 69" Medium
- 16525 69" Heavy
- 16522 69" Light w/gear 51005
- 16524 69" Medium w/gear 51005
- 16526 69" Heavy w/gear 51005

**69" Box Pox Drivers - Blind with bearings 15011**

- 16537 69" Medium
- 16538 69" Heavy w/ gear 51005
- 16539 69" Medium w/ gear 51005

**50" SPOKED DRIVERS**

**50" Drivers No Bearings**

- 17850 50" spoke driver
- 17851 50" spoke driver w/gear

**50" Drivers - Hub insulated no bearing**

- 17810 50" spoke driver, Dockside
- 17820 50" spoke driver w/gear, Dock

**62" SPOKED DRIVERS**

**62" Spoke Flanged Drivers no bearings**

- 18000 62" Light
- 18082 62" Medium
- 18060 62" Heavy
- 18050 62" Light with gear 1021
- 18092 62" Medium with gear 1021
- 18070 62" Heavy with gear 1021

**62" Spoke Flanged Drivers w/15012 bearing**

- 18001 62" Light
- 18083 62" Medium
- 18061 62" Heavy
- 18051 62" Light with gear 1021
- 18093 62" Medium with gear 1021
- 18071 62" Heavy with gear 1021

**62" Spoke Drivers - Blind no bearing**

- 18030 62" Light
- 18080 62" Medium
- 18020 62" Heavy
- 18010 62" Light with gear 1021
- 18090 62" Medium with gear 1021
- 18040 62" Heavy with gear 1021

**62" Spoke Blind Drivers with 15012 bearings**

- 18031 62" Light
- 18081 62" Medium
- 18021 62" Heavy
- 18011 62" Light with gear 1021
- 18091 62" Medium with gear 1021
- 18041 62" Heavy with gear 1021

**69" SPOKED DRIVERS**

**69" Spoke Flanged Drivers no bearings**

- 20011 69" Light
- 20012 69" Medium
- 20014 69" Heavy
- 20013 69" Heavy w/gear 51005

**69" Spoke Flanged Drivers with 15012 bearing**

- 20051 69" Light
- 20052 69" Light w/gear 1021
- 20053 69" Heavy

**69" Spoke Flanged Drivers with 15011 bearing**

- 20021 69" Light
- 20025 69" Medium
- 20024 69" Heavy
- 20022 69" Light w/gear 51005
- 20026 69" Medium w/gear 51005
- 20023 69" Heavy w/gear 51005

**69" Spoke Blind Drivers with 15011 bearing**

- 20027 69" Heavy
- 20028 69" Medium w/gear 51005

**69" SCULLEN DRIVERS**

**69" Scullen Drivers no bearings**

- 10011 69" Light
- 10012 69" Medium
- 10013 69" Heavy w/gear 51005

**69" Scullen Drivers Flanged with bearings 15011**

- 30111 69" Light
- 30115 69" Medium
- 30113 69" Heavy
- 30112 69" Light w/gear 51005
- 30116 69" Medium w/gear 51005
- 30114 69" Heavy w/gear 51005

**72" SPOKED DRIVERS**

**72" Spoke Drivers - Flanged with bearings 15011**

- 40111 72" Light
- 40115 72" Heavy
- 40114 72" Medium w/gear 51105

**72" Spoke Driver - Flanged no bearings**

- 40110 72" Light
- 40120 72" Medium
- 40130 72" Heavy
- 40135 72" Heavy (Blind)

**72" Spoke Drivers - Blind w/bearings 15011**

- 40112 72" Medium w/gear 51105
- 40113 72" Heavy

**72" Spoke Driver - Flanged with gear 1011- no bearing**

- 40140 72" Light
- 40150 72" Medium
- 40160 72" Heavy

**72" Spoke Driver- no bearing with gear 51005**

- 40170 72" Light, Flanged
- 40180 72" Medium, Flanged
- 40185 72" Medium Blind
- 40190 72" Heavy, Flanged

**72" BOX POX DRIVERS**

**72" Box Pox Drivers - Flanged no bearings**

- 16561 72" Light
- 16563 72" Medium
- 16565 72" Heavy
- 16562 72" Light w/gear 51005
- 16564 72" Medium w/gear 51005
- 16566 72" Heavy w/gear 51005

**72" Box Pox Drivers - Blind with bearings 15011**

- 16577 72" Medium
- 16578 72" Heavy w/gear 51005

**72" Box Pox Drivers - Flanged with bearing 15011**

- 16571 72" Light
- 16573 72" Medium
- 16575 72" Heavy
- 16572 72" Light w/gear 51005
- 16574 72" Medium w/gear 51005
- 16576 72" Heavy w/gear 51005

**80" DRIVERS**

**80" Spoke Driver - Flanged no bearings**

- 16000 80" Light drivers
- 16010 80" Light w/gear 1011
- 16020 80" Light w/gear 51005
- 16030 80" Heavy w/gear 1011
- 16040 80" Heavy
- 16042 80" Heavy w/Mantua gear

**80" Box Pox Drivers - no bearings**

- 17000 80" Flanged
- 17010 80" W/1011 gear, Flanged
- 17020 80" W/1011 gear, Blind
- 17030 80" Blind

**80" Spoke Driver - Flanged with 15012 bearings**

- 16001 80" Light
- 16011 80" Light w/gear 1011
- 16021 80" Light w/gear 51005
- 16031 80" Heavy w/gear 1011
- 16041 80" Heavy

**80" Box Pox with 15012 bearings**

- 17001 80" Flanged
- 17011 80" W/gear 1011, Flanged
- 17021 80" W/gear 1011, Blind

# BOWSER - PARTS

## D



813 Fibre drawbar .125 holes .875 centers



6402 Drawbar, T-1



70172 Drawbar, M-1a



70128 Drawbar, M-1



70255 Drawbar A-5



32103 Connecting bar, Challenger



2320 Doghouse Kit



**Brass Drawbar (.020 thick) with two 1/8 " holes**

- 35112 .750 between centers
- 35113 .812 between centers
- 35114 .875 between centers
- 35115 .937 between centers
- 35116 1.000 between centers
- 35117 1.062 between centers
- 35118 1.125 between centers
- 35119 1.187 between centers
- 35102 .829 between centers
- 65103 1.565 between centers
- 70078 .715 between centers



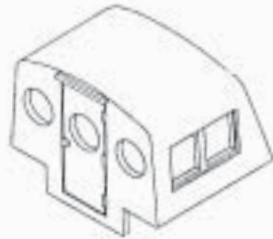
2750 Wireless drawbar, K-11



70046 Drawbar, USRA Mountain



35108 Drawbar 3/32 holes



190-452 PRR Dog house, brass



70251 Turret cover Illinois Central



70252 Small sand Dome Ill. Central



70253 Large sand dome Illinois Central



70070 Steam dome, Northern



70183 Dome, steam



70184 Small sand dome



91028 Steam dome



70106 Steam dome PRR M-1



70069 Pop valve cluster, Northern



91013 Dome, K-4, I-1



91014 Dome, L-1



70182 Large sand dome



70107 Sand box, PRR M-1

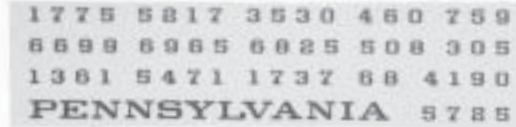


91027 Sand dome



70071 Sand dome, Northern

## DECALS



330 Pk.3 PRR decals,short tenders



8000 Pk.2, decal, long tender



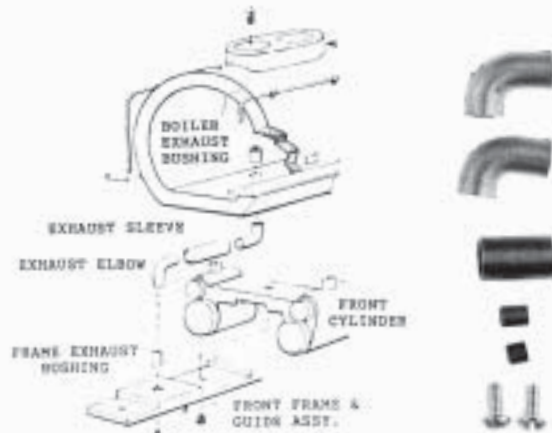
332 Tender decal, Long Island RR

8001 Decal w/stripping, T-1 - NOT SHOWN

## E

### PAINTED ENGINEER & FIREMAN

- 91000 Painted Engineer & Fireman
- 100321 Painted Engineer & Fireman Challenger & Big Boy
- 100412 Painted Engineer & Fireman w/floor and bulkhead, USRA, North
- 100442 Painted Engineer & Fireman with seats, M-1, M-1a, 2-10-2
- 100512 Painted Engineer & Fireman With Backplate, K4, L1, I1 for Lead cast boilers (zinc boiler use 91000)
- 100612 Painted Engineer & Fireman with Back Plate, E-6, H-9
- 100662 Painted Engineer & Fireman w/back plate, G-5
- 100932 Painted Engineer & Fireman Old Lady & Casey Jones
- 101012 Painted Engineer. & Fireman, T-1



100313 Exhaust pipe kit, Challenger

## F



612 Feed water heater, I-1



70072 Feed water, Northern



70161 Feed water heater

# BOWSER - PARTS

**H**

6000 Handrail stanchions, Pack of 10  
Use .020 handrail wire

723 Handrail wire, brass  
.020 dia. x 18"

2920 Headlight  
K-11

2910 Bracket  
light, K-11



**OPERATING HEADLIGHT KIT**

100514 Brass headlight with brass mounting bracket and Grain of Rice bulb. For K-4, E-6, H-9, I-1, L-1, M-1 and G-5's

91016 Headlight

91018 Headlight Bracket



70185 Side roof hatch

70186 Center roof hatch

91019 Tender hatch

91025 Water hatch short PRR tender



221 5" ladder stock

226 12" ladder stock



222 Formed ladder, PRR High & Low Side Tenders

223 Formed ladder, PRR Long Haul Tender

224 Formed ladder, 32' tender

**L**



855 4-wheel lead truck frame 6' 10" wheel base, use 26", 30", 33", 36" wheels on 3/32" axles



70052 Frame, lead truck 7' 5" wheel base 26", 30", 33", 36" wheels on 3/32" axles

850 4 Wheel lead truck kit w/33" wheels & retainers



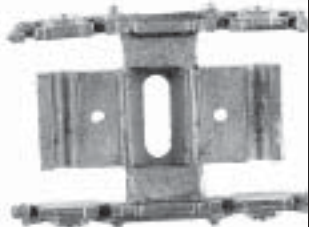
856 Retainer, lead truck



857 Lead truck frame use 26", 30", 33" or 36" wheels on 3/32" axles



1756 Lead truck, 2 wheel

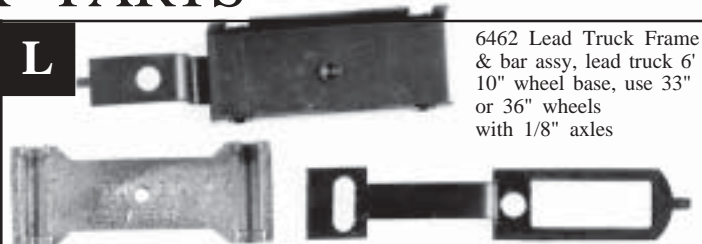


5201 4-Wheel lead truck frame 6' 10" wheel base, use 26", 30", 33", 36" wheels on 3/32" axles



950 Lead truck, 2-wheel

**L**



6462 Lead Truck Frame & bar assy, lead truck 6' 10" wheel base, use 33" or 36" wheels with 1/8" axles

2158 Lead truck, 4-wheel 8' wheel base use 26", 30", 33" or 36" wheels on 3/32" axles

6467 Lead truck bar

**Lead Truck Kits complete with frame, wheels, retainers, springs, spacers and screws for the locomotives listed.**

- 100204 Lead truck kit, K-11
- 100304 Lead truck kit, Challenger
- 100404 Lead truck kit, USRA Mountain
- 100434 Lead truck kit, PRR M-1&M-1a
- 100504 Lead truck kit, K-4
- 100654 Lead truck kit, G-5
- 100604 Lead truck kit, E-6
- 100704 Lead truck kit, I-1
- 100804 Lead truck kit, L-1
- 100904 Lead truck kit, H-9
- 100929 Lead truck kit, Old Lady
- 101004 Lead truck kit, T-1
- 101104 Lead truck kit, Casey Jones

**M**

**MAINRODS**

30013 Main rod, 1.658 between holes tapped 0-80

70232 Main rod, .965 between holes

1824 Main rod, 1.609 between holes 0-08 tapped hole

70259 Main Rod, .965 between holes

70007 Main rod, 1.437 between holes, 0-80 tapped hole

2167 Main rod, 1.437 between holes, 0-80 tapped

878 Main rod, 1.390 between holes, 00-90 tapped hole

877 Main rod, 1.609 between holes 00-90 tapped hole

872 Main rod, 1.609 between centers 00-90 tapped hole

65001 Main rod, 1.187 between centers, 00-90 tapped hole

70010 Main rod, 1.345 between holes, 0-80 tapped hole

70034 Main rod, 1.500 between holes, 0-80 tapped hole

2754 Main rod, 1.345 between holes, 0-80 tapped hole

# BOWSER - PARTS

## M Mechanism Kits complete with frame, drivers, cylinder, side rods, crossheads, valve gear and motor. Pilot not included

- 100519 Mechanism kit, 80" drivers, 4-6-2 Pacific
- 100219 Mechanism kit, 69" drivers, 4-6-2 Pacific
- 100319 Mechanism kit, 69" drivers, 4-6-6-4
- 100369 Mechanism kit, 69" drivers, 4-8-8-4
- 100669 Mechanism kit, 69" drivers, 4-6-0
- 100719 Mechanism kit, 62" drivers, 2-10-0
- 100419 Mechanism kit, 69" drivers, 4-8-2
- 101119 Mechanism kit, 62" drivers with pilot, 4-6-0
- 100919 Mechanism kit, 62" drivers, 2-8-0
- 100944 Mechanism kit, 62" drivers, with pilot, 2-8-0
- 100619 Mechanism kit, 80" drivers, 4-4-2



Marklight Jewels  
.050 Diameter  
(Package of 10 pcs)

7500  
Marker  
light

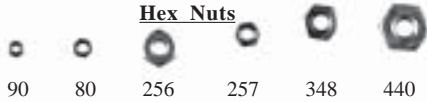
- 7510 Red
- 7520 Amber
- 7530 Green
- 7540 Blue
- 7550 Clear

Headlight Jewels  
(package of 10)

- 30104 .187 diameter, flat back
- 30105 .156 diameter flat back
- 729 .156 dia.

## N

### Hex Nuts

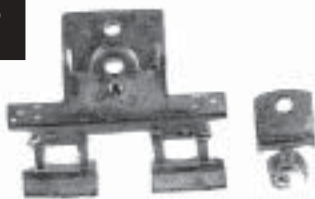


90    80    256    257    348    440

### Hex Nuts

- 90 Pk.15 Hex nut 00-90
- 80 Pk. 15, Hex nuts 0-80
- 256 Pk.20 hex nuts, 2-56
- 257 Pk.20 small nuts, 2-56
- 348 Pk.12 nuts, 3-48
- 440 Pk.12 nuts, 4-40

## P



- 70117 PRR Pilot, footboard PRR M-1
- 91048 Brass pilot M-1
- 70132 Coupler, dummy



- 818 Pilot, pewter, tapped 2-56
- 91046 Brass pilot, tapped 2-56
- 70246 Pilot pewter, L-1 use 2-56 FH screw
- 91047 Brass pilot L-1 use 2-56 FH screw



- 815 Pilot, pewter
- 91045 Brass pilot



- 70171 PRR cast pilot
- 91049 Brass pilot M-1A
- 70174 Dummy coupler M1A



- 810 Cast pilot, pewter, K-4, E-6
- 817 Coupler arm



- 816 Pilot, pewter, G-5
- 91050 Brass pilot G-5

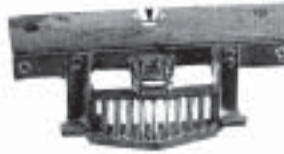
## P



- 70195 Pilot, pewter 2-10-0
- 91051 Brass pilot USRA 2-10-2



- 70073 Pilot, Northern
- 91053 Brass pilot Northern



- 70032 Pilot, USRA Mountain
- 91052 Brass pilot USRA Mountain



- 70074 Pilot shield, Northern



- 70194 Pilot steps



- 1378 Pilot, USRA heavy Mountain



- 2600 Pilot, footboard, zinc, K-11
- 91054 Brass pilot K-11



- 2601 Pilot, passenger, Brass, K-11



- 3102 Pilot step, Challenger



- 3101 Pilot beam, Challenger



- 3103 Pilot shield, Challenger

# BOWSER - PARTS

**P**

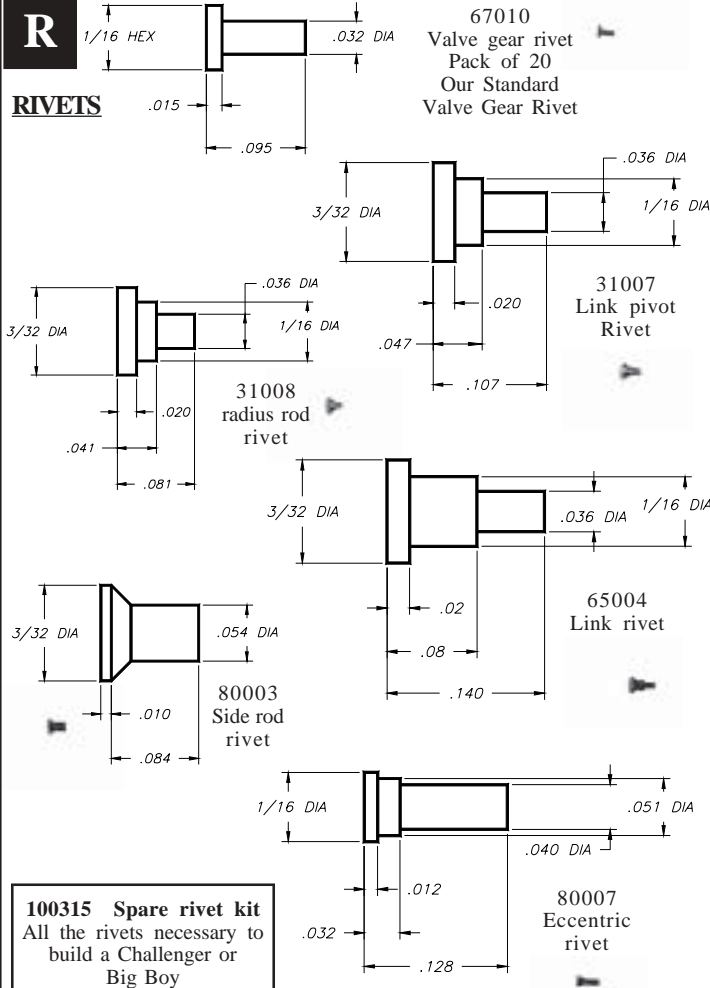
## HO PIPING DETAIL

**.020 brass wire soldered to piping brackets**

- 100443 Assembled Piping for M-1 & M-1a
- 100513 Assembled Piping for K-4
- 100613 Assembled Piping for E-6
- 100663 Assembled Piping G-5's
- 100713 Assembled Piping for I-1
- 100813 Assembled Piping for L-1
- 100913 Assembled Piping for H-9

**R**

## RIVETS



**100315 Spare rivet kit**  
All the rivets necessary to build a Challenger or Big Boy

**S**

## SCREWS

RH=Round Head FH=Flat Head

### 2-56 Round Head Screws (# in package and length shown)

- 256021 Pk.20 1/8"
- 256031 Pk.20 3/16"
- 256039 Pk.20 7/32" RH
- 256047 Pk.10 1/4"RH Nylon
- 256041 Pk.20 1/4"
- 256051 Pk.20 5/16"
- 256061 Pk.20 3/8"
- 256071 Pk.12 7/16"
- 256081 Pk.12 1/2"
- 256101 Pk.12 5/8"
- 256121 Pk.12 3/4"
- 256131 Pk.12 13/16"
- 256181 Use 256183

### 2-56 Flat Head Screws (# in package and length shown)

- 256022 Pk.20 1/8"
- 256032 Pk.20 3/16"
- 256042 Pk.20 1/4"
- 256082 Pk.12 1/2"
- 256102 Pk.12 5/8"
- 256122 Pk.12 3/4"
- 256162 Pk.10 1"

### 2-56 Phillister Head Screws (# in package & Length shown)

- 256043 Pk.20 1/4"
- 256053 Pk.20 5/16"
- 256073 Pk.12 7/16"
- 256143 Pk.12 7/8"
- 256183 Pk.10 1-1/8"
- 256203 Pk.10 1-1/4"

### 2-56 Pan Head Self Tapping (# in package, length & type)

- 256038 Pk.12 3/16"
- 256058 Pk.12 5/16"

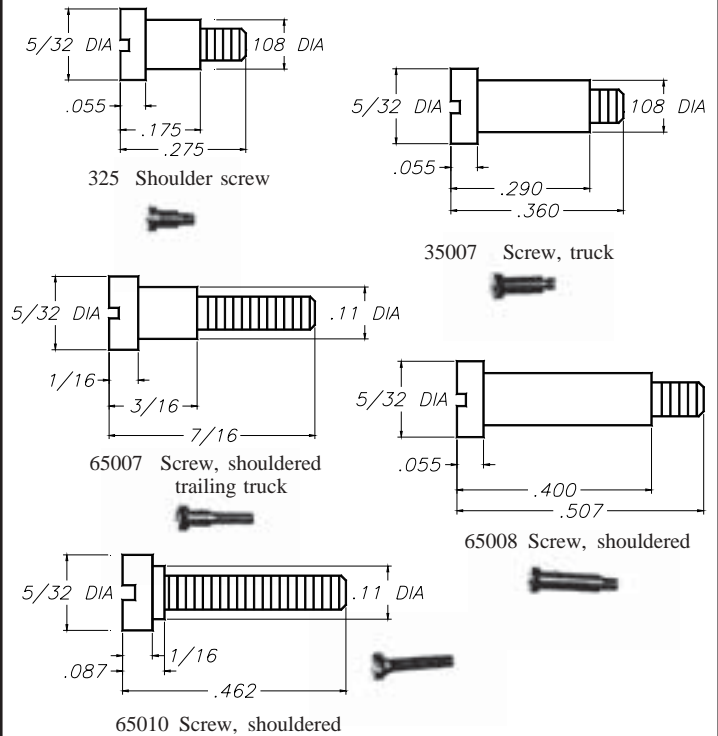
### Miscellaneous Screws

- 804 Pk.12 hex head 0-80x1/4
- 805 Pk.12 hex head 0-80x5/16
- 806 Pk.12 round hd. 0-80x1/8
- 807 Pk.12 flat hd 0-80x3/16
- 808 Pk.12 flat hd 0-80 x 3/8"
- 809 Pk.12 round hd 0-80x3/16
- 904 Pk.15 optical 00-90x1/4"
- 2603 Pk.12 00x5/32", self-tapping
- 2605 Pk.12 0x5/32, self-tap.pan hd.
- 2606 Pk.12 0x3/8, self-tap.pan hd.
- 2622 Pk.12 2x1/8, self-tap.pan hd.
- 2623 Pk.12 2x3/16, self-tap.pan hd.
- 2624 Pk.12 2x1/4, self-tap.pan hd.

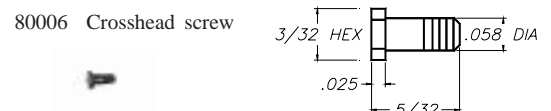
### Hex Nuts

- 80 Pk. 15, 0-80
- 90 Pk.15, 00-90
- 256 Pk.20, 2-56
- 257 Pk.20, 2-56, small
- 348 Pk.12, 3-48
- 440 Pk.12, 4-40

## Shouldered Screws - 2-56 Thread



## Shouldered Screw - 0-80 Thread



**S**

## SCREWS

RH=Round Head  
FH=Flat Head

### 3-48 Screws

- 348021 Pk.20 1/8" RH
- 348024 Pk.20 1/8" pan hd.
- 348028 Pk.10 1/8" pan head Phillips, self tapping
- 348029 Pk.10 5/32" FH
- 348031 Pk.20 3/16" RH
- 348041 Pk.20 1/4" RH
- 348048 Pk.20 1/4" pan hd. self tapping
- 348061 Pk.20 3/8" RH
- 348062 Pk.20 3/8" FH
- 348082 Pk.12 1/2" FH
- 348131 Pk.10 13/16" RH
- 348162 Pk.10 1" FH

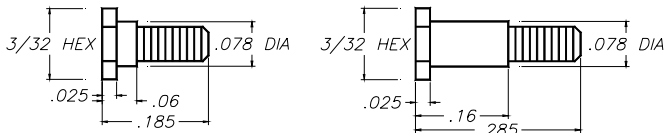
### 4-40 Screws

- 440029 Pk.10 5/32" RH
- 440031 Pk.12 3/16" RH
- 440032 Pk.12 3/16" FH
- 440037 Pk.10 3/16" Nylon
- 440038 Pk.12 3/16 pan head self-tap
- 440039 Pk.10 3/16" socket head set screw
- 440042 Pk.12 1/4" FH
- 440061 Pk.12 3/8" RH
- 440101 Pk.10 5/8" RH
- 440102 Pk.10 5/8" FH
- 440121 Pk.10 3/4" RH
- 440161 Pk.10 1" RH
- 440162 Pk.10 1" FH

# BOWSER - PARTS

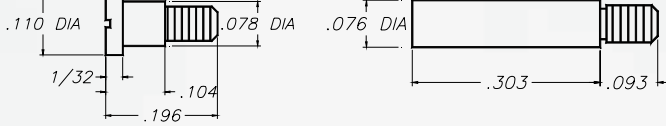
**S**

## Crankpin Screws - 0-80 Threads



1720 Crank pin, short

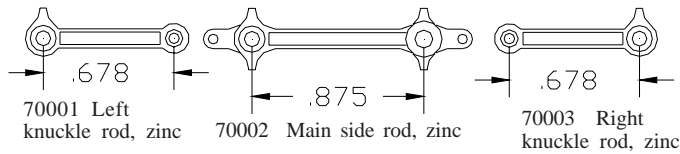
1721 Crank pin, long



80004 Crankpin screw

31010 Crank pin, main

## Brass or zinc die cast side rods

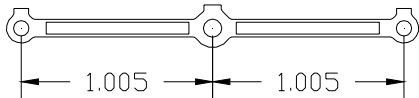


70001 Left knuckle rod, zinc

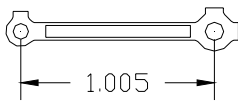
70002 Main side rod, zinc

70003 Right knuckle rod, zinc

Use side rivet 80003, side rod screws 80004 and main crankpin #31010



871 Side rod, (brass) use 1720 side rod screw and 874 or 873 main crank spacer



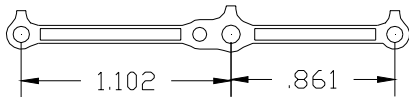
8711 Side rod, left, (brass) use 1720 side rod screw and 874 main crank spacer



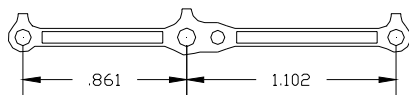
8712 Side rod, right, (brass) use 1720 side rod screw and 874 main crank spacer



65000 Side rod, T-1, (brass) use 1720 side rod screw and 1721 main crankpin screw

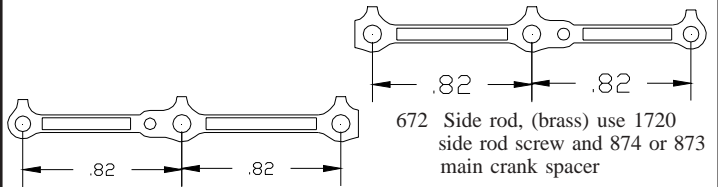


8771 Side rod, left, (brass) use 1720 side rod screw and 874 main crank spacer

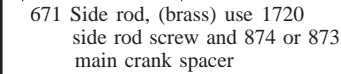


8772 Side rod, right, (brass) use 1720 side rod screw and 874 main crank spacer

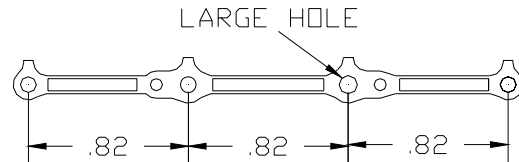
## Brass or zinc die cast side rods



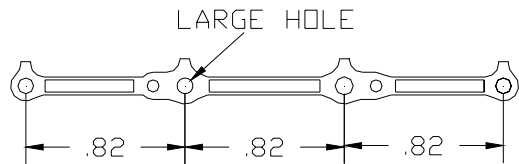
672 Side rod, (brass) use 1720 side rod screw and 874 or 873 main crank spacer



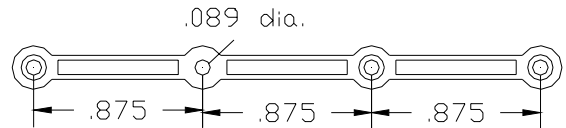
671 Side rod, (brass) use 1720 side rod screw and 874 or 873 main crank spacer



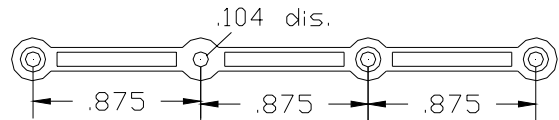
8761 Side rod, left, (brass) use 1720 side rod screw and 874 or 873 main crank spacer



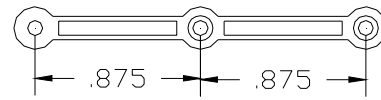
8762 Side rod, right, (brass) use 1720 side rod screw and 874 or 873 main crank spacer



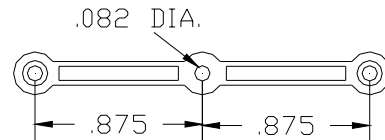
70015 Side Rod, (brass) use 8004 side rod screw and 31010 main crank pin



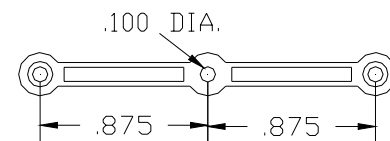
70043 Side rod, (brass) use 80004 side rod screw and 873 main crank spacer



70012 Side Rod, (brass) use 80004 side rod screws and 31010 main crank pin



70013 Side Rod, (brass) use 80004 side rod screws and 31010 main crank pin



2755 Side Rod, (brass) use 80004 side rod screws and 873 main crank spacer

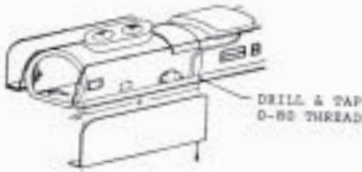


# BOWSER - PARTS

**S**

**SIDE ROD KITS - Complete with side rods, main rods, crossheads and all screw to assemble these parts to a mechanism**

- 100201 Side rod kit, K-11
- 100301 Side rod kit, Challenger
- 100351 Side rod kit, Big Boy
- 100401 Side rod kit, USRA Mountain
- 100431 Side rod kit, PRR M-1 & M-1a
- 100501 Side rod kit, K-4
- 100601 Side rod kit, E-6
- 100651 Side rod kit, G-5
- 100901 Side rod kit, H-9
- 100801 Side rod kit, L-1
- 100701 Side rod kit, I-1
- 100926 Side rod kit, Old Lady
- 101101 Side rod kit, Casey Jones



100312 Smoke Lifter Kit

**Spacers (Brass) 1/8" OD x 3/32 ID**



875	8451	1013	70033	854	1014	954
Spacer	Spacer	Spacer	Spacer	Spacer	Spacer	Spacer
.062	.125	.187	.275	.367	.450	.470"
long	long	long	long	long	long	long

**Miscellaneous Spacers**

873 Spacer 3/32" OD x 1/16" ID x .165 Long	32106 Spacer .110 OD X .088 ID x .100 Long	32107 Spacer .110 OD x .088 x .135 Long	32110 Spacer .187 OD x .156 ID .125 Long
---	--	---	--

**SPRINGS**



323 Leaf Spring assembly, 320 trucks	324 Compression spring, for leaf spring 323 and 70 Ton Trucks 320 trucks	1134 Spring	5203 Spring, lead truck
--------------------------------------	--	-------------	-------------------------



70102 Smokebox front, PRR M-1

70169 Smoke box front, M-1a

70021 Boiler front, USRA Mountain, Northern, N-2s



3300 Smoke box front, Challenger & Big Boy

2700 Smoke box front, K-11

30030 Smoke Stack Big Boy & Challenger

**T**

**TENDER TRUCKS - All metal with nonmagnetic axles**



320 4-wheel w/leaf springs

35107 Buckeye



319 Dolphin

19010 Commonwealth



2989 Andrews

2988 NYC



2990 USRA

2987 Reading



7006 8-wheel

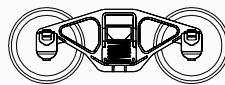


**FREIGHT TRUCKS - metal**

- 2984 70T AAR Sprung, for Athearn
- 2985 70T AAR Sprung

**PRR CROWN 70 TON TRUCKS**

- 74091 Pair - Plastic



**CABOOSE TRUCKS**

- 74013 Pair trucks N-5c - Plastic
- 74055 PRR cab (pr.) truck-sprung Brass

**TOOLS**

- 35 Hex wrench for 0-80 screws
- 36 Rivet tool, For Bowser, Mantua, Roundhouse rivets

- 79001 Allen wrench, for #4 set screw
- 79002 Allen wrench, for #6 set screw

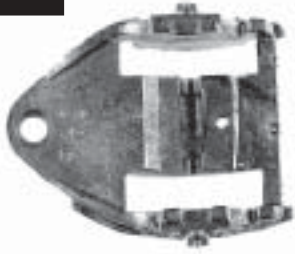


**HO LOCO AND CAR HOLDER**

- 22 HO Loco and Car holder

# BOWSER - PARTS

## T TRAILING TRUCKS



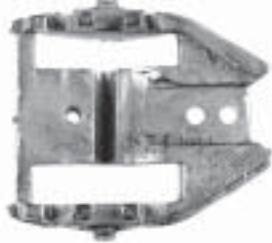
841 Frame - USE 50" wheel on 3/32 axle (our #838)



838 50" spoke wheel & axle assy



856 Retainer

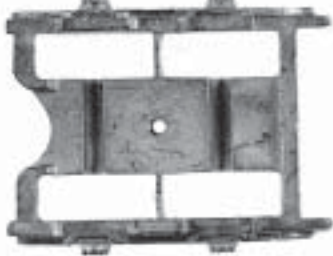


70120 Trailing truck tongue for 70119



70119 Trailing truck use 70120 tongue

5298 Retainer for 5299



70076 Trailing truck frame



5299 4-Wheel trailing truck frame use #142 40" wheels on 3/32" axles



3400 Frame, trailing truck, Challenger use 630 trailing truck wheel

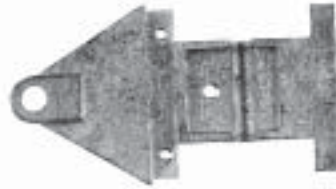
## T



630 Trailing truck wheel



2900 Frame, trailing truck use 630 wheel



70292 Trailing truck frame



70293 Trail truck side frame - left

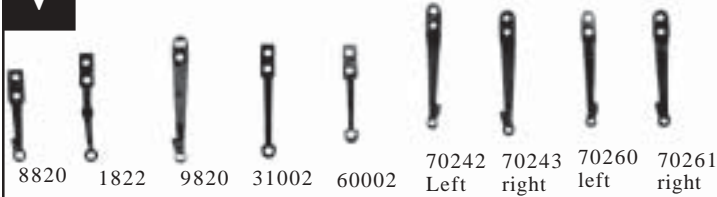


70294 Trail truck side frame - right

### Trailing Truck Kits (complete frame, wheels, spacers, & screws)

- 100507 Trailing truck kit, K-4
- 100207 Trailing truck kit, K-11
- 100311 Trailing truck kit chal, big boy
- 100407 Trailing truck kit, USRA Mount
- 100437 Trailing truck kit, M-1&M-1a
- 100478 Trailing truck kit, Northern
- 100607 Trailing truck kit, E-6
- 100807 Trailing truck kit, L-1

**V** COMBINATION LEVERS



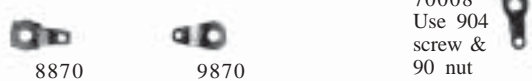
8820 1822 9820 31002 60002 70242 Left 70243 right 70260 left 70261 right

CROSSHEAD LINKS



1818 8830 9830 31001 60001

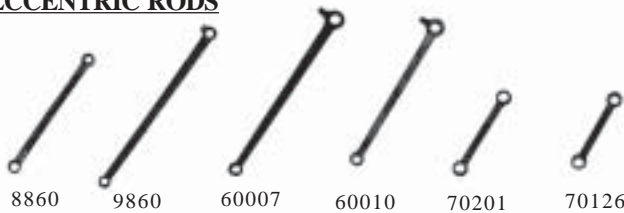
ECCENTRIC CRANKS



8870 9870

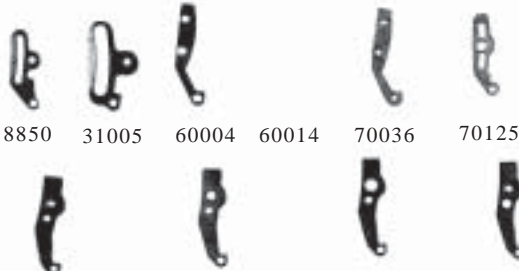
70008  
Use 904  
screw &  
90 nut

ECCENTRIC RODS



8860 9860 60007 60010 70201 70126

RADIUS LINKS



8850 31005 60004 60014 70036 70125

9850 Top hole tapped 00-90 screw  
9851 Top hole clears 00-90 screw  
9852 Top hole Clears a 0-80 screw  
9853 Middle hole clears 0-80 screw

RADIUS RODS



8840 9840 9841 31004 60009 60003

70262 1823 Middle Hole Tapped 00-90  
70124 Bottom hole clears 00-90 screw  
70037

**V** VALVE RODS



8810 9810 9811 31003 31006 60005 67000

67010 Valve Gear Rivets  
Pack of 20

VALVEGEARKITS - Complete with rivets

- 100205 Valve gear kit, K-11
- 100305 Valve gear kit, Challenger, includes crossheads and eccentrics
- 100355 Valve gear kit, Big Boy
- 100405 Valve gear kit, USRA Mountain
- 100435 Valve gear kit, M-1 & M-1a
- 100505 Valve gear kit, K-4
- 100605 Valve gear kit, E-6
- 100705 Valve gear kit, I-1
- 100735 Valve gear kit, 2-10-2
- 100805 Valve gear kit, L-1
- 100905 Valve gear kit, H-9
- 100930 Valve gear kit, Old Lady
- 101105 Valve gear kit, Casey Jones

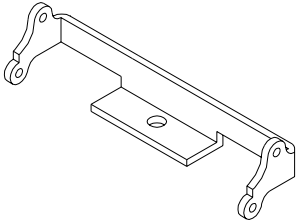
HO ASSEMBLED VALVE GEAR

All parts are riveted together - does not include crosshead unless specified

- 500205 For K-11 Pacific
- 500305 For Challenger
- 500355 For Big Boy
- 500405 For USRA Mountain & Northern
- 500435 For M-1 & M-1a
- 500505 For K-4 Pacific & G-5's
- 500605 For E-6 Atlantic
- 500705 For I-1 Decapod
- 500735 For 2-10-2
- 500805 For L-1 Mikado
- 500905 For H-9 Consolidation
- 500930 For Old Lady
- 501105 For Casey Jones

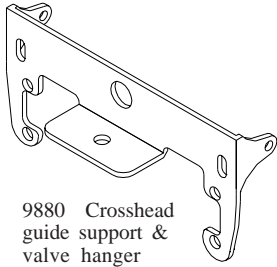
# BOWSER - PARTS

## V VALVE GEAR HANGERS

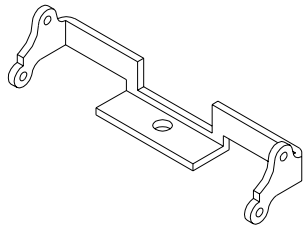


8890  
Reverse lift

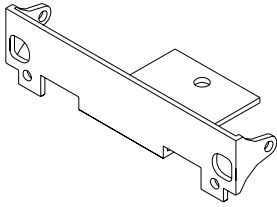
8880 Valve hanger, 2-56 tapped mounting hole  
8883 Valve hanger, 3/32 mounting hole



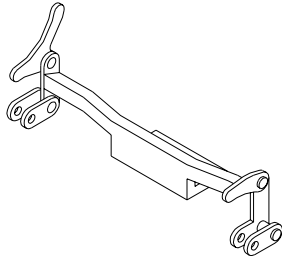
9880 Crosshead  
guide support &  
valve hanger



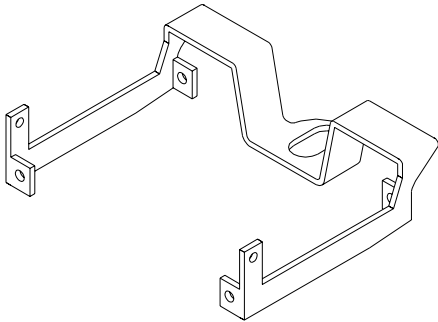
8882 Valve hanger, new E-6



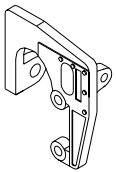
9890 Valve hanger, I-1, L-1



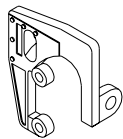
70121 Valve gear hanger, PRR Mountains



66010 Valve Gear Hanger & Crosshead guide support, T-1

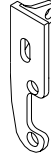


90472 Valve Gear Hanger,  
Left A-5

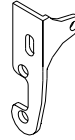


90473 Valve Gear Hanger,  
Right, A-5

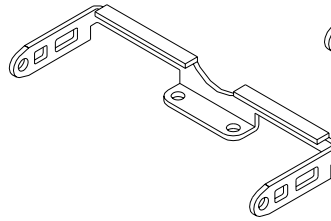
## V



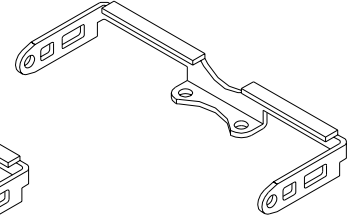
70245 Valve gear hanger  
right dockside



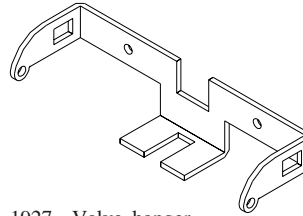
70244 Valve gear hanger  
left dockside



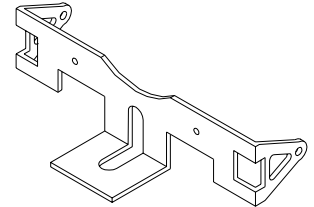
30008 Valve gear hanger,  
Challenger, Big Boy



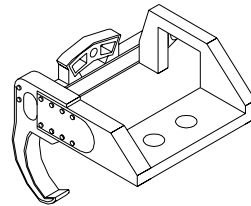
30008 Valve gear hanger,  
Challenger, Big Boy



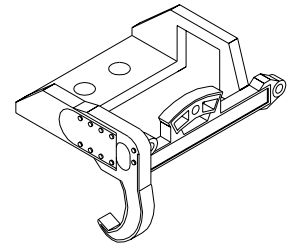
1927 Valve hanger,  
Casey Jones



1779 Valve hanger, Old Lady

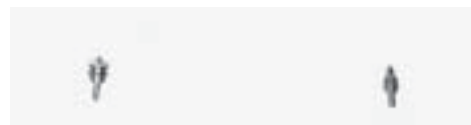


70200 Right valve hanger



70199 Left valve hanger

## POP VALVES

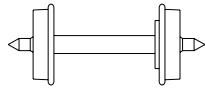


728 Pop valve, PRR

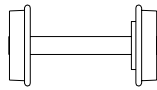
1857 Pop valve

# BOWSER - PARTS

**W**



**Needlepoint Axle Wheel Set**  
Non magnetic Stainless Axle



**Flush End Axle Wheel Set**

All Wheels Set have 3/32" Axle  
One Wheel is insulated unless specified  
All Wheels are Brass

- 18926 26" Wheel set, flush end
- 36014 30" Wheel set w/needlepoint axle
- 18930 30" Wheel set axle, flush end
- 619 33" Wheel set, flush end, both wheel insulated, 3/32" axle
- 620 33" Wheel set, flush end, both wheel insulated, 1/8" axle
- 36012 33" Wheel set w/needlepoint axle
- 74018 33" Chilled wheel set - brass axle - Delrin Wheels
- 18934 34" Wheel set, flush end
- 36011 34" Wheel set w/needlepoint axle
- 18936 36" Wheel set, flush end
- 36010 36" Wheel set, w/needlepoint axle
- 36016 36" Wheel set, flush end
- 6991 40" Flanged wheelset, w/bearing, flush end
- 6993 40" Blind wheelset w/bearing, flush end
- 18940 40" Wheelset, flush end
- 36015 40" Wheelset w/needlepoint axle
- 142 42" wheel set blunt axle
- 630 42" wheel set, trailing truck
- 36013 42" Wheelset w/needlepoint axle
- 838 50" spoke wheel & axle assy

**Wire**

**Solid Brass and Electrical**

- 723 Brass wire .020 dia. x 18"
- 744 Brass wire .032 dia. x 12"

- 6000 Handrail stanchions (for .020 wire)
- Pack of 10



4999 Electrical Wire, 5"



6992 Electrical Wire (5") w/2 terminals



50315 Electrical wire (5") w/1 terminal



50314 Wire terminal  
(For 4-40 Screw)



50312 Wire terminal  
(For 2-56 screw)

**WORMS AND GEARS**



TOO TIGHT  
WORM BOTTOMS  
IN ROOT OF GEAR  
CAUSING EXCESSIVE  
DRAG ON GEARS.



CORRECT MESH  
SEVERAL TEETH  
IN CONTACT.



TOO LOOSE  
POOR TOOTH CONTACT  
CAUSING EXCESSIVE  
BACKLASH IN GEARS.



**Worm 1010 and Gear 1011**

- ID .093 ID .125
- PD .333 PD .667
- OD .375 OD .705
- Center of worm shaft to center of driver axle .500



**Worm 51106 & Gear 51005**

- ID .093 ID .125
- PD .251 PD .621
- OD .291 OD .661
- Center of worm shaft to center of driver axle .436



**Worm 1030 and Gear 1021**

- ID .093 ID .125
- PD .276 PD .518
- OD .312 OD .554
- Center of worm shaft to center of driver axle .397



51105 Worm (51106) & shaft assembly



32010 Worm (51106) and shaft assembly



901 Worm mount assembly or 903 Worm mount assembly Challenger



902 Rear worm mount assembly



905 Front worm mount Big Boy



1015 Flexible coupling, (1" long) for 3/32" shafts



1016 Universal coupling male



30033 Universal female



30036 Universal female



30035 Universal star

**WASHERS**

- 25 Pk.20 brass washer .130x.250x.020
- 26 Pk.20 brass washer .088x.182x.020
- 27 Pk.20 brass washer .087x.250x.010
- 28 Pk.20 fibre washer .160x.250x.010
- 29 Pk.20 fibre washer .280x.126x.010
- 189 Pk.20 fibre washer .093x.250x.020
- 190 Pk.20 fibre washer
- 191 Pk.20 fibre washer 1/8x5/16x1/32
- 192 Pk.20 fibre