

# Information Package

**\$ 2.00**

## 2-8-4 Nickel Plate Berkshire Steam Locomotive, 1 1/2" Scale



This finely detailed model is of the Berkshire type locomotive as built for the Nickel Plate Road by the Lima Locomotive Works in 1949. These were the last steam locomotives built by Lima and were a fine example of steam locomotive design during the “super power” era.

- Plans for the Locomotive and Tender are Available - Drawn from Original Lima and NKP Drawings
- All Required Castings are Available - Most Produced by Investment or No-Bake Sand Casting Processes for Fine Detail
- Major Machine Work Optionally Available, Work Other Than What is Listed Will be Quoted.
- All Castings, Raw Metals, Hardware and Accessories Usually In Stock
- Design is Fully Proven by a Number of Operational Locomotives.

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## 2-8-4 Nickel Plate Berkshire Steam Locomotive, 1 1/2" Scale

### Specifications:

Overall Width.....	16 9/16 inches
Bore and Stroke .....	2 3/4 x 4 1/4 inches
Driver Diameter (over tread) .....	8 5/8 inches. scale 69"
Axle Bearings, Drivers .....	Radial and Thrust Needle
Driver Lateral Motion.....	Front 5/64 inches .....Others 3/64 inches
Minimum Track Radius .....	40 feet
Valve Gear .....	Baker, Long Lap
Valves .....	Piston, 1 1/2 inch diameter
Smokebox Outside Diameter .....	11 1/8 inches
Fire Box, Inside.....	10 1/2 x 15 5/8 inches, 164 square inches
Weight, Empty .....	Locomotive and Tender .....1770 pounds

This locomotive is one of the most accurate models ever produced. All parts have been reproduced with the highest level of accuracy possible. Careful selection of design elements have also resulted in a powerful, smooth running locomotive that is enjoyable to operate.

The attached listings represent a “work in progress”. We have listed all of the castings needed to build the locomotive. We have also started to list machining costs, raw materials, prefabricated parts, hardware, and other items where we currently have an accurate price. As more of these prices are developed they will be added to this list. If you are interested in machined parts or other items, please stay in touch with us to remain current on these additions to the listing.

Castings are generally in stock. In the case of a few high cost castings we must make minimum orders of sufficient quantity in order to provide the price shown. As you progress through the construction of the locomotive we will make every attempt to have these castings when you need them. In a few cases there may be short delays that we hope you can accommodate by working on other parts. This procedure allows us to maintain the lowest possible prices on all the parts you need.

Prices are subject to change.

Several other live steam suppliers provide parts for this locomotive which they have either designed specifically for this locomotive or provide as part of their regular product line. They are:

David W. Moore 4186 La Canada Rd Fallbrook, CA 92028 Phone: (760)731-6181	Worthington feedwater heater system and power reverse which were designed specifically for this locomotive.
Superscale Locomotive Co. 367-A Beckett Pl. Grover Beach, CA 93433-1551	Locomotive driver brake beams, headlights, non-working generator castings, couplers, and numerous fittings.

The following Berkshire builders may be contacted for information in regard to building the locomotive:

Gil Beard	5230 Meadow Croft Ln.	Pilot Hill, CA 95664	(530)823-8142
Jack Bodenmann	1099 Mentone Ave. e-mail: jbodenmann@charter.net	Grover Beach, CA 93433	(805)481-1465
Richard Dute	190 Bailey Ct. e-mail: rhdute@sssnet.com	Doylestown, OH 44230	(330)658-4080
Wayne Karn	788 W. Seminary St. e-mail: kkarn@voyager.net	Charlotte, MI 48813	(517)543-0947
Tom Lawson	694 Sequoia St. e-mail: tlawson@linkline.com	San Bernardino, CA 92407	(909)882-8198
Ken Owens	61-26 230 <sup>th</sup> ST.	Bayside, NY 11364	(718)631-0937
Ron Rees	P.O. Box 874533 e-mail: nkpberk@pobox.alaska.net	Wasilla, Alaska 99687	(907)373-4082

# Casting List

Part Number	Description	Quantity Required	Material Type	Weight Each (lbs)	Price Each Unmachined	Machining* Price Each
<b>Section 1-Frame</b>						
1A1	Side Frame, Right (Note 1)	1	DI/S	33	\$480.00	2,300.00
1A2	Side Frame, Left (Note 1)	1	DI/S	33	\$480.00	for L & R
1B1	Frame Spreader	3	DI/S	2	\$70.00	86.00
1B2	Pilot Truck Pivot	1	DI/S	2	\$75.00	140.00
1B3	Brake Cylinder Support	2	DI/S	2	\$24.00	110.00
1C1	Pilot Beam	1	B/S	7	\$140.00	290.00
1C2A	Pilot Support	2	B/S	3/4	\$10.00	34.00
1C2B	Pilot Support	2	B/S	3/4	\$10.00	34.00
1C3	Front Coupler Pocket	1	B/S	1.5	\$30.00	60.00
1C4	Pilot Beam Support Angle	2	B/S	0.5	\$14.00	
1D	Frame Spreader, Front	1	B/S	23	\$273.00	495.00
1E1	Frame Spreader, Cylinder Block	1	DI/S	10	\$41.00	330.00
1E2	Equalizer Fulcrum, Pilot Truck	1	DI/S	2	\$15.00	72.00
1F	Crosstie, Valve Gear Hanger	1	B/S	9	\$282.00	
1G	Crosstie, Reverse Shaft	1	B/S	5	\$151.00	
1H	Cradle	1	DI/S	33	\$934.00	
1I1	Right Side Rear Driver Brake Hanger Support	1	B/S	0.5	\$7.00	46.00
1I2	Left Side Cold Water Pump Support Bracket	1	B/S		\$96.60	
1I3	Main Driver Brake Hanger Support	2	B/S	0.8	\$23.00	
1K	Cab Support	2	B/S	1.3	\$28.00	68.00
1M2	Reversible Washer, Coupler Pocket	6	B/LW	-	\$8.00	
Section 1 Total					\$3480.60	
<b>Section 2-Cylinders</b>						
2A	Cylinder Block (one piece)	1	DI/S	53	\$1090.00	
2E1	Valve Crosshead Guide	2	B/LW	0.9	\$51.50	
2E2	Valve Crosshead Guide Lower Shoe	4	B/LW	-	\$10.00	
2G	Exhaust Stand	1	B/S		\$93.75	
Section 2 Total					\$1326.75	
<b>Section 3-Drivers</b>						
3A	Driving Wheel, Front	2	CI/S	11	\$80.00	\$1,280.00
3B	Driving Wheel, Intermediate	2	CI/S	12	\$80.00	for set
3C	Driving Wheel, Main	2	CI/S	15.5	\$80.00	
3D	Driving Wheel, Rear	2	CI/S	12	\$80.00	
Section 3 Total					\$640.00	
<b>Section 5-Rods</b>						
5H1	Crosshead, Main	2	B/LW	1.6	\$52.00	
Section 5 Total					\$104.00	
<b>Section 6-Driver Axle Boxes</b>						
6A1	Axle Boxes, Front	1	B/S	14	\$170.00	\$500.00
6A2	Axle Boxes; Inter., Main, Rear	3	B/S	13	\$160.00	\$350.00
Section 6 Total					\$650.00	

# Casting List

## Section 7-Pilot Truck

7A	Frame (one piece)	1	B/S	13	\$480.00	\$800.00
7C2	Axle Box	2	B/S	1.3	\$26.00	
7C3	Cover, Axle Box	2	B/LW	-	\$27.00	
7C5	Spring Pad	2	B/LW	-	\$8.00	
7D1	Bolster (center plate)	1	B/S	1	\$36.75	
Section 7 Total					<u>\$638.75</u>	

## Section 8-Trailing Truck

8A	Frame (one piece)	1	B/S	31	\$1300.00	
8E1	Axle box, front	2	B/S	2	\$70.00	
8E2	Axle box, rear	2	B/S	1.8	\$65.00	
8E3	Hinge, Journal Box	4	B/LW	-	\$8.00	
8E4	Cover, side, rear, axle box	2	B/LW	-	\$21.30	
8G1	Pedestal binder, front	2	B/S	0.3	\$10.00	
8G2	Pedestal binder, rear	2	B/S	0.3	\$10.00	
Section 8 Total					<u>\$1601.60</u>	

## Section 9-Valve Gear (Baker)

9A1	Hanger frame	2	B/LW	-	\$64.00	
9A2	Bell crank	2	B/LW	-	\$32.00	
9A3	Radius bar	4	B/LW	-	\$18.00	
9A4	Connecting rod	2	B/LW	-	\$29.00	
9A5	Reverse yoke	4	B/LW	-	\$29.00	
9CA	Reverse arm (right)	1	B/LW	-	\$30.00	
9CB	Reverse arm (left)	1	B/LW	-	\$30.00	
9A1A	Patent plate	2	-	-	\$2.50	
Section 9 Total					<u>\$503.00</u>	

# Casting List

## Section 10-Spring Rigging

10A	Pilot truck equalizer	1	B/S	2.3	\$29.70
10B	Pilot truck equalizer hanger	1	B/S	-	\$4.95
10C	Front transverse equalizer	1	B/S	-	\$7.45
First Driver					
10D	Front sword hanger	2	B/S	-	\$1.65
10F1	Rear sword hanger	2	B/S	-	\$1.65
10F2	Rear hanger	4	B/S	-	\$2.00
10G	Equalizer, 1st & 2nd drivers	2	B/S	-	\$4.95
Second Driver					
10H1	Front sword hanger (same as 10F1)	2	B/S	-	\$1.65
10H2	Front hanger	4	B/S	-	\$1.75
10J1	Rear sword hanger (same as 10F1)	2	B/S	-	\$1.65
10J2	Rear hanger	4	B/S	-	\$1.75
Third Driver					
10K1	Front sword hanger	2	B/S	-	\$1.65
10K3	Front hanger (same as 10J2)	4	B/S	-	\$1.50
10L1	Upper coil spring housing	2	B/S	1.2	\$17.00
10L2	Lower coil spring housing	2	B/S	-	\$9.50
10M1	Rear sword hanger	2	B/S	-	\$1.65
10M2	Rear hanger (same as 10H2)	4	B/S	-	\$1.75
10N	Equalizer, 3rd & 4th drivers	2	B/S	-	\$4.95
Fourth Driver					
10O1	Front sword hanger	2	B/S	-	\$1.65
10O2	Front hanger (same as 10H2)	4	B/S	-	\$1.75
10P1	Upper coil spring housing	2	B/S	1.2	\$17.00
10P2	Lower coil spring housing (same as 10L2)	2	B/S	-	\$9.50
10Q1	Rear sword hanger	2	B/S	-	\$0.85
10Q3	Rear hanger to trailing truck (R & L)	1 ea.	B/S	-	\$3.30
10R	Equalizer, front, trailing truck (R & L)	1 ea.	B/S	-	\$11.50
10S	Hanger, front, front trailing truck wheel	2	B/S	-	\$2.30
10U	Sword hanger, rear, front trailing truck wheel	2	B/S	-	\$1.50
10V	Equalizer, side, trailing truck	2	B/S	-	\$11.50
10W	Sword hanger, front, rear trailing truck wheel	2	B/S	-	\$1.65
10Y	Sword hanger, rear, rear trailing truck wheel	2	B/S	-	\$2.10
10AA	Clip, driver springs	16	B/LW	-	\$3.50
10CC	Clip, trailing truck springs	8	B/LW	-	\$3.50

Section 10 Total \$371.60

## Section 11-Brake Rigging

11A1	Cylinder	2	B/S	1	\$22.00
11A2	Cylinder head	2	B/S	0.4	\$4.00
11B	Actuating lever	2	B/S	0.8	\$18.50
11C	Set-Brake Hangers	8 pieces	B/LW		\$280.00
Section 11 Total					\$369.00

\$71.50

# Casting List

## Section 13-Smokebox

13A1	Smokebox door	1	B/LW	\$65.00
13A1A	Door hinges	1 set	B/LW	\$32.00
13A2	Smokebox front outer ring	1	B/LW	\$130.00
13A3	Door dogs	20	B/LW	\$2.50
13C1	Stack	1	B/S	\$117.00
13C2	Stack petticoat pipe	1	B/S	\$105.00
13D2	Superheater inspection cover clamp	44	B/LW	\$1.32
13F2	Headlight shelf	1	B/LW	\$35.00
13I	Oakadee hinges	1 set	B/LW	\$150.00
13J	Step, front	2	B/LW	\$12.00
13P-1.3	Stanchion,handrail,1-5/16" long w/cap	4	B/LW	\$8.00
13P-.6	Stanchion,handrail,5/8" long w/cap	2	B/LW	\$8.00
Section 13 Total				\$814.08

## Section 15-Boiler Mounted Parts

15B1	Sandbox	1	B/S	\$205.00
15I1	Stanchion,handrail,1-1/4" long w/cap(1R,1L)	2	B/LW	\$8.00
15I2	Stanchion,handrail,1-5/16" long w/cap(1R,1L)	2	B/LW	\$8.00
15I3	Stanchion,handrail,1-1/8" long w/cap(1R,2L)	3	B/LW	\$8.00
15I4	Stanchion,handrail,1-1/16" long w/cap(2R,2L)	4	B/LW	\$8.00
Section 15 Total				\$293.00

## Section 16-Chassis Mounted parts

16A2	Support, Coupler Lifting Rod	2	B/LW	\$7.50
Section 16 Total				\$15.00

## Section 20-Tender Frame

20A	Tender Frame	1	AL/S	\$1,200.00
20J1	Support, Coupler Lifting Rod	2	B/LW	\$7.50
Section 20 Total				\$1,215.00

## Section 22-Tender Trucks

22A1	Side Frame Live End, Right	2	B/S	\$157.50
22A2	Side Frame Live End, Left	2	B/S	\$157.50
22B1	Side Frame Dead End, Left	2	B/S	\$157.50
22B2	Side Frame Dead End, Right	2	B/S	\$157.50
22C1	Equalizer	4	B/S	\$85.00
22D	Journal Box	8	B/S	\$53.00
22E	Transverse Bolster	4	B/S	\$136.00
22F	Center Bolster	2	B/S	\$390.00
22I1	Spring Pad	8	B/LW	\$15.00
22I3	Coil Spring	20	-	\$2.30
22J1	Brake Shoe	24	B/LW	\$8.00
22J2	Brake Head	24	B/LW	\$8.00
22L	Truck Brake Rigging Castings and Parts	1 set	-	\$644.00
22M	Hinge, Journal Box	12	B/LW	\$8.00

# Casting List

Section 22 Total	\$4638.00
<b>Total Sections 1 thru 22</b>	<b>\$14,732.43</b>

## MACHINED PARTS

4A	Crankpins, 4 Sizes (See Note 2), 8 Piece Set for 7-1/2 gauge only	\$290.00
7B	Pilot Truck Wheel (See Note 3), each	\$24.00
7D2 and 7D3	Pilot Truck Centering Device-Roller & Pads (6 pieces)	\$198.80
7D4 and 7D4A	Pilot Truck Bolster Pin (Upper & Lower)	\$135.10
8B	Front Trailing Truck Wheel (See Note 3), each	\$27.50
8C	Rear Trailing Truck Wheel (See Note 3), each	\$33.90
8F4	Trailing Truck Pivot Cup & Ball (4 pieces)	\$191.80
9F	Pin & Bushing Set for Baker Valve Gear - per gear	\$95.00
10Q2	Rear Transverse Equalizer	\$21.00
	Equalizer Arm Support (4 Pieces)	\$86.00
	Brake Shaft Support (4 Pieces)	\$92.80
	Brake Shaft (2 Pieces)	\$51.00
22K6	Pin, each	\$9.50
22K7	Pin, each	\$7.50

## MISCELLANEOUS PARTS

	Driver Coil Spring Set Per Drawing 10C (32 Springs)	\$90.00
	Lateral Motion Springs for 1st Driver (4 Springs)	\$15.00
	Pilot Truck Coil Springs (4 Springs)	\$21.00
	Brake Cylinder Springs (2 springs)	\$8.00
	Reverse Shaft Springs (4 Springs)	\$8.00
	Viton O-Rings, Brake Cylinders ( 2 each)	\$6.00
	Felt Bearing Seal, Pilot Truck	\$6.00
	Phosphor Bronze Leaf Spring Material for Drivers, Cut to 7/8" Wide	\$78.00
	Phosphor Bronze Leaf Spring Material for Trailing Truck, Cut to 3/4" Wide	\$81.00
	Boiler per Drawing 14A	\$6,900.00
	Running Board Material, 18" X 24" HH Brass Etched Sheet	\$392.00
	Bolt Set per BML-1-1 for Frame	\$30.00
	Smokebox Material, steel, turned to 11 1/8 OD x 15" long,48 lbs.	\$220.00
	Smokebox Material, steel, not turned, 11 1/2 OD x 15" long, 78 lbs	\$150.00
	Cab Parts, set; roof, roof removable section, ventilator(.029 thick), right & left sides, front & rear bulkheads; .060 thick steel CNC cut and punched with rivet holes, drawings	\$412.00
	Tender Tank Parts including 63 brass formed and punched parts, plus angle, bar stock, etc (Send for separate list.)	\$2,400.00
	Smokebox feedwater heater piping ditch parts	\$120.00



# Casting List

Spanner wrench for piston rod locking ring	\$20.00
Pilot truck ball bearings	\$35.00
Axle stock for drivers, E52100 steel, 1.5" diameter, 4 pieces	\$200.00
Axle stock for pilot truck, 1018, 1.375" diameter	\$15.00
Axle stock for trailing truck, front, 4140, 1.25" diameter	\$18.00
Axle stock for trailing truck, rear, 4140, 1.5" diameter	\$25.00

## Notes

\* Machining cost is in addition to cost of casting

Note 1: Side frames are heat treated to a completely annealed condition in order to minimize affects due to surface stresses incurred during machining.

Pedestal Binders are included in machining price.

Note 2: Crankpins are made of E52100 bearing steel, hardened and ground

Note 3: Fully profiled steel wheel, machined from solid, IBLs flange and tread profile, fully machined except bore is 1" to allow final machining to match axle.

## Materials and Types

CI-Cast Iron

DI-Ductile Iron

B-Bronze

A-Aluminum

ST-Steel

S-Sand Casting

LW-Lost Wax

FAB-Fabricated Part

# Drawing List

Drawing Number	Document Change Sheets	Description	Size	Price
1A		Side Frame	11 X 34	\$12.00
1B		Frame Spreader, Pilot Truck Equalizer Fulcrum, Brake Cylinder Support	18 X 24	\$5.00
1C		Pilot Beam, Pilot Supports, Front Coupler Pocket	18 X 24	\$5.00
1D		Front Frame Spreader (Air Compressor Supports)	18 X 24	\$5.00
1E		Frame Spreader, Cylinder Block	18 X 24	\$5.00
1F	1,2	Frame Crosstie, Valve gear Hanger	17 X 22	\$5.00
1G	1	Frame Crosstie, Reverse Shaft	17 X 22	\$5.00
1H	1,2,3	Cradle	30 X 40	\$16.00
1I		Frame Cradle Connection Detail	11 X 17	\$3.00
1J		Frame Details	24 X 36	\$7.00
1K		Pilot Details	18 X 24	\$8.00
BML-1-1		Bolt Material List-Frame	8 1/2 X 11	\$1.50
1L		Studs-Frame, Pedestal Binders & Cylinders	8 1/2 X 11	\$1.50
2A		Cylinder Block (2 Sheets)	11 X 17 28 X 36	\$16.00
2B		Cylinder Details	17 X 32	\$5.00
2C		Cylinder & Valve Gear Details	18 X 24	\$5.00
2D		Valve Gear Details	11 X 17	\$3.00
2E		Cylinder Details	11 X 17	\$1.50
3A		Driving Wheel, Front	17 X 22	\$5.00
3B		Driving Wheel, Intermediate	17 X 22	\$5.00
3C		Driving Wheel, Main	17 X 22	\$5.00
3D		Driving Wheel, Rear	17 X 22	\$5.00
SK-3-1		Wheel Profile	8 1/2 X 11	\$0.50
4A		Crankpins	11 X 17	\$3.00
4B		Crankpin Hardware	8 1/2 X 11	\$1.50
5A		Rod, Front	11 X 17	\$4.00
5B		Rod, Intermediate	11 X 17	\$4.00
5C		Rod, Rear	11 X 17	\$4.00
5D		Rod, Main	11 X 34	\$6.00
5E		Main Crosshead Details	18 X 34	\$6.00
5F		Main & Side Rod Bushings	17 X 22	\$5.00
6A	1	Driver Axle Boxes	17 X 22	\$6.00
6B		Driver Axles	11 X 17	\$3.00
6C		Lateral Motion Details - Front Driver	11 X 17	\$3.00
7A	1	Pilot Truck Frame	24 X 36	\$12.00
7B		Pilot Truck Wheel	8 1/2 X 11	\$1.50
7C		Pilot Truck Details	17 X 22	\$8.00
7D		Pilot Truck Details	18 X 24	\$8.00
7E		Pilot Truck Bearing Assembly	11 X 17	\$1.50
8A		Trailing Truck Frame	30 X 40	\$18.00
8B		Trailing Truck Wheel, Front	8 1/2 X 11	\$1.50
8C		Trailing Truck Wheel, Back	8 1/2 X 11	\$1.50
8D		Trailing Truck Axles	11 X 17	\$3.00
8E		Trailing Truck Details	17 X 22	\$5.00
8F		Trailing Truck Centering Device & Pivot	22 X 34	\$12.00

# Drawing List

9A	Valve Gear Hanger Frame	11 X 17	\$3.00
9B	Valve Gear Bell Crank	8 1/2 X 11	\$3.00
9C	Valve Gear Radius Rod	8 1/2 X 11	\$3.00
9D	Valve Gear Connecting Rod	8 1/2 X 11	\$3.00
9E	Valve Gear Reverse Yoke	8 1/2 X 11	\$3.00
9F	Valve Gear Hardware (Four Sheets)	8 1/2 X 11	\$10.50
		(3)11 X 17	
9G	Reverse Shaft Parts	22 X 36	\$8.00
10A	Spring Rigging (2 Sheets)	(2)20 X 48	\$16.00
10B	Coil Spring Housing, Upper, Main	11 X 17	\$3.00
10C	Coil Spring Housing, Upper, Rear	11 X 17	\$3.00
10D	Coil Spring Housing, Lower	11 X 17	\$3.00
11A	Brake Assembly	22 X 34	\$12.00
11B	Brake Hangers	22 X 36	\$12.00
11C	Cylinder Assembly, Driver Brake	17 X 22	\$8.00
11D	Rods, Levers, Beams - Driver Brake	22 X 34	\$12.00
13A	Smokebox Arrangement	24 X 36	\$12.00
13B	Smokebox Front	18 X 24	\$5.00
13C	Smokebox Details (Steam Pipe, Exhaust Stand)	18 X 24	\$5.00
13D	Smokestack	17 X 22	\$5.00
13E	Smokebox Cover Plate	17 X 22	\$5.00
13F	Smokebox Details (Cutouts, Attachments, Rivets, Etc..)	36 X 48	\$20.00
13G	Smokebox Oakadee Hinge Application	22 X 34	\$12.00
13H	Smokebox Throttle Arrangement & Details	36 X 48	\$20.00
13H-P	Smokebox Throttle Stuffing Box	17 X 22	\$5.00
14A	Boiler General Arrangement	24 X 36	\$20.00
14B	Alternate Boiler Tube Arrangement	17 X 22	\$4.00
14C	Boiler Tube Arrangement	17 X 22	\$4.00
14D	Boiler Attachment Pads & Hardware	34 X 44	\$20.00
14E	False Firebox Detail Side Sheets	36 X 48	\$16.00
15A	Sandbox Assembly	24 X 36	\$16.00
15B	Sandbox Base Plate	24 X 36	\$16.00
15C	Sandbox Dome	24 X 36	\$16.00
15D	Sandbox Valve Seat	11 X 17	\$3.00
15E	Sandbox details	11 X 17	\$3.00
15G	Turret	8 1/2 X 11	\$2.00
15H	Turret Cover Layout	11 X 17	\$3.00
15I	Turret Hinges	8 1/2 X 11	\$2.00
16A	Whistle,6 Chime, Air Operated, Chassis Mounted	22 X 34	\$8.00
16A-1	Whistle,6 Chime, Steam Operated, Chassis Mounted	22 X 34	\$8.00
16A-2	Whistle,6 Chime	22 X 34	\$8.00
16B	Valve Gear, Power Reverse, & Misc. Layout	36 X 48	\$20.00
16C	Shield, Air Compressors	17 X 22	\$5.00

# Drawing List

17A	Cab Details & Assembly	36 X 48	\$10.00
17B	Cab Details, Roof	36 X 48	\$10.00
17C	Cab Details	36 X 48	\$10.00
17D	Cab Window Area Details	11 X 17	\$5.00
17E	Cab Roof, Removable Section	24 X 36	\$8.00
17F	Cab Front window (4 sheets)	8 1/2 X 11	\$8.00
17G	Cab Misc. Details	8 1/2 X 11	\$2.00
18A	Throttle Lever	17 X 22	\$8.00
20A-P	Tender Frame	36 X 48	\$20.00
20B	Tender Brake Cylinder Assembly	22 X 34	\$7.50
20C	Tender Brake Cylinder & Lever Arrangement	36 X 48	\$12.00
21A	Tender Tank (7 Sheets)		\$80.00
22A	Side Frame, Live End	18 X 24	\$10.00
22B	Side Frame, Dead End	18 X 24	\$10.00
22C	Equalizer	11 X 17	\$5.00
22D	Journal Box	11 X 17	\$5.00
22E	Transverse Bolster	11 X 17	\$5.00
22F	Center Bolster	24 X 36	\$10.00
22G	Tender Truck Wheel	8 1/2 X 11	\$1.50
22H	Tender Truck Axle	11 X 17	\$5.00
22I	Spring Seat	11 X 17	\$5.00
22J	Tender Truck Bearing	8 1/2 X 11	\$1.50
22K	Brake Details	18 X 24	\$8.00
22L	Brake Details	24 X 36	\$10.00
22M	Journal Lid	18 X 24	\$8.00
22N	Tender Truck Assembly	36 X 48	\$20.00

Total Cost of Complete Set Sections 1 through 22 \$897.50

## Other Drawings

Side Elevation-Engine & Tender	\$20.00
Lima Locomotive Works NKP S-3 Locomotive Erecting Elevation	\$25.00
Lima Locomotive Works NKP S-3 Locomotive Erecting Section	\$25.00
Lima Locomotive Works NKP S-3 Tender Elevation	\$25.00

## Notes:

BML – Bolt Material List  
SK - Sketch

# Drawing List

Applicable casting and part drawing are provided with the casting and/or part

Prices apply for stand alone drawing and part drawings which are purchased separately

Prices are subject to change

This drawing list does not represent the entire scope of model drawing which we are doing for this locomotive. The list will be updated periodically

We can also provide many prototype detail drawings for this locomotive. Contact us for a list. We will provide prices for these based on your needs

Many prototype drawings for this locomotive are available from the following source for which we can provide drawing lists for the NKP Berkshire. Contact them directly for availability and prices. These prototype drawings are useful for detailing the engine.

California State Railroad Museum Library  
Department of Parks and Recreation  
111 I Street  
Sacramento, CA 95814  
(916)323-8073

We have available copies of the original Lima Locomotive Works engine erecting elevation and the C&O and RF&P tender tank drawings. These drawing are 1 1/2" scale and are quite large. Price is \$25.00 per drawing.



The above four photos show the beautiful detail work done by Jack Bodenmann of Grover Beach, CA. The locomotive is owned by Peter Nott of LALS



Ron Rees of Wasilla, Alaska



Berkshire built by Wayne Karn of the Mid-Michigan Live Steamers



These four photos show a Berkshire completed by the late Jack Sessums of Redlands, California. In the two photos on the left, Jack is testing the locomotive at the Riverside Live Steamers. The engine is owned by Gil Beard (That's Gil on the right in the bottom right photo.) of the Sacramento Valley Live Steamers



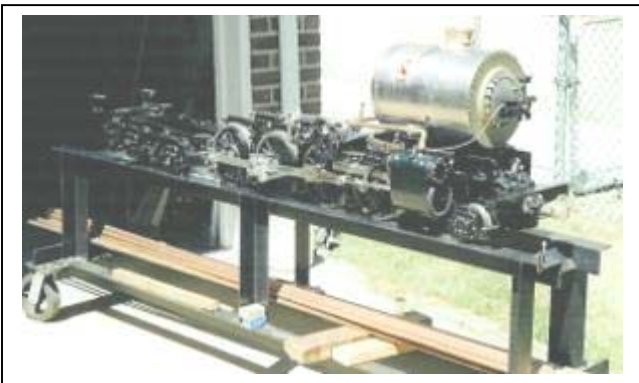
Two photos showing the late John Bortz of the Pennsylvania Live Steamers



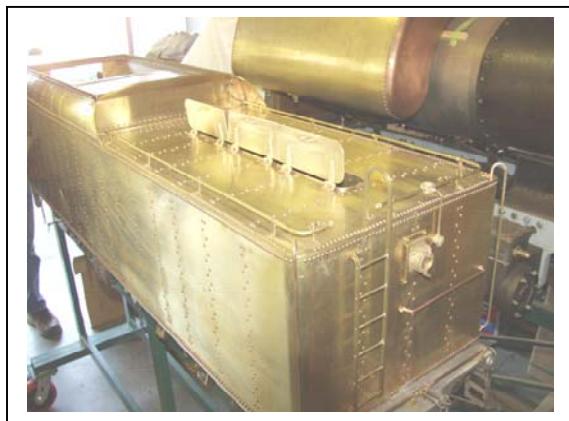
The late Linwood Knight with his Berkshire



The late Vaughan Cherry of England next to his Berkshire

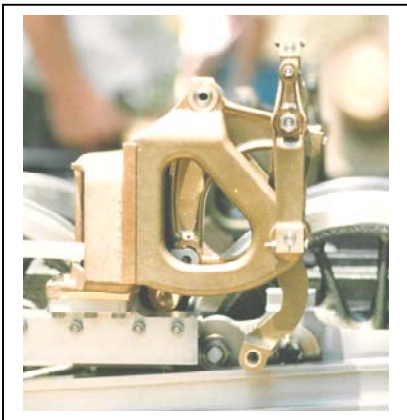


Progress being made by Ken Owens of Bayside, New York

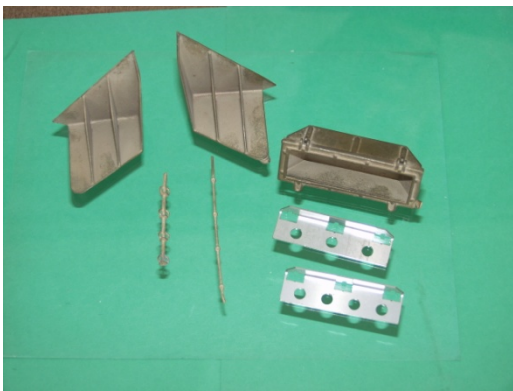


Additional Construction Photos





<u>New Berkshire Detail Parts</u>	3/7/2009	<u>Price/ea</u>
Throttle Lever Fulcrum		\$32.00
Throttle Lever Fulcrum Support		\$32.00
Smokebox Throttle Rod Stuffing Box		\$22.00
Bell Bracket		\$24.00
Number Board Kit (2 Number Boards) includes:		\$235.00
2 Boxes, 2 Bezels, 2 Wing Nuts & 2 "I" Bolts, unmachined		
2 each; bulb holders (specify 3 or 4 bulb type),		
glass, frosted, 2		
each		
4 each 00-120 bolts & nuts		
bulbs, each, sold separately		\$4.00
Number stencils, each sheet 1 thru 9, NKP style, sold separately		\$3.25
Number Board Support, right		\$30.00
Number Board Support, left		\$30.00
Sander Trap & Valve, dummy, Viloco Type		\$18.00
Horizontal Boiler Check Valve with End Flanges		TBA
Reverse Shaft Bearing Blocks (Set)		\$23.00
Reverse Shaft Stop		\$14.00
Running Board/Air Tank Brackets set of 6, 5 different)		\$480.00
Individually;		
RS, Front Tank, both brackets	#19-4-49	\$74.00
RS, Rear Tank, Front Bracket	#19-4-50	\$78.00
LS, Tank, Front		
Bracket	#19-7-51	\$84.00
RS, Rear Tank, Rear Bracket	#19-7-52	\$86.00
LS Tank, Rear Bracket	#19-7-53	\$80.00
Upper Cooling Piping Clamp & Running Board Support-1		\$8.60
Upper Cooling Piping Clamp & Running Board Support-2		\$8.60
Pipe Clamp-Small		\$7.20
Pipe Clamp-Medium		\$7.20
Pipe Clamp-Large		\$7.20
Generator Support		TBA
Mars Light		TBA
"	Shelf	TBA
Tender Brake Cylinder		TBA
Detroit Model B Lubricator		TBA
Trailing Truck Rocker Parts		
Rocker Seat		TBA
Seat, Rocker		TBA
Rocker		TBA
Boiler Supports		
Intermediate		TBA
Front firebox		TBA
Rear firebox		TBA
Hot Water Pump Support		TBA
Steam Dome Cover		TBA
Air Compressor Shields (sheet metal only), set of 2, right & left		\$70.00
Bell		TBA
Ashpan Support		TBA
Ashpan, Upper Hopper		\$210.00
Fire pan		\$120.00



Number Board



Oakadee Hinges



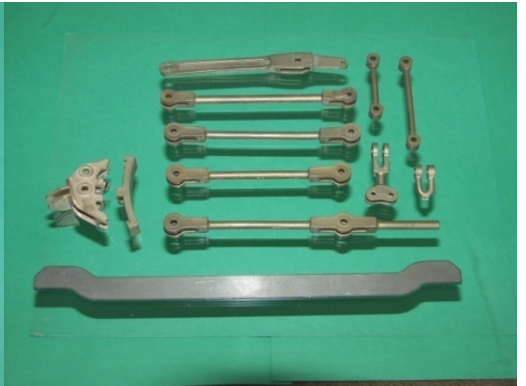
Throttle Lever Support



Handrail Stanchions



Smokebox Door Hinges



Tender Truck Brake Parts



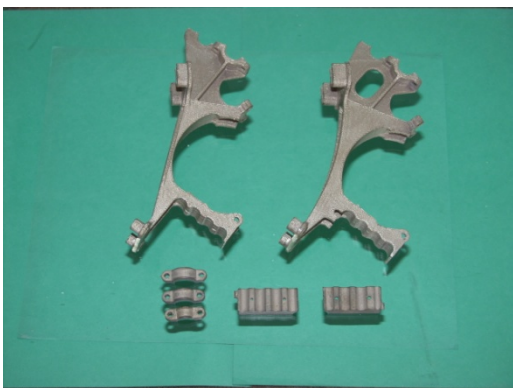
Dummy Viloco Sanders



Wilson Blowdown



Throttle Stuffing Box



Air Tank Brackets



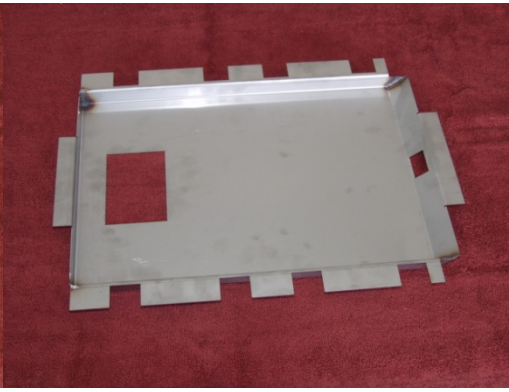
Air Tank Brackets



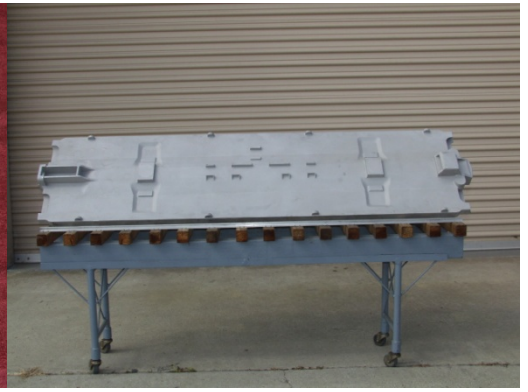
Air Compressor Shields



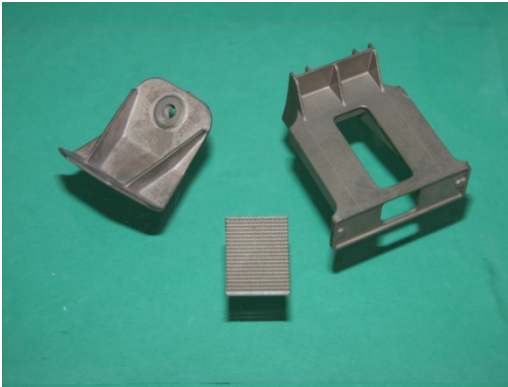
Ash Pan-Upper Hopper



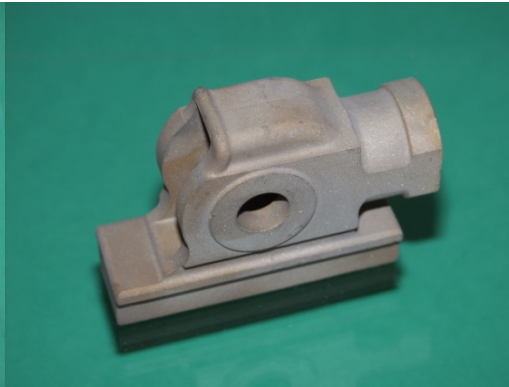
Fire Pan



Tender Frame



Bell Bracket, Headlight Step, Shelf



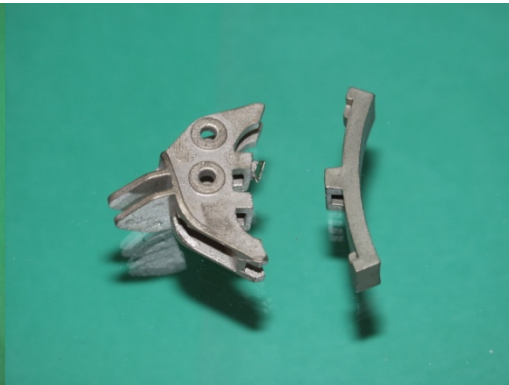
Main Crosshead



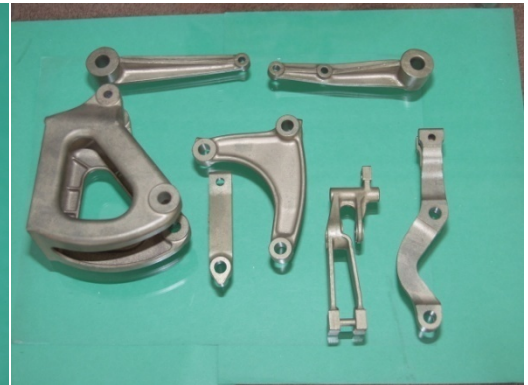
Valve Crosshead Guide



Brake Hangers



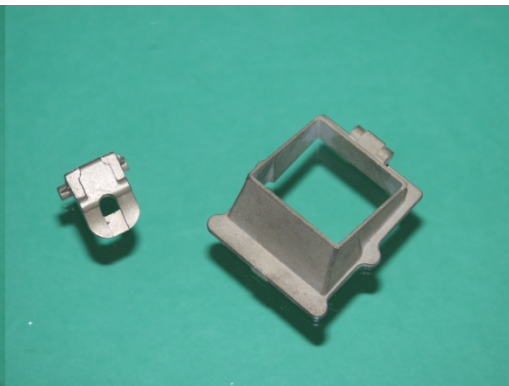
Tender Truck Brake Head & Shoe



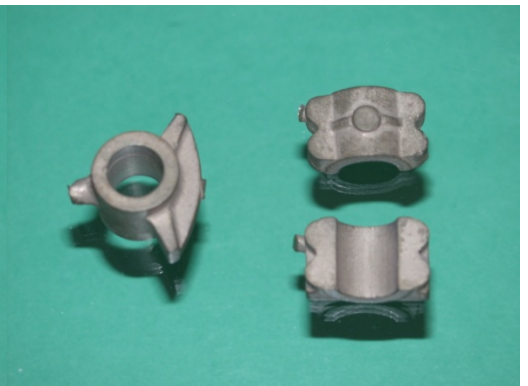
Baker Gear Parts



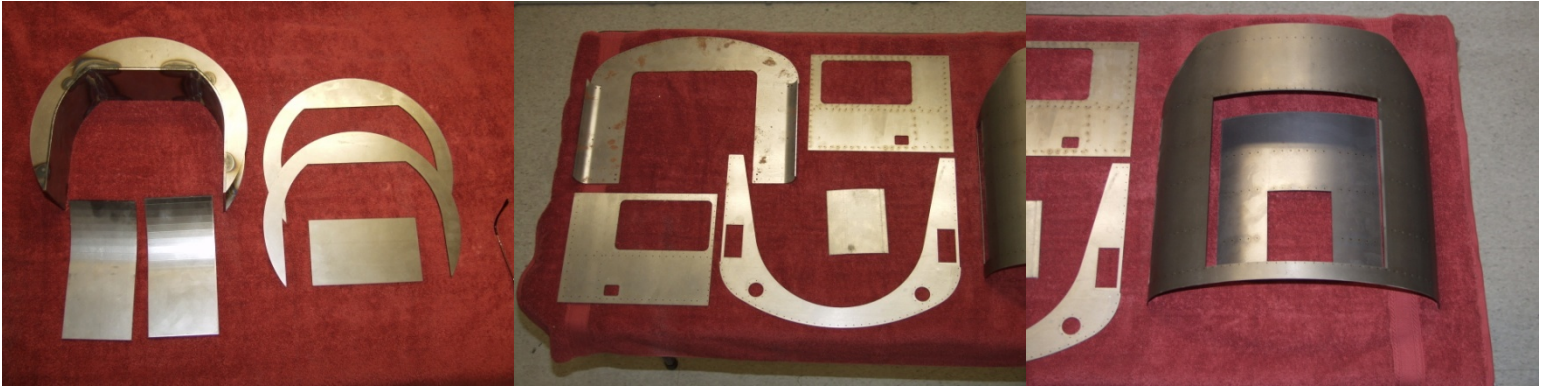
Pilot Truck Journal Box



Trailing Truck Box Parts



Reverse Shaft Parts



Smokebox Feedwater Heater  
Piping Ditch Parts

Cab Parts