

**Johnstown  
America  
Corporation**

Johnstown, PA 15901

**COALPORTER CAR**

**X-91070**

**JUNE 12, 1992**

**SPECIFICATION X-91070**

**FOR**

**ALUMINUM BETHGON COALPORTERS**

**GENERAL DIMENSIONS:**

Length Inside -----	47' - 9-1/8"
Over Strikers -----	50' - 5-1/2"
Over Pulling Faces of Free Couplers -----	53' - 1"
Truck Centers -----	40' - 6"
Width Inside -----	9' - 9-1/2"
Over Top Chords -----	10' - 6-29/32"
Over Side Sills -----	10' - 7-1/2"
Over Side Stakes -----	10' - 6-7/8"
Rail to Top of Side Top Chord -----	12' - 8-1/2"
Rail to Top of Corner Conn. Rivet (Extreme Height)-----	12' - 9-5/8"
Cubic Capacity -----	4400 Cu. Ft.
10" Average Heap -----	4789 Cu. Ft.
Center of Gravity - Loaded with 10" Average Heap -----	88.2"
Lightweight Nominal -----	44,000 Lbs.

**GENERAL DESCRIPTION:**

Car to be an all steel underframe, aluminum bodied riveted side, through center sill, open top coal car with twin rounded bottoms, designed for rotary dump service. Car body design based on 286,000 pound gross rail load and AAR Plate "B".

**MATERIAL SPECIFICATION:**

Material used in the construction of the car body and not specifically mentioned will meet the following minimum specifications:

**Steel**

All steel 1/4" and less in thickness - .20% Min. Cu.  
Plates - ASTM A-36  
Shapes - ASTM A-36  
Bars - ASTM A-36  
Sheets & Strips - ASTM A-570, Grade 33, .20% Min. Cu.  
Brake Pins - Hardened  
Brake Pipe - ASTM A-53

**Aluminum**

Plates - 5083-H321  
Extrusions - 6061-T6  
Rivets - 6061-T6

**TRUCKS:**

Capacity: Designed for hauling 286,000 GRL

Wheel Base: 5' - 10"

Wheels: CH36, Class "C", One Wear

Axles: AAR Standard for 6-1/2" x 12" NFL Roller Bearings

Roller Bearings: Timken (HDL Seals), 71 cars, PGEX 5, 6, 400-468  
Brenco, 70 cars, PGEX 469-538  
(Roller bearing information attached at the end of this section).

Brake Beams: No. 24 Unit Type

Brake Beam Wear Plate: Holland

Brake Shoes: 2" Thick Composition

Bottom Rod: Below Bolster

Levers: Drop Forged

Spring Group: Alloy Steel  
9 Outer Coils D-5  
8 Inner Coils D-5

Side Bearings: Stucki 685-RM attached with Gr.8 bolts

Bolsters: Grade "C" in Grade "B" section. Center plate bowl 16" Dia. x 2" above horizontal bowl liner. Arranged for Hollube cup type wear eliminator.

Center Pins: 2' Diameter

Side Frames: Grade "C" in Grade "B" Section. Column wear plates applied by Grade 8 bolts and welding.

Snubbing: ASF Ride Control Superservice, with Slopegard:  
PGEX 5,6, 400-432, 503-538  
Stucki RFE-26, Elasto-wedge: PGEX 433-502  
The same special preparation is used whether the friction shoes are Elastowedge or Slopegard. The top edge of the slope pocket, at the top of the bolster, is always in the as cast condition. A radius is ground on this edge, and the slope faces of the pocket are ground with a cylindrical wheel, to remove any roughness that would damage the plastic liners.

TRUCKS CONT:

Supplemental Snubbing: Omitted  
Adapters: Hardened crown and shoulders.  
Pedestal Roof Liners: TransDyne type.  
Pedestal Frame Keys: Included  
Center Plate Liner: Holland Bowl Type

BRAKE EQUIPMENT:

1. ABDX or DB-60 foundation brake equipment with empty load system and new pipe bracket.
2. Hand brake AAR 1980 mounted low with long release lever.
3. Brake rods equipped with Hollube wear eliminators.
4. "B" end brake step 8" x 30", "A" end crossover 8" x 60".

<u>ITEM</u>	<u>NO. PER UNIT</u>	<u>SIZE</u>	<u>MATERIAL SPECIFICATION</u>
<u>UNDERFRAME:</u>			
Center Sill	1	(2) CSC13 x 41.2# welded at 90% penetration	ASTM A-572, Gr. 50, Ty2, CBS
Bolster Web	2	5/16" Plate	ASTM A-572, Gr. 50, Ty2
Bols. Cov. Plt.	2	5/8" Plate	ASTM A-572, Gr. 50, Ty2
Bols. Conn. to Side	4	3/8" Plate	ASTM A-36
Bols. to Ctr. Sill Guss.	4	1/4" Plate	ASTM A-36, CBS
Side Bearing Web	8	5/16" Plate	ASTM A-572, Gr. 50, Ty2
Side Brg. Face Plt.	4	3/8" Plate	ASTM A-572, Gr. 50, Ty2
Side Brg. Tie Plt.	4	3/8" Plate	ASTM A-572, Gr. 50, Ty2

**DRAFT AREA:**

Draft Sill	2	Arranged for Type "F" rotary and non-rotary couplers. To have integral 15-7/8" Dia. hardened center plate. Two cars PGEX 537 & 538 were equipped with draft sills, with special contour center plate machining, as per Buckeye Steel Castings, drawing no. D-13941-A. Patt. No. 42-21-DFIX.	AAR M-201, Gr. "B"
Couplers & Yokes	2	Type "F" rotary National High Endurance on "A" end Type "F" non-rotary on "B" End. NOTE: Couplers equipped with anti-gravity locks.	AAR M-211, Gr. "E"
Uncoupling Device		Single operating bail type on rotary "A" end. Single operating standard type on non rotary "B" End.	Mfr's Std.
Draft Gear	2	For 24-5/8" Pocket	AAR M-901-E
Draft Gear Carrier	2	Bar 8" x 5/8"	
Safety Plate	2	Bar 5-1/2" x 5/8"	
Coupler Carrier	2	Hollube	Mfg. Std.

**BODY ALUMINUM:**

**SIDES - RIVETED CONSTRUCTION:**

Side Sheet - Center	2	3/16" Plate	5083-H321
Side Sheet - End	4	3/16" Plate	5083-H321
Side Top Chord	2	"P" Extrusion at 8.35#/Ft. (BX-510-28)	6061-T6
Side Sill	2	Extrusion at 9.17# (BX-510-24)	6061-T6
Side Stake	26	Flanged Hat Shaped Extrusion at 4.28#/Ft. (BX-510-31)	6061-T6

**ENDS:**

End Sheet	2	3/16" Plate	5083-H321
End Top Chord	2	C Extrusion @ 5.06#/Ft. (BX-510-11)	6061-T6
End Post	2	Extrusion @ 5.95#/Ft. (BX-510-36)	6061-T6
Corner Post	4	L 3-1/2" x 3-1/2" x 1/4"	6061-T6
Pusher Pads	4	5" x 12" fabrication	

**FLOORS:**

Int. Floor	2	1/4" Plate	5083-H321
Slope Floor Sheet	2	1/4" Plate	5083-H321
Bottom Floor Pans	2	3/16" Plate Semi- Circular Shaped	5083-H321
Closure Plate	4	3/16" Plate	5083-H321
Tub Top Corner Conn.	4	1/4" Plate	ASTM A-572, Gr.50,CBS
Intr.Cr'Br.	2	"C" Extrusion at 8.05#/Ft. (BX-510-2 )	6061-T6

**INTERIOR BRACING**

Two "K" Frames per car bolted application, each consisting of:

Bottom Angle	1	L 6" x 4" x 3/8"	6061-T6
Bottom Angle Conn. at Ctr. Sill	1	3/8" Plate	A-572,GR50
Diagonal Angles	2	L 6" x 4" x 3/8"	6061-T6
Top Tie	1	Y Section @ 4.62# (BX-510-20)	6061-T6
Side Conn. @ Top	4	L 5" x 3-1/2" x 3/8"	6061-T6
Side Conn. @ Bott	4	L 5" x 5" x 5/8"	6061-T6

**MISCELLANEOUS:**

Route Card Board	2	AAR Standard	
Defect Card Holder	1	AAR Standard	
Sill Steps	4	2" x 1/2" Bar	ASTM A-576, Gr. "C"-1015
Grab Irons & Ladder Rungs		3/4" Dia. except 1" Dia. if over 36" long.	ASTM A-576, Gr. "C"-1015
King Pin	2	2" Dia. - Locking Type	AISI C-1020
Side Bearing Wear Plt.	4	Flt. 5" x 5/8"	AISI C-1045, BHN 277-341
Sub-Side Sill	4	L 5" x 3-1/2" x 5/16"	ASTM A-36
Diagonal Brace	4	L 4" x 3" x 3/8"	ASTM A-36
End Sill	2	L 5" x 3-1/2" x 5/16"	ASTM A-572,Gr.50,Ty2
Corner Cap	4	3/8" Plt.-bolted	ASTM A-36

MISCELLANEOUS - ALUMINUM:

Drain Hole & Covers                      6 Sets of Two - 2" Dia.                      6061-T6  
drain holes with hat  
shaped covers

PAINTING:

Exterior of steel underframe to meet the requirements of SSPC-SP6, commercial blast, prior to painting.

Laps and Joints:                              One coat of mastic applied to all steel-aluminum riveted joints. One coat of water base primer applied to steel surfaces at riveted joints. The mastic used is SIKA CAULK SM-537 non-skinning standing seam BUTLY caulk. Color, off-white  
FROM: SIKA Corporation  
Chemseco Division  
4800 Blue Parkway  
P.O. Box 300680  
Kansas City, MO 64130-2880  
Phone (816) 923-8200

Inaccessible Surfaces:                      All steel surfaces which will be inaccessible after assembly with the exception of the draft gear pocket and inside side bearing webs to be given one coat of water base primer.

Body:    The following to receive one coat of DMT black finish paint 3 mil minimum dry film thickness.  
Entire steel underframe, floor tubs, underside of interm and end floors, and partial end and corner posts.

Rotary End:                                      End coat of red DTM finish paint, 3 mil minimum dry film thickness.

Stencil:    Aluminum (unpainted) surfaces - Black Stencil Paint  
White background - Black Stencil Paint  
Black background - White Stencil Paint

Trucks:    To receive one coat of light bodied black paint.

Delineators:                                      7 on each side, two on each end 4-3/4" x 8".  
3M #3970-G  
Rose Decal  
Part No.: POR1731ROSE  
FROM: Signature Graphics, Inc.  
1000 Signature Drive  
Porter, IN 46304  
(800) 356-3235

AEI Tags:    Car to have two high temp AEI tags mounted with a bolted bracket.

February 14, 1992

Order: 3400-638  
141 Aluminum BethGons  
Portland General Electric

ARRANGEMENTS

<u>DRAWING NUMBER</u>	<u>DESCRIPTION</u>
F-81687	BRAKE ARRANGEMENT
B-80159-C	BOTTOM TIE CONN. PLT AT DIA. BRACE DETAIL & ASSEMBLY
B-80265-D	END COCK SUPPORT DETAIL & ASSEMBLY
B-81045-C	HAND BRAKE SUPPORT (DETAIL & ASSEMBLY)
E-81725	BRAKE CENTER SILL ASSEMBLY
B-81055-B	ACTUATOR LEVER FULCRUM DETAIL AND ASSEMBLY
B-81056-D	EMER. RESERVOIR SUPPORT DETAIL AND ASSEMBLY
B-81192-A	PIPE CLAMP SUPPORT AT ABDW VALVE DETAIL AND ASSEMBLY
C-81234-B	SIDE BEARING ASSEMBLY
B-81212-A	BRAKE LEVER SUPPORT ASSEMBLY
B-81213-B	BRAKE ROD SUPPORT ASSEMBLY
B-81214-A	BRAKE LEVER SUPPORT ASSEMBLY
F-81723	BOLSTER & SIDE BEARING ARRANGEMENT
E-81624	GENERAL ARRANGEMENT
E-81713	END ARRANGEMENT
E-81623	CENTER SILL ASSEMBLY
B-81112-A	LOCATION OF COUPLER PIN SUPP. FILLER - NAT. H.G. ROTARY CORNER CONNECTION ASSEMBLY
C-81113-A	
B-81689	BRAKE LEVER SUPP. & ACTUATOR LEVER FULCRUM ASSY.
B-81049-C	CYLINDER SUPPORT ASSEMBLY
B-81111-A	LOCATION OF COUPLER PIN SUPPORT FILLERS - FIXED END COUPLER PIN SUPPORT ASSEMBLY
B-80277-C	
E-81406-B	SIDE CONSTRUCTION
B-81499-A	BUILDERS BADGE
B-81641-A	CONSOLIDATED STENCIL
C-81686	BRAKE BADGE PLATE
D-81715	"B" END TRAINLINE AND BRANCH PIPE ARRGT. DOUBLE ROTARY CARS

SHT \* 6



# THE POLYONE CORPORATION — Continued

Line No.	A.A.R. Mech. Desig.	DESCRIPTION	A.A.R. Car Type Code	NUMBERS	DIMENSIONS										CAPACITY	
					INSIDE			OUTSIDE					DOORS		Cubic Feet Level Full	GRL Lbs. (000)
					Length	Width	Height	Length	Width	Height from Rail		Side				
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.				
See Explanation Pages for Abbreviations & Symbols																
<b>TGCX</b>																
46	LO	Covered Hop.....	C	C214	1338	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
47	LO	Covered Hop.....	C	C214	1340	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
48	LO	Covered Hop.....	C	C214	1344	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
49	LO	Covered Hop.....	C	C214	1346	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
50	LO	Covered Hop.....	C	C214	1356-1357	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
51	LO	Covered Hop.....	C	C214	1366	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
52	LO	Covered Hop.....	C	C214	1370	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
53	LO	Covered Hop.....	C	C214	1374	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
54	LO	Covered Hop.....	C	C214	1385	58 05	08 04	10 08	08 07	15 01	15 06	.....	.....	.....	5250	283
55	LO	Covered Hop.....	C	C214	1400-1444	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
56	LO	Covered Hop.....	C	C214	1446-1502	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
57	LO	Covered Hop.....	C	C214	1504-1526	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
58	LO	Covered Hop.....	C	C214	1528-1529	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
59	LO	Covered Hop.....	C	C214	1531-1539	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
60	LO	Covered Hop.....	C	C214	1541-1543	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
61	LO	Covered Hop.....	C	C214	1544	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
62	LO	Covered Hop.....	C	C214	1545-1549	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	283
63	LO	Covered Hop.....	C	C214	88019	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
64	LO	Covered Hop.....	C	C214	88218	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
65	LO	Covered Hop.....	C	C214	88227	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
66	LO	Covered Hop.....	C	C214	88229	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
67	LO	Covered Hop.....	C	C214	88232-88233	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
68	LO	Covered Hop.....	C	C214	88235	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
69	LO	Covered Hop.....	C	C214	88242	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
70	LO	Covered Hop.....	C	C214	88261-88262	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
71	LO	Covered Hop.....	C	C214	88270	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
72	LO	Covered Hop.....	C	C214	88286	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
73	LO	Covered Hop.....	C	C214	88298	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
74	LO	Covered Hop.....	C	C214	88404	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
75	LO	Covered Hop.....	C	C214	88411	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
76	LO	Covered Hop.....	C	C214	88415	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
77	LO	Covered Hop.....	C	C214	88418	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
78	LO	Covered Hop.....	C	C214	88435	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
79	LO	Covered Hop.....	C	C214	88442	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
80	LO	Covered Hop.....	C	C214	88450	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
81	LO	Covered Hop.....	C	C214	88480-88482	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
82	LO	Covered Hop.....	C	C214	88499	64 08	08 04	10 08	03 11	15 01	15 06	.....	.....	.....	5800	288
<b>Total.....</b>																

Tank Cars Owned: None

Report movement and mileage to The PolyOne Corporation, owner (shipper), c/o RSI Logistics Inc., 2419 Science Parkway, Okemos, MI 48864.  
 Send remittances pertaining to mileage made payable to The PolyOne Corporation, owner (shipper), 33587 Walker Road, Avon Lake, OH 44012.  
 Any remittance or backup detail should be mailed to The PolyOne Corporation, owner (shipper), c/o RSI Logistics Inc., 2419 Science Parkway, Okemos, MI 48864.  
 Send bills for AAR repairs to The PolyOne Corporation, owner (shipper), c/o RSI Logistics Inc., 2419 Science Parkway, Okemos, MI 48864.  
 Send all freight bills to The PolyOne Corporation, owner (shipper), c/o RSI Logistics Inc., 2419 Science Parkway, Okemos, MI 48864.  
 Report damaged, destroyed or bad order cars or cars requiring material for repairs to RSI Logistics Inc., Fleet Maintenance. Telephone 517-908-3634.  
 When cars are reported no-bill and require shipping instructions, contact RSI Customer Service (Logistics). Telephone 517-349-7713.  
 When loaded cars are damaged, telephone details promptly to The PolyOne Corporation, owner (shipper), Telephone 440-930-1631.

## PORTLAND GENERAL ELECTRIC COMPANY

### Reporting Marks — PGEX

GENERAL OFFICES: 121 SW Salmon St., Portland, OR 97204 Phone: 503-464-8000

### FREIGHT EQUIPMENT

Cars are marked "PGEX" and are numbered and classified as follows:

Line No.	A.A.R. Mech. Desig.	DESCRIPTION	A.A.R. Car Type Code	NUMBERS	DIMENSIONS										CAPACITY	
					INSIDE			OUTSIDE					DOORS		Cubic Feet Level Full	GRL Lbs. (000)
					Length	Width	Height	Length	Width	Height from Rail		Side				
ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.					
See Explanation Pages for Abbreviations & Symbols																
<b>PGEX</b>																
1	GT	Gond.....	J311	5-6	47 08	09 09	11 06	53 01	10 08	10 08	12 09	12 09	12 10	.....	4400	288
2	GT	Gond.....	J311	7-9	47 08	09 08	11 06	53 01	10 07	10 07	12 09	12 09	12 10	.....	4400	288
3	GT	Gond.....	J311	7	47 09	09 09	11 06	53 01	10 08	10 08	12 09	12 09	12 10	.....	4400	288
4	GT	Gond.....	J311	400-538	47 08	09 09	11 06	53 01	10 08	10 08	12 09	12 09	12 10	.....	4400	288
5	GT	Gond.....	J311	539-721	47 08	09 08	11 06	53 01	10 07	10 07	12 09	12 09	12 10	.....	4400	288
6	GT	Gond.....	J311	540	47 09	09 09	11 06	53 01	10 08	10 08	12 09	12 09	12 10	.....	4400	288

541, 544-545, 547, 549-556, 558-560, 562, 565-566, 568, 570-571, 573-575, 577-587, 589-597, 599-600, 602-606