Historical Collections of the Great Lakes
Bowling Green State University
GLMS-29
Wilford G. Bartenfeld Collection

Inventory

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6   Ann Arbor Car Ferries, 1959.
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10  GEORGE F. BAKER, 1950.
   C.G. BARNUM, now HENNEPIN, 1942.
12  BELGIUM, 1940-1941.
14  BILLINGS, 1952-1953.
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17  JOHN J. BOLAND, 1904, 1939, 1951-1952
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8 CLEVELANDER and DETROITER, 1942.
9 CLIFFS VICTORY, 1951, 1957.
14 Columbia Transportation Co. - Crane Ship, 1950.
15 Columbia Transportation Co. - Diesel Tug, 1940, 1948.
17 CORNELL, 1953.
18 STEWART J. CORT, 1974, n.d.
19 COTTONWOOD, 1918-1919.
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27 C4-S-A4, Conversion of Troopships, 1951.
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29 C4-S-A4, Conversion of Troopships, Line Plans, 1951.

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8 CHARLES E. DUNLAP, 1958.
9 WILLIAM EDENBORN, 1921, 1926.
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17 JAMES J. HILL, 1951.
19 ROBERT HOBSON, 1922, 1956.
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14 MICHIGAN, (Tanker) ex-BELGIUM, 1941-1942, 1948.
18 THOMAS E. MILLSOP, 1957.
19 ANNA C. MINCH, 1922, n.d.
23 BEN MOREELL, 1957.
27 EDMUND W. MUDGE, Nov. 1940.
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25 Monroe, MI, 1928, 1939-1942.
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27 National Bulk Carrier, Twin Hatches, n.d

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Box 23

Script and lantern slides for a slide show of channel-constructed cargo holds.

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DRAWER 2
ALEX D. CHISHOLM - LEON FRASER

ALEX D. CHISHOLM, 1959

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2  Drawing 3: Spar Deck - Starboard Quarters Arrangement;
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Drawing 4: Texas, Master's Quarters, and Guest Room; 1/2”; Bartenfeld & Co.
Drawing 5: Texas Deck Steel Framing Plan & Details; 1/2”; Bartenfeld & Co.
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2 Drawing - no #: Arrangement of Ventilators; 3/8”; American Ship Building Co.; 1903
3 Drawing - no #: Boiler Room and Coal Bunkers; 1/2”; American Ship Building Co.; 1903
4 Drawing - no #: Cabin Plan; 1/8”; American Ship Building Co.; 1903
5 Drawing - no #: Engine and Thrust Bearing Foundations; 1”; American Ship Building Co.; 1903
6 Drawing - no #: Longitudinal Section and Deck Plans; 1/8”, American Ship Building Co.; 1903
7 Drawing - no #: Midship Section; 1/2”; American Ship Building Co.; 1903
8 Drawing - no #: Plan of Lower Deck; 1/8”; American Ship Building Co.; 1903

CONNEAUT
1 Drawing C-472: New Boom, Detail of Yoke Bottom: 1 1/2”; Hulett Engineering Co.; 1927
3 Drawing C-483: New Boom, Details of Hoist; 3”; Hulett Engineering Co.; 1928
4 Drawing 4755: Boom Converyor; 3/16", 1/2", 1”; Michigan
5 Drawing 8843: 218' Boom Design Chief; 3/16"; Michigan Alkali Co.; 1938
6 Drawing 8889: Sections of 218' Boom; 3/4"; Michigan Alkali Co.; 1938
7 Drawing 8900: Arrangement for Hoisting Screw and Trunnions; 1"; Michigan Alkali Co.; 1939
8 Drawing 8942: Alternations to Sub-Frame of 218' Boom; 1 1/2", 3"; Michigan Alkali Co.; 1939
9 Drawing 8959: Alterations to Boom Turning Gear and Supports; 1 ½"; Michigan Alkali Co.; 1939
10 Drawing 9526: Boom Break Operating Mechanism; 1", 1 ½", 3", 6"; Michigan Alkali Co.; 1940

Diesel Supply and Passenger Boat

1 Drawing - no Lines; 1"; Bartenfeld & Co.; 1934
2-3 Drawing - no Cross Section and Details: 1"; Bartenfeld & Co.; 1935
4 Drawing - no Interior Profile; 1"; Bartenfeld & Co.; 1935
5 Drawing - no Lines and Half-Breadth Plan; 1"; Bartenfeld & Co.; 1935

Diesel Tug for River, Lake, or Coast, no date

1 Drawing - no Body Plan; ½"; Bartenfeld & Co.
2 Drawing - no Cross Section Amidships; 1"; Bartenfeld & Co.
3 Drawing - no Cutlass Bearings; 3"; Bartenfeld & Co.
4 Drawing - no General Piping Plan; ½"; Bartenfeld & Co.
5 Drawing - no General Plan of Engine Room and Quarters; ½"; Bartenfeld & Co.
6 Drawing - no Profile; ½"; Bartenfeld & Co.
7 Drawing - no Rudder Plan and Details; 1"; Bartenfeld & Co.
8 Drawing - no Rudder, Stern Post, and Shoe; 1"; Bartenfeld
9 Drawing - no Shear Plan and Half-Breadth Plan, 1/2"; Bartenfeld & Co.
10 Drawing - no #: Untitled Cross Section of Hull for Towboat

Diesel Direct or Diesel/Electric Drive Tug for Lake, Canal, and Long Island--Sound-Towing, no dates

1 Drawing - no Cross Section; 1"; Bartenfeld & Co.
2 Drawing - no Cross Section at Amidships; 1"; Bartenfeld
3 Drawing - no Deck and Broadside Plans; 1/4"; Bartenfeld
4 Drawing - no Plan of Quarters; 1/2"; Bartenfeld & Co.
5 Drawing - no Shear, Half-Breadth, and Body Plan; 1/4"; Bartenfeld & Co.
LEON FRASER, ENDERS M. VOORHEES, A.H. PERVERT

1. Drawing - no #: Lines, Aft; 1/4"; Great Lakes Engineering Works; 1941 (3 items)
2. Drawing - no #: Midship Section Details; 1/2"; Great Lakes Engineering Works; 1941 (2 items)
3. Drawing - no #: Shell Expansion; 1/8"; Great Lakes Engineering Works; 1941 (3 items)
4. Drawing - no #: Outboard Profile and Capacity Plan; 1/16"; Great Lakes Engineering Works; 1942
5. Drawing - no #: Untitled Top and Side View; 1/16"; Great Lakes Engineering Works; 1942
6. Drawing - no #: Longitudinal Section and Tank Top; 11/8"; Great Lakes Engineering Works; no date (2 items)
7. Drawing - no #: Midship Section; 1-1/2"; Great Lakes Engineering Works; no date (3 items)

LEON FRASER, ENDERS M. VOORHEES, A.H. PERVERT (continued)

8. Drawing - no #: Midship Section - Details; ½"; Great Lakes Engineering Works; no date
9. Drawing - no #: Outboard Profile and Capacity Plan; 1/16"; Great Lakes Engineering Works; no date

DRAWER 3
GRAND HAVEN - Lake Sandsucker

GRAND HAVEN

1. Drawing - no #: Cast Steel Stem and Stern Posts for Hull 92; 3/4"; Craig Shipbuilding Co; 1902
2. Drawing - no #: Deck Plans for Steamer 92; 1/8"; Craig Shipbuilding Co.; 1902
3. Drawing - no #: Location of Keel, Center Keelson and Rider Plate Butts; 1/4"; Craig Shipbuilding Co.; 1902
4. Drawing - no #: Longitudinal Section for Steamer 92; 1/4"; Craig Shipbuilding Co.; 1902
5. Drawing - no #: Preliminary Lines for Steamer 92; 1/4"; Craig Shipbuilding Co.; 1902
6. Drawing - no #: Propellers for Steamer 92; no scale; Craig Shipbuilding Co.; 1902
7. Drawing - no #: Steamer 92 Inboard Profile-, 1/8"; Craig Shipbuilding Co.; 1902
8. Drawing - no #: Transverse Bulkheads for Ship 92; 1/4"; Craig Shipbuilding Co.; 1902
Drawing - no #: Arrangement of Shafting for Engines of Vessel 92; 1/4"; Craig Shipbuilding Co.; 1903

Drawing - no #: Cast Steel Struts; 1 1/2"; Craig Shipbuilding Co.; 1903

Drawing - no #: Outboard Bearings for Steamer #92; 1 1/2"; Craig Shipbuilding Co.; 1903

Drawing - no #: Stern Bearing for Steamer # 92: no scale; Craig Shipbuilding Co.; 1903

Drawing 5B-7500-A: Midship Section; This is a photostat with a scale of 1/4"--the original has a scale of 1/2"; Grand Trunk Western; 1937

Drawing 5B-7514: Inboard Profile; This is a photostat with a scale of 1/8"; Grand Trunk Western; 1937

Drawing - no #: Lacing Aft of Frame 95 on Ship #92; 1/2"; Craig Shipbuilding Co.; N.D.

Drawing - no #: Outboard Profile: 1/8"; Craig Shipbuilding Co.; N.D.

Drawing - no #: Plan of Car Deck on Ship #92; 1/4"; Craig Shipbuilding Co.; N.D.

Drawing - no #: Rudder Forging for Vessel 92; 3/4"; Craig Shipbuilding Co.; N.D.

Drawing - no #: Shell Plates for Ship 92; Craig Shipbuilding Co.; N.D.

**Hullfin Boat Co. Barges**

Drawing - no #: Barge Canal-Power Pocket, Hullfin Type; Hullfin Boat Co. N.Y., N.D.

Drawing - no #: Acme Barge Canal Fleet; Hullfin Boat Co., 1920

Drawing 4: Canal Express Packet; Hullfin Boat Co.; 1921

Drawing 1: Canal Power Barge, Profile and Deck Plan; Hullfin Boat Co.; 1924

Drawing - no #: Diagram of Hullfin Air-Release; Hullfin Boat Co.; 1921

Drawing 3: Hullfin Barge Canal Fleet; Hullfin Boat Co.; N.D.

Drawing 2: Profile and Deck Plan for Canal and River Consort Barge; Hullfin Boat Co.; 1921

Drawing - no #: Profile and Deck Plan for Steel Canal Barge; Hullfin Boat Co.; 1920

Drawing - no #: Profile and Deck Plan for Steel Power Canal Barge; 1/8"; Hullfin Type; Hullfin Boat Co.; 1920

Drawing - no #: Typed Description of Hullfin Barge Canal Fleet; N.D.

**Inland Lakes and Rapid Transit Co. Boats, 1921**
1 Drawing - no Bearing and Shaft Cross Sections; 2"
2 Drawing - no Bottom Framing of Pontoon; ill.
3 Drawing - no Broadside Sketch--Electric Driven Automobile and General Merchandise Carrier for Inland Waters, Catamaran Type of Construction, 1/8"
4 Drawing - no Broadside View; 1/2"
5 Catamaran Type Electric Driven Automobile and General Merchandise Freighter for Inland Waters, Broadside Section; 1"
6 Cross Section from Inboard Truss. Longitudinals, Intercostals; ill
7 Deck and Side Framing of Pontoon; 1"
8 Diagram of Power Installation, no scale
9 End View of Bulls and Plane Showing Framing; 1/2"
10 Forecastle Deck Framing; 1/2"
11 Framing of Upper Deck; 1/2"
12 Main Deck View Showing Framing and Tanks; 1/2"
13 Pontoon Shafts and Bearings Cross Section; 2"
14 Truss and Longitudinal at Rise to Forecastle Deck and Fenders; 1"

HERBERT JACKSON

1 Drawing 78-101-3: Diagrammatic Arrangement of Bilge and Ballast System; no scale; Great Lakes Engineering Works; 1957
2 Drawing 112-801-?: Diagrammatic Arrangement of Ballast Piping and Details of Vent and Sounding Pipes; 1/8", 3/16". 3/8"; Great Lakes Engineering Works; 1958
4 Drawing 113-1204A: Lines - Forward; 1/4"; Great Lakes Engineering Works; 1958
5 Drawing 113-1205A: Lines - Aft; 1/4"; Great Lakes Engineering Works; 1957
6 Drawing 113-1265: Midship Section; 1/2"; Great Lakes Engineering Works; 1958
   Drawing 113-1426: Final Hydrostatics; no scale; Great Lakes Engineering Works; N.D.

Lake and Canal Boats

1 Drawing - no #: Barge Canal Motorship, Inboard Profile and Deck Plan; no scale; N.D.
2 Drawing - no #: Broadside Plan for Lake, Canal and Coast
Motorship; 1/4"; Bartenfeld and Co.; c.1926

3 Drawing - no #: Cross Section for Lake. Canal and Coastwise Motorship; 1/2"; Bartenfeld and Co.; N.D.

4 Drawing - no #: Cross Section for Lake and Canal Twin Screw Diesel Motorship; 1"; Channel Steel Hull Corp.; 1929

5 Drawing - no #: French Canal Ship- Inboard Profile and Deck Plan: 7mm. = 1 m.; N. D. 

6 Drawing - no #: Lake and Canal Twin Screw Diesel Motorship-Inboard Profile and Deck Plan; no scale; Channel Steel Hull Corp.; 1929 (3 items)

7 Drawing - no #: Lake, Canal and Coast Diesel Motorship; 1/2"; Bartenfeld and Co.; 1926

8 Drawing - no #: Lake, Canal and Coast Motorship - After End Quarters and Deck Construction; 1/2"; N.D.

9 Drawing - no #: Lake, Canal and Coast Motorship- Foreward End Showing Quarters and Deck Construction; 1/2"; Bartenfeld and Co.; c-1926

10 Drawing - no #: Lakes-Overseas Motorship- Cabin Arrangements; no scale; N.D.

11 Drawing - no #: Lakes-Overseas Motorship- Inboard Profile; no scale; N.D.

12 Drawing - no #: Proposed Cross Section Plan Channel Steel Hull Vessel for Lake, Canal and Short Coastwise Service; no scale; N.D.

13 300' Twin Screw Channel Barge- Propeller and Rudder Arrangement; 112"; 1932

Lake Sandsucker

1 Drawing - no #: Lake Sandsucker Capacity Plan; 1/8"; Channel Steel Barge Co., Inc.; N.D.

2 Drawing - no #: Lake Sandsucker Midship Section; 1/2"; Channel Steel Barge Co.; N.D. (2 items)

3 Drawing - no #: Lake Sandsucker of Channel Steel Construction; 1/2"; Bartenfeld & Co.; N.D.

4 Drawing - no q: Lake Sandsucker Piping Plan; 1/8"; Channel Steel Barge Co.; N.D. (2 items)

5 Drawing - no #: Lake Sandsucker- Shear, Half-Breadth and Body Plan of Bow; 1/2"; Channel Steel Barge Co.; N.D. (2 items)

6 Drawing - no #: Lake Sandsucker- Shear, Half-Breadth and Body Plan of Stern; 1/2"; Channel Steel barge Co.; N.D. (4 items)

7 Drawing - no #: Lake Sandsucker with Channel Steel Construction, Inboard Profile and Deck Plan; 1/8"; N.D.
DRAWER 4
MATAAFA and MALIETOA - T2 Tanker Conversions

MATAAFA and MALIETOA

1 Booklet for Engines 97 and 102; 63 drawings noted in index; varied scales; c. 1898-1899.

SAMUEL MATHER and JAMES PICKANDS

1 Drawing 3-H-40 sheet 1 of 3: Proposed new tank top, side tanks and screen bulkheads; varied scale; Bartenfeld and Co.; 1953
2 Drawing - no #: Proposed channel side tank designs; varied scales; Bartenfeld and Co.; N.D. (2 items)

JOHN G. MUNSON

1 Typescript- Specifications for Steamer JOHN G. MUNSON- Tank Top Renewal and Watertight Bulkhead Installation by R.A. Stearn, Inc.; 1967
2 Drawing 62-1516: Installation of Dredge Pump Piping, Modification to Ballast System and Control Air Piping; as noted; American Shipbuilding Co.; 1968
3 Drawing 1197-102: Watertight Subdivision Bulkheads 62, 110 and 158; ½”; R.A. Stearn, Inc.; 1967
4 Drawing 456D7: 26”x66” Raised Watertight and Dog Round Corner Door and Frame; ⅛”, ½”; Overbeke-Kain Co.; 1968
5 Drawing MAN 415H-511-2-1: New Tank Top Plating Plan Distribution; no scale; American Shipbuilding Co.; 1967
6 Drawing MAN 415H-511-2-1: Tank Top Renewal; as shown; American Shipbuilding Co.; 1967
7 Drawing MAN 415H-511-5-1: W.T. Bulkhead 33, Arrangement and Details; ½”; American Shipbuilding Co.; 1967
8 Drawing MAN 415H-511-5-2: W.T. Bulkheads 62 through 110 and 158 Arrangement and Details; varied scale; American Shipbuilding Co.; 1968
9 Drawing MAN 415H-511-13-1: Misc. Foundations, Conveyor Odler Mods., Platforms, Ventilators, Ladders and Hatches; as shown; American Shipbuilding Co.; 1968 (2 items)
10 Drawing MAN 415H-538-1-102: Gooseneck Ventilator at frames 110, 158, 183; as noted; American Shipbuilding Co.; 1961
11 Drawing MAN 415H-538-1-102: Gooseneck Ventilator; as noted; American Shipbuilding Co.; 1968
12 Drawing MAN 415H-538-1-103: Gooseneck Ventilator at Frame 62
only; as noted; American Shipbuilding Co.; 1961

13 Drawing 538-1-102: Gooseneck Ventilator at Frames 110, 158, 183; as noted; American Shipbuilding Co.; 1961, 1968 (2 items)

14 Drawing TOL.STD.516-2-1: Ventilation STD. W.T. Covers; as noted; American Shipbuilding Co.; 1966

PHOENIX

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PRESQUE ISLE, Channel Steel Hull Corp.

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FRANK PURNELL, American Shipbuilding Co.

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1966 (2 items)

7  Drawing P40: Boom General Arrangement PP11 to PP6; 3/8"; 1966 (2 items)

8  Drawing P41: Boom General Arrangement PP6 to PP2; 3/8"; N.D.

9  Drawing P42: Boom General Arrangement PP2 to PP10; 3/8"; 1966 (2 items)

10 Drawing P44: Boom Stress Diagram Winding and Swinging Loads; as shown; 1966

11 Drawing P45: Boom Stress Diagram DL & LL & Impact- Boom Raised; as noted; 1966

12 Drawing P46: Boom Stress Diagram, Belt Pull- Boom Horiz. & R.S.; as shown; 1966

13 Drawing P48: Boom Stress Diagram Winding and Swinging Loads; as shown; 1966

14 Drawing P50: Boom Joint Details; ½"; 1966

15 Drawing P51: Boom Joint Details; ½"; 1966

16 Drawing P52: Boom Joint Details; ½"; 1966

17 Drawing P55: Boom Joint Details; ½"; 1966

18 Drawing P56: Boom Hoisting Cable Arrangement; 1"; 1966

19 Drawing P57: Loads to Spar Deck; as shown; 1966

20 Drawing P58: Upper Pivot Details; as noted; 1966

T2 Tanker Conversions

1 Drawing 25: General fore and aft arrangement plans for a T2 tanker conversion into a Great Lakes self-unloading ore carrier; 1/4"; Bartenfeld and Co.; N.D.

2 Drawing 26: Longitudinal view of T2 tanker conversion to a self-unloading ore carrier; 1/16"; Bartenfeld and Co.; N.D.

3 Drawing 28: T2 Tanker after end conversion to self-unloader; no scale; Bartenfeld and Co.; N.D.

4 Drawing 31: Proposed Conversion of a T2 Tanker into a bulk carrier; 1/4"; Bartenfeld and Co.; N.D.

5 Drawing 50: Proposed General Design of a T2 Conversion to a Self-Unloader; ½"; Bartenfeld and Co.; 1960 (with inboard profile)

6 Drawing 51: Sketch of Bow Flare for T2 Conversion to Bulk Carrier; ½"; Bartenfeld and Co.; 1960

7 Drawing 58: Main Deck Using T3 Bow for Ocean Self-Loading; 1/16"; Bartenfeld and Co.; 1960

8 Drawing 67: T2 conversion alternative design of mounting unloading unit; 1/16"; Bartenfeld and Co.

9 Drawing 100: Proposed general design for a T2 Tanker conversion to a bulk self-unloading ship; varied scale;
Bartenfeld and Co.; N.D.

10 Drawing 101: Proposed bowline alterations for a T2 conversion; includes body plan; 1/4"; Bartenfeld and Co.; N.D.

11 Drawing 102: Proposed bow alterations for a T3 conversion; 1/4"; Bartenfeld and Co.; N.D.

12 Drawing - no #: Proposed channel tank top construction for a T2 tanker conversion to a bulk ore carrier for ocean classification: varied scales; Bartenfeld and Co.; N.D.

13 Drawing - no #: Proposed to tanker conversion to an ore and dry bulk carrier, includes longitudinal and deck plans; ½", 1 ½"; Bartenfeld and Co.; N.D.

DRAWER 5

Unloading Machinery - WYANDOTTE

Unloading Machinery

1 Drawing 208998: General Drawing of 480 C.F. Open Type Coal Bucket; 1"; Industrial Brownhoist Co.; 1954

2 Drawing 211617: General Outline of 430 C.F. Open Type Coal Bucket; no scale; Industrial Brownhoist Corp.; 1956

3 Drawing 214104: General Outline of 187 C.F. Flush Link Type Ore Bucket; no scale; Industrial Brownhoist Corp.; 1957

4 Drawing 216568: General Outline of 12 ton Open Type Coal Bucket; no scale; Industrial Brownhoist Co.; 1959

5 Drawing 217368: General Outline for 12 Long Ton Open Ore Bucket; no scale; Industrial Brownhoist Co.

6 Drawing I-B: Universal Bulk Unloading Unit; 3/16'@; Bartenfeld and Co.; N.D.; 1954

7 Drawing 4: Ship-mounted traveling unloading unit; 1/4"; Bartenfeld and Co.; N.D.

8 Drawing 5A: Layout of boom foot and drives; 1"; Bartenfeld and Co.; N.

9 Drawing 6: Universal Bulk Cargo Unloading Unit for Ships; 1/4"; Bartenfeld and Co.; N.D.

10 Drawing 10: Untitled Unloading Unit; 1/4"; Bartenfeld and Co.; N.D.

11 Drawing XI: Ship-mounted ore unloader; no scale; Bartenfeld and Co.; N.D.

12 Drawing 15A: Deck Traveling Unloading Unit; 3/16"; Bartenfeld and Co.; N.D.

13 Drawing 16: Self Loading and Unloading Unit; 1/4"; Bartenfeld and Co.; N.D.

14 Drawing 18: Self-loading and unloading unit; 1/8";
Drawing 19: Preliminary Design of a high cubic foot self-unloading bulk ocean carrier; 1/8"; Bartenfeld and Co.; N.D.

Drawing 22: Typical Great Lakes Bulk Carrier With Unloading Unit Secured Forward; 1/16"; Bartenfeld and Co.; 1960

Drawing 26: Longitudinal View of T2 Tanker Conversion to a Self-Unloading Ore Carrier; 1/16"; Bartenfeld and Co.; N.D.

Drawing 49: Universal Self-Unloading Bulk Carrier; ½"; Bartenfeld and Co.; 1967

Drawing 80: Bulk Ship Unloading Unit; 1/4"; Bartenfeld and Co.; N.D.

Drawing 104: Deck Traveling Unloading Unit for Bulk Cargoes; 3/16"; Bartenfeld and Co.; N.D.

Drawing 105: Deck Traveling Unloading Unit for Bulk Cargoes; 1/16"; Bartenfeld and Co.; N.D.

Drawing 110: Deck Traveling Unloading Unit for Bulk Carriers; as shown; Bartenfeld and Co.; N.D.

Drawing S-1: Traveling Gantry Crane With Retractable Boom; 1/4"; Bartenfeld and Co.; 1955

Drawing S-3: Ocean and Great Lakes Bulk Cargo Carrier; 1/8"; Bartenfeld and Co.; 1957

Drawing SU-23: Preliminary General Plan for Self-Unloading Bulk Cargo Carrier; as shown; Bartenfeld and Co.; N.D.

Drawing - no #: Untitled boom drawing; no scale., Bartenfeld and Co.; N.D.

Drawing - no #: Proposed ship-mounted unloading unit to take bulk cargo out of holds and place on a centerline belt conveyor; 1/4"; Bartenfeld and Co.; N.D.

**WYANDOTTE**

Drawing 3: Midship Section; no scale; N.D. (2 items)

Drawing 4: Longitudinal Plan for the first self-unloading ship; no scale; N.D. (2 items)

Drawing 1137: Cross Section; 1/8", 1/2t; 3/4"; Michigan Alkam Co.; 1909 (2 items)