

Valley Gem

Owner: Jason Sands

Home Port: Marietta, OH, Muskingum River Mile Marker 1

Hull Type: Displacement

Hull Material: Steel

Length: 102'

Width: 24' 5"

Draft: 3'

Wheel Diameter: 16'

Wheel Width: 14'

of Buckets: 16

Engine Type/Size: 60 Series Detroit diesel

Drive Train Type: ZF W325

Built By: Sands Family

Built at: Marietta, OH

Date: April 1989

Past Names (oldest to newest): Valley Gem

Description and History of the Valley Gem and Barge "Miss Lily: The Valley Gem was established in 1973 by James E. Sands with the 98 passenger Valley Gem I. This Vessel was a 71' x 18' sternwheel excursion boat that operated on the Muskingum and Ohio Rivers. The first Valley Gem was constructed by Everet Ruble of Belpre OH. In 1984 James Sands and Ivan Arnold built the "Belle Rivera" landing barge. This barge was constructed as a staging area for the Valley Gem. The barge was 65' x 24.5'. It also featured a wooden building with restrooms, snack shop, retail shop, and a small storage tool room. The business outgrew the small 98 passenger Valley Gem I, so James Sands began designing the Valley Gem II in 1986.

By 1987 most of the plans were drawn and the structural calculations were finished. Naval Architect Lee Mount of Higham MA, and Thomas Hudson of Hebron OH assisted in the submissions to the USCG marine safety center in Washington DC. Construction Began in February of 1988 and the vessel was launched on April 1 1989, but the maiden voyage wasn't until June 5, 1989. The entire vessel was welded by Ivan Arnold.

In 1995 Ivan Arnold, Jason Sands, and Don Sandford began construction of a hull extension that was going to lengthen the "Belle Rivera" barge from 65' to 115.5'. Once the "extension" was launched, it was towed to Amherst Industries in Point Pleasant WV where the bow of the "Belle Rivera" was removed and the extension was inserted. In 1996 a cabin was built onto the extension of the "Belle Rivera." This cabin shared the same design of the Valley Gem II.

In 2001 the existing wooden cabin on the stern portion of the "Belle Rivera" was removed and the steel cabin was extended to the stern. The new steel cabin features bathrooms, a galley, and storage. Currently the "Belle Rivera," now known as the "Miss Lily" is being converted into a passenger barge that will be used with the Valley Gem II. The structural plans were approved May 1 of 2009.

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Valley Gem (continued)

Operations of the Valley Gem:

We offer cruises on the Muskingum River and the Ohio River from April 1 to December 31 with most of our tours are on the Ohio River. Our trips are divided relatively even between Public Tours (Sightseeing, Saturday Dinner Cruises, and Fall Lock Trips) and Private Charters. Both the Valley Gem and Miss Lily have surveillance systems that monitor year round for movement and bilge conditions. During the off season, we perform maintenance that cannot be performed during our season. We are firm believers in preventative measures and replacing or repairing based upon hours of service.

Valley Gem Data:

Estimated Market Value: 850,000

THERE ARE NO THRU HULL FITTINGS OR PENETRATIONS

Official Number: 949832

Length: Hull 102' Overall 157'

Width: 24.5'

Depth: 4'

Net Tons: 55

Gross Tons: 80

Construction: Bottom 5/16" steel, Gunnel 5/16" steel, Deck 1/4' steel, Upper Deck 3/16" steel.

Subdivision: 6 watertight compartments with 2" bilge lines to each. Watertight deck hatches. Ventilation provided thru cabin wall vertical tubing (prevents any water from splashing into hull).

Coating Systems: Exterior Hull is Cathacoat 302H + DevTar 5A (Nov 2007 w/little to no wastage), Interior Hull Bar-Rust 235 + Devran 4308 (2005), Cabin Exterior is Cathacoat 302H + Bar Rust 235 + Devthane 389, Decks.

Propulsion: Sternwheel (no thrusters or propellers).

Drive: Chain (reduction is 140 double roller and main drive is 200 double roller) with total reduction of 20:1. Both chains run in an oil bath of Lubrication Engineers Amisol.

Transmission: ZF W325 2.96:1 (installed in 2006) has hydraulic shaft brake and trolling valve function

Main Drive Engine: Detroit Diesel 60 Series 12.7 litre 425HP (installed in 2006) heat exchanger cooled

Steering: Mechanical linkage with hydraulic assist (exactly the same system in a semi-truck) (Rebuilt in 2006)

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Valley Gem (continued)

Auxiliary Steering: Mechanical tiller arm

Controls: ZF 785 CE-GT Governed Troll Function for precise maneuvering w/ paddlewheel

Generator: John Deere 4039 40 KW marine generator heat exchanger cooled.

Heating System: Baseboard hot water heat with 3-5000 watt elements. Heat exchanger also draws heat from generator and/or main engine water jackets.

Air Conditioning: 2X Carrier 60,000btu split evaporators with 2X custom made water cooled condensing units

Bilge Pumps: 2x Gorman Rupp belt driven with electric clutches. One installed on each engine.

Fresh Water: 325 gallon plastic tank with goulds well pump system and dual carbon filter. 50 gallon fresh water heater (electric household style).

Sewer: 325 gallon plastic tank w/level indicator. Holding tank can be pumped out via bilge pumps.

Navigation: Furuno 1942 MK2 6KW open array radar. Garmin 182 GPS. Dell 5200 12VDC PC w/navigation software. Hummingbird sonar. Dual icom marine radios.

Safety Equipment: Carslile Finch 19" searchlight. Kahlenburg Q-4A horn. Three liferings and one w/ACR strobe.

Fire Fighting Equipment: Two 1.5" fire hose stations on upper deck. Two CO2 extinguishers within engine room area. Two 10lb extinguishers in lower cabin and one 5lb in pilot house.

Emergency Lighting: 12VDC w/solenoid control if generator fails.

Miss Lily:

Estimated Market Value: 250,000

Official Number: Unassigned

THERE ARE NO THRU HULL FITTINGS OR PENETRATIONS

Length: Hull 115.5' Overall: 160'

Width: 24.5'

Depth: 4'

Net Tons: >100 (TBD by GL)

Gross Tons: <100 (TBD by GL)

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Valley Gem (continued)

Construction: Bottom ¼" steel, Gunnel ¼"steel, Deck ¼' steel, Upper Deck 3/16" steel

Subdivision: 8 watertight compartments with 2" bilge lines to each. Watertight deck hatches.
Ventilation provided thru cabin wall vertical tubing (prevents any water from splashing into hull)

Sewer: 325 gallon plastic tank with level indicator

This vessel is still under construction.

