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ARCADIA J

CONDITION AND VALUATION SURVEY

Report No.: CV4857 **Report Date:** October 11, 2023

Requested By: James [redacted], Owner Representative

Attended By: James & Arcadia [redacted], Owner Representatives

Surveyed: Drydocked/Afloat in Kodiak, Alaska **Dates Attended:** August 2, 2023
September 15, 2023

Purpose

The scope of this survey, as requested by the owner representative, was to determine the general condition of the subject vessel and to render an opinion of the estimated "Replacement" and "Market" values.

Documents Reviewed

	Current/Expiration:	Comments:
• USCG Certificate of Documentation (COD)	7/31/2026	Onboard

Vessel Particulars

Name:	Arcadia J
Official No.:	968850
IMO. No:	PA146014G090
Hull ID #:	PA146014G090
Call Sign:	Unknown
Hailing Port:	Seldovia, Alaska
Owner:	Arcadia [redacted]
Year Built:	1990
Where Built:	Taipei Hsien, Taiwan
Built By:	Nordhaven
Model:	Nordhaven 4614
Length Overall:	47.0’
Registered Length:	46.7’
Width:	15.4’
Depth:	8.7’
Gross Tons:	41
Net Tons:	33
Registry:	United States of America
Type:	Uninspected pleasure craft
Service:	Recreation/pleasure
Load Lined:	None – not required
Classed:	None – not required
Speed:	6-8 knots (main engine)/ 4-5 knots (backup engine)
Waters Navigated:	Alaska Coastal Waters- Inlets and Bays
Crew/Accommodations:	5 persons
Construction:	Molded fiberglass
Last Dry-docked:	August 2023- Kodiak, Alaska
Next Scheduled Dry-docking:	2024

Description

The Arcadia J is an all fiberglass, typically designed and constructed Nordhaven 4614, single diesel powered, pleasure yacht. The vessel hull has a raked, non-bulbous V-entry bow stem to monk round style, Naiad stabilized, center keeled bottom, with low profile straight sides and rounded cornered straight transom stern.

The vessel is utilized in Alaska as a pleasure craft.

Construction*

Pilothouse Plate:	Fiberglass
Deckhouse Plate:	Fiberglass
Deck Plate:	Fiberglass
Side Shell Plate:	Fiberglass
Bottom Plate:	Fiberglass

*Foam core construction reported.

Transverse Frames-

Side Shell:	Fiberglass reinforced bulkheads
Bottom:	Fiberglass reinforced bulkheads
Deck:	Fiberglass reinforced bulkheads

Longitudinal Frames-

Side Shell:	None
Bottom:	Engine bed stringers
Deck:	Walls and bulkheads

Bulkheads-

Transverse:	Four (4)
Longitudinal:	No integral construct

Pilothouse Layout

The pilothouse is accessed via the aft 01 deckhouse salon area, or directly via a port or starboard side step-up fiberglass slider sealed, windowed, door.

Inside, the pilothouse is open, with the full width control dash forward, captain's chair on center at the vessel control and helm station with electronics on and overhead. To port is a raised, hinged, chart table, and aft on port side is a passenger raised storage bench seating unit, with a forward desk/counter and stepped up from the bench seat is a day berth. To the starboard side aft is the steps down into the house salon.

Finishes include custom veneered paneling walls, with hard wood trims, formica surfaces and vinyl insulated ceiling, mounted with hard wood slat trim and custom plank wood flooring.

Visibility is 360°, partially obscured aft by the 01 deckhouse rooftop and rooftop storage items, via wood framed, sealed, safety glass windows, raked forward, with drop windows port and starboard side.

Ventilation is via the entrance doors, the drop windows and salon open space.

At the time of the survey, the pilothouse appeared to be well-maintained, lit, ventilated, and equipped for intended use.

Navigation Equipment & Electronics

Radios -

- (1) Furuno FS 1503 SSB
- (2) Icom ICM-504 VHF units
- (1) Iridium satellite phone
- (2) Midland communicators
- (1) Furuno satellite phone

Radars -

- (2) Furuno Navnet VX2 C-Map NT Max SD radar/plotter unit

Sounders -

- (1) Echopilot FLS forward looking color sonar unit
- (1) Link "ADD3FT" depth sounder

GPS/Plotters -

- (1) Garmin GPS Map 4212 color video plotter/sounder
- See "Radars"

Miscellaneous Pilothouse Electronics and Equipment -

- Weems & Plath brass clock
- Weems & Plath brass barometer
- Corrant custom clock
- Videoman camera monitoring unit (engine room/aft deck)
- “Link” vessel speed indicator
- ACR RCL-100 vessel position unit (reported inoperable)
- Starlink satellite email system with PC computer/Ioqi laptop unit with Samsung 27” color flatscreen monitor
- Pioneer Bluetooth automotive type AM/FM/CD stereo unit
- 52”flatscreen color TV monitor with sound bar

Vessel Steerage and Controls:

- (1) station cable throttle/shift controls
- (1) station hydraulic stand-alone ship’s helm control
- (1) station Wesmar bow thruster control
- (1) station Naiad Marine electric/hydraulic hull stabilizer control
- (1) Comnav “Commander” magnetic autopilot
- (1) Furuno SC-60 satellite compass
- (1) Danforth 5” magnetic compass
- (1) Vickers steerage power assist pump
- (1) ram single post quadrant

Deckhouse Layout

The fiberglass deckhouse is accessed via fiberglass step-up, windowed, sealed slider door, center aft, off the aft external deck, or via the pilothouse doors.

Inside, the deckhouse is open and spacious, with galley aft and galley mess forward. To the starboard side is a tool chest and two (2) domestic freezers. On center forward is a Dickenson "Newport" diesel space heater. Forward starboard side are steps that lead below deck into the accommodation spaces. The master queen sized bedroom is immediately below, with custom built-in locker and desk, an enclosed full service head with sink counter and shower stall. The bow peak contains a double bed stateroom with enclosed toilet and storage shelving and an escape skylight hatch overhead.

Finishes include custom veneered paneling walls, with hard wood trims, formica surfaces and vinyl insulated ceiling, mounted with hard wood slat trim and custom plank wood flooring.

Deckhouse visibility is via wood framed, sealed, safety glass windows, with two (2) drop windows port and starboard side.

Ventilation is via the pilothouse/deckhouse entrance door and the drop windows.

Galley:

- Force 10, gimbled capable, 3-burner AC electric stove (not presently gimble)
- Coleman propane single burner unit
- Built-in domestic AC electric refrigerator
- Built-in domestic AC electric freezer
- Sharp AC electric microwave
- Galley table for 4-6 persons

Head:

- (1) enclosed full service MSD toilet with sink counter and shower stall (master stateroom)
- (1) enclosed full service MSD toilet with sink counter and shower stall (bow peak stateroom)

Miscellaneous Equipment:

- Splendair 2100XC AC electric washer/dryer unit
- Tide clock unit
- Haier 27" flatscreen color monitor with Bose soundbar
- (2) Haier AC electric 6 cu ft. chest freezer (rooftop)
- (3) AC heating/air conditioning units with 3-zone control

Engine Room

The engine compartment is accessed via the 01 deckhouse flush floor panels or via the master stateroom.

Propulsion System & Engine Room Machinery:

Main Engine:	**Lugger 4-Cylinder Inline Diesel**
Model:	6414-DF001
Serial No.:	TO6414D223575
Installed:	1990
Last Rebuilt:	none (new injectors 2018)
Hours:	7,180.2
Horsepower:	143
Start:	12 VDC electric
Cooling System:	raw water/heat exchanged
Exhaust System:	dry and insulated
Fuel Filtration:	Racor 75/1000
Ventilation:	(2) 12 VDC electric engine room space blowers/air scoops
Attachments:	none

Drive Train -

Bulbous:	none
Nozzle:	none
Bow Thruster:	Wesmar 24 VDC electric/hydraulic
Marine Gear:	Borg Warner
Model:	not found
Ratio:	3.0:1
Installed:	1990
Rebuilt:	2018 (In Demand- Homer, AK)
Attachments:	none
Shaft Brake:	none
Intermediate Shaft:	none
Intermediate Bearing:	none
Tail Shaft (Main Engine):	2” stainless steel with dripless sealed boot
Tail Shaft (Standby Engine):	1” stainless steel
Stern Bearing:	Bronze rubberized cutlass (main/standby engine shafts)
Propeller (Main Engine):	4-blade RH bronze
Propeller (Standby Engine):	2-blade 16” x 13” featherable RH bronze
Rudder:	tapered fiberglass
Rudder Shoe:	fiberglass

Standby Engine:	**Volvo Penta 3-Cylinder Inline Diesel (Auxiliary Propulsion Engine)**
Model:	2003
Serial No.:	2300046227
Installed:	1990 (new)
Last Rebuilt:	none
Hours:	estimated 300
Start:	12 VDC electric
Cooling System:	raw water with bronze strainer
Exhaust System:	wet
Filtration:	Racor 250
Attachments:	shaft/propeller (See “Surveyor’s Comment #1”)
Service:	standby propulsion unit

Additional Machinery

Auxiliary #1	**Lugger 3-Cylinder Inline Diesel (AC Power)**
Model:	M753W2
Installed:	2008 (new)
Last Rebuilt:	none
Hours:	7,412.0
Start:	12 VDC electric
Cooling System:	raw water with bronze strainer
Exhaust System:	wet exhaust
Filtration:	Racor 500
Attachments:	Northern Lights 8 kW single phase AC generator
Service:	120 VAC

Electrical System – AC

Supply:	See “Auxiliary Engine #1” 50 amp shore power
Inverters/Converters:	Cobra 500-watt inverter (pilothouse) Magnum 3,000-watt charger/inverter (master stateroom)
Transformers:	50 amp transformer
Overload Protection:	AC circuit breakers AC dead front panel
Additional Equipment:	none

Electrical System - DC

Batteries:	(3) banks 12 VDC (3-12 VDC gel cell batteries)- house (1) bank 12 VDC (1- 8D 12 VDC wet cell battery) main engine start (1) bank 24 VDC (2-12 VDC wet cell batteries)- bow thruster
Charging System:	main/standby engine belt-driven alternators
Overload Protection:	DC circuit panels (4) DC battery vapor/selector shut off switches
Additional Equipment:	Ample Power DC energy monitor controller unit

Alarm Systems

Marine Gear:	Low oil pressure
Main Engines:	Low oil pressure, high coolant water temperature
Standby Engine:	Low oil pressure, high coolant heat auto shutdowns
Auxiliary Engine:	Low oil pressure, high coolant heat auto shutdowns
Bilge:	High water (engine compartment)
Flow:	N/A
Fire:	None
Fuel:	N/A
Refrigeration:	N/A
Bridge Watch:	None- Vessel electronics with position/depth change alarms
General:	None- not required

Refrigeration System (Raw Water)

- None

Hydraulic System

- None

Air Supply

- None

Tanks

Fuel System

There are four (4) steel fuel oil tanks:

FOT No. 1 -amidships port/starboard wings	= 250 gallons each
FOT No. 2 -aft amidships port/starboard wings	= 250 gallons each
Estimated Total Fuel Capacity	**= 1,000 gallons**

Fuel Fills:	flush deck bungs
Fuel Vents:	to atmosphere
Fuel Lines:	neoprene fuel hose
Fuel Shutoff:	engine manifold
Centrifuge:	none
Fuel Transfer:	Marcon UP3 12 VDC electric rooftop day tank fill

Fresh Water

There are five (5) steel freshwater tanks:

FWT No. 1 – bow section upper starboard side	= 30 gallons
FWT No. 2 – bow section lower starboard side	= 70 gallons
FWT No. 3 – bow section upper/lower port side	= 70 gallons each
FWT No. 4 – stern section	=100 gallons
Total Freshwater Capacity:	**= 340 gallons**

Fresh Water Supply:	12 VDC electric pressurized pump
Hot Water Supply:	Seaward F1200 – 11 gallon stainless steel domestic AC electric heater
Water Maker:	Seaward (presently disabled)

Miscellaneous Tanks

Voids:	none
Ballast:	none
Sewage:	(2) 25-gallon MSD plastic tanks (fore/aft head)
Lube Oil:	none
Waste Oil:	none
Hydraulic Oil:	(1) 8-gallon steel tank (stabilizers)
Other:	(1) 12-gallon fiberglass (rooftop- for cabin heater supply)

Pumps

- (3) Rule 2000 12 VDC electric submersible (engine room bilge)
- (1) Whale 12 VDC electric submersible (shower bilge sump)
- (1) EOSM diaphragm 2" manual bilge pump
- (1) 12 VDC Impeller pump (all engine oil change)

Sea Cocks/Chests*

- Port: (1) 3/8", (7) ½", (1) 1", (7) 1-1/4", (1) 2"
- Starboard: (3) 3/8", (2) ½", (2) ¾", (1) 1", (2) 1-1/2"

*Sea cocks/chests or thru-hulls are for various components such as toilets, raw water cooling, washdown pumps, etc.

Deck and Rigging

The vessel is configured schooner style with the main 01 deckhouse aft of the main fore deck. Access onto the deck is via hinged bulwark cutout swing doors at the stern port and starboard side. The nonskid 01 deck is flush and self-bailing, enclosed via 3' high fiberglass bulwarks, up to the foredeck, with starboard side walkway along the 01 deckhouse, with step-up onto the fore deck with pilothouse access immediately.

Forward at the bow section is a full width wave wall. The foredeck, aside the wave wall, to the bow sprit is enclosed via 2-tier stainless steel safety rail. The wave wall has a hinged cut out swing door for the foredeck access, with nonskid material on the trunk cuddy roof and anchor deck.

The deck walk access continues in front of the pilothouse to the port side where aft are the steps that lead up to the 01 deckhouse rooftop. The rooftop stairway and rooftop have 2-tier stainless steel parameter safety railing. The rooftop houses the life raft, EPIRB, and miscellaneous equipment. At the rooftop port side aft, is the vertical steps down to the 01 aft deck with skylight cover.

At the time of the survey, the vessel was equipped as follows:

- Tubular A-frame aluminum steady sail mast
- Aluminum 4" pipe dinghy boom
- (1) ProVantage 2500S 12 VDC electric boom topping winch
- (1) ProVantage 2500S 12 VDC electric boom picking winch
- (1) In-Demand diesel freshwater heater for auxiliary external aft deck shower stall

Anchor Gear

- Bruce type estimated 33 kg shovel anchor
- 350' x 3/8" link chain
- Maxwell 24 VDC single drum chain windlass (with 12 VDC remote in pilothouse)

Spare:

- Danforth style estimated 40 lbs. anchor

Safety Equipment:

Approved Life Jackets:	(6) Type I adult						
Ring Buoy:	(1) 30” orange	taglines:	Yes	name:	No	tape:	Yes
Survival Suits:	None	lights:	N/A	whistles:	N/A	tape:	N/A
Flares:	Assorted	expire:	03/25				
Life Raft:	None	inspection due:		N/A	hydro due:		N/A
EPIRB:	ACR Global Fix Pro	battery expires:		10/21	hydro expires:		02/21
		registration expires:		02/22			
Life Boat (auxiliary):	2016 West Marine 8’6” hard bottom inflatable (VIN# WMPEB004D616) with Mercury 3.3 hp gas outboard						
Spot Light:	(1) Duel Bulb 12 VDC mast mounted remote						
Horn:	12 VDC electric/handheld compressed air						
Bell:	6” bronze						
Medical Kit:	Portable						
Day Shape:	N/A						
Navigation Lights:	USCG approved						
Other:	(1) emergency anchor windlass and bow thruster switch in bow peak stateroom (1) emergency stainless steel rudder upper lazarette tiller steerage hand-bar						

Fire Extinguishers*

- (2) 5 lbs. dry chemical (pilothouse)
- (1) 5 lbs. dry chemical (01 deckhouse)
- (1) 2 lbs. dry chemical (galley)
- (1) Fireboy auto suppression unit with pilothouse manual activation

*Last inspected: 1/20 (in green)

Upgrades

2023

- New Naiad stabilizer seals were installed.
- New marine Starlink ship's satellite Wi-Fi system installed.
- New engine room ventilation blowers installed.

2013

- New electronics and autopilot installed.
- New cabin heater installed.

Remarks

1. The undersigned inspected the vessel dry-docked on August 21, 2023. The following was observed:

Hull & Attachments		Damage Observed:
Bulbous Bow:	None	N/A
Bow Thruster:	Yes- single 3-blade	None
Hull Plate Material:	Fiberglass	None
Bottom/Chine Type:	Round chine	None
Roll Chocks:	None	N/A
Keel/Grid Coolers:	Grid- hull attached	None
Transducers:	Yes	None
Thru-hulls:	Port: (1) 3/8", (7) ½", (1) 1", (7) 1-1/4", (1) 2"	None
	Starboard: (3) 3/8", (2) ½", (2) ¾", (1) 1", (2) 1-1/2"	None
Zincs:	New	None
Coatings:	New	None

Drive Train		Damage Observed:
Rudders:	Tapered walled	None
Rudder Shoes:	Fiberglass	None
Pintle Bearings:	Yes	None
Tail Shaft (Main):	2" stainless steel	None
Tail Shaft (Standby):	1" stainless steel	None
Cutlass bearings:	Rubberized bronze (main/auxiliary shaft)	None
Propeller (Main):	4-blade RH bronze	None
Propeller (Standby):	2-blade 16" x 13" RH collapsible (feathered)	None
Kort Nozzles:	None	N/A
Other:	Naiad stabilizers	None

Damage

- None observed

Recommendations

The following recommendations are based on this reports date and set forth for owners to comply with, in accordance with current Federal CFRs, OSHA, USCG NVICS, ABYC, and similar agencies' standards and regulations, and to outline any discrepancies based on the undersigned marine surveyor's experience of good marine practices:

1. The EPIRB battery, hydrostatic release and NOAA registration are all expired. Renew.

Vessel Condition

Based on all accessible areas observed, with the vessel both drydocked and afloat, it is the undersigned marine surveyor's opinion that overall, the vessel appears to be in good serviceable condition and suitable for its intended use.

Valuation Methods

In order to accurately estimate the current market value of this vessel, the undersigned marine surveyor utilized the following standard methodologies for appraisal, per the ABS Group's guidelines, which comply with Standard Rule 8 of the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation:

Sales Comparison

Application of the Sales Comparison Approach requires that an effort is made to base an investment decision on the sale of identical assets exchanged in the marketplace. In the marine and offshore industries, it is rare to find sales of units identical to the subject asset/property. In such a scenario, the appraiser will obtain details from sales transactions of assets that are similar but not identical, and the selling prices of these comparable assets are then adjusted to account for the characteristics of the subject property under appraisal.

Income Approach

The theory that underlies the Income Approach is that an investment decision is based on the present value of the future benefits to be earned by the investment, and the value of a particular asset is represented by the present value of its expected future benefits. Two techniques are generally used to value machinery and equipment by this approach. One is the Direct Capitalization Approach which measures value by dividing a projected income stream, in constant dollars, by a capitalization rate. The second method is the Discounted Cash Flow (DCF) Approach. The DCF Approach is a method of analysis in which the quantity, variability, timing, duration of periodic income and residual value are projected and discounted to a present value using a discount rate.

In case the subject asset has a long-term charter contract in place, an appraisal analysis performed for the subject asset should be consistent with the terms, conditions, and encumbrances of this contract. An important product of the asset's contract is a stable and guaranteed revenue stream, provided of course that the asset remains operational. However, in case the asset does not have a charter contract in place, it is not possible to use an income-based approach.

Cost Approach

The Cost Approach considers the current replacement cost as new of the subject property being appraised and then deducts for the loss in value caused by all forms of depreciation, including physical deterioration, functional obsolescence, and economic obsolescence. The logic of this approach is the principle of substitution; a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of an equivalent utility. A major challenge in the application of the Cost Approach for marine and offshore assets is quantifying physical, technological, and economic depreciation. Changes in market condition, asset's condition, technological advancements and changing regulations all have a potential impact on this valuation method and will need to be quantified for the development of replacement cost.

As per USPAP Standards Rule 7-4, all three approaches to value an asset must be analyzed for application to a specific assignment. After completion of a valuation analysis, one of these approaches, or a weighted combination of more than one, will be selected as being most suitable for determination of the final value conclusions.

Valuation

We have considered all approaches to valuation and used the sales and cost methods to conclude the following values. These values are statements of opinion. No guarantee can be given that these opinions of value will be sustained, or that they will be realized in an actual transaction. After a thorough inspection of the subject vessel, its equipment as documented within the content of this report, and giving due diligence to consideration of these approaches to valuation, it is the undersigned's opinion the following estimated values apply to the subject vessel:

Estimated Present "Replacement" Value*:	**$2,500,000.00**
Estimated Present "Market" Value*:	**$395,000.00**

*The values above do not reflect fishing LLP's, Moratorium, ITQ, IFQ, or like permits or fish allocations or rights that can be separated from the vessel, or fishing gear such as doors, nets, or other unattached equipment.

This survey CV4857 was performed without prejudice.

This survey sets forth the apparent condition of the vessel, including hull, machinery, equipment, fittings, and gear, to the best of the surveyor's ability without removal of bulkheads, paneling, ceilings, or other portions of her structure and without the opening of her machinery or auxiliaries for internal examinations or their operation for performance study. It represents the surveyor's honest and unbiased opinion but in submitting this survey, it is understood by all parties concerned, that this survey is not to be considered a guarantee of its accuracy, nor does it create any liability on the part of the surveyor or his employers arising out of the reliance on information contained in this survey.

Date: October 11, 2023

JACK L McFARLAND
AMS, Inc. President/Principal Marine Surveyor

Attached: Photos