



Condition & Valuation Survey Report

HM 166



Report Prepared By:

Accurate Appraisals & Marine Surveys Ltd.
735 Cherry Point Road
Cobble Hill, BC
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Report Prepared For:

Heavy Metal Holdings
693 Stebbings Road
Shawnigan Lake, BC
V8H 2J1

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Cover photo taken June 2019



Letter of Transmittal

July 22, 2024

Heavy Metal Holdings
693 Stebbings Road
Shawnigan Lake, BC
V8H 2J1

Attention: Mr. Williams

Dear Ashly:

Re: Survey of Barge HM 166

In accordance with your request and authorization and as per the terms of our Agreement, I surveyed your barge and then prepared this Survey Report in accordance with the Uniform Standards of Professional Appraisal Practice to express an opinion of condition and estimate of Fair Market Value and Replacement Cost.

I confirm that I personally viewed the barge while in the water at Bamberton on June 12, 2024. I then investigated into the market conditions for this type of vessel to prepare this impartial report. This survey did not include a sea trial. It represents those conditions that were externally visible above the water line. No determination of naval architecture or engineering, stability or structural strength has been made and no opinion is expressed.

This report must be viewed in its entirety to understand its content and context. The results stated in this Letter of Transmittal cannot be fully understood without the accompanying report and this letter should not be separated from the report. The opinion of value is based upon the analysis, facts and conditions presented in the accompanying report.

If you have any questions regarding this report, or if I may be of further assistance, please do not hesitate to call me for any clarification you may require.

Many thanks,

A handwritten signature in blue ink, appearing to read "Allen E. Waugh".

Allen E. Waugh
Accurate Appraisals & Marine Surveys Ltd.



Nomenclature

Damage and wear is described by the following:

Light	Refers to nonstructural, minor wear and tear and deterioration.
Moderate	Refers to damage, wear or deterioration that affects structure but not as to require repair.
Moderate to Heavy	Refers to damage, wear or deterioration that should be closely examined at the next drydocking, refit or overhaul.
Heavy	Refers to damage, wear or deterioration that has affected the structural integrity or is in the process of failure such that it will affect structural integrity. Repairs are recommended at the next regular maintenance, drydocking, refit or overhaul.
Severe	Refers to damage, wear or deterioration that jeopardized the safety, structural integrity or watertight integrity of the vessel and should be repaired before the next voyage.
Set in/down/up	Refers to deflection of a structure member away from its constructed position with the web of the member remaining in its original plane.
Set over	Refers to deflection of a structural member that has taken the web of the member out of its original plane.

Abbreviations

Side Shell – Vertical Frame	SS-VF	Deck – Longitudinal Girder	D-LG
Side Shell – Longitudinal Frame	SS-LF	Deck – Vertical Bracing	D-VB
Side Shell – Longitudinal Stiffener	SS-LS	Deck – Bracket	D-B
Side Shell – Plate	SS-P	Deck – Plate	D-P
Side Shell – Guard	SS-G	Bracket – Head Log	BR-HL
Bottom – Transverse Girder	B-TG	Bracket – Transom	BR-T
Bottom – Longitudinal Girder	B-LG	Bracket – Bilge	B-B
Bottom – Longitudinal Stiffener	B-LS	Bulkhead	BH
Bottom – Longitudinal Frame	B-LF	Bulkhead – Transverse Girder	BH-TG
Bottom – Transverse Frame	B-TF	Bulkhead – Vertical Stiffener	BH-VS
Bottom – Plate	B-P	Stern – Vertical Frame	S-VF
Deck – Transverse Girder	D-TG		
Deck – Longitudinal Frame	D-LF		
Deck – Longitudinal Stiffener	D-LS		

Surveyor's Notes

- It is the responsibility of the owner and / or the authorized representative to ensure that they always comply with Transport Canada, Coast Guard, WorkSafe BC and all other applicable safety rules and regulations.
- In my opinion, this barge was in good condition at the time it was viewed.
- This barge is suitable for its intended use in the coastal waters of BC.
- No determination of naval architecture and engineering analysis or stability and structural strength has been made and no opinion is expressed.
- Complete compliance with, identification of and reporting on all standards, codes and regulations is not guaranteed and is beyond the scope of the survey.
- A mechanical inspection was not performed.
- No reference or information should be construed to indicate evaluation of the machinery and equipment's operating capacities.
- Some areas of the deck could not be observed at the time the barge was viewed.
- The condition of the hull exterior below the water line could not be verified.
- Barge did not have any significant listing noted while in the water.

Deficiencies & Recommendations

<p>***Safety - Requires immediate action</p>	<ul style="list-style-type: none"> ➤ Ladders need to be installed on port and starboard sides of the barge. ➤ Life ring(s) need to be installed on barge.
<p>**Maintenance (for refit or overhaul)</p>	<p>The below repairs need to be completed within 6 months:</p> <ul style="list-style-type: none"> ➤ Void 2: B-TG in Bay 3 needs to be repaired. ➤ Void 5 & 6: BH plating to stern on port side needs to be repaired. ➤ Void 6: SS-LF at ladder needs to be repaired.
<p>Recommendations</p>	<ul style="list-style-type: none"> ➤ Regularly check the condition of the bolts and gaskets on all hatches. ➤ Anode conditions should be monitored on a regular basis and replaced as necessary. ➤ Trim of barge should be monitored on a regular basis. ➤ Next out-of-water survey recommended in 2029 or timeline to be determined by Insurers. ➤ Recommend implementing and maintaining a machinery and maintenance log book.

Valuation

Effective Date: June 26, 2024

It is my opinion that the value of the specified vessel is reasonably stated in the region of:

Estimated FMV CAD:
\$ 200,000

Estimated RC CAD:
\$2,000,000

Barge Description

Vessel Particulars:			
▪ Official No.:	843086	▪ Net Tonnage:	190.45
▪ Vessel Name:	<i>HM 166</i>	▪ Construction Type:	Carvel/Flush
▪ Former Vessel Name:	<i>ITB 166</i>	▪ Construction Material:	Steel
▪ Year Built:	1966	▪ Vessel Length:	47.61 m / 156.02 ft.
▪ Port of Registry:	Victoria	▪ Vessel Breadth:	15.23 m / 49.97 ft.
▪ Certificate Expires:	2025-09-30	▪ Vessel Depth:	3.70 m / 12.14 ft.
▪ Vessel Type:	Barge	▪ Builder Name:	Zidell Explorations Inc. Portland, OR
▪ Gross Tonnage:	634.83		

Barge Construction	Material	Size	Notes
Side Shell - Vertical Frames	Steel	4" x 8" x 1/4"	Angle
Side Shell – Longitudinal Frames	Steel	3" x 8" x 1/4"	Angle
Side Shell - Longitudinal Stiffeners	Steel	3/8"	Plate
Side Shell - Plate	Steel	5/16"	Plate
Side Shell - Guard	Steel	6"	Pipe half round vertical
Bottom - Transverse Girders	Steel	3" x 8" x 3/8"	Truss system
Bottom - Longitudinal Stiffeners	Steel	3/8"	Plate
Bottom - Longitudinal Frames	Steel	3" x 8" x 1/4"	Angle
Bottom - Plate	Steel	3/8" and 5/16"	Plate
Deck – Transverse Girders	Steel	3" x 8" x 3/8"	Truss system
Deck – Longitudinal Frames	Steel	3" x 8" x 1/4"	Angle
Deck – Longitudinal Stiffeners	Steel	3/8"	Plate
Deck – Vertical Bracing	Steel	8"	Pipe
Deck - Brackets	Steel	3/8"	Plate
Deck - Plate	Steel	5/16"	Plate
Bracket – Head Log	Steel	3" x 14" x 1/4"	Formed
Bracket – Transom	Steel	1/4"	Formed plate
Bracket – Bilge	Steel	3/8"	Plate
Bulkheads	Steel	1/4"	Plate
Bulkhead – Vertical Stiffeners	Steel	3" x 4" x 1/4"	Angle
Stern – Vertical Frames	Steel	8"	Pipe
Rake	Steel	3/8 "	Plate
Skegs	Steel	3/8"	Plate
External Corners	Steel	5/16"	Plate
Voids			6 water tight
Bulkheads			
Longitudinal	2		
Transverse	5		
Deck			
Material/Construction	Steel		
Hatches	Six 14" x 21" bolt-down with flanges		

Barge Description (cont.)

Deck Equipment

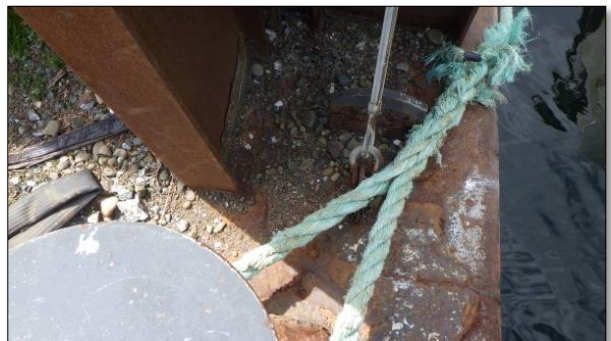
Bollards / Tow Cleats	Double on bow and on stern
Tie-up Cleats	Four per side
Side Walls	4' steel with I-beam supports Two drop-in steel doors

Safety

Life Rings	***None sighted
Reboarding Device	***No reboarding ladder sighted



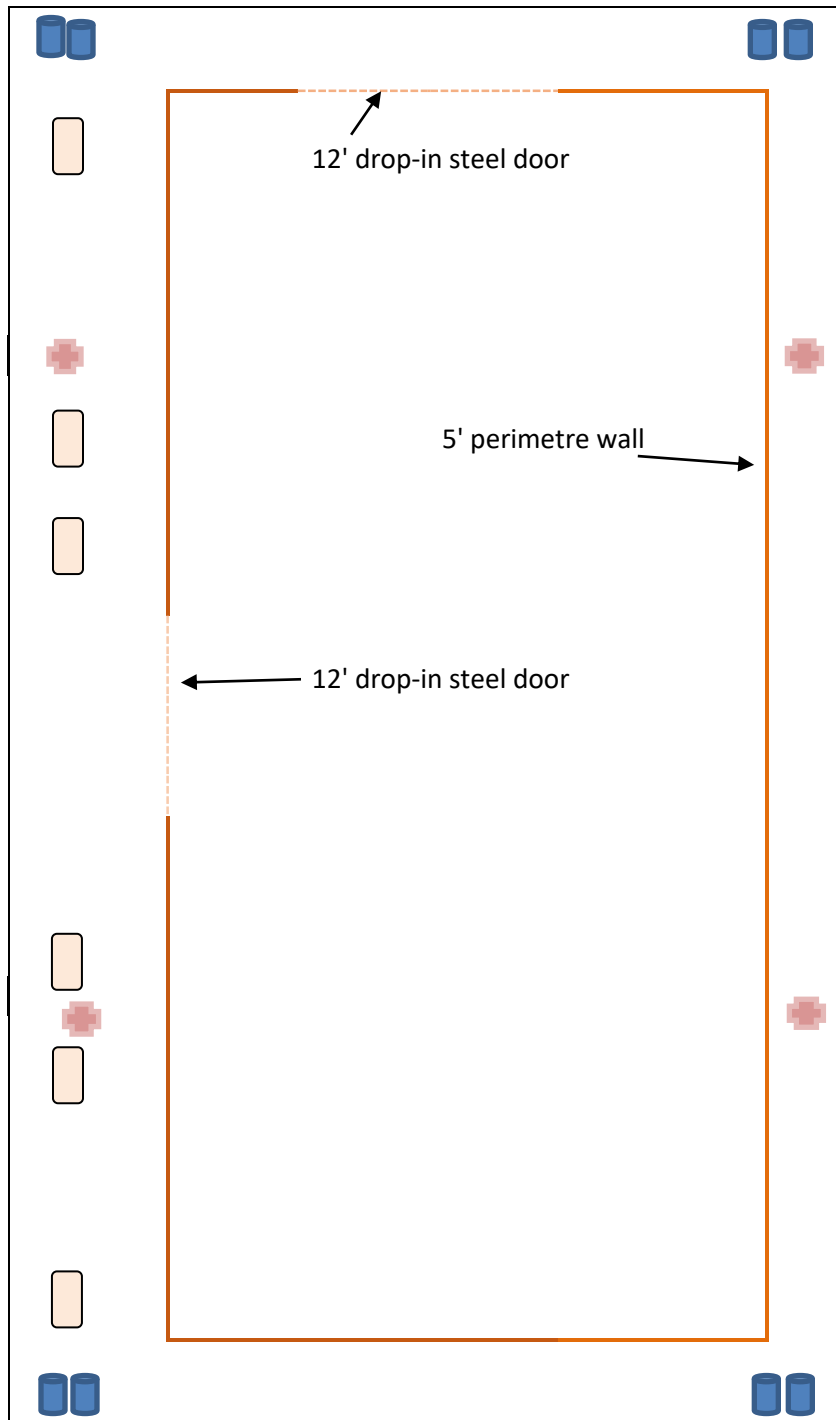
Barge Description (cont.)



Barge Description (cont.)

Deck Diagram: not to scale and locations approximate– for illustrative purposes only

Bow



Damage to side plating
Light to moderate set-in

Damage on deck to side plate radius

Damage to side shell plating
Light to moderate set-in

~40% coating on hull exterior

Port side skeg has hole in edge 12" from hull
Set-in 6"

Stern



Double Bollard



Tie-up Cleat

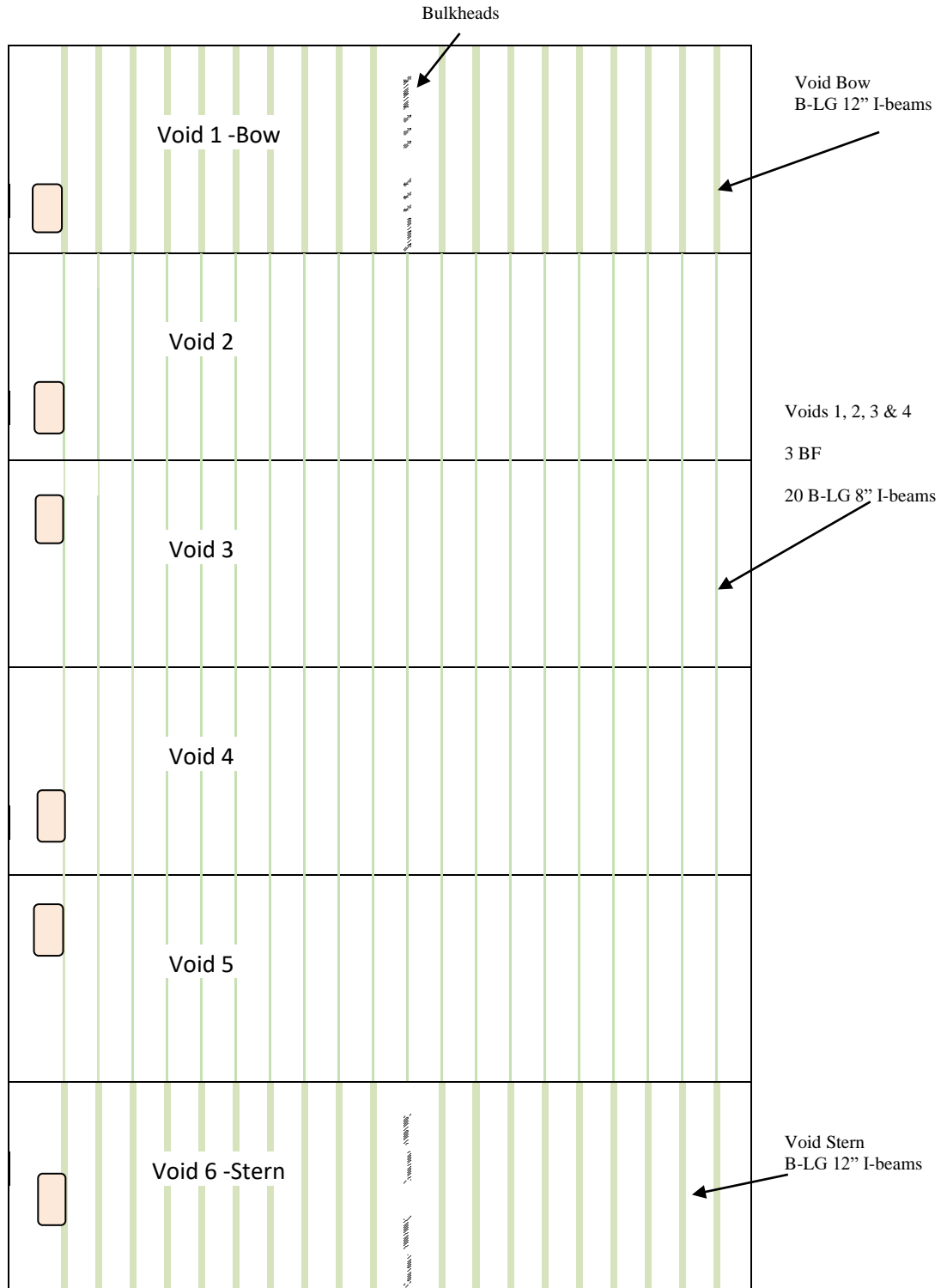


Manhole

Barge Description (cont.)

Void Diagram - not to scale and locations approximate – for illustrative purposes only

Bow



Stern



Barge Description (cont.)



Void Bow 1

Hatch:

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck 0%
- Side shells 0%
- Bulkheads 0%
- Hull 0%

Deck Beams:

- ~10% wasted

Side Shell:

- ~10% wasted

Bulkheads:

- BH to H-P moderate wasting

Hull:

- External SS-P to rake B-P 4" x 4" angle welded

Comments:

- 3" water

Barge Description (cont.)



Void 2

Hatch:

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck ~20%
- Side shells ~30%
- Bulkheads ~20%
- Hull 0%

Deck Beams:

- D-LF set down light

Side Shell:

- SS-LF ~20% wasted

Bulkheads:

- ~15% wasted

Hull:

- **B-TG in Bay 3 100% wasted

Comments:

- 2" water

Barge Description (cont.)



Void 3

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck ~20%
- Side shells ~30%
- Bulkheads ~20%
- Hull 0%

Deck Beams:

- D-TG set over moderate Bay 2

Side Shell:

- ~20% wasted

Bulkheads:

- ~10% wasted

Hull:

- B-TG set over moderate Bay 3

Barge Description (cont.)



Void 4

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck ~20%
- Side shells ~30%
- Bulkheads ~20%
- Hull 0%

Deck Beams:

- D-TG truss replaced with I-beam

Side Shell:

- ~10% wasted

Bulkheads:

- ~10% wasted

Hull:

- ~10% wasted

Barge Description (cont.)



Void 5

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck ~20%
- Side shells ~30%
- Bulkheads ~20%
- Hull 0%

Deck Beams:

- D-P set down light

Side Shell:

- ~30 % wasted at hatch

Bulkheads:

- ** BH plating 100% wasted to Void 6 on port side

Hull:

- B-TG set over light

Comments:

- 3" water in void

Barge Description (cont.)



Void Stern 6

- 14" x 21"
- 3" coaming
- Bolt-down flange

Ladder:

- Good condition

Coating:

- Deck ~20%
- Side shells ~30%
- Bulkheads ~20%
- Hull 0%

Deck Beams:

- ~20% wasted

Side Shell:

- **SS-LF ~70% wasted at ladder

Bulkheads:

- **BH plating 100% wasted to Void 5 on port side

Hull:

- ~30% wasted

Comments:

- 2" water in void

Certification

I certify that, to the best of my knowledge and belief:

- The statements of facts contained in this report are true and correct. Unless otherwise noted, extraordinary assumptions and / or hypothetical conditions were not used to develop the opinion of condition or value;
- The reported analysis, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial and unbiased professional analysis, opinions and conclusions;
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved;
- I have performed no services, as a surveyor or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment;
- I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;
- My engagement in this assignment was not contingent upon developing or reporting predetermined results;
- My compensation is not contingent upon the development or reporting of a predetermined value or direction in value that favours the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report;
- My analysis, opinions and conclusions were developed, and this report has been prepared in conformity with the Uniform Standards of Professional Appraisal Practice;
- I have personally viewed the property that is the subject of this report; and
- No one provided significant assistance to the person signing this certification.



Accurate Appraisals & Marine Surveys Ltd.
Allen E. Waugh, IIMS



Assumptions & Limiting Conditions

- No investigation has been made of, and no responsibility is assumed for the legal description or for legal matters including title or encumbrances. Unless otherwise noted in this report, title to the property is assumed to be good and marketable. The property is valued as if it is free and clear of liens and other encumbrances unless otherwise stated.
- Information and data furnished by others, upon which all or portions of this report are based, is believed to be accurate and reliable and no further responsibility is assumed for its accuracy. No warranty is given and no liability is assumed as to the accuracy of such information.
- All opinions stated in this report are based upon the facts and data available to the surveyor at the time of this report. Should information not previously available, become available, the surveyor reserves the right to review the conclusions reached and make any adjustments should it become necessary.
- A mechanical inspection was not performed. Unless otherwise specified in the report, it is assumed that all the equipment is in normal operating condition. Testing all equipment was beyond the scope of the survey.
- No liability or responsibilities is assumed for changes in condition, obsolescence, advancements in technology, changes in the marketplace or economy and other factors beyond the control of the surveyor.
- Potentially hazardous materials could, if present, adversely affect the value of the property. Unless otherwise noted, the possibility of the existence of these substances was not considered in the development of this report.
- Acceptance and use of this report indicates the intended users understand that it contains statements of opinion only and agree it will not be considered as representation, warranties or guarantees.
- Acceptance and use of this report acknowledges that the intended users understand that no determination of naval architecture or engineering, stability or structural strength has been made and no opinion is expressed.
- The subject asset was viewed as noted in the body of the report and represents only those conditions that were externally visible unless otherwise noted. It is assumed that there were no hidden or nonapparent conditions of the property that would affect the value or condition of the subject asset. When the date the asset was viewed differs from the effective date, it has been assumed there is no material change in the condition of the property.
- Acceptance and use of the survey report by the intended users indicates their agreement to indemnify and hold harmless Accurate Appraisals & Marine Surveys Ltd. and its employees from any, and all losses, claims, actions, damages, expenses and liabilities, including attorney's fees to which we may become subject in connection with this engagement.
- Use of this report acknowledges agreement by the intended users that Accurate Appraisals & Marine Surveys Ltd. and its employees are not responsible for consequential or indirect damages related to or out of this engagement, nor are they responsible for damage or deterioration not found while viewing the vessel, nor for consequential damage, deterioration or loss due to any error or omission.
- The delivery of this report constitutes the fulfillment of any contractual agreement and any further request for additional work, deposition, testimony and related will be subject to additional fee.
- No appraisal of land, permanent structure or any intangible assets that might exist was made.
- No consideration has been given in this report to raw materials, work in process, finished goods, or intellectual assets.

Assignment Elements

Intended Use: This survey report consists of information regarding a specific deck barge, *HM 166*, which is currently owned by Heavy Metal Holdings (HMH). It has been prepared in accordance with the Uniform Standards of Professional Appraisal Practice to express an opinion of condition and estimate of Fair Market Value and Replacement Cost for insurance purposes to help provide proper insurance coverage on the specified asset.

The value or values presented in this report are based upon the premises outlined and are valid only for the purpose stated.

Intended Users: A report has been provided for the exclusive intended use by HMH and their insurance provider.

This survey is performed for the direct benefit of the intended users and no person other than those specified are entitled to rely on the opinions, statements or conclusions contained in this report without prior express written permission. Possession of this report, or a copy thereof, does not carry with it the right of publication.

Types & Definitions of Value:

The following definitions of value have been used in the valuation of the property which is the subject of this report:

Fair Market Value:

“An opinion expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, as of a specific date.”

Replacement Cost:

“The current cost of a similar new property having the nearest equivalent utility as the property being appraised, as of a specific date.”

Effective Date of Valuation: The effective date of valuation for this report is June 26, 2024. The surveyor has used his best professional judgment to accurately value the subject asset according to the above definitions, and the values reported in this document represent the opinion of the surveyor as of the effective date of the report, and for a limited time thereafter.

Subject of Assignment: *HM 166* is a deck barge designed for marine construction and repair work. It is unpowered and is usually towed or pushed by another vessel.

Scope of Work Summary

Field Work: Mr. Williams requested a survey of the *HM 166*. The barge was personally viewed while in the water on June 12, 2024 at Bamberton

The surveyor was able to enter and view the interiors of the barge, but was not able to view the exterior hull on the bottom of the barge. Confined space entry protocols were followed when viewing the interior of the barge.

The survey did not include a sea trial and represents those conditions that were externally visible above the water line. The information was obtained without drilling, diving, ultrasonic testing, cleaning or opening to expose parts or conditions ordinarily concealed. There was no removal, withdrawal, cleaning or disassembly of any of the following: void spaces, decking, hull structure.

There were no tests for tightness or soundness conducted other than the conditions noted visually.

No determine of naval architecture or engineering, stability or structural strength has been made and no opinion is expressed.

Research: To develop the opinion of values, the following were contacted or reviewed to help determine relationships between new and used prices and overall trends of marketability: original equipment manufacturers, used dealers and vendors, weekly and monthly trade magazines and websites.

The analysis and opinion of value for this assignment is based on the data that was available at the time research was conducted. No claim is made regarding the increase or decrease in value of the subject property at any future date.

Development & Methodology: There are three approaches to value recognized in this report: the Sales Comparison (Market) Approach, the Cost Approach and the Income Approach. All three were considered for this report. Due to the adequate availability of market sales information, the Sales Comparison Approach has been used. The Cost Approach was used to help determine an estimated opinion of Replacement Cost. The Income Approach was not used as it is difficult to isolate income attributable to individual assets.

In developing the opinion of values of the asset, the surveyor has taken into consideration several factors, which include the following:

- The condition of the barge as of the date it was viewed.
- The age of the barge.
- The present demand for these types of vessels.
- Recent comparable sales of similar vessels.
- The location of the vessel.
- United States Exchange Rate.

Approaches to Value

Sales Comparison Approach: “This is one of the three recognized approaches used in appraisal analysis to lead to an indication of the most probable selling price of a property (also known as the Market Approach). This approach involves the comparison of comparable recent sales (or offerings) of similar assets to the subject. If the comparable sales are not exactly like the subject, adjustments must be made to the price of the comparable sales (or offerings) to make the comparables reflect the subject property. The adjustments may be either up or down in order to estimate what the comparable would have sold for if it had the same characteristics as the subject.”

Cost Approach: “One of the three recognized approaches used in appraisal analysis. The appraiser starts with the current replacement cost new of the property being appraised and then deducts for the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence. The logic behind 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 equivalent utility.”

Income Approach: “One of the three recognized approaches used in appraisal analysis. (this approach considers value in relation to the present worth of future benefits derived from ownership and is usually measured through the capitalization of a specific level of income.) The appraiser determines the present value of the future economic benefits of owning a property.”

Factors Affecting Value

Depreciation: “...The actual loss in value or worth of a property from all causes including those resulting from physical deterioration, functional obsolescence, and economic obsolescence. Depreciation may be curable or incurable. The estimated loss in value of an asset.”

Physical Deterioration: “A form of depreciation where the loss in value or usefulness of a property is due to the using up or expiration of its useful life caused by wear and tear, deterioration, exposure to various elements, physical stresses and similar factors...”

Functional Obsolescence: “A form of depreciation in which the loss in value or usefulness of a property is caused by inefficiencies or inadequacies inherent in the property itself, when compared to a more efficient or less costly replacement property that new technology and changes in design, materials, or process that result in inadequacy, overcapacity, excess construction, lack of functional utility, excess operating costs, etc. has developed.”

Economic Obsolescence: “A form of depreciation or loss in value or usefulness of a property is caused by factors external to the property. These may include such things as the economics of the industry; availability of financing; loss of material and/or labour sources; passage of new legislation; changes in ordinances; increased cost of raw materials, labour or utilities; increased cost of raw materials, labour or utilities (without an offsetting increase in product price); reduced demand for the product; increased competition; inflation or high interest rates, or similar factors.”

(Source of definitions: American Society of Appraisers *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets – Third Edition 2011 – Pg. 502 - 567*)

Definitions of Condition

Condition: “A characteristic that can be determined only through observation.”

New: “A condition rating assigned to assets that have not been previously used.”

Excellent: “A condition rating assigned to assets that are in near-new condition and have had very little usage.”

Very Good: “A condition rating assigned to assets capable of being used to their fully specified utilization for their designed purpose without being modified and without requiring any repairs or abnormal maintenance at the time of inspection or within the foreseeable future.”

Good: “A condition rating assigned to assets that are capable of being used at or near their full designed and specified utilization and may or may not have been modified or repaired.”

Fair: “A condition rating assigned to assets that are being used at some point below their full designed and specified utilization because of condition and the effects of age and/or application and which may require general repairs and some replacement of minor elements in the foreseeable future to raise them to be capable of being used at or near the original specifications.”

Poor: “A condition rating assigned to assets that can be used only at some point well below their full designed and specified utilization and for which it is not possible to realize full capacity in their current condition without extensive repairs and/or the replacement of major elements in the near future.”

Repair/Refurbish: “A condition rating assigned to assets that are available for use but would need to be repaired or refurbished to be brought back to a condition of fair or higher.”

Salvage: “A condition rating assigned to assets whose value remains in the whole property or a component of the whole property that has been retired from service.”

Scrap: “A condition rating assigned to assets that are no longer serviceable and which cannot be used to any practical degree regardless of the extent of the repairs or modifications to which they may be subjected. This condition applies to assets that have been used for 100 percent of their useful life or that are 100 percent technologically, functionally, or economically obsolete, no longer serviceable, and have no value other than for their material content.”

*(Source of definitions: American Society of Appraisers *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets – Fourth Edition 2020 – pg. 49-50*)

Curriculum Vitae
Of
Allen E. Waugh
Accurate Appraisals & Marine Surveys Ltd.
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Home/Office: 250.743.7641 / Cell: 250.715.5589
a-swaugh@shaw.ca

Work Experience:

2009 – Present President / Owner Accurate Appraisals & Marine Surveys Ltd.
Personal Property Appraiser
Marine Surveyor

1997 – 2009 Hayes Forest Services Limited
Director, Equipment & Facilities
12 years appraising, buying & selling logging & marine equipment

1989 – 1997 Hayes Forest Services Limited
Heavy Duty Mechanic - Charge-hand

1981 – 1989 Pat Carson Bulldozing Limited
Heavy Duty Mechanic - Charge-hand

Professional Memberships:

Accredited Senior Appraiser (ASA), American Society of Appraisers
Machinery & Technical Specialties / Machinery & Equipment (MTS)
International Institute of Marine Surveying Canada (IIMS Canada)
Canadian Personal Property Appraiser (CPPA), Canadian Personal Property Appraisers Group
Candidate Member, Equipment Appraisers of North America (EANA)

Association Memberships:

Committee Member, IIMS - Canada
Committee Member, Heavy Duty Industry Advisory Council, Vancouver Island University

Education:

American Society of Appraisers – Machinery and Equipment Appraisal Report Writing
ME212 (Webinar Series)

American Society of Appraisers – Machine & Equipment Valuation
ME204 (Bethesda, MD)

American Society of Appraisers – Machinery & Equipment Valuation
ME203 (Chicago, IL)

American Society of Appraisers – Machinery & Equipment Valuation
ME202 (Manhattan Beach, CA)

American Society of Appraisers - Machinery & Equipment Valuation
ME201 (Manhattan Beach, CA)

American Society of Appraisers - Marine Survey Course
ME208 (San Francisco, CA)

Uniform Standards Professional Appraisal Practice (7-Hour USPAP Update Course) 2024 - 2025
(Webinar)

Canadian Personal Property Appraisal Group Course (Edmonton, AB)

Sauder School of Business - Fundamentals of Finance & Accounting
Malaspina College
Graduate from Heavy Duty Mechanic Program
Red Seal K-06-00974

International Institute of Marine Surveying – Report Writing: October 24, 2019
International Institute of Marine Surveying – Biological Attack on Iron and Steel: October 30, 2019