

# RAPTOR DESIGN & ENGINEERING LLC

MANUFACTURER OF



## RIVER RAPTOR SR-XR8 RESCUE RAPTOR 2272

### 1. *General Specifications*

- 1.1. Hull Material: Aluminum
- 1.2. Hull Shape: Modified V
- 1.3. Propulsion: Inboard Jet
- 1.4. Internal Layout: Walk-Around Center Console Forward
- 1.5. Overall Length: 22'1"
- 1.6. Bow Tip To Transom Length: 19'9"
- 1.7. Bottom Width: 72"
- 1.8. Beam: 95.3"
- 1.9. Side Height: 30"
- 1.10. Deadrise: 8 Degree
- 1.11. Static Draft: 10 – 11"
- 1.12. Draft On Plane: 3"
- 1.13. Top Speed 46 – 48 mph
- 1.14. US Coast Guard Compliant Construction

### 2. *Hull Specifications*

- 2.1. AL 5052 Sheet Material (Ultimate Tensile Strength 33,000 psi)
- 2.2. AL 6061 Extrusions
- 2.3. .190" Bottom (.250" Optional)
- 2.4. .125" Sides, Step Bent For Structural Integrity



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- 2.5. .125" Floor Panels
- 2.6. Delta Pad Intake System
- 2.7. Double Mig Welded (Inside & Outside) Hull Seams
- 2.8. Custom Build Heavy Duty Infrastructure
- 2.9. (7) Engineered, Laser Notched (To Reduce Weight & Provide Access To UHMW Hardware) C Channel Longitudinal Stringer Assemblies Resulting In (14) Continuously Welded Vertical Leg Stringers
- 2.10. Custom Build Floor Support Structure Welded To Stringers
- 2.11. Floor Panels Attached To Floor Support Structure Via 3M 540 & Aluminum Rivets
- 2.12. Extended Rear Swim Deck At Same Elevation As Rear Deck
- 2.13. Pump Protection Tubing (1 3/4" O.D., 0.125" WALL, AL) Connecting Swim Deck & Transom Reinforced With Cross Brace
- 2.14. Sliding Transducer Bracket Welded To Transom (Optional)
- 2.15. Gunwale Grab Rails: Welded On (1 1/4" O.D. AL Tubing): 2 – 14.75", 4 – 36.75" (Optional)
- 2.16. Swim Deck Lip (Optional)
- 2.17. Swim Deck Railing (Optional)
- 2.18. Fold & Stow Boarding Ladder (Optional)
- 2.19. Self-Baling Front & Rear Deck System That Removes Water From The Hull Envelope
- 2.20. 2 Rear Deck Davit Crane Receptacles (Port & Starboard)
- 2.21. Rear Deck Tow Tower Receptacle (Center Aft)
- 2.22. 4 Rear Deck Tie-Down Tracks For D-Rings (4 D-Rings Included)
- 2.23. 4 Front Tie-Down Pods For D-Rings (4 D-Rings Included)
- 2.24. Cleats: 4 (Port & Starboard Front & Rear)
- 2.25. Hull is of rugged, heavy-duty design to minimize damage from impact and abrasion as a result of contacting subsurface objects.

### 3. Internal Layout

- 3.1. Center Forward Console Design
- 3.2. Walk Around Center Console With Windshield & Integrated Grab Rail (1 1/4" O.D. AL Tubing)
- 3.3. Fore Console Jump Seat With Grab Handles & Incorporated Storage
- 3.4. Bow Platform With Storage – 60" X 21"
- 3.5. Bow Step Box With Storage
- 3.6. Quick Access Cockpit Gunwale Storage
- 3.7. Sit / Lean Helm Seat At Operator's Station
- 3.8. Rear Cockpit Bench Seat – 67" X 17"
- 3.9. Port & Starboard Gunwale Top Access Storage With Removable Storage Bins



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- 3.10. Large Rear Work Deck – 82" X 58"
- 3.11. 2 Rear Deck Storage Compartments With Removeable Storage Bins
- 3.12. Rear Deck Engine Compartment Lid With Lifting Shocks
- 3.13. 29.6" Swim Deck Extension With Grab Railing (1 ¼" O.D. AL Tubing)
- 3.14. Bow Cap Access Panel
- 4. Drive System Specifications:
  - 4.1. Engine: Indmar 2.3L Ecoboost
    - 4.1.1. Horsepower: 310
    - 4.1.2. Turbocharger
  - 4.2. Pump: American Turbine SD203
    - 4.2.1. 8" Diameter
    - 4.2.2. Axial Flow
    - 4.2.3. Cast Aluminum Reverse Bucket
    - 4.2.4. Stainless Steel Wear Ring
    - 4.2.5. Integrated Cooling Water Supply For Engine
  - 4.3. Wet Exhaust System
  - 4.4. 40 Gallon Belly Fuel Tank To Maximize Fuel Capacity & Watercraft Stability
- 5. Electrical Specifications
  - 5.1. Rear Starboard Storage Located Electrical Center Containing:
    - 5.1.1. DEKA DKADP24 Starting Battery: 550 CCA, 120 Reserve Capacity At 25 Amps (Lithium OR AGM Battery Optional)
    - 5.1.2. Engine Fuse Box
    - 5.1.3. J1939 Engine Data & Diagnostic System With Diagnostic Plug
    - 5.1.4. Main Electrical Panel Containing:
      - 5.1.4.1. Main Electrical Disconnect
      - 5.1.4.2. Positive Terminal Stud / Disconnect Circuit
      - 5.1.4.3. Positive Terminal Stud / Always On
      - 5.1.4.4. Ground Terminal Stud
      - 5.1.4.5. ATO Fuse Box
      - 5.1.4.6. CZONE Digital Switching Power Distribution System
  - 5.2. Garmin GPSMAP 743XSV 7" Flush Mount Touchscreen Helm Display
    - 5.2.1. Displayed Engine Data: Fuel Level, GPS Speed, Engine RPM, Engine Coolant Temperature, Engine Oil Temperature, Engine Oil Pressure, Fuel Consumption Rate (Instant), Hour Meter
    - 5.2.2. GPS Navigation
    - 5.2.3. Garmin Navionics+Inland & Coastal Maps With Tide Tables
    - 5.2.4. Chartplotter
    - 5.2.5. Garmin Active Captain Compatible
    - 5.2.6. Garmin Onehelm Supported



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- 5.2.7. Sonar Capabilities
  - 5.2.7.1. Traditional CHIRP
  - 5.2.7.2. Clearvu
  - 5.2.7.3. Sidevu
  - 5.2.7.4. Panoptix Sonar
  - 5.2.7.5. Livescope
- 5.2.8. Connections
  - 5.2.8.1. NMEA 2000 Ports – 1
  - 5.2.8.2. NMEA 0183 Input Ports – 1
  - 5.2.8.3. NMEA 0183 Output Ports – 1
  - 5.2.8.4. Video Input Ports – 1 (BNC Composite)
  - 5.2.8.5. J1939 Ports – 1
  - 5.2.8.6. Garmin Marine Network Ports – 1
  - 5.2.8.7. 12-Pin Transducer Ports – 1
  - 5.2.8.8. USB Ports – YES
  - 5.2.8.9. Bluetooth Pairing – YES
  - 5.2.8.10. ANT+ Connectivity – YES
  - 5.2.8.11. Garmin WI-FI Network (Local Connection) - YES
- 5.3. Indmar Key Switch
- 5.4. 1 – 2 Helm Mounted CZONE Switch Panel(s):
  - 5.4.1.1. Fused Switches
    - 5.4.1.1.1. Blower
    - 5.4.1.1.2. Navigation Lights
    - 5.4.1.1.3. Manual Bilge
    - 5.4.1.1.4. Auxiliary/Lighting & Accessories As Needed
- 5.5. 12V Receptacle
- 5.6. Helm Mounted Kill Switch With Lanyard (Fell Marine MOB Wireless Option Available)
- 5.7. 4" Marine Bilge Blower
- 5.8. Dual 900gph Bilge Pumps
- 5.9. Side Hull Recessed LED Front Navigation Lights
- 5.10. Rear Post Anchor Light
- 5.11. Sealed Amphinol Electrical Connectors At Electrical Harness Junctions & Terminals
- 6. Controls Specifications
  - 6.1. 270 Degree Helm Steering
  - 6.2. Flow-Tec SDR Shifter
    - 6.2.1. Single Lever/Dual Function
    - 6.2.2. Port Side Console Mount



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- 6.2.3. Start In Gear Protection
- 6.2.4. Full Reverse Gate Control At Neutral Throttle
- 6.3 Start In Neutral Protection
- 7. Deck Hardware
  - 7.1. Hatch Latches – Lockable “T-Handle”
  - 7.2. Stainless Steel Hardware
  - 7.3. Stainless Steel Deck Lid Hinges
- 8. Topside Finish
  - 8.1. Paint
    - 8.1.1. Sikkens Polyurethane Industrial Coating
    - 8.1.2. Paint Color – Customer Provided Paint Code
    - 8.1.3. All Walking Surfaces Have Form Coat Non-Slip Coating Except When Other Non-Slip Marine Flooring Is Requested (AquaTraction Available)
  - 8.2. Decals
    - 8.2.1. Rescue Raptor Side Decals
    - 8.2.2. River Raptor Console Logo
- 9. Additional Options & Accessories Are Available Upon Request
- 10. 3D Model & 2D Technical Drawings
  - 10.1. A 3D AutoCAD Inventor Model Will Be Made Available Upon Request For Project Approval Prior To Project Construction
  - 10.2. 2D Drawings Will Be Made Available For Project Approval Prior To Project Construction
- 11. Training
  - 11.1. A qualified, manufacturer authorized and trained service representative can offer training at the request of the customer. This training will be at the cost of the customer.
- 12. Commercial Use Warranty
  - 12.1. Scope – Entire Body & Accessories
  - 12.2. Time Period – 1 Year
  - 12.3. Guarantee – Free Of Original Material & Workmanship Defects



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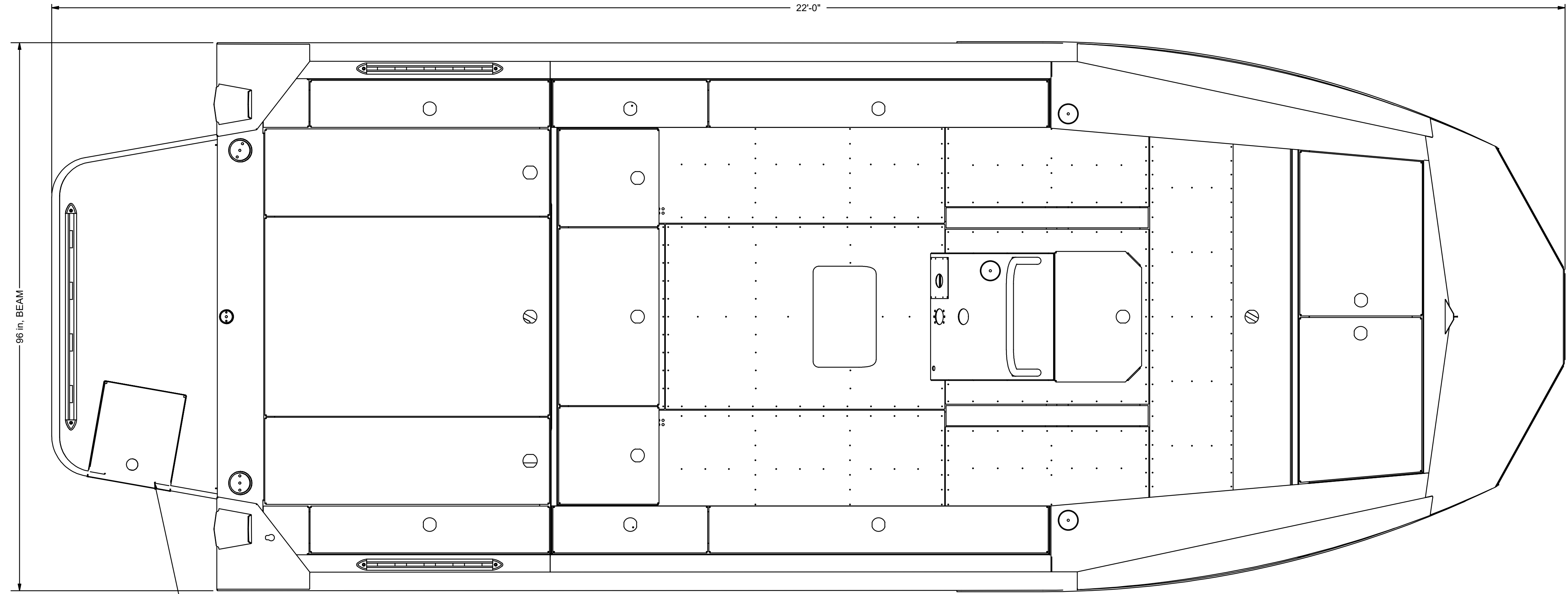


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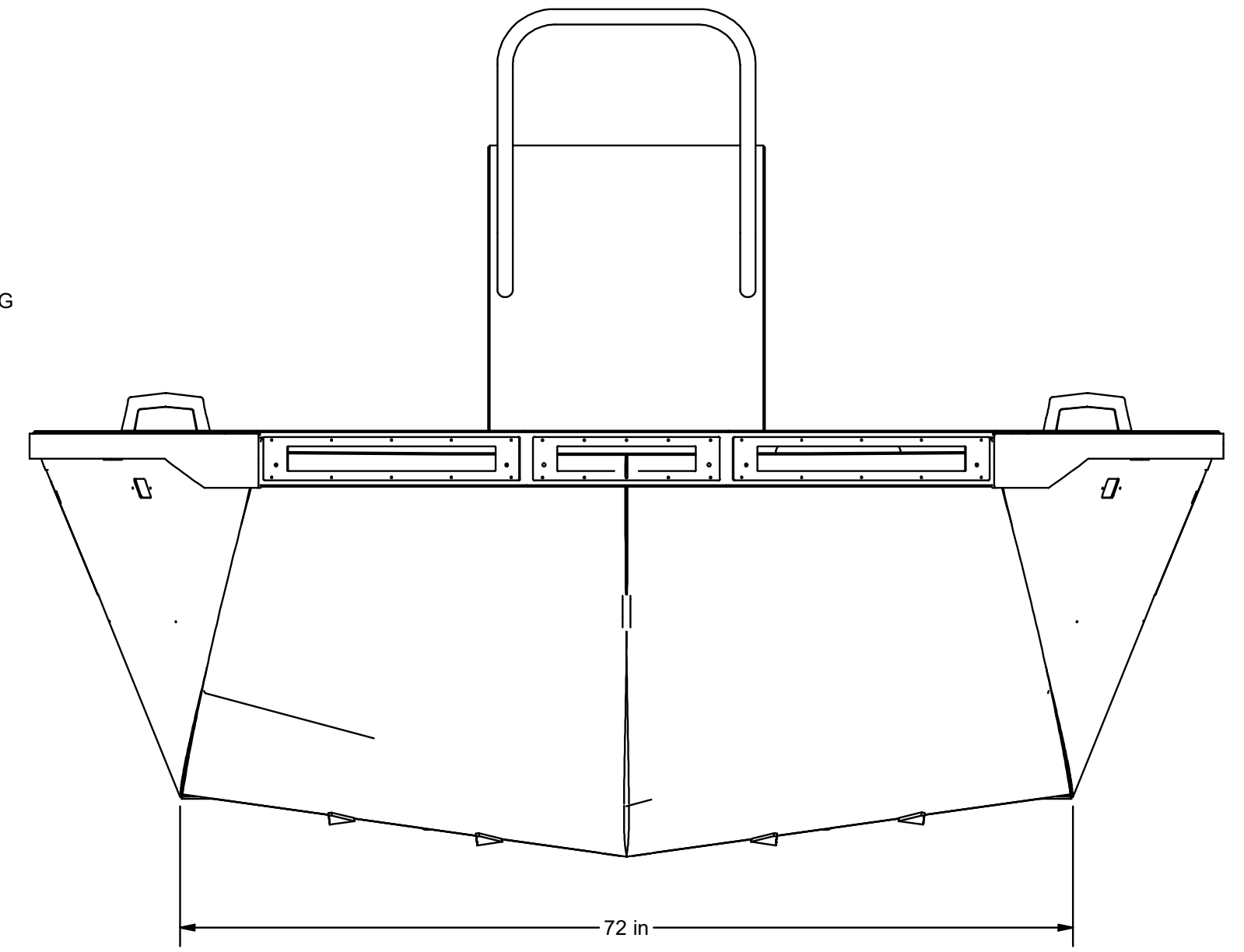
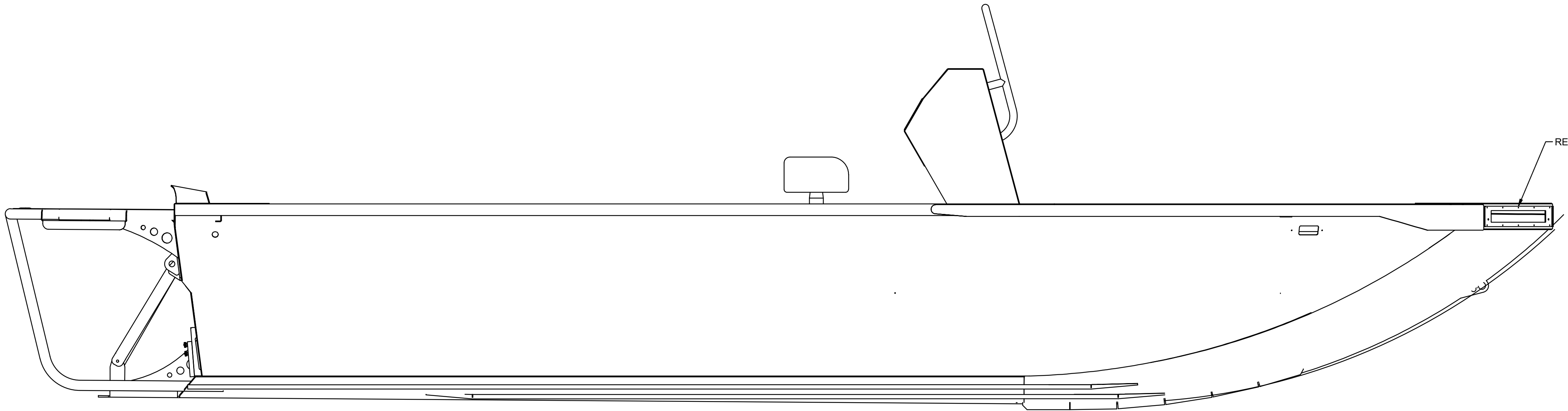
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BUILD DETAILS	
ITEMS	VALUE
MODEL	XR8
LENGTH	22'
WIDTH	72"
ENGINE	310 HP, ECOBOOST
BOTTOM THK	0.190"
STAR. LOCK, ROD STORAGE	STANDARD
CONSOLE GRAB RAIL	YES
PORT LOCK, ROD STORAGE	STANDARD
GUNNEL RAILING	NO
STOMP GRATE	STANDARD
BOTTOM UHMW	NO
SIDE UHMW	NO
TRAILER	LOADRITE



FOLD AND STOW LADDER



SIDE VIEW  
SCALE 1:12

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DESIGNED BY	RPlank	CREATED	11/22/2019	WEIGHT	XX LB	DRAWING NUMBER	D0140-XR8	REVISION		DESCRIPTION	FABRICATION DRAWING FOR 22' X 72' XR8 SERVICE HULL
CHECKED BY	RPlank	ISSUED		SCALE	AS SHOWN	PART NUMBER	D0140-CHISAGO				SHEET 29 OF 33

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