



*Pictured above: the JAKE SHEARER*

## Jake Shearer, the fight goes on

*By Marcus Babani*

The new ATB, JAKE SHEARER and FIGHT FANCONI ANEMIA (FFA) have been drawing a lot of attention ever since the names were announced for this pair of vessels that will forever be married to one another.

Fanconi Anemia is a rare genetic disease that in early stages affects development of healthy red blood cells and causes abnormalities of the skin, arms, head, and eyes. Other early symptoms can cause developmental disabilities and often leaves victims with a short stature.

These symptoms can be emotionally and physically traumatic to the children that are diagnosed with Fanconi Anemia at an early age. However, as the disease develops with the person's age, the disease can get much worse. People who struggle with Fanconi Anemia into their 30s and 40s typically develop some type of cancer, often

leukemia, or total bone marrow failure.

Jake Shearer was a young man who lost his battle to Fanconi Anemia in 2003. He fought through his early twenties with this ruthless disease. Though he fought valiantly, ultimately the disease took him. The Tug, powerful, head high, and determined embodies the strength that Jake showed in his fight with Fanconi Anemia.

The Barge, FFA, will be married to the JAKE SHEARER to forever represent the fight Jake went through personally, and the fight Harley Marine hopes to end by bringing more awareness to the public about this rare disease.

The 4492 horsepower tug will service the west coast with her partner the FFA, a 83,800 bbl double hull barge; bringing awareness to those unaffected and hope to those who fight on.

# The Impact of the Articulated Tug and Barge on Harley Marine's Fleet

By Gabe Greschler



Ask any person in the Harley Marine Services' operations department about upcoming builds, and their answer may leave you intrigued. HMS has two articulated tug and barge (ATB) units in full operation, and two more will be out of the shipyard and operational in early 2016. Yet, it isn't just sheer growth that is garnering interest. It's the fact that the ATB could change HMS' future by phasing out conventional towing for a safer, more efficient, and environmentally-friendly alternative.

A traditional tow package consists of a 2-inch thick, 2600-foot long tow wire. The ATB differs from a traditional tow arrangement because it's essentially one unit without wire. "The ATB tug settles in to the stern of the ATB barge and then extends a set of pins [Figure 1] that extend in to both sides of the barge" described Scott Manley, director of operations at HMS. "These pins mate up to a ladder system built in to the barge's notch. The tug can pitch fore and aft independently of the barge but will roll side to side in unison with the barge." Compared to a traditional tow arrangement, this concrete connection between the tug and barge gives the captain an increased amount of control.

Conventional towing vessels are efficient in some areas, but lacking in others. For example, operating a conventional towing vessel in inclement weather can be very tricky. If incidents or delays occur, then the "on-time" delivery of the product can be jeopardized. ATBs have the potential to break this harmful cycle. Because of their structure, "ATBs are safer, and are able to handle larger sea and swell conditions. There is also a big time savings for arrivals and departures. A conventional towing tug has to slow down to retrieve tow wire and make up to their barge, make or break tow, where an ATB does not" said Manley.



*Figure 1: This is what the pins look like. One set is located on each side of the tug's bow.*

It's not just increased control in severe weather and time savings that make ATBs more appealing – the crews working onboard benefit as well. Manley mentioned that “because of the better ride of these units, crew comfort is increased.” A better ride means a healthier crew, which in turn decreases potential for incidents or injuries to happen. “Not having to pull in tow wire, make up to the barge, and make and break tow will increase crew safety.” And it is not just offshore employees that are benefitting – “The crew is able to get onboard the barge in a safer manner and can do maintenance on the barge while underway. This will help keep the barge in top condition and reduce some of the workload for the onshore engineering department.”



*Figure 2: The JAKE SHEARER located at our office in Los Angeles.*

Some in the industry are wary of the rapid adoption of the ATB, with concern over a supposed lack of regulations surrounding their operation. An article titled “The Articulated Tug Barge (ATB) Quandary” released by *Marine News* claimed that “regulations governing certain tankers did not apply to ATBs, and that in some cases the vessels were frequently undermanned.” HMS’ policies prove to be quite the opposite. When asked about regulations, Mr. Manley replied, “ATBs operate under the same regulations as conventional tugs,” and that “there is no change in manning requirements for HMS an ATB. They are manned the same as our conventional tugs.” HMS can now set the bar high for the rest of the maritime industry on how to safely and reliably operate the ATB.

The advent of the ATB has the potential to transform Harley Marine’s fleet for the better. Almost every aspect of the industry: customers, companies, crews, engineers, and environmental regulators will benefit from the ATB’s quick delivery schedules, increased safety and comfort towards crews, and high regard for the environment. The ATB is not just two vessels conjoining together, it’s about one paving the way to change the industry.

ATBs come with a final punch – an environmentally-friendly infrastructure inside and out. According to a white paper by Robert Hill, president at Ocean Tug & Barge Engineering Corp. in Massachusetts, ATBs burn 25% less fuel than a traditional tow package going the same speed. HMS is capitalizing on this advantage – all new HMS ATB vessels include Tier 3 engines which decrease the amount of nitrogen oxides (NOx) and particulate matter (PM) being emitted, and increases the environmental-stewardship of the entire fleet.



*Figure 3: The ATB EMERY ZIDELL and DR. ROBERT J. BEALL exiting the east waterway of the Duwamish river.*



# JAKE SHEARER



**OFFICIAL #:**

1255668



**910 SW Spokane Street  
Seattle, WA 98134**

[www.harleymarine.com](http://www.harleymarine.com)

## MAIN PARTICULARS:

Built:	2015
Builder:	Morgan City, LA - Conrad Shipyard
Service Class:	USWC ATB
Call Sign:	WDI8655
Class:	ABS

## DIMENSIONS:

Gross Tonnage:	497 GT ITC; 261 GRT
Net Tonnage:	149 GT ITC; 177 GRT
Length:	116 ft.
Beam:	36 ft.
Depth:	16.9 ft.
Draft Light:	N/A
Draft Loaded:	14.4 ft.
Height of Eye:	51.6 ft.
Air Draft:	76 ft.

## CAPACITIES:

Fuel:	101,383 gallons
Water:	7,390 gallons
Lube:	1,333 gallons
Hydraulic:	300 gallons

## MACHINERY:

Main Engines:	(2) GE L250 Tier 3 (2) 2,246 BHP @1000 RPM
Z Drives:	N/A
Reduction Gears:	Reintjes WAF 1563
Ratio:	4.846:1
Propellers:	116 in P x 110D, 4 Blade Stainless Steel
Auxiliaries:	(2) John Deere 6068AFM85 @ 1800 RPM

## PERFORMANCE:

Bollard Pull Ahead:	N/A
Bollard Pull Astern:	N/A
Range:	31 days

## DECK GEAR:

Towing Winch:	N/A
Tow Wire:	N/A
Bow Winch:	N/A
Bow Wire:	N/A

## ADDITIONAL FEATURES:

Bow and stern fenders  
12 in. D-rubber both sides.  
Pin Connection: Articouple FRC 55