

Versabar – “Bottom Feeder”

Deployed for the first time in June of 2007, a new heavy lift system designed, built, and operated by Versabar Inc. completed the task of retrieving six hurricane toppled platform topsides from the seabed. Each of the eight-leg topsides was retrieved as single lifts with peak lift weights of up to 1,600 tons. The decks were set onto cargo barges and scrapped onshore. This approach compared to small-piece removal, results in reduced personnel exposure offshore and is extremely cost-effective.

Why it is innovative – The “pin-in-pin” hinging of opposite ends of each of the two triangular trusses allows articulation of the barges in the X and Y directions. This feature prevents a quartering sea state from racking the lift system, effectively allowing the deployment and use of a gantry lift system in an offshore environment. The Bottom Feeder consists of two rigid space frame truss structures spanning from hinged supports on the centerlines of two regular deck transport barges, of 250ft x 72ft in size. The unique pattern of support hinges decouples the heave, pitch and roll motions of the support barges from the lift structures. The structural design of the system included for dynamic loads generated due to wave action that can be expected when lifting structures both under water and through the water surface allowing the system to remain completely stable under transit and lifting conditions.

What has the Bottom Feeder changed - To date only six hurricane toppled platforms have been recovered in one piece, all by the Versabar Bottom Feeder. The Bottom Feeder answered the challenges of traditional salvage removal - safety of personnel and schedule. Traditional methods require cutting of the platform into smaller pieces, diver hook-up of lift equipment and single point lifts to the surface, all of which expose personnel to high levels of risk, in addition, prolonged periods of work with a large spread of marine assets. The Bottom Feeder was specifically developed for the lifting of structures as single units from the seabed in water depths of up to 400 feet and for a maximum safe lifting capacity of 4,000 short tons. Lifting is completed via the application of four independent lift blocks with a rated capacity of 1,000tons each. The use of four independent lift blocks with 45 feet by 80 feet spacing provides significant flexibility to efficiently distribute lift loads into the structure, accommodate structures that are significantly out of level at the time of lift, as well unknown lift weight and center of gravity location. The design of the system lift rigging allows diver less hook-up of the platform.

Where and when did it originate – In response to the large number of toppled platforms after hurricanes Katrina and Rita, marine assets were in short supply and Gulf of Mexico oil operators were searching for new technology to improve salvage. Due to Versabar’s vast experience with engineering offshore heavy lifts, an operator approached Versabar in the spring of 2006 with the challenge of platform recovery. Versabar engineered, built and operates the Bottom Feeder with its first platform recovery June 12th, 2007 with a total of four platform recoveries for that operator during the next 18 days. Two additional platform recoveries were completed for a second operator during the summer of 2007. Current campaign of work for 2008 includes multiple platform recoveries for several Gulf of Mexico operators.



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**VERSABAR 4,000 Ton
DECK SALVAGE SYSTEM
"BOTTOM FEEDER"
Gulf of Mexico, 2007**

