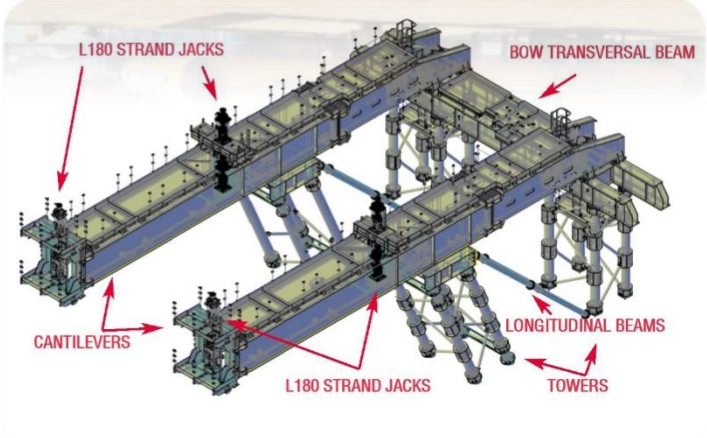
ITALY : SALVAGE OF A BOAT SUNK OFF THE LYBIAN COAST

PROJECT	EQUIPMENT	WEIGHT
SALVAGE	STRAND JACK AND TOWER LIFT SYSTEM	90 Ton

After the famous Concordia Wreck Removal Project, Fagioli were involved in another challenging salvage operation for the recovery of a sunk boat on which hundreds of immigrant lost their lives. Fagioli were contracted by Impresub (a specialized diving and marine company) which was contacted by the Italian Navy and Ministry of Defence for the recovery and salvage of a 90 ton boat, 85 miles north of Libya, laying 370 metres below sea level. The operation was challenging for two main reasons: the position of the wreck and the fact that the boat was filled with immigrant bodies who were not so lucky to survive after the sinking.

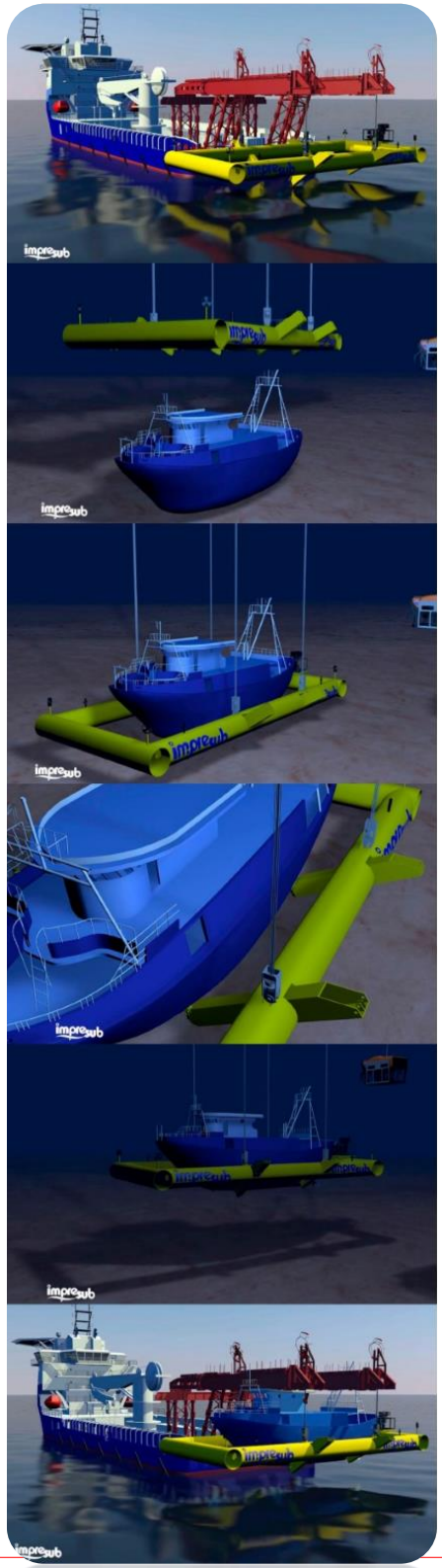
Impresub is a technological advanced company able to offer underwater research, inspection and salvage of sunken vessels by means of sophisticated devices such as R.O.V (Remotely Operated Vehicle), capable to operate both in shallow and in deep water up to 3,000 meters depth for different kind of interventions, and inspections. Impresub built a “recovery structure” which needed a peculiar lifting and lowering structure engineered by Fagioli in accordance with the client.

Fagioli lifting structure was mainly composed of No. 4 towers, two of which with an angle of 23 degrees, which were fixed at the bow of the Ievoli Ivory supply boat; No. 8 strand jacks with a capacity of 180 ton each fixed onto No. 2 by 25 m long cantilever beams; No.2 longitudinal beams and No. 1 Transversal beam able to connect No. 2 vertical towers and the cantilever beams. Strand recoilers were fixed on top of the cantilever beams.



All the operations were coordinated and supervised by the Italian Navy. After all the detailed analysis of the position of the boat under the sea through Impresub R.O.V. devices and divers the main challenge was to find the perfect weather condition in order to execute the salvage operation. Finally, after days of waiting, the “salvage module” was lowered by Fagioli strand jacks into the deep water. The first step was to position the structure around the wreck. With a peculiar system, retractable beams were skidded under the boat. Once the position of the beams and the module was considered correct the lifting operation started. The boat was lifted at a certain level, still underwater, where specialized divers and welders closed all the holes on the wreck and positioning a net around the bow in order to prevent the bodies from being lost into the sea.

The first attempt started in May but the bad weather conditions did not allow the completion of the salvage operation. On the 27th of June the wreck was lifted outside the sea (picture bottom right) taken to Augusta port and unloaded into a refrigerated tension structure for the recovery of the bodies. The wreck was 30 mt long, 20 mt wide and 10 mt high. Fagioli engineering department supported Impresub and Italian Navy to execute the salvage of this wreck, one out of hundreds of boats leaving from North Africa trying to reach European coasts into the Mediterranean sea.



Right: 3D Simulation of the salvage operation