

Hull Drilling Machine



Hydro-Lek have designed a unique robust drilling machine ideally suited to the assessment and sampling of oil trapped in sunken vessels.



Hydro-Lek

Specialists in remote handling for
the nuclear, subsea and defence
industries

Hull Drilling Machine concept

The Hull Drilling Machine is a device which is deployed by an ROV to drill holes and fit anti-leak plugs for subsequent inspection by divers to establish oil/water level.

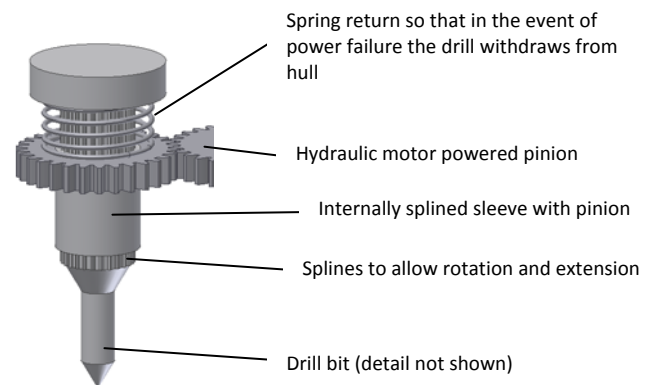
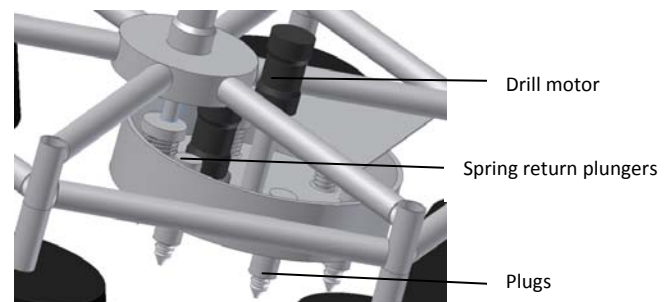
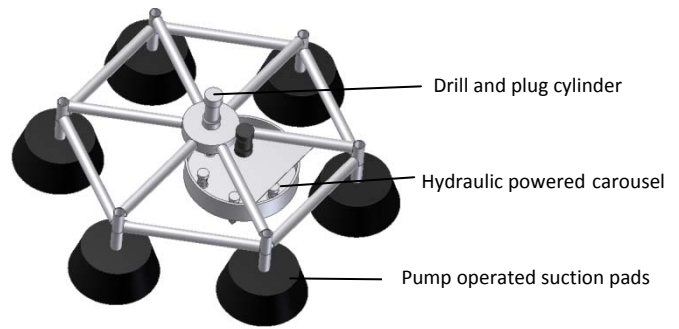
The drilling machine consists of a stainless steel frame with a centre mounted piston. The plugs/drill are mounted in an offset carousel underneath and are selected by a hydraulic motor. The cylinder is then used to push the selected drill/plug into the hull.

The assembly grips onto the side of the hull via the use of 6 suction pads and 2 suction pumps to create the suction. The pumps control 3 suction pads each to ensure that in the event of failure of one of the pumps, the system will stay fastened to the hull.

The drill itself consists of a sprung return plunger with splined outer diameter with the drill bit connected to the end. This is placed into a sleeve with splined internal that has gear teeth to allow it to be driven by a hydraulic motor powered pinion which will be geared to a ratio that will give maximum drilling performance.

The plugs will be made out of nylon. The nylon will then expand when exposed to the water filling the drilling hole. There will be space to have a number of plugs to allow the machine to drill a number of holes and plug them before needing to come back up to the surface.

The drilling machine can be operated by a work class ROV or smaller such as the Seaeye Cougar or Panther. This would enable a smaller ship of opportunity to carry out the operation. The suction pads would have the capability of holding a small ROV securely onto the hull to allow accurate drilling and plugging and in the event of power failure the machine would be released from the hull.



Hydro-Lek Ltd

Falcon House
Ivanhoe Road
Hogwood Lane Industrial Estate
Finchampstead
RG40 4QQ
Tel +44 (0) 118 9736903
Fax +44 (0) 118 9736915

Website www.hydro-lek.com
Email enquiries:hydro-lek.com