MacArtney empowers underwater technology with custom winches

MacArtney Underwater Technology and Textron Systems have partnered to supply custom-built winches for the US Navy's Mine Countermeasures unmanned surface vehicle (MCM USV). MacArtney has drawn on its in-house expertise and long-standing collaboration with Textron Systems to design and manufacture winches that comply with MIL standard 901D for shock and vibration.

Textron Systems placed an initial order for these winches in 2015 and recently ordered four more after a year-long 'Winch Improvement Programme'. MacArtney worked to improve the winches' design and performance during this programme to match Textron Systems' move from prototype status to low-rate production.

Ruggedized programme

The CUSV system is a multi-mission USV with a large, configurable payload capacity. In addition to mine countermeasures, it can be used for a range of other defence and commercial applications. To withstand the shock of powerful explosions and violent vibrations, the MacArtney winches on board Textron Systems' CUSV have undergone a 'ruggedized programme'. This programme included the use of lightweight and corrosion-resistant materials such as aluminium and special alloys, increasing the winches' pull force and winch weight ratio, and adding fuel capacity for the boats.

Kim Schultz, project manager for the programme at MacArtney, describes the project as 'fascinating'. She notes that the customer expects high standards of innovation, development, specifications and timing. Schultz explains that the project differs from 'off-the-shelf' projects due to the customer's demand for more reporting and innovation.

Since 1978, MacArtney has been empowering underwater technology and is a trusted and experienced provider of deployment and recovery systems to the ocean science, naval and defence industries.

MacArtney has partnered with Textron to supply custom-built winches for the Mine Countermeasures USV (MCM USV)..