

DORADO Semi-Submersible Minehunting Vehicle

The growing threat from new-generation mines that are more difficult to detect has stimulated the demand for new minehunting systems that offer improved safety and efficiency. The Dorado vehicle, which is in operational service with the Canadian Department of National Defence, was developed to meet this need. DCN International, France is selling the Dorado vehicle as part of their SeaKeeper system.



Dorado is provided with a transport cradle and container making it flight-capable via a C-17



The Dorado vehicle is capable of towing a sonar towfish at speeds up to 12 knots and depths to 200 m. It is powered by a 315 kW marine diesel engine. Air is drawn through the mast and exhausted through the stabilizer above the contra-rotating propeller. The engine also provides power for the hydraulically operated control planes and the keel-mounted winch for the sonar towfish. The towfish is developed to follow the seabed at low altitudes and is fitted with a multibeam sidescan sonar.

Length	8.23 m
Width	2.28 m
Diameter	1.17 m
Dry Weight (fully fueled)	5900 kg
Fuel Capacity	725 kg
Dry Payload Capacity	0.60 cu.m
Dry Payload Weight	210 kg
Speed	16 knots max with no tow, up to 12 knots with tow
Endurance	12 hrs at 200 m depth w/tow, 28 hrs w/o tow
Sea State	4 for operations, 5 for transit
Propulsion	Caterpillar 3126-315 kW, 6 cyl aft-cooled, turbo-charged marine diesel engine
Transmission	ZF Marine 2.7:1 gear-reduction with hydraulic shifting-forward, neutral and reverse
Propeller	Contra-rotating gearbox and propulsor
Control	Real-time, multi-tasking software
Ballast	3000 pse air ballast system, 900 kg drop weight
Sonar Winch	Hydraulically operated winch cable of spooling 500 m of 1 cm diameter electro-mechanical or electro-optical mechanical cable
Guidance & Navigation	iXSea Octans FOG providing 50 Hz closed loop hydroplane control of depth, pitch, roll and heading
Command & Control	Manual, autopilot or autonomous DGPS baseline following between geographic waypoints. \$00-465 mHz 9600 bps full duplex communication radio, 5.8 GHz Gemini wireless network radio
Payload	ISE Aurora Towfish, MB sidescan sonar, other options



Dorado has a surface-piercing mast, allowing it to operate and transmit sonar data over a radio data link



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All things underwater

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