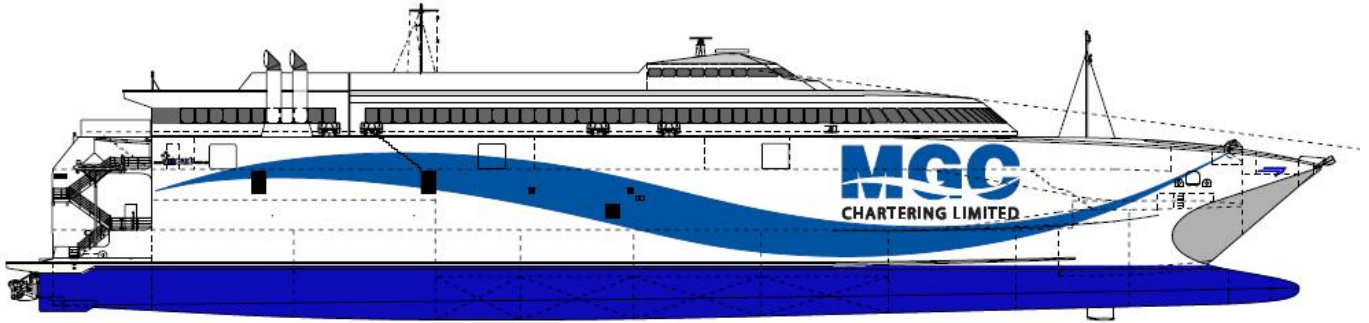


# EVOLUTION one12 - 112m Wave Piercing Ro/Pax Catamaran

At Incat we have moved the boundaries, opening the frontier of fast freight by sea to operators worldwide.



## General Particulars

Yard No:	066
Designer:	Revolution Design Pty Ltd.
Builder:	Incat Tasmania Pty Ltd.
Class Society:	Det Norske Veritas
Certification:	DNV X1A1 HSLC R1 Car Ferry "B" EO
Length overall:	112.60 m
Length waterline:	105.60 m
Beam moulded:	30.50 m
Beam of Hulls:	5.80 m
Draft:	3.93m
Speed:	approx 39 knots at 600 DWT

Note - All speeds quoted at 100% MCR (4 x 9000 kW) without deployment of T-foil, with clean underwater parts and in water depths of 10 metres to 50 metres.

## Capacities

Max Deadweight - approx 1000 tonnes or up to 1450 at reduced operating conditions.

Passenger Capacity - 1200 persons (including crew)

Passenger Deck - located on one level, Tier 3, is divided into three lounges:

- Forward Tier 3 Business Class Lounge
- Midships Tier 3 Economy Class Lounge.
- Aft Tier 3 Economy Class Lounge.

Vehicle Capacity - 567 truck lane metres at 3.1m wide and 4.6m clear height plus 195 cars at 4.5m length x 2.3m wide or 417 cars only.

Axle load - Tier 1 - 13 tonne (single axle dual wheel) between transom and frame 72, CL to 7100 and between Transom and frame 63 outboard of 7100. 2.0 tonnes (single axle dual wheel) fwd of frame 63 (outboard of 7100 only) and fwd of frame 72 elsewhere.

Axle load - Tier 2 - 2.0 tonne (single axle)

- Tankage
- Fuel Oil (Storage tanks) - 300,000 litres
  - Fuel Oil (Header tanks) - 2 x 1240 litres
  - Genset Fuel Oil - 2 x 1240 litres
  - Fresh Water - 2 x 5,000 litres
  - Sewage - 2 x 5,000 litres
  - Lube Oil - 2 x 1,000 litres
  - ER Oily Water - 4 x 160 litres
  - Engine Coolant - 1 x 4,000 litres
  - Aft Hydraulic Oil - 2 x 500 litres
  - Fwd Hydraulic Oil - 1 x 500 litres

## Construction

Design - Two slender, aluminum hulls connected by a bridging section with center bow structure at fwd end. Each hull is divided into ten vented, watertight compartments divided by transverse bulkheads. Two compartments in each hull are prepared as fuel tanks with additional strengthening on each of the end bulkheads and intermediate tank tops.

## Air Conditioning

Reverse cycle heat pump units throughout capable of maintaining between 20-22 deg C and 50% RH with a full passenger load and ambient temperature of between 0 deg C and 35 deg C and 60 % RH.

## Evacuation

Six Marine Evacuation Stations (MES), three port and three starboard, each MES capable of serving a total of up to 300 persons. A total of fourteen, 100-person liferafts are fitted.

2 x SOLAS inflatable dinghy with 30 hp motor and approved launch / recovery method.

## Machinery Installations

Main Engines - 4 x resiliently mounted MAN 28/33D marine diesel engines, each rated at 9000 kW at 100% MCR.

Water Jets - 4 x Wartsila LJX 1500SR waterjets configured for steering and reverse.

Transmission - 4 x ZF NR2H 60000 gearboxes, with reduction ratio suited for optimum jet shaft speed.

Hydraulics - Three hydraulic power packs, one forward and two aft, all alarmed for low level, high temperature and filter clog and low pressure. One pressure line filter and two return line filters fitted. An off-line filter / pump provided.

Ride Control - A 'Maritime Dynamics' active ride control system is fitted to maximise passenger comfort. This system combines active trim tabs aft and optional fold-down T-foil located at aft end of centre bow. The structural abutment, electrical and hydraulic services to receive the fwd T-foil will be fitted as standard to the vessel.

## Electrical Installations

Alternators - 4 x MAN D 320ekW (nominal) marine, brushless, self-excited alternators. The alternators are arranged for automatic startup and paralleling. The automation will consider one alternator maintained as a standby set.

Distribution - 415V, 50 Hz. 3 phase. 4 wire distribution with neutral earth allowing 240 volt supply using one phase and one neutral. Distribution via distribution boards adjacent to or within the space they serve.

100-amp 415V 3-phase connection point fitted in starboard anteroom.



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