

# General Particulars

Builder:	Incat Iasmania Pty Ltd.
Class Society:	Det Norske Veritas
Certification:	DNV +1A1 HSLC R1 Car Ferry "B" EO
Length overall:	91.30m
Length waterline:	81.33m
Beam overall:	26.00m
Beam of Hulls:	4.50m
Draft:	3.73m approx. in salt water
Service Speed:	42 knots
Lightship Speed:	48 knots

Note - All speeds quoted at 100% MCR (4  $\times$  7080kw @ 1030 rpm) and excluding T-foil.

#### Capacities

Max Deadweight 510 tonnes (maximum available dependent on building specification). Total persons up to 900 persons

- Vehicle Capacity 220 cars at 4.5m length x 2.3m wide or combination of cars and up to 4 buses.
- Axle loads Transom to Frame 14 9 tonnes per dual wheel axle, Frame 14 to 35 - 2 tonnes per axle group and fwd of Frame 35 Ramps A to D -0.8 tonnes per axle group.
- Fuel Capacity 4 x 14m3 integral aluminium tank and additional long-range tank of minimum 170m3 capacity provided in each hull.

Fresh Water 1 x 5.0 m3 GRP tank.

Sewage 1 x 5.0 m3 GRP tank.

#### Construction

Design - Two slender, aluminum hulls connected by a bridging section with center bow structure at fwd end. Each hull is divided into eight vented, watertight compartments divided by transverse bulkheads. One compartment in each hull prepared as short-range fuel tanks and one as a long-range fuel tank.

Welded and bonded aluminium construction using longitudinal stiffeners supported by transverse web frames and bulkheads. Aluminum plate grade 5383 H321 or H116. Aluminium extrusions grade 6082 T6 and 5083 H112.

# **Passenger Accommodation**

Superstructure - Passenger accommodation supported above the vehicle deck on anti-vibration mounts.

 $\mathsf{Outfit}-\mathsf{All}$  materials comply with IMO standards for fire, low flame spread, smoke and toxicity.

Public Address - Builder's standard, marine, public address system supplied and fitted to cover all passenger and crew areas, vehicle decks, stairwells and ante rooms. Colour televisions fitted throughout the passenger cabin to enable seated view of safety messages and video.

# Safety and Evacuation

Escape - Four Marine Evacuation Stations, two port and two starboard, and two external stairs aft. The two forward MES serve a total of 100 persons each, the two mid MES serving a total of 200 persons each and one aft stair serving 200 persons and one aft stair serving 100 persons. A total of ten x 100 person rafts are fitted.

Rescue - Two SOLAS inflatable rescue dinghy with 30 hp motor and approved launch / recovery method. Lifejackets with lights for full compliment fitted under seats and in storage cabinets.

Safety Equipment - Liebuoys with lights and lines, smoke flares, Immersion suits, flares and lines throwing device fitted in accordance with international regulations

Fire Detection - An addressable fire detection system covers at minimum all high and moderate risk spaces (other than the wheelhouse) with alarm panel situated in the wheelhouse. CCTV system covers at a minimum, engine rooms, ante rooms, vehicle spaces, jet rooms, MES and liferafts stations (serving as mooring cameras) with monitors in the wheelhouse.

Fire Sprinklers - Vehicle deck and passenger cabin are protected by drencher systems with overhead sprinklers. Pump control is from the wheelhouse and anterooms.

General Equipment - Portable fire extinguishers, Fireman's outfits and equipment, water fog applicators, breathing apparatus, international connections and fire control plans fitted in accordance with international regulations.

### **Machinery Installations**

Main Engines - 4  $\times$  resiliently mounted Ruston 20RK270 or Caterpillar 3618 marine diesel engines.

Water Jets - 4 x Lips LJ145D waterjets configured for steering and reverse.

Transmission - 4 x Renk ASL60 gearboxes, approved by the engine manufacturer, with reduction ratio suited for optimum jet shaft speed.

Ride Control - A 'Maritime Dynamics' active ride control system is fitted to maximise passenger comfort. The system combines active trim tabs aft and optional bolt-on T-foil located at the forward end of each hull.

#### **Electrical Installations**

Alternators –  $4 \times \text{Caterpillar 3406B 230kw}$  (nominal) marine, brushless, self-excited alternators.

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.