Ireland Class Heavy Cruiser

It has been said that, “The pinnacle of an old technology will far exceed the birth of a new technology.”

Such is the case of the Ireland Class Heavy Cruiser in the late 23rd Century. Designed for enhanced performance and greater independence to support longer mission duration including lengthy deep space exploration, the Ireland Class represents a culmination of knowledge taken from over 20 years of Constitution and Miranda Class mission reports.

Implementation of new technology:

The USS McCashin in orbit over Risa in 2268.

-A new engineering design: The Ireland Class sports 2 primary, integrated components. A modified Constitution Class primary Hull (saucer section) and a crescent moon shaped star drive section which the saucer is hard docked into with a series of clamping mechanisms. In case of an emergency, such as an antimatter containment breach, the saucer can disengage from the star drive section by retracting the clamps or by use of a series of micro-detonators. The saucer’s impulse engines, already being active, can easily carry the crew to a safe distance. Reintegration of the saucer and star drive sections will still require a star base repair facility.

-Ship wide redundancy: All major systems have redundant hot backups and conduits run throughout the ship. The ship actually has 2 computer cores that load balance all ship functions and systems. By the time the Ireland class entered the refit program in 2275, the 2 load balancing computer cores were replaced with high power identical systems that mirrored each other’s activity, providing true 100% redundancy should one computer become damaged or fail.

-Dual Impulse Engines: Both the primary hull (saucer) and star drive section have their own complete set of impulse engines. Both of which remain active at all times. The saucer’s impulse engines are not visible when the ship is in one piece. But they are present and imbedded into an armored area of the star drive section, constantly providing additional energy to the ships power grid. This energy can be used for almost any ships system including life support, shields, or standard phaser banks. As a beneficial side effect, the pressurized ion exhaust from the saucer’s impulse engines is shunted into the ships maneuvering thrusters dramatically increasing maneuverability.

-Elliptical Warp Field: Taking advantage of the ships low profile the Ireland Class warp drive generates an elliptical warp field. The advantage of an elliptical warp field combined with the ships design is that it allows the ship to transition to warp faster and accelerate at warp speeds with 25% less energy required, increasing acceleration at warp speeds. Due to the additional structural and warp field stresses caused between the warp nacelles from generating the elliptical warp field, the support pylons for the warp engines are reinforced and connect on the outboard sides of the nacelles. Supporting the elliptical warp field system is a pair of tandem deflectors, on the bottom of the ship's star drive section, that constantly adjusts the ships deflectors to match the shape and field harmonics of the elliptical warp field. The ship can still maintain full warp capability with only one deflector, but at significantly reduced energy efficiency.

-Enhanced Crew Safety Measures: The dramatically increased maneuverability places a great deal of strain on the inertial dampers. To compensate all bridge stations and other essential stations throughout the ship have arm rests that double as restraints to keep staff in their seats. Padding has also been added to all major corridors.[1]

-Enhanced Photon Torpedo Launchers: The Ireland Class sports 4 new photon torpedo launchers; 1 forward port, 1 forward starboard, 1 aft port, and 1 aft starboard. Each launcher is capable of launching 2 torpedoes 1 second apart. Fire control can be linked (port with starboard) between the forward and aft launchers.

Ireland Class Heavy Cruiser

Ship Names by registry.

Ships produced in 2264:

NCC-1940 USS IRELAND

NCC-1941 USS CONNELLY

NCC-1942 USS O'ROURKE

NCC-1943 USS MACARTHUR

NCC-1944 USS O'CONNOR

Ships Produced in 2268:

NCC-1945 USS MONTGOMERY

NCC-1946 USS KENNEDY

NCC-1947 USS IRONSIDE

NCC-1948 USS MCCASHIN

NCC-1949 USS DONAHUE

-Mega Phasers (Port/Starboard): While the ship houses 8 banks of standard phasers, an enhanced version of those on the Constitution Class, which can feed off of either of the ships impulse engines. It also houses a new type of phaser, referred to as a mega-phaser which feeds directly off of the warp drive, dramatically increasing fire power. 2 such mega –phasers are incorporated into the design, one each on the port and starboard sides of the star drive section with a forward firing arc.[2]

Additional Considerations:

The ship was designed for crew safety on extended missions. Redundant systems exist throughout the ship to ensure the crew doesn't get stranded light years from home. Redundant deflectors, impulse engines, and weapons ensure crew safety. Additionally, both the port and starboard lower decks of the star drive section contain hydroponics bays, repair facilities, and enough cargo to ensuring the ship is self sufficient for long voyages.

1. Lead into hall padding and chair restraints seen in the ST:TMP.

2. Early TOS version of the mega-phasers seen on the Reliant's roll bar in ST2:TWOK