

1/100 scale, if this page is printed at a height of 17 inches

BACKGROUND HISTORY

This project is an extrapolation of the U.S.S. ENTERPRISE drawings developed last year. Those drawings were governed by 3 criteria:

- (1) The 11-foot-2.08-inch (3.4-meter) studio model,
- (2) The Writer's Guide, and
- (3) The 79 episodes plus the original pilot.

There are no such criteria to guide these drawings, but the basic design philosophy is to complete this ship in the same style that Franz Joseph (F.J.) developed for his Technical Manual and in the same style as his Heavy Cruiser blueprints. The goal is to try and fit all the components inside the hull. But what are "all the components"? What are the roles of "Destroyers" in the STAR TREK universe?

A "Destroyer" was a type of ship used on Earth. It was a fast, maneuverable, long-endurance warship intended to escort larger vessels in a fleet, convoy or battle group and defend them against powerful short range attackers.

Some countries use the term "Frigate" for their "Destroyers" which leads to some confusion.

With the advent of missiles, "Guided Missile Destroyers" were developed to carry these weapons and protect the fleet from such threats. By the late 20th Century, many "Destroyers" were built with helicopter flight decks and hangars.

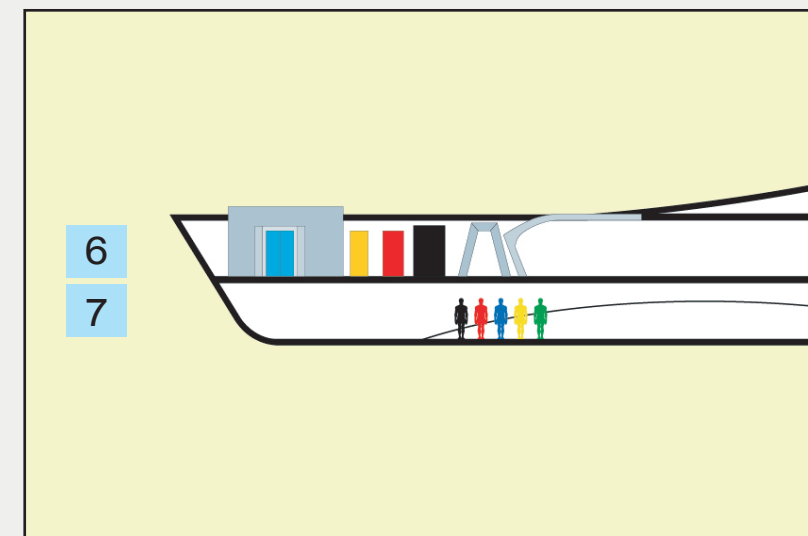
I am not sure who designed the Leonidas-class Destroyer but I like it so I decided to draw this set. I was only able to find one small 3-view drawing. There do not appear to be any Hangar Bays. There might be two or three Phaser Banks. There might be one Torpedo Bank. This was a bare-bones, minimalist design for a Destroyer using a standard Primary Hull. Other, smaller Destroyers exist, but they involved cutting away parts of the Primary Hull.

One thing not considered is the undercut on the Primary Hull. If there are no decks below the Primary Hull to connect to a Secondary Hull, then Deck 7 is not flattened in that area. The flat portion allows a turbo-elevator shaft to reach the outer ring of Deck 7, where Engineering is located in Constitution-class ships.

Without that flat portion, the outer ring of Deck 7 can only be reached from above, via stairs, and perhaps via the turbo-elevator system (which would have to be extended to the rear).

NOTES

As with my Heavy Cruiser plans, I started at the edge of the primary hull (see image below), where the height of 2 decks, the thickness of 1 floor, and the thickness of 2 hulls have to fit in this part of the saucer.



I built them upwards and downwards from my starting point, Deck 6 and 7. However, this makes the Bridge too high, and Deck 11 too low. The dark grey horizontal lines show the adjusted deck locations. The dorsal decks were not adjusted.

The undercut of the Primary Hull affects Deck 7, but the undercut was flattened at the rear so as to allow Engineering to fit.

Disconnection equipment is located at the top of the dorsal decks. Also, the Matter-Antimatter Reaction Chamber is at the very top, within the engine nacelle. The top levels are heavily shielded. Because of the sensitivity of the disconnection equipment and the radiation, it makes sense to keep this area clear and difficult to access except by authorized personnel.

In CHARLIE X we saw how thick the walls are and also what is in the walls. The DESILU plans show walls that are 1 foot (0.3 meters) thick and sometimes even thicker. I decided to make all walls, decks, and hulls 1 foot thick, never thinner. In a few places, the walls are even thicker.

This leaves a ceiling height of 8 feet (2.44 meters) for each level.

The one set piece (reminiscent of a ship's rib - often seen in the Briefing Room) does not quite fit. However, all the other details (doors, openings, etc) do fit (see image at left). I consider the trapezoidal openings to be Isolation Doors ... in case of hull breaches, damage control, intruder alerts, etc.

In the profile drawing (at the top of this page) the light grey horizontal lines show the initial deck locations. They represent a constant 8 foot ceiling throughout the entire ship.

GENERAL NOTES

Are the wide steps in Engineering considered to be "stairs"? Are the steps on the Bridge considered to be "stairs"?

Perhaps stairs do not appear in any episodes, but that does not mean they do not exist in Starfleet ships. Therefore:

1. After engine nacelle disconnection and an emergency landing, stairs on Decks 4, 3, and 2 lead up to the hatch, thus allowing the crew to leave the ship quickly.
2. Each of the 2 Recreation Rooms on Deck 7 have balconies on Deck 6. Those balconies have stairs that lead down to their respective Recreation Rooms.
3. Stairs connect the two levels of the Deflector Equipment at the front of the hull.

Aside from these stairs, the rectangular ladders (within rectangular alcoves) and the triangular ladders (within circular alcoves) supplement the turbo-elevator system. If that system fails, or in some other emergency, ladders alone would not be very efficient; it is easier to carry something up stairs than up a ladder.

There are external features that do not need to be marked: hatches for the Phasers, hatches for the Photon Torpedo Launchers, and the Primary Hull / Warp Engine disconnection line, to name a few.

These drawings attempt to make sense of the markings that ARE visible on the studio model of the ENTERPRISE, all of which is then extrapolated onto the Destroyer.

More notes relevant to each deck appear on the following pages.

Contradictions and errors exist within the episodes. I am sure 100% continuity is not possible.

I hope these pages provide you with some pleasure, information, and ideas for contemplation / consideration.

If I missed something, please let me know.