SECTION 2

DESCRIPTION OF OPERATION PROPULSION PLANT

3-2-1 General

1. The main power system is divided into two loops. Each loop has two diesel engines which function as prime movers.

2. Each of the four diesel engines drive one alternator unit. Two alternator units are located in each loop.

   Loop A has Alt. #1 and Alt. #3.
   Loop B has Alt. #2 and Alt. #4.

3. Each propeller is driven by a double armature motor (one motor armature in each loop). The double armature motor is directly coupled to the shaft.

4. The alternators can be removed from their loop circuit by set up switches on the main console. The ship can be operated with any of the following conditions.

   A. All four alternators in service.
   B. Any three alternators in service.
   C. Any two alternators in service.
   D. Any one alternator in service.

   It follows then that the ship can be operated with only one loop in service and only one alternator in service. Figure 3-2-1 shows the torque available under the several propulsion set up modes.

5. One or more motor armatures can be removed from the loop and the ship can then be operated with one, two or three motors providing propulsive effort.

3-2-2 Set up Conditions

1. The four alternators may be selected and placed in service by moving the associated set up switch to the "In Service" position.