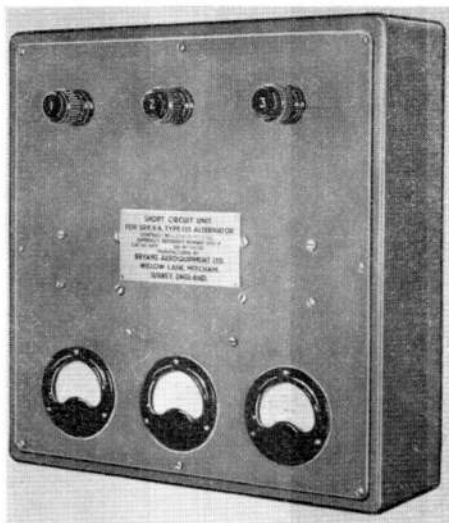


## SHORT CIRCUIT LOAD TESTING UNIT FOR A.C. GENERATORS (NAVAL)



Ref. No. ... .. 5G/3055

Dimensions... .. 15 in. × 15 in. × 6 in.

Associated publication A.P.4343S, Vol. 1, Sect. 13, Chap. 3

### BRIEF DESCRIPTION

This unit provides a means of testing under full-load conditions, 3-phase, a.c. generators having a rated line current of 100A. It consists of a metal container fitted with three terminals, to which the generator output is connected, from which three short leads, acting as the primary windings of current transformers, are taken to a short-circuiting strip inside the container. The secondary windings of the current transformers are connected to three ammeters which indicate the line current.

In use the generator excitation is increased from its minimum value causing the load current to rise and the power factor to lag almost to zero. Considerable armature reaction is caused and the opposing magnetic fields of the rotor and the stator tend to cancel each other out; the power required to rotate the generator under test is therefore much lower than that required to drive the same machine under normal full-load conditions.

**RESTRICTED**



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