

**ORDER**

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION

GL 6980.11

23 Feb 73

SUBJ: TIMING OF 18.75 KVA WARNER-SWASEY ENGINE GENERATORS

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1. PURPOSE. This Order is to advise field offices of the proper ignition timing on 18.75 KVA Warner-Swasey engine generator plants.
2. DISTRIBUTION. This Order is distributed to the Airway Facilities Division, Branch level and above, and to all Airway Facilities field offices.
3. CANCELLATION. Order CE 6980.7 is cancelled.
4. BACKGROUND. Technical evaluations of the subject plants revealed a wide variance in the ignition timing. Subsequent studies and test runs were conducted to obtain the proper timing. Under full load an advance of 10 to 12 degrees before top dead center (BTDC) resulted in the optimum performance for 1200 rpm engines and 16 to 18 degrees before top dead center (BTDC) was the most satisfactory for 1800 rpm engines.
5. ACTION.
  - a. Timing. All 18.75 KVA Warner-Swasey engine generators should be checked for proper timing and adjusted for the aforementioned advances. The timing should be rechecked each time the ignition points are changed and at least annually thereafter.
  - b. Timing Marks. The flywheels on some of the 18.75 KVA plants are not marked to show the degree of timing. These plants can be timed by adjusting the distributor so the points will just open at TDC when the engine is at rest. With this initial setting, the centrifugal advance on the distributor will give the proper timing at the rated plant speed. The centrifugal advance mechanism should be checked occasionally to assure free operation.

*Alan H. Glass*  
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Chief, Airway Facilities Division

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Distribution: RAF-3; FAF-0 (Normal)

Initiated By: AGL-445