

**LIST OF**  
**RESERVE POWER PLANT ENGINE-ALTERNATOR SETS**  
**EQUIPMENT DESIGN REQUIREMENTS**  
**POWER SYSTEMS**

**1. GENERAL**

**SCOPE**

**1.01** This specification lists the various reserve power plant engine-alternator sets now standard for use in the Bell System. It covers their salient features, lists the design requirements specifications and application specifications, where available, and covers the applications for which these sets were primarily designed.

**1.02** This section is reissued to change the title and to add new engine-alternators and to delete the engine-alternators that have been rated

Manufacture Discontinued. This reissue does not affect the Equipment Test List.

**DESCRIPTION**

**1.03** Stationary sets are for permanent installation in a building. The *manually controlled* sets are used in attended stations where maintenance personnel can start the engines, transfer the load to the set when commercial power fails, and remove the load from the set when commercial power is restored. *Automatically controlled* sets are for use in both attended and unattended stations and are arranged to start automatically and assume the load when commercial power fails.

## 2. LIST OF RESERVE ENGINE-ALTERNATOR SETS

## 2.01 Stationary Sets—Manual Control

PRESENT ACTIVE STANDARD STATIONARY SETS – MANUALLY CONTROLLED								
KS-SPEC.	KW	AC VOLTS	PHASE	SUPPLIER	PRIMARY APPLICATION	BSP SECTION	J SPEC.	REMARKS
20523 20524 20525 20526 (See Fig. 9)	30 45 75 115	208 to 240	3	General Motors Corp. Detroit Diesel	Standby power in telephone central offices	155-193-301 155-193-701	86645	Diesel engines, electric starting. Re- places KS-5574-01 and KS-15884 sets
						155-194-301 155-194-701		
20527 (See Fig. 6)	115			Allis-Chalmers		155-195-301 155-195-701	86647	
15929 (See Fig. 10 & 12)	225	208 to 240 or 416 to 480	3	General Motors Corp. Detroit Diesel	Standby power in large telephone offices	155-185-301 155-185-701	86631	Diesel engines, electric starting
15954 (See Fig. 11, 12, 15, & 17)	350		3	Caterpillar Tractor Co.		155-187-301 155-187-701	86633	Diesel engines, electric or air starting
15777 (See Fig. 13, 15, 16, & 17)	500		3	White Motors Corp.		155-174-301 155-174-701	86627	

**2.02 Stationary Sets—Automatic Control**

PRESENT ACTIVE STANDARD STATIONARY SETS – AUTOMATICALLY CONTROLLED								
KS-SPEC.	KW	AC VOLTS	PHASE	SUPPLIER	PRIMARY APPLICATION	BSP SECTION	J SPEC.	REMARKS
19583 19584 19585 19586 (See Fig. 9)	30 45 75 115	208 to 240	3	General Motors Corp. Detroit Diesel	Standby power in type L carrier stations and radio relay stations	155-191-301 155-191-701	86841	Diesel engine sets, electric starting Replaces KS-5750 and KS-15890 sets
19587 (See Fig. 6)	115			Allis-Chalmers		155-192-301 155-192-701		
15929 (See Fig. 10 & 12)	225	208 to 240 or 416 to 480	3	General Motors Corp. Detroit Diesel	Standby power in large telephone offices	155-185-302 155-185-701	86631	Diesel engines, electric starting
15954 (See Fig. 11, 12, 14, & 17)	350	208 to 240 or 416 to 480	3	Caterpillar Tractor Co.		155-187-302 155-187-701	86633	Diesel engine sets, electric or air starting
15777 (See Fig. 13, 14, 16, & 17)	500		3	White Motors Corp.		155-174-302 155-174-701	86627	
15992 (See Fig. 4 & 5)	750	208, 230, 240, 416, 480, 4160	3	Solar Division of International Harvester		155-202-301 155-202-701	86838	Gas turbines, electric starting KS-20542 replaces KS-19896
20542 (See Fig. 7 & 8)	200	208 to 240 416 to 480	3			155-206-301 155-206-701	86637	
20460 (See Fig. 1, 2, & 3)	2100 2500	480 or 4160	3	Detroit Diesel Allison		155-207-301 155-207-701	86644	

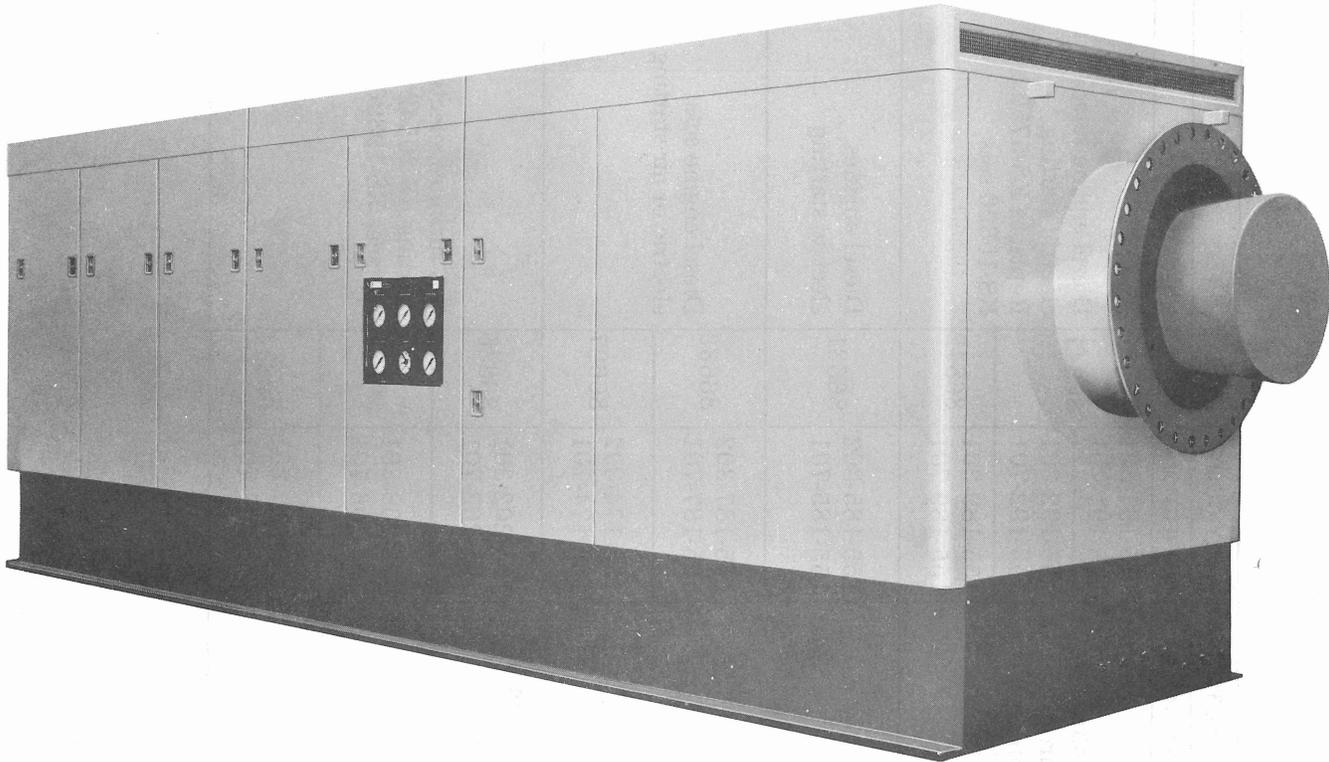


Fig. 1—KS-20460, 2500 kW, Gas Turbine Engine-Alternator

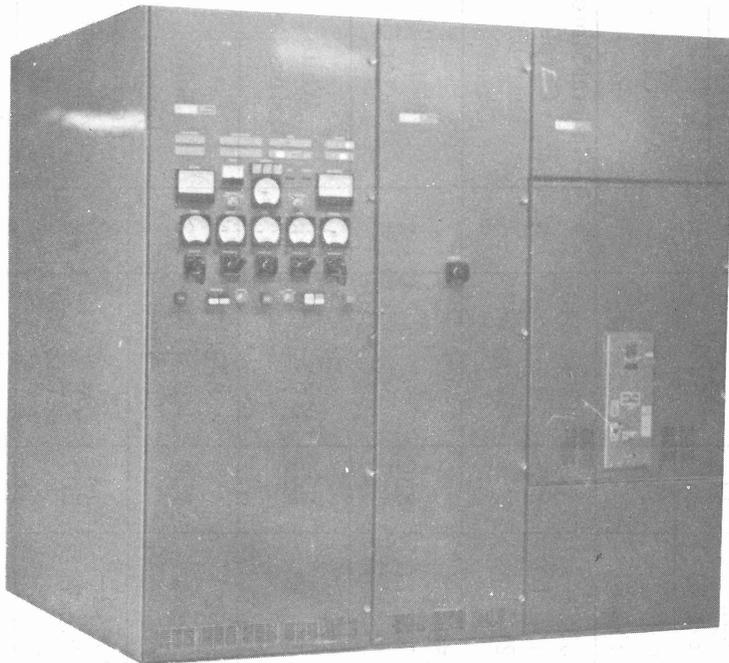
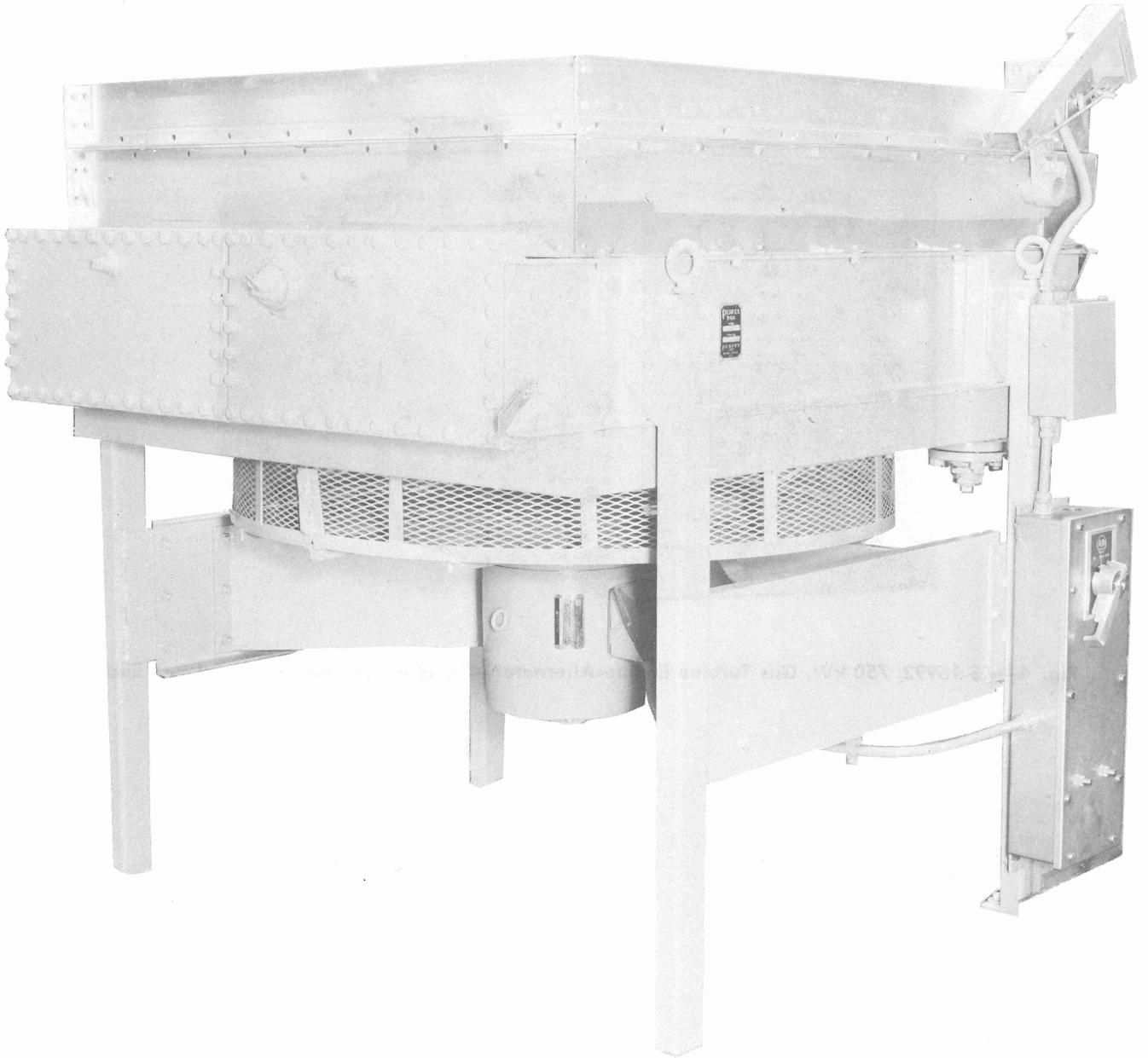
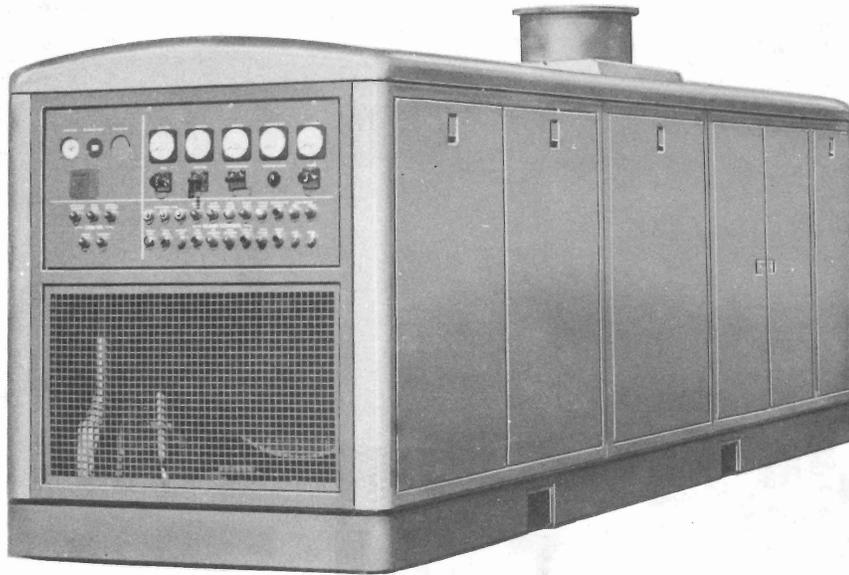


Fig. 2—Control, Protection, and Switch Gear Cabinets for KS-20460 Gas Turbine Engine-Alternator



**Fig. 3—Remote Oil Cooler and Fan Motor for KS-20460 Gas Turbine Engine-Alternator**



**Fig. 4—KS-15992, 750 kW, Gas Turbine Engine-Alternator—Standard Set, Control Panel and Enclosure**

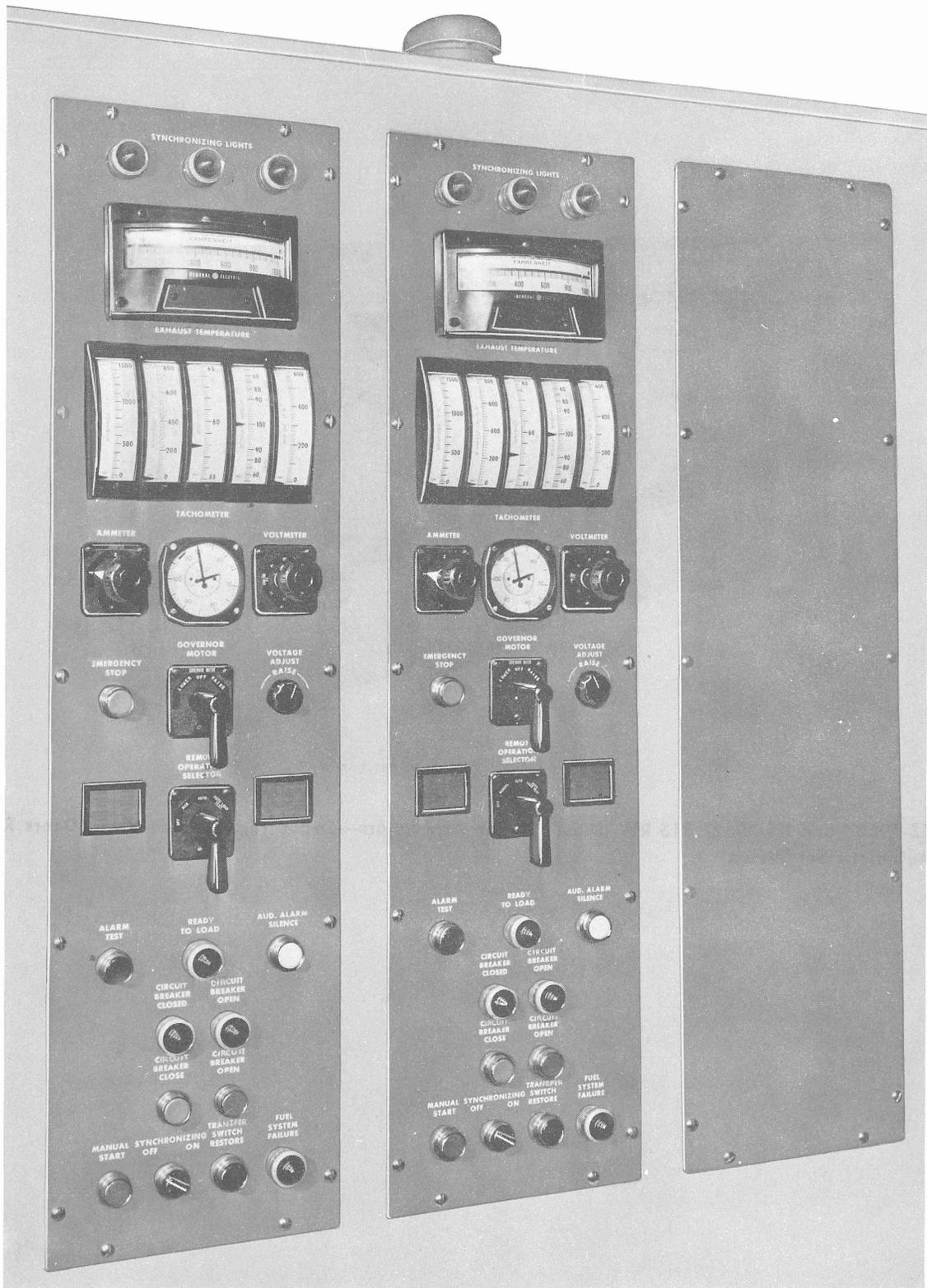
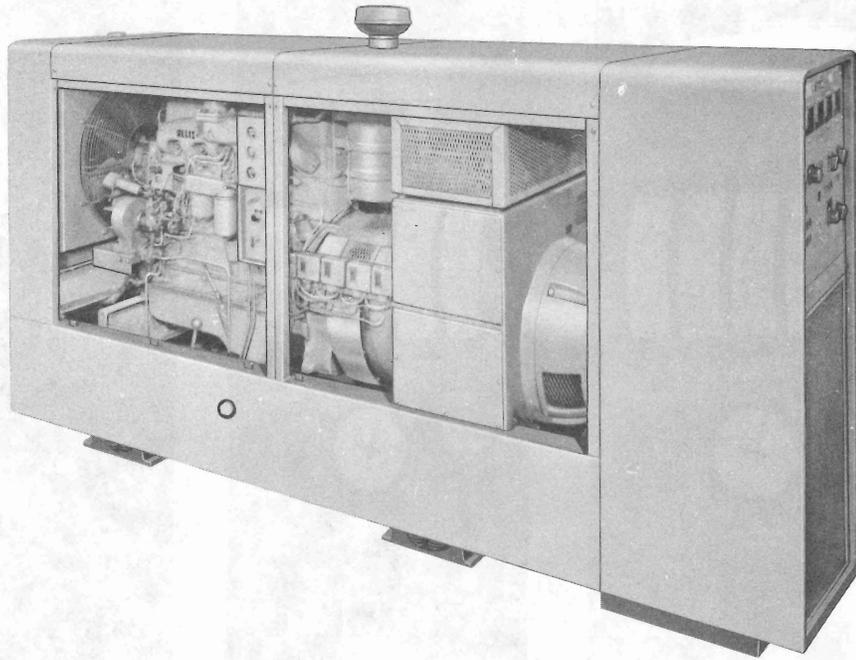
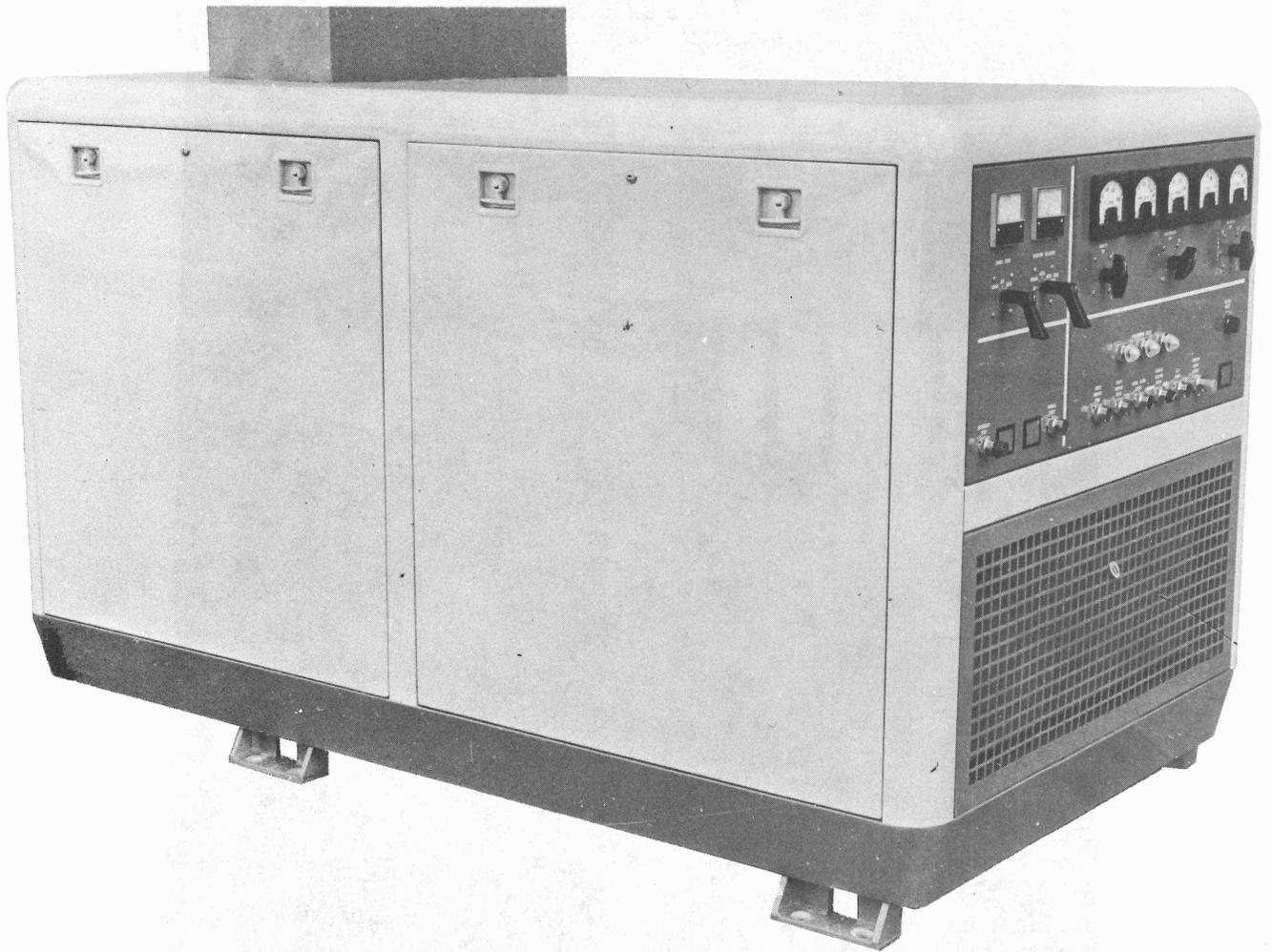


Fig. 5—Remote Control Cabinet for KS-15992 Gas Turbine Engine-Alternator



**Fig. 6—KS-19587 and KS-20527 115 kW, Diesel Engine-Alternators—Enclosure, Left-Side View, Doors Removed, Automatic Set Shown**



**Fig. 7—KS-20542, 200 kW Gas Turbine Engine-Alternator, Standard Set, Left-Front View**

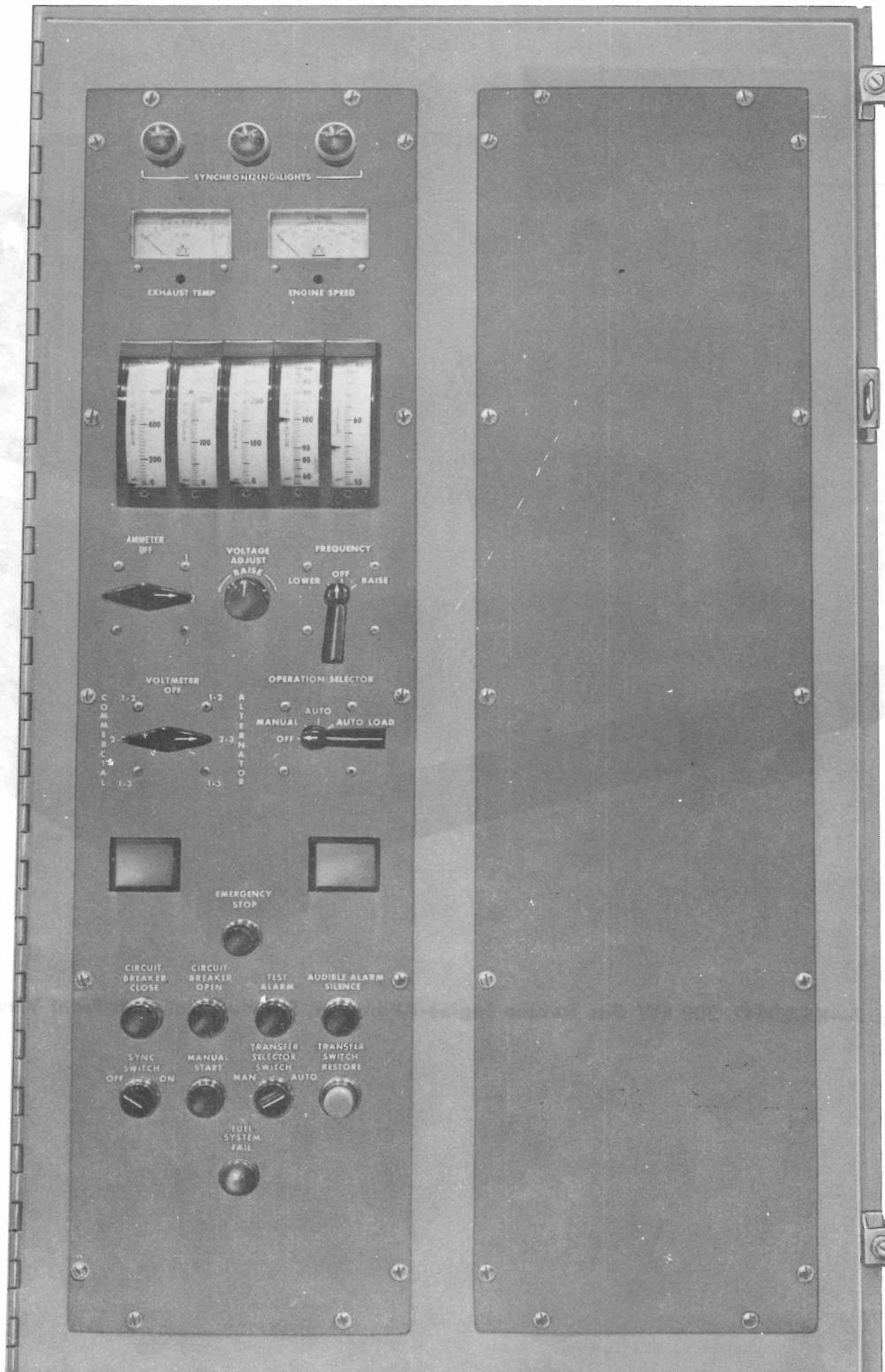
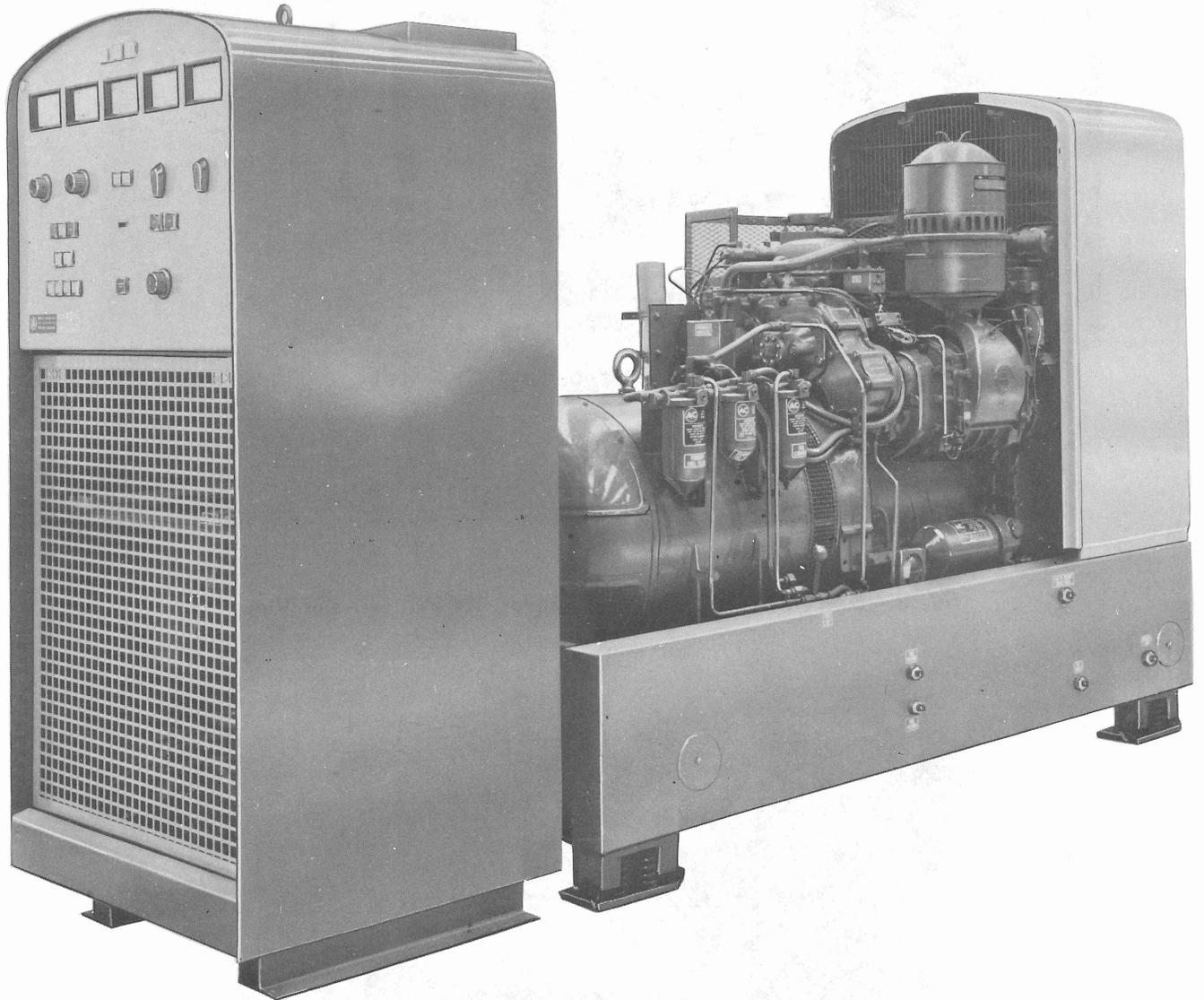
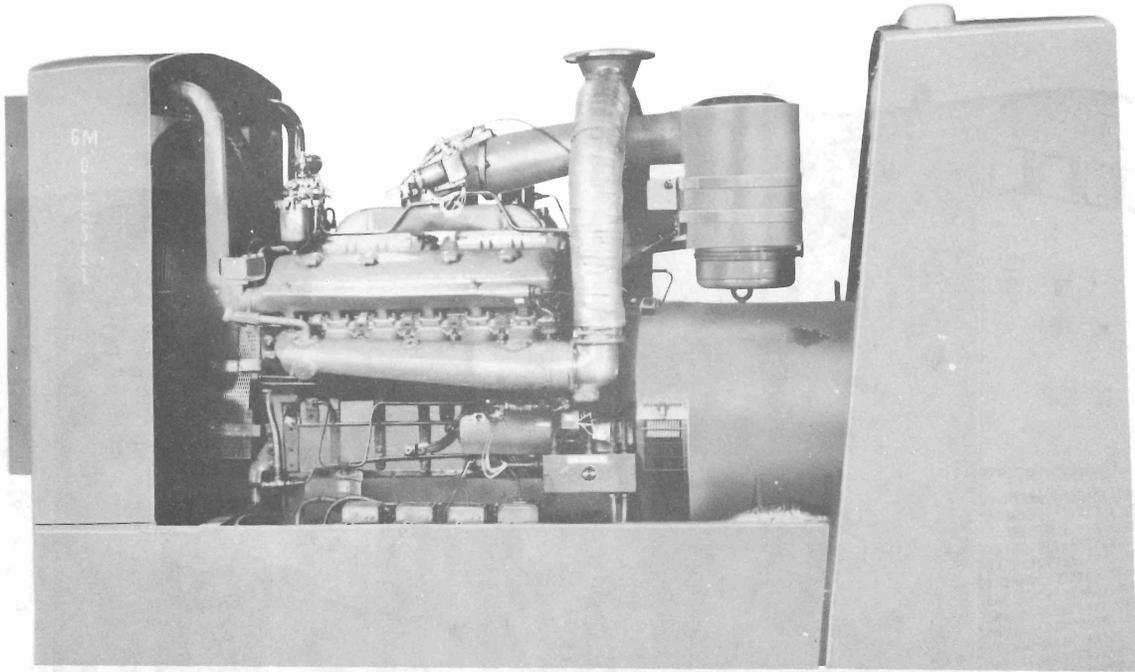


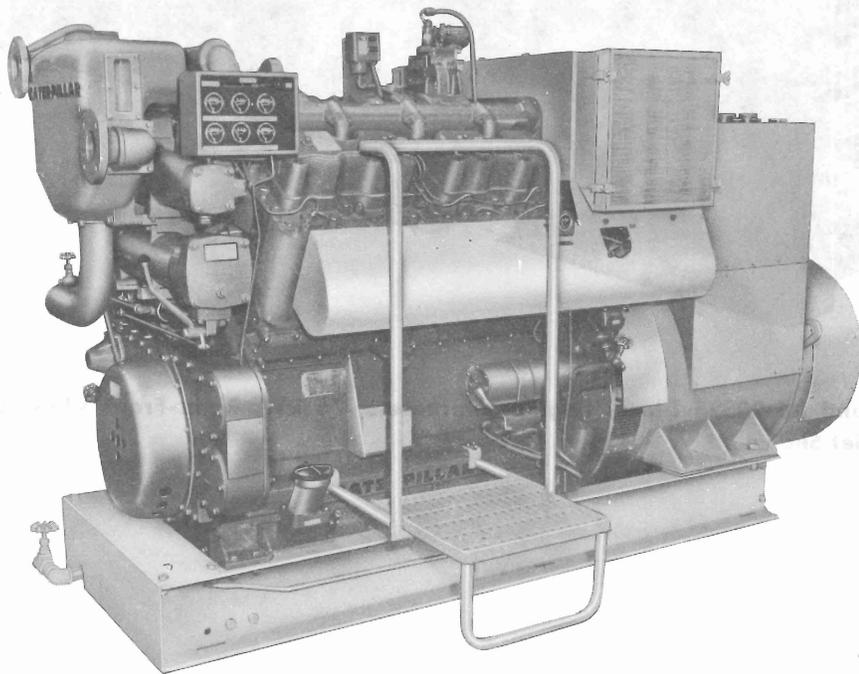
Fig. 8—Remote Control Cabinet for KS-20542 Gas Turbine Engine-Alternator



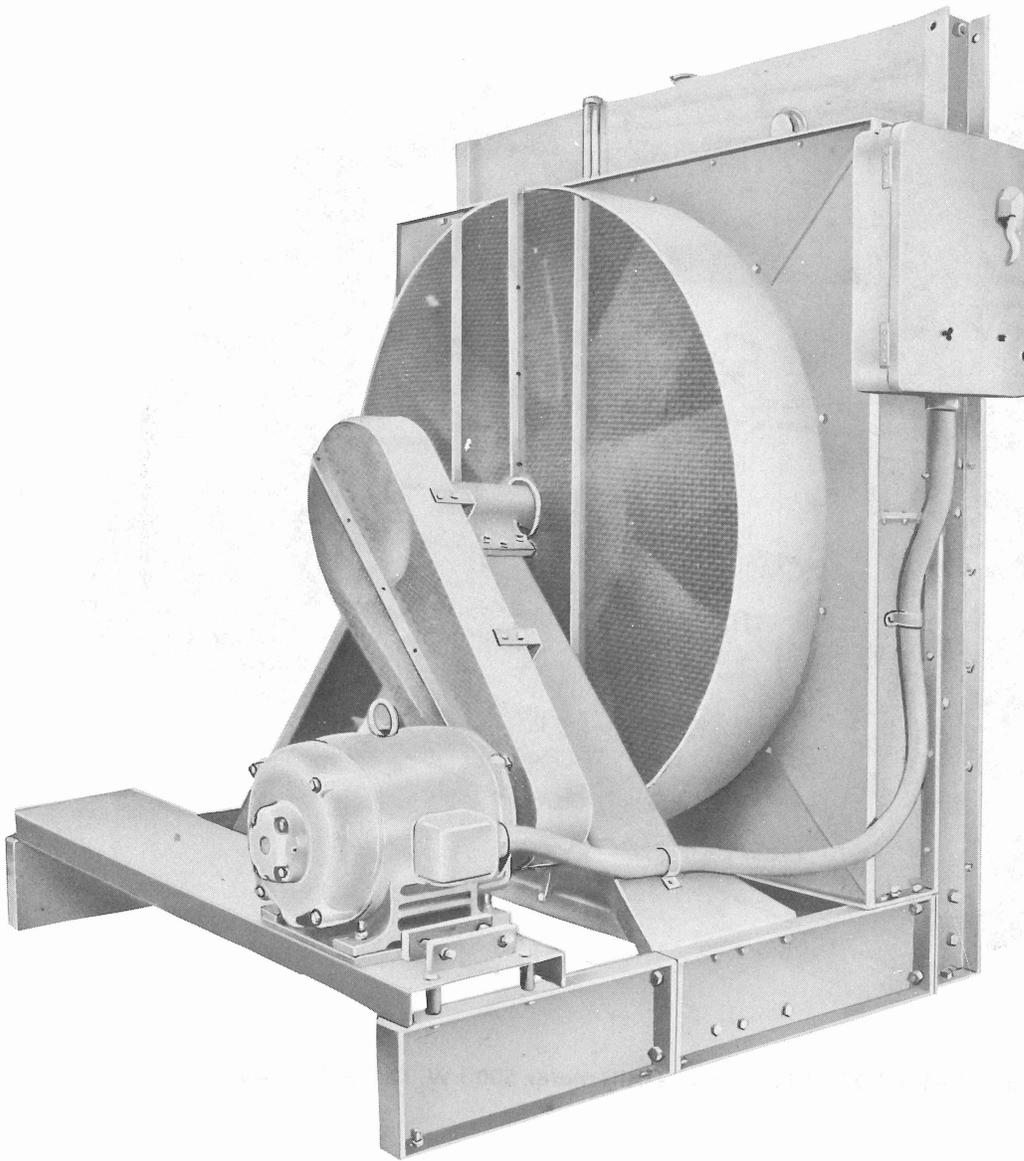
**Fig. 9—KS-19585 and KS-20525 Diesel Engine-Alternators, 75 kW, Right-Front View, Enclosure Removed, Automatic Set Shown**



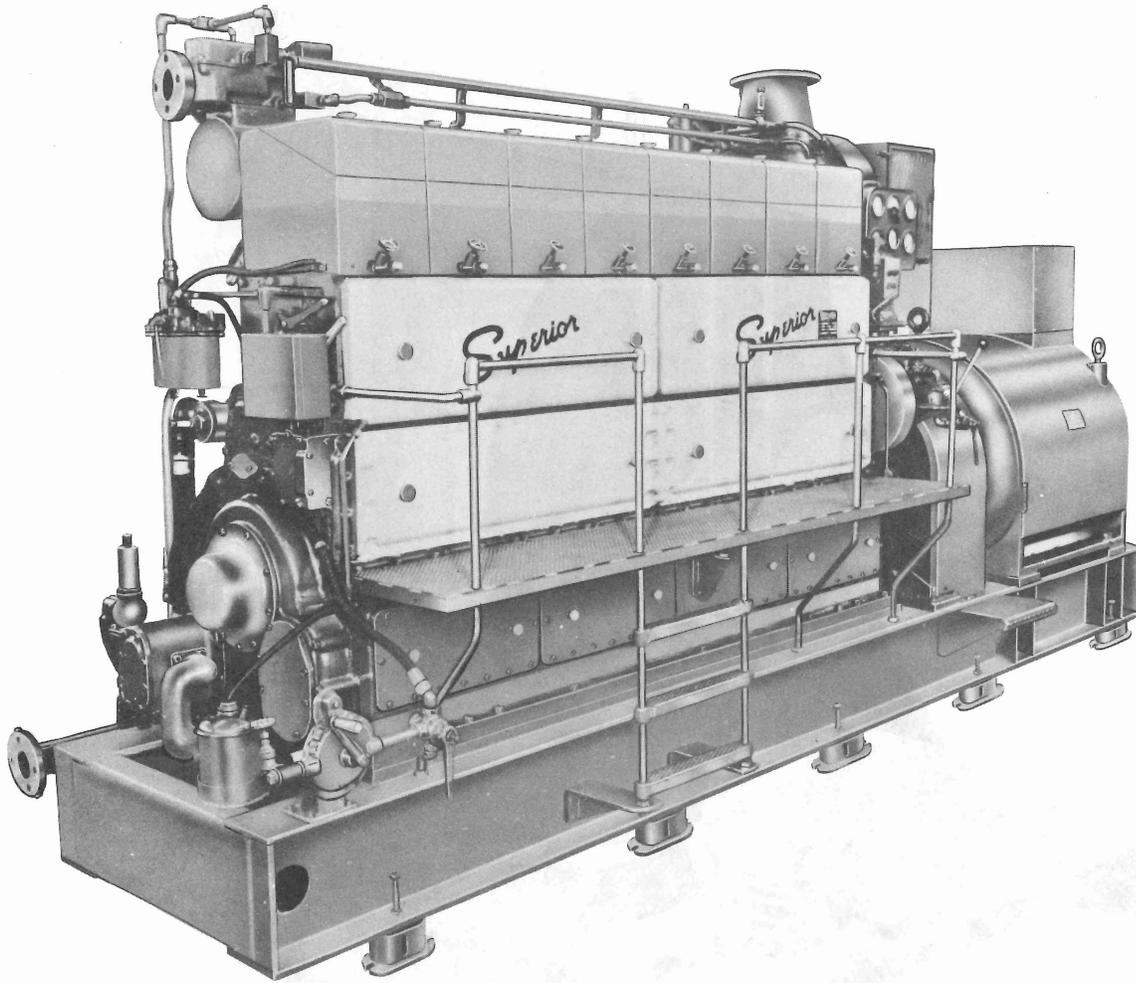
**Fig. 10—KS-15929 Diesel Engine-Alternator, 225 kW, Left-Side View**



**Fig. 11—KS-15954 Diesel Engine-Alternator, 350 kW, Left-Side View**



**Fig. 12—Typical Remote Radiator and Fan Motor for KS-15929 and KS-15954 Diesel Engine-Alternators**



**Fig. 13—KS-1577 Diesel Engine-Alternator 500 kW, Left-Side View**

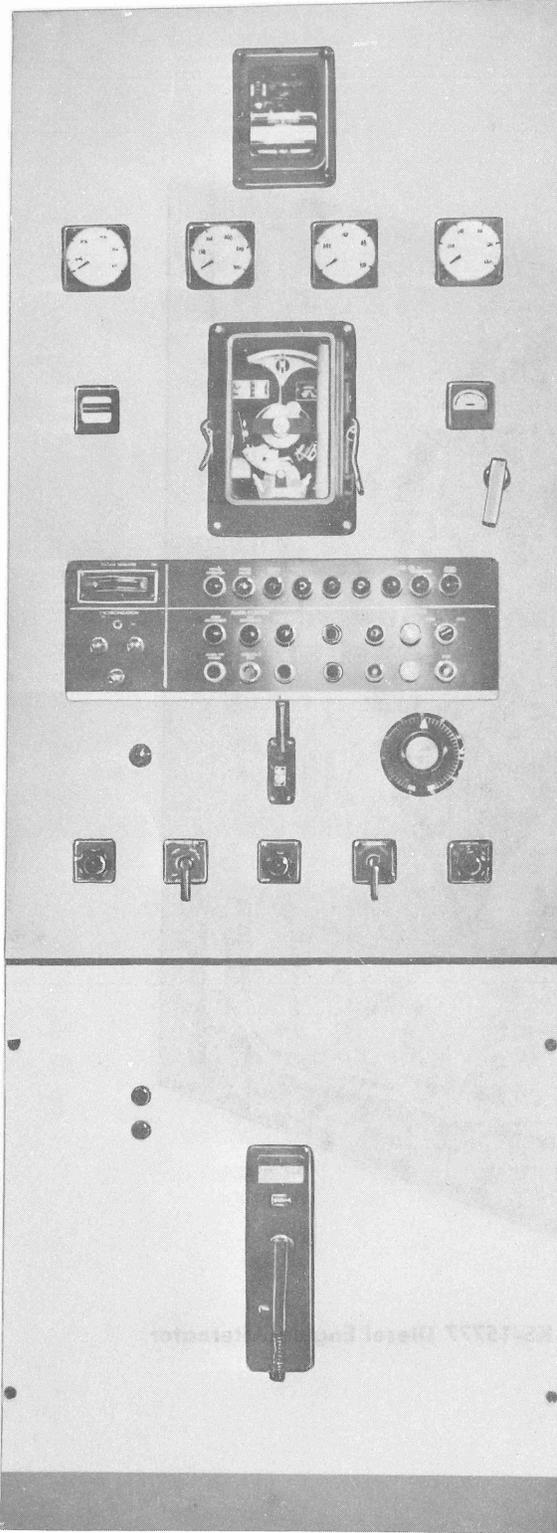


Fig. 14—Typical Main Control Cabinet for KS-15777 and KS-15954 Automatic Sets

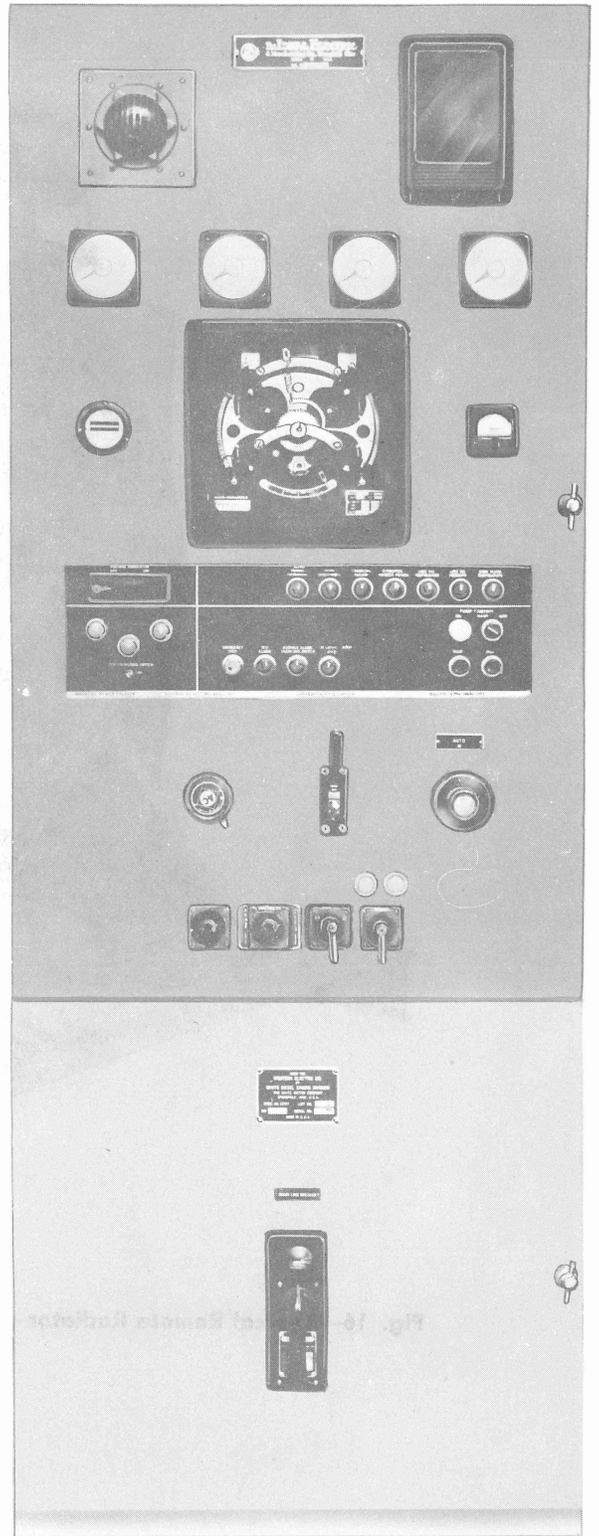
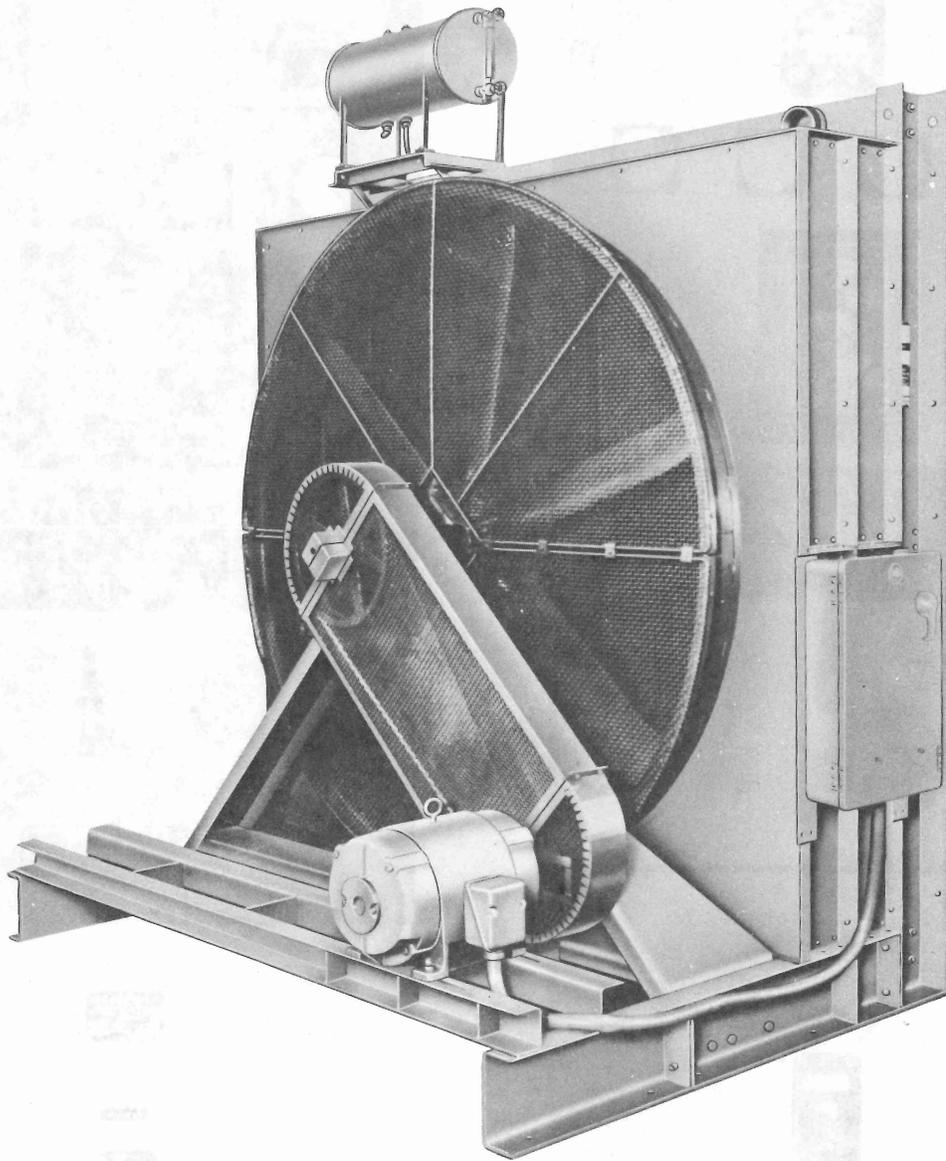
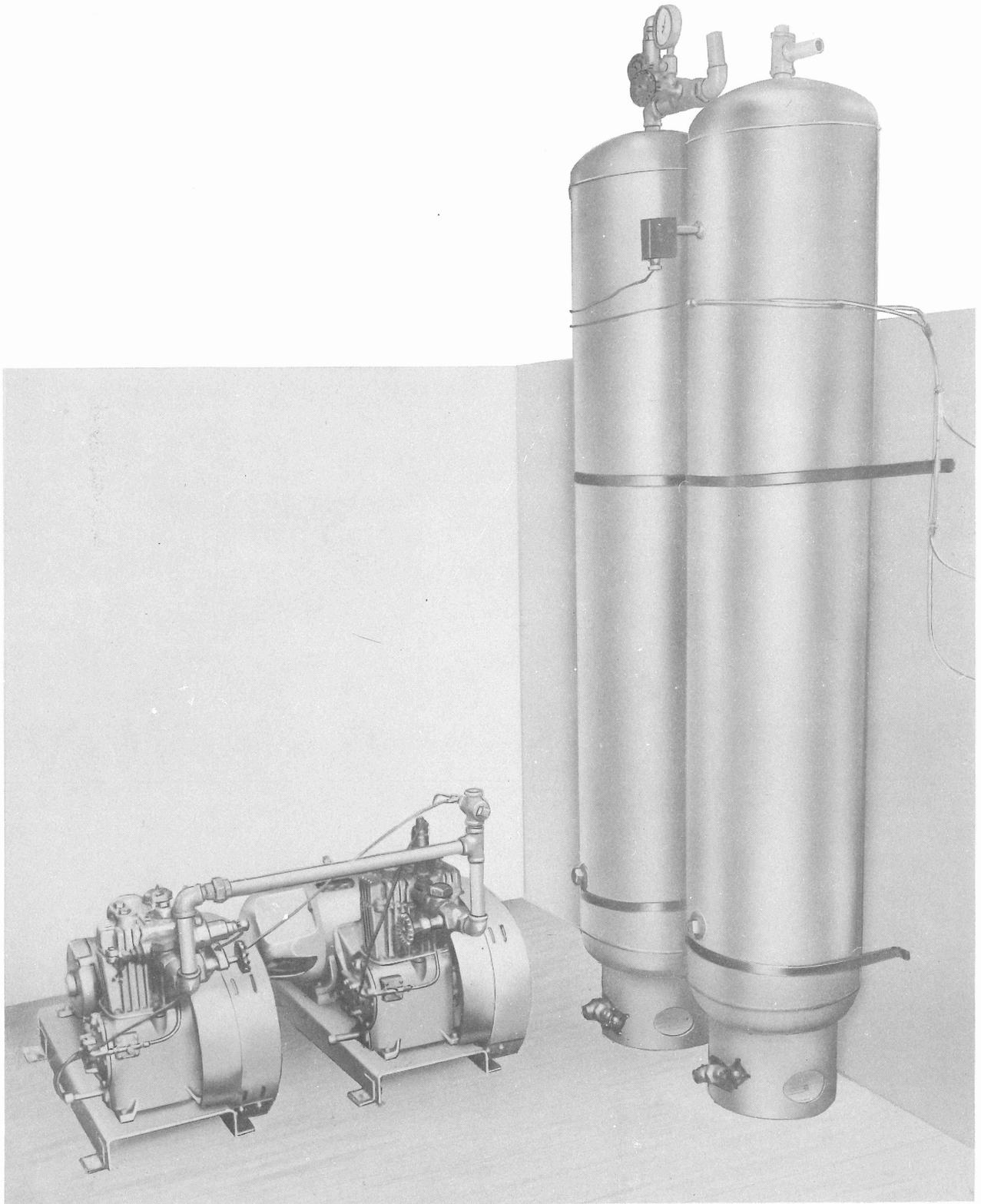


Fig. 15—Typical Main Control Cabinet for KS-15777 and KS-15954 Manual Sets



**Fig. 16—Typical Remote Radiator and Fan for KS-15777 Diesel Engine-Alternator**



**Fig. 17—Typical Air-Starting Equipment for KS-15777 and KS-15954 Diesel Engine-Alternators**

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