

9 January 1962

DYNAMOTOR UNIT PE-100-A

Cog Service:

FSN: 6125-313-3287

Functional Class:

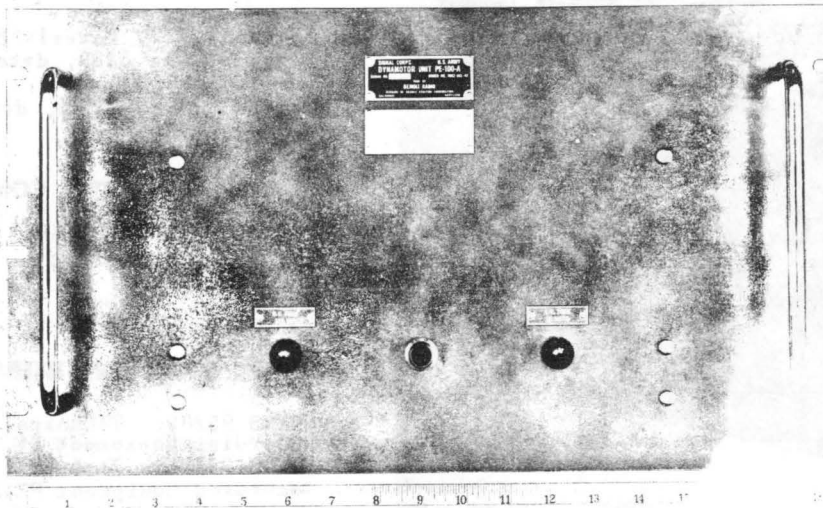
USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Bendix Aviation Corp.



Dynamotor Unit PE-100-A

FUNCTIONAL DESCRIPTION:

Dynamotor Unit PE-100-A is designed to operate in conjunction with Radio Receiver BC-639-A or Frequency Meter BC-638-A.

No field changes in effect at time of preparation (4 April 1961).

TECHNICAL CHARACTERISTICS:

INPUT: 5.5 v dc, 6 amps.

OUTPUT: 235 v dc, 60 ma.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

PE-100-A DYNAMOTOR UNIT

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dynamotor Unit PE-100-A		8-11/16 x 10-15/32 x 19	24

REFERENCE DATA AND LITERATURE:

Preliminary Maintenance Instructions for Dynamotor Unit PE-100-A.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE:
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Bendix Aviation Corp.	Baltimore, Md.		

June 1957

PE-117-C

PLATE SUPPLY UNIT

FUNCTIONAL DESCRIPTION

The PE-117-C is a non-synchronous, vibrator type power supply for converting 6 or 12 v DC to 175 v, 75 v and 6 v DC for the plate, screen and filament voltages of appropriate radio equipment.

The equipment employs a type VB-7 non-synchronous vibrator with an input rating of 7.5 v DC at 3.5 amp, of the plug-in type.

Regulation of voltage output is provided by a type OB3/VR-90 electron tube.

No field changes in effect at time of preparation (20 November 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE: Non-synchronous vibrator.

VOLTAGE OUTPUT: 140, 75 and 6 v DC.

POWER SOURCE REQUIRED: 6 or 12 v DC.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1005

(1) OB3/VR-90

Total Tubes: (2)

REFERENCE DATA AND LITERATURE

SIG 7-PE-117 Organizational Spare Parts for plate Supply Unit PE-117-C.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

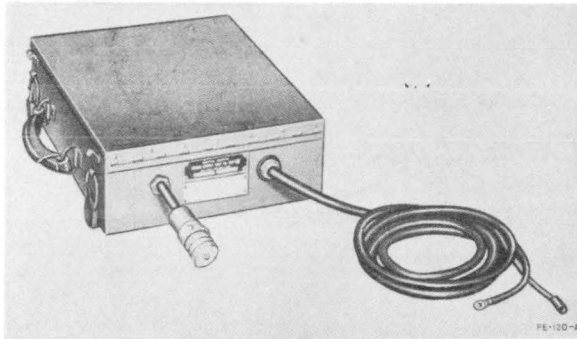
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Plate Supply Unit PE-117-C	4-9/16 x 13-3/16 x 15-9/16	

February 1960

Radio-Auxiliary

PE-120, PE-120-A,
PE-120-B

POWER SUPPLY UNIT



Power Supply Unit PE-120-A

FUNCTIONAL DESCRIPTION

Power Supply Units PE-120, PE-120-A and PE-120-B are nonsynchronous vibrator type power supplies with full-wave rectification used to furnish power for radio communication equipment, such as Radio Set SCR-610-A or -B. The power supply is designed to be connected to a 6, 12, or 24 v storage battery in any type of vehicle.

The power supply unit consists of a chassis assembly mounted in a metal case. A battery cable and a power cable connector assembly are located on the front of the case. Radio Receiver and Transmitter BC-659 may be mounted on top of and secured to the power supply by catch clips.

No field changes in effect at time of preparation (26 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

- (1) 6, 12, or 24 v storage battery.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

INPUT: 6, 12, or 24 v DC.

OUTPUT: 160 v DC.

130 to 160 v DC, 40 ma.

85 to 105 v DC, 40 ma.

80 to 95 v DC, 40 ma.

6.5 to 7.5 v DC, 250 ma.

1.2 to 1.6 v DC, 900 ma.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1005

(1) OB3/VR90

(1) 10T1 (Amperite)

Total Tubes: (3)

No Crystals used.

REFERENCE DATA AND LITERATURE

TM11-615: Technical Manual for Radio Sets
SCR-609-A, B and SCR-610-A, B.

TYPE CLASSIFICATION

DESIGN COGNIZANCE TASSA

PROCUREMENT COGNIZANCE SPEC 71-1563 (SIG)

STOCK NO.

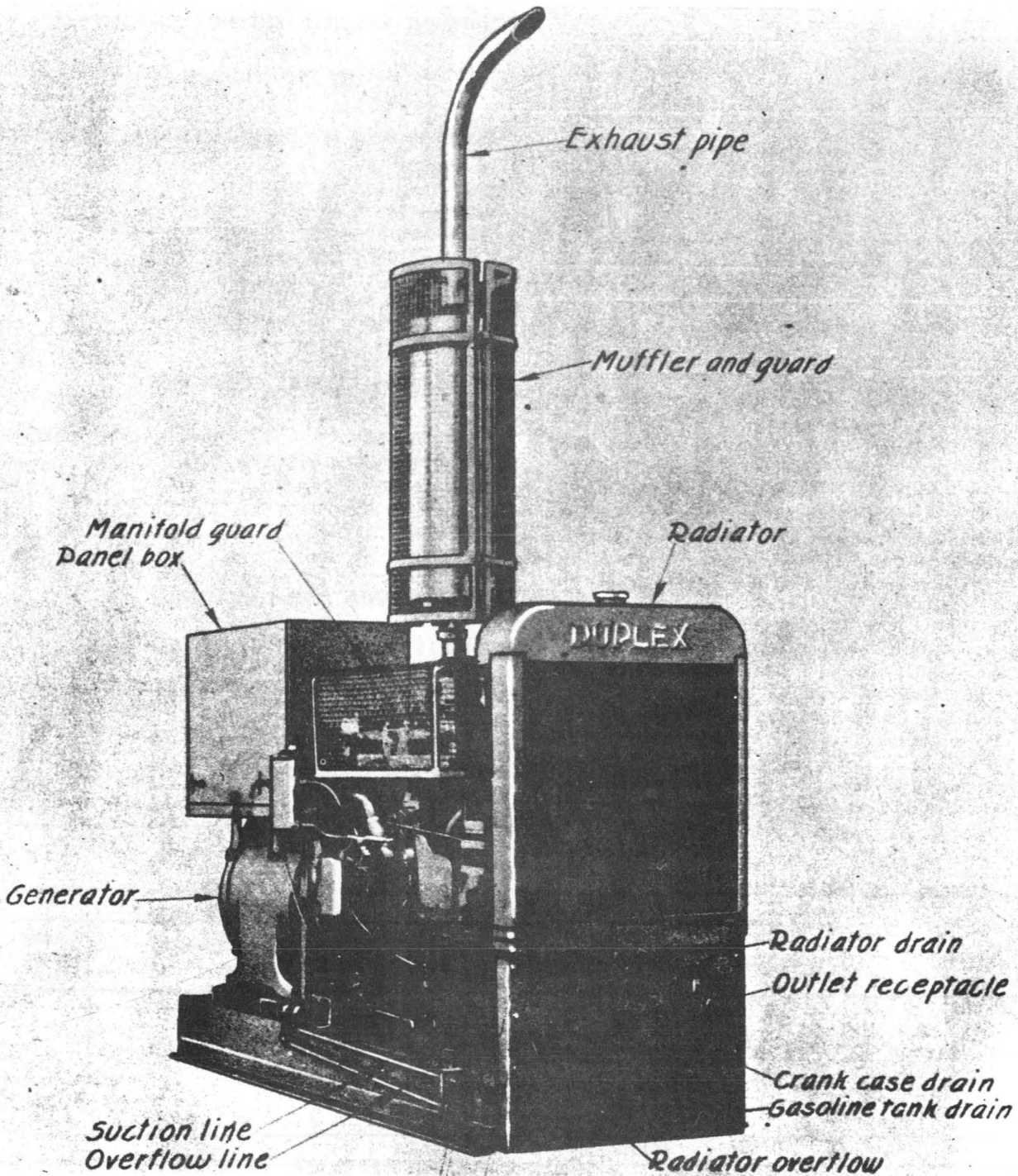
SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Supply Unit PE-120, PE-120-A, PE-120-B			

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Supply Unit PE-120, PE-120-A, PE-120-B	4-1/2 X 11-15/16 X 14-7/8	

POWER EQUIPMENT



Power Equipment PE-127-A

PE-127-A

POWER EQUIPMENT

FUNCTIONAL DESCRIPTION

The PE-127-A is a transportable gasoline-engine-generator utilized to supply alternating current power for the operation of electronic and electrical equipments and devices, in the field where no main power is available or for emergency use, when main power sources have been disrupted.

The unit consists of a 6 cylinder, valve-in-head, 4 cycle, water cooled gasoline engine directly connected by means of a flexible coupling to a 9.357KVA, 7.5 KW, 120V, 60 cps, single phase alternator with direct connected exciter.

The engine features, replaceable wet sleeve cylinder liners, individual porting system fuel induction, thermostatic temperature control, fixed main jet carburation, fuel pressure system with backfire defectors, provision for use of remote gasoline tank, magneto ignition, automatic shutoff for excessive high temperature or low oil pressure and shielded electrical parts.

The alternator can carry momentarily, overloads of 150% and is provided with facilities for either manual or automatic voltage control and circuit breaker overload protection.

The equipment is arranged for mounting in a covered truck and is suitable for operation in air temperatures of -30° to $+120^{\circ}$ F, and weather conditions as found from the tropic to the arctic zones.

No field changes in effect at time of preparation (13 December 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

GASOLINE ENGINE

QUANTITY OF CYLINDERS: 6.
BORE: 3-1/8 in.
STROKE: 4-3/8 in.
DISPLACEMENT: 201.3 cu in.
GOVERNED SPEED: 1200 rpm.
COMPRESSION RATIO: 6.5 to 1.
OIL PAN CAPACITY: 6 qts.
MAX OIL PRESSURE: 25 lb.

GASOLINE TANK CAPACITY: 7.2 gal.
RADIATOR CAPACITY: 23-1/2 qt.
FULL GASOLINE TANK RUNING TIME: Approx 4 hr under normal operating conditions.

BATTERY

TYPE: Secondary cell.
VOLTS: 6v.
CELLS: 3.
QUANTITY OF PLATES: 29 per cell.
SPECIFIC GRAVITY OF ELECTROLYTE: 1.280.
CAPACITY: 238 amp-hr at 20 hr rate.

A.C. GENERATOR

FREQUENCY: 60 cps.
RATED CURRENT: 78.1 amp.
KW: 7-1/2 kw.
PHASE: Single.
POWER FACTOR: 80%.
KVA: 9.4 Kva.
VOLTS: 120 V.
SPEED: 1200 rpm.
INHERENT REGULATION: 28%.
AMBIENT TEMPERATURE: 50° C.
TEMPERATURE RISE: 50° C.
DEGREE OF INCLOSURE: Open.
COOLING: Self-ventilated.
MEANS OF EXCITATION: Direct connected exciter.

MANUFACTURER'S OR CONTRACTOR'S DATA

Duplex Truck Co., Lansing, Mich.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

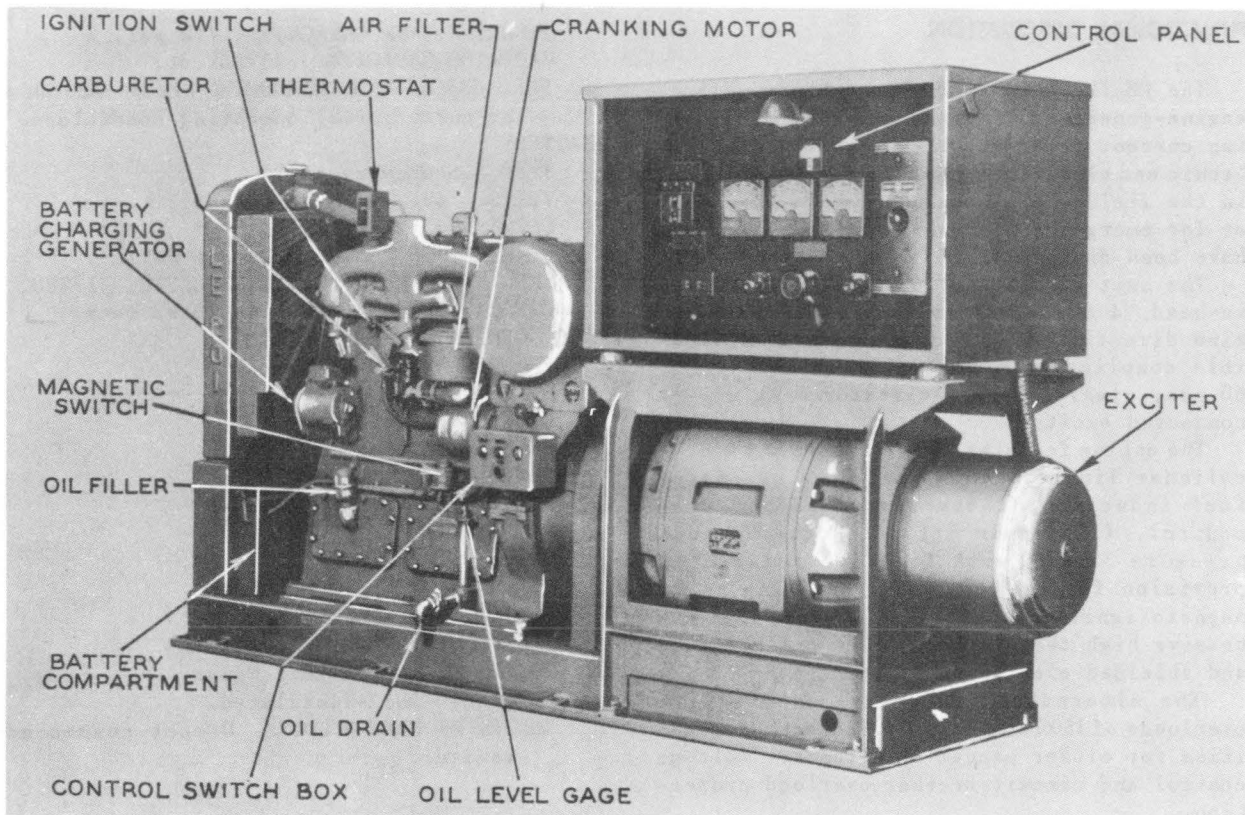
TM11-931: Technical Manual for Power Equipment PE-127-A.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	TASSA
PROCUREMENT COGNIZANCE	
STOCK NO.	

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Equipment PE-127-A	26 X 45 X 76-1/4	2065

POWER UNIT



Power Unit PE-137-A

FUNCTIONAL DESCRIPTION

The PE-137-A is an electric generating set consisting of a 4 cylinder, 4 cycle valve in head, liquid cooled, electric starting gasoline engine directly connected to an AC generator with a direct connected electric exciter.

The engine is rated 54 horsepower at 900 revolutions per minute, and consumes approximately 4 gallons of fuel per hour at rated load.

The generator is rated at 25 KW, 120 to 208 volts, 150 to 87 amperes at 80% power factor.

This unit was designed to furnish power for the operation of Radio Sets SCR-527, SCR-615 and SCR-627.

No field changes in effect at time of preparation (14 December 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE CHARACTERISTICS**

HORSEPOWER: 54.

SPEED: 900 rpm.

QUANTITY OF CYLINDERS: 4.

BORE: 5 in.

STROKE: 6 in.

COMPRESSION RATIO: 6 to 1.

CYCLE: 4.

METHOD OF COOLING: Water cooled

COOLING SYSTEM CAPACITY: 36 qt.

FUEL USED: Gasoline.

FUEL TANK CAPACITY: 15 gal or remote supply.

FUEL CONSUMPTION: 4 gal per hr at rated load.

LUBRICATION SYSTEM: Forced feed.

CRANKCASE OIL CAPACITY: 28 qt.

STARTING: Electric, 12 v.

GOVERNOR: Hydraulic type.

IGNITION: Magneto.

NOISE SUPPRESSION: Shielded.

GENERATOR CHARACTERISTICS

TYPE: AC, exciter direct-connected.

RATING: 25 KW, 120 to 208 v, 150 to 87 amps.

POWER FACTOR: 80%.

Radio-Auxiliary
PE-137-A

POWER UNIT

FREQUENCY: 60 cps.
PHASE: 3.
WIRES: 4.
SPEED: 900 rpm.
DRIVE: Direct.

REFERENCE DATA AND LITERATURE

TM11-921: Technical Manual for Power Unit
PE-137-A.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

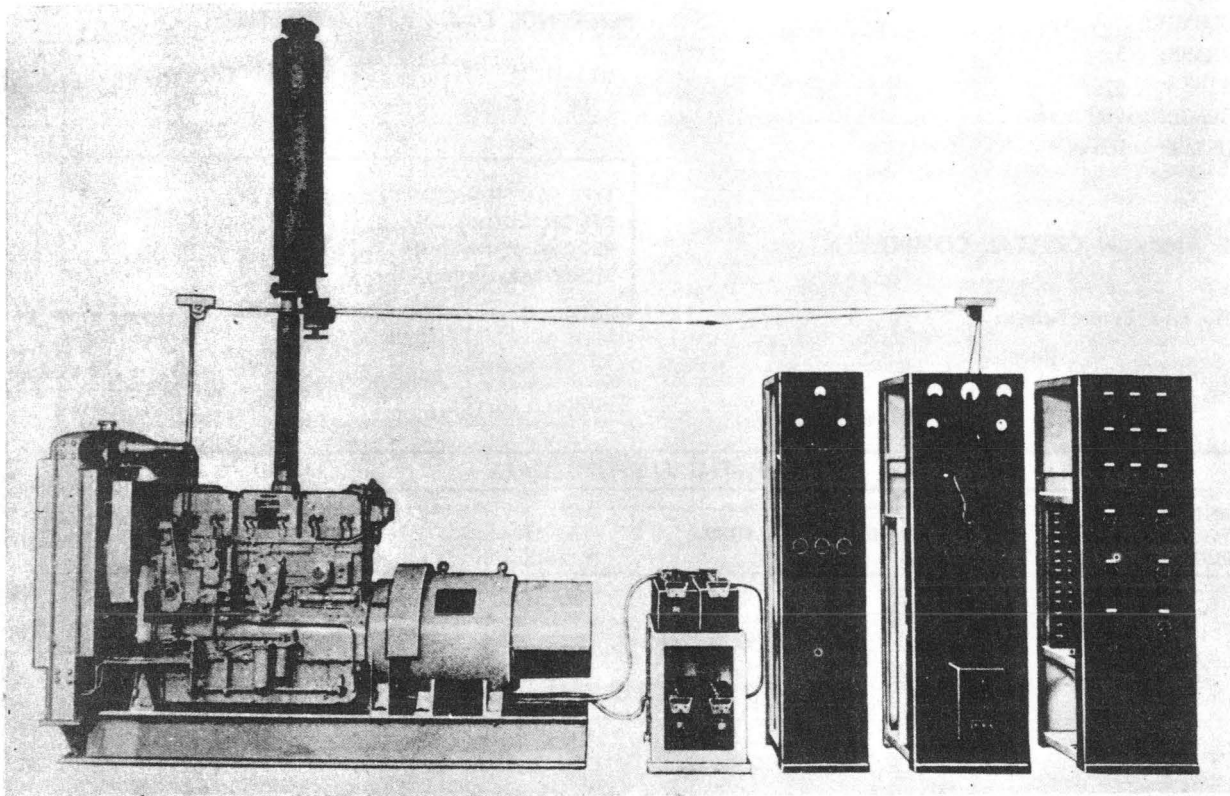
TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-137-A	32-1/2 x 63-1/4 x 112-15/16	4665

POWER UNIT

Radio-Auxiliary
PE-142-D



Power Unit PE-142-D

FUNCTIONAL DESCRIPTION

The PE-142-D is a complete, self-contained, internal-combustion-engine driven, electrical-generating equipment.

No field changes in effect at time of preparation (29 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: Diesel, direct injection.
CYLINDERS: 6.
BORE: 4-7/8 in.
STROKE: 6 in.
DISPLACEMENT: 672 cu in.
COMPRESSION RATIO: 17 to 1.
HORSEPOWER: 90 at 1200 rpm.

ALTERNATOR

KVA: 62.5.
KILOWATT: 50.
CYCLE: 60.
PHASE: 3.
VOLTAGE: 240 v.
POWER FACTOR: 80%.
AMPERE: 150.5.
POLES: 6.

SPEED: 120 rpm.

EXCITER

KILOWATT: 1.5.
VOLTAGE: 125 v.
CURRENT: 12 amp.
POLES: 2.
TYPE: Shunt winding.
SPEED: 1200 rpm.

BATTERY: Four 8 v.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-942D: Technical Manual for Power Unit PE-142-D.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

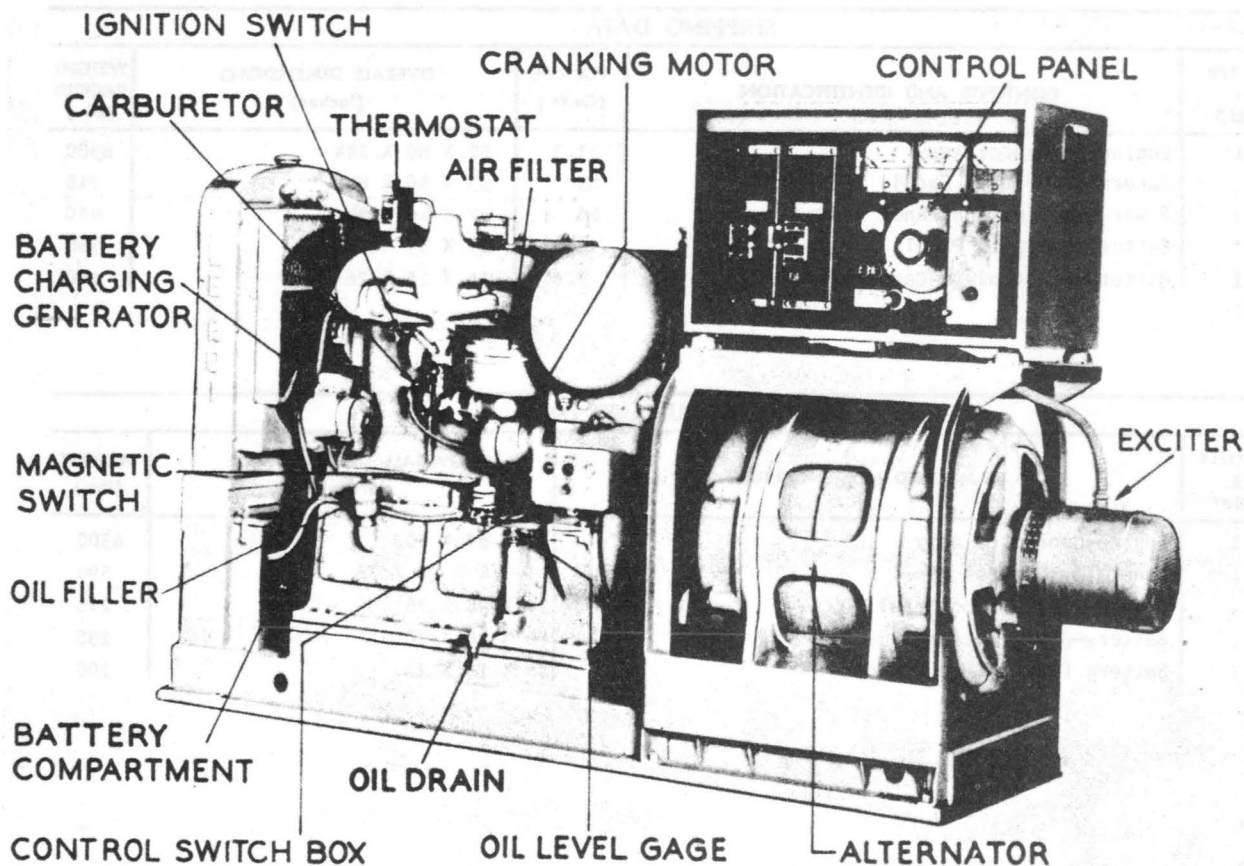
SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Engine-Generator Assy	333.3	50 X 80 X 144	8300
1	Generator Control Panel	53	33 X 36 X 84	715
1	Power Distribution Panel	56	32 X 36 X 84	460
1	Battery-Charging Panel	33.2	21 X 33 X 83	360
1	Battery Electrolyte Carboys	3.6	15 X 16 X 26	100

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Engine-Generator Assy	41 X 67 X 108	6300
1	Generator Control Panel	23-3/4 X 24 X 76	590
1	Power Distribution Panel	24 X 24 X 76	275
1	Battery-Charging Panel	18 X 24 X 78	235
1	Battery Electrolyte Carboys	15 X 16 X 26	100

POWER UNIT



Power Unit PE-145-A

FUNCTIONAL DESCRIPTION

The PE-145-A is a portable, self-contained gasoline-electric power plant, consisting of a four-cylinder gasoline engine, directly connected through a full metallic coupling to an AC generator.

No field changes in effect at time of preparation (29 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

CYLINDERS: 4.

BATTERY: 12 v.

GENERATOR

TYPE: revolving field.

RATING: 25 kva at 80% pf.

WIRE: 2.

VOLTAGE: 120 v.

CYCLE: 60 cps.

PHASE: single.

SPEED: 900 rpm.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co.

Contract 2124-SC-281.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

Radio-Auxiliary

PE-145-A

POWER UNIT

REFERENCE DATA AND LITERATURE

TM11-929: Technical Manual for Power Unit
PE-145-A.

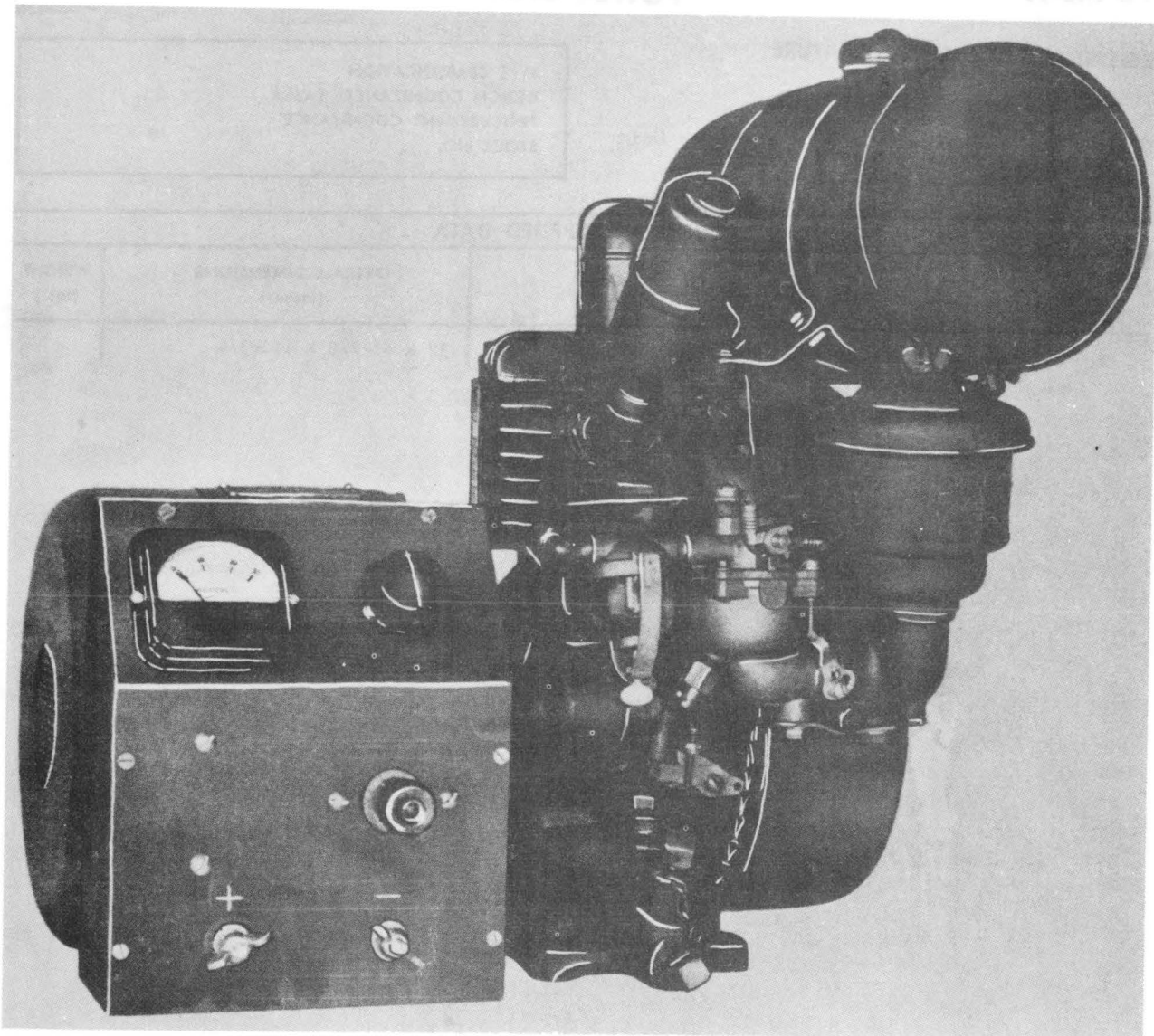
TYPE CLASSIFICATION DESIGN COGNIZANCE TASSA PROCUREMENT COGNIZANCE STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-145-A	32 x 63-7/8 x 111-3/4	

POWER UNIT

PE-167



Power Unit PE-167

FUNCTIONAL DESCRIPTION

The PE-167 is designed to supply either 350 W direct current for charging 12 volt batteries or 175 watts direct current for charging 6 volt batteries. This plant furnishes current for lighting, radio, etc., by charging a suitable storage battery, from which power may be drawn as needed. It is not advisable to connect 12 volt lamps

or equipment directly to the generating unit since it is not designed for such application.

Each unit consists of a gasoline engine with generator directly attached. All external connections to the unit are made to the control box attached to the generator frame.

No field changes in effect at time of preparation (20 November 1956).

PE-167**POWER UNIT****ELECTRICAL AND MECHANICAL CHARACTERISTICS****TUBE AND/OR CRYSTAL COMPLEMENT****ENGINE**

TYPE: L-head, 4 cycle.
 CYLINDERS: 1.
 COOLING: Air cooled.
 BORE: 2 in.
 STROKE: 2 in.
 PISTON DISPLACEMENT: 6.28 cu in.
 HORSEPOWER: 1.40 hp.
 SPEED: 2350 rpm.
 FUEL TANK CAPACITY: 1 gal.

No Electron Tubes.

REFERENCE DATA AND LITERATURE

Technical Manual for Power Unit PE-167

GENERATOR

OUTPUT RATING: .350 kw or .175 kw.
 SPEED: 2350 rpm.
 TEMPERATURE RISE: 50°C.

MANUFACTURER'S OR CONTRACTOR'S DATA

Atlas Aircraft Products Corp, New York,
 N.Y.
 Order No. 9041-PHILA 44.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

SHIPPING DATA

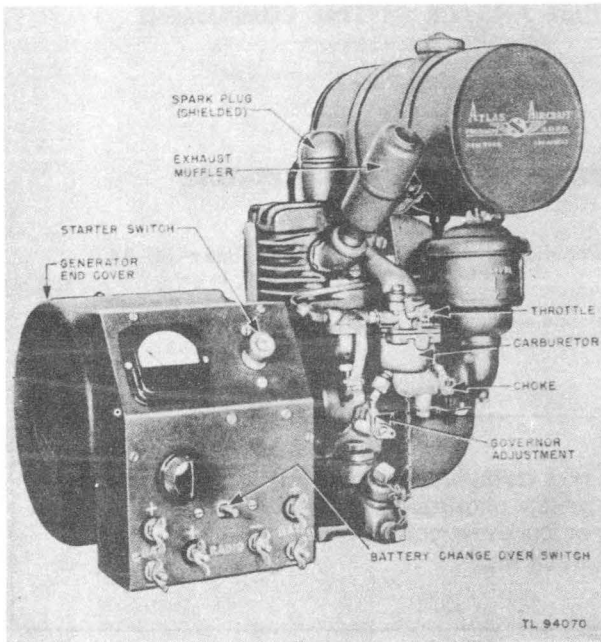
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-167			84

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-167-C		75

POWER UNIT

PE-167-A



Power Unit PE-167-A

FUNCTIONAL DESCRIPTION

The PE-167-A is a complete, self-contained, gasoline-engine-driven, electrical-generating set for charging 12 v storage batteries. It consist of a single-cylinder, air-cooled, 4-cycle, gasoline engine, a 15 v, 350 w, DC generator and a control box.

No field changes in effect at time of preparation (19 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

RATED: 1.4 hp at 2350 rpm.

CYLINDERS: 1.
BORE: 2 in.
STROKE: 2 in.
COMPRESSION RATIO: 5 to 1.
PISTON DISPLACEMENT: 6.28 cu. in.
CYCLE: 4.
HEAD: L.
SPEED: 2350 rpm.
COOLING: Air.
FUEL USED: Gasoline.
STARTING: Manual (rope) or electrical (battery).

GENERATOR

TYPE: DC.
RATING: 0.35 kw, 12 v, 28 amp.
WIRES: 2.
SPEED: 2350 rpm.
DRIVE: Direct.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM 11-946: Technical Manual for Power Unit PE-167-A.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-167-A	3.6		108

October 1957

Radio-Auxiliary

PE-167-A

POWER UNIT

EQUIPMENT SUPPLIED DATA

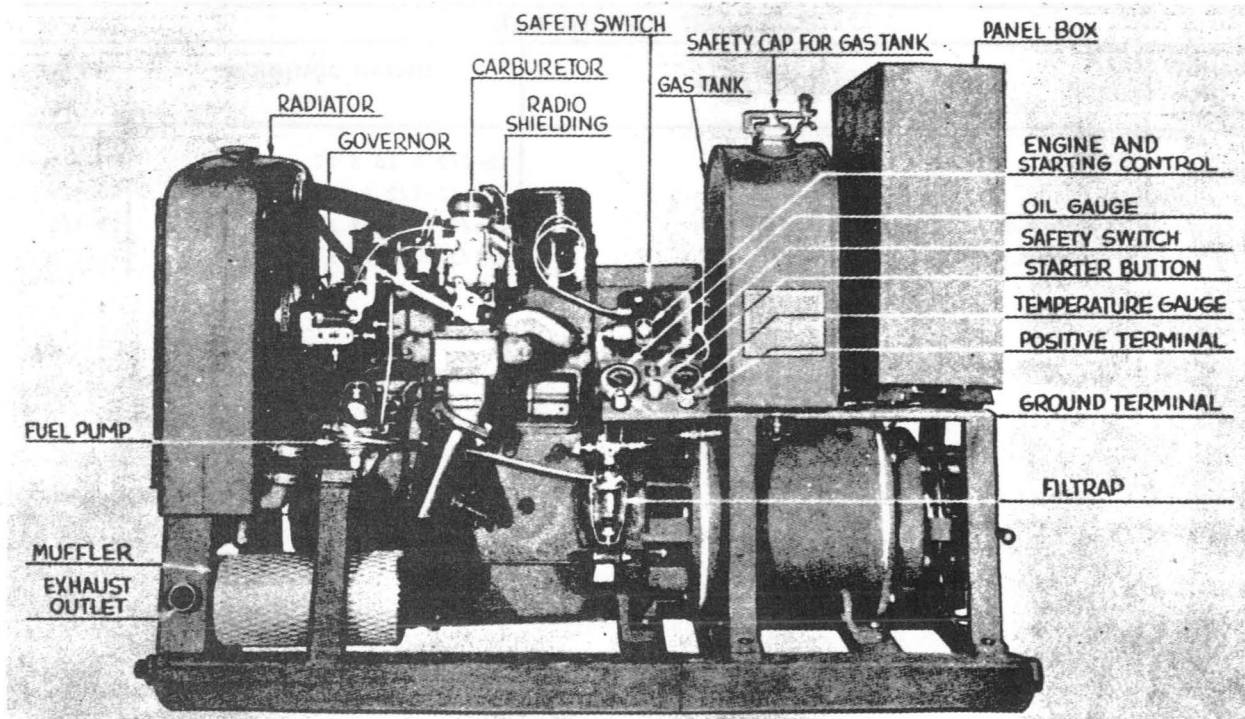
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-167-A consist of: Engine Generator Control Box	12-1/2 X 16 X 17 9 X 12-1/2 X 17 6-5/8 X 7-1/2 X 7-1/2 2-1/2 X 6-1/4 X 8	79-1/4 46-3/4 29-1/2 2

October 1957

Radio-Auxiliary

PE-182

POWER UNIT



Power Unit PE-182

FUNCTIONAL DESCRIPTION

The PE-182 is a self-contained power plant. The entire assembly is mounted on a welded steel skid base. The equipment is a 9.4 kva, 0.8 power factor, 7.5 kw, 120/208 v, three ph, 26 - amp unit. It consists of a gasoline engine and miscellaneous engine auxiliaries directly connected to an alternator with built-in exciter.

No field changes in effect at time of preparation (19 March 1957).

RATING: 9.4 kva, 120/208, 26, amp, 7.5 kw.

POWER FACTOR: 0.8.

SPEED: 1800 rpm.

CYCLE: 60.

PHASE: 3.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

CYLINDERS: 4.

CYCLE: 4.

HEAD: L.

BORE: 3-1/8 in.

STROKE: 4-3/8 in.

PISTON DISPLACEMENT: 134.2 cu. in.

COMPRESSION RATIO: 6.48 to 1.

HORSEPOWER, BRAKE: 60 at 3600 rpm.

TORQUE: 105 lbs/ft at 2000 rpm.

GENERATOR

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

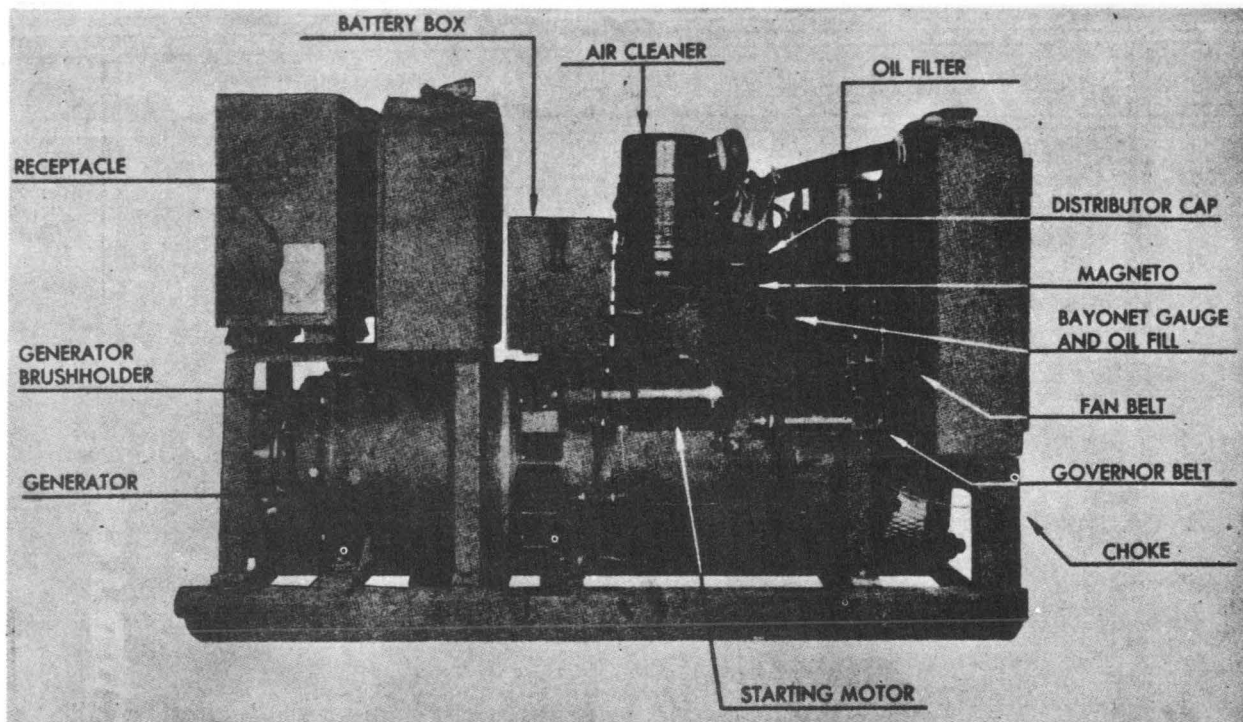
TM11-939: Technical Manual for Power Unit PE-182.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-182 consists of: Engine Assy Generator Assy Radiator Control Cabinet Assy Fuel Tank Skid Base and Welded Mounts	24 X 40-1/2 X 59 22-1/2 X 30-1/2 X 31 14-1/2 X 14-1/2 X 28 9 X 20 X 24 9-3/4 X 20-1/2 X 21-3/4 8-1/2 X 20 X 20-1/4 2 X 13-3/4 X 59	1035 546 281 35 53 18 102

POWER UNIT



Power Unit PE-183-A

FUNCTIONAL DESCRIPTION

The PE-183-A is a self-contained, air transportable, electric generating set consisting of a 4-cylinder, 4-cycle, L-head, liquid-cooled, electric-starting gasoline engine directly connected to an AC generator, of the revolving-field type with integral excitation, and a control panel. The entire assembly is mounted on welded-steel skid base.

Twenty feet of flexible fuel line is provided, together with a 1/2 in. round, plated steel pipe of sufficient length to reach the bottom of a 50 gal. drum.

No field changes in effect at time of preparation (19 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

- RATED: 35 hp at 1800 rpm.
- CYLINDERS: 4.
- BORE: 3-1/8 in.
- STROKE: 4-3/8 in.
- COMPRESSION RATIO: 6.5 to 1.
- CYCLE: 4.
- HEAD: L.
- SPEED: 1800 rpm.
- COOLING SYSTEM CAPACITY: 20 qt.
- FUEL USED: Gasoline.

- STARTING: Electric, 6 v.
- GOVERNOR: Flyball.
- IGNITION: Magneto.

GENERATOR

- TYPE: AC, revolving field, exciter built-in.
- RATING: 5 ke (5000W), 120 v, 52.5 amp.
- POWER FACTOR: 0.8.
- CYCLE: 60.
- PHASE: 1.
- WIRE: 2.
- SPEED: 1800 rpm.
- DRIVE: Direct.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

- TM11-937: Technical Manual for Power Unit PE-183-A.

TYPE CLASSIFICATION DESIGN COGNIZANCE TASSA PROCUREMENT COGNIZANCE STOCK NO.

Radio-Auxiliary

October 1957

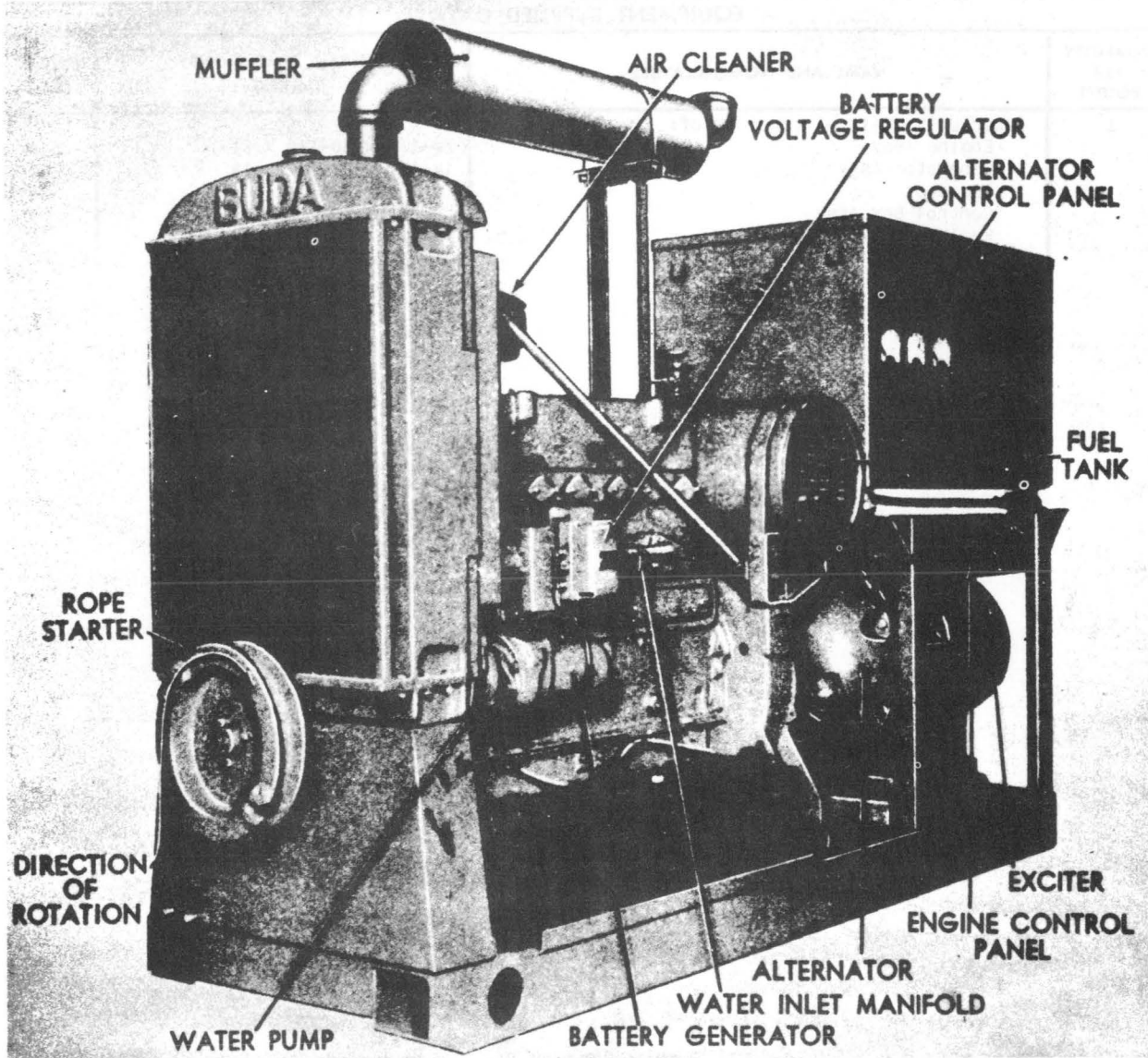
PE-183-A

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-183-A consists of:	24 x 40-1/2 x 59	1035
	Engine Assy	22-1/2 x 30-1/2 x 31	546
	Generator Assy	14-1/2 x 14-1/2 x 28	281
	Radiator	9 x 20 x 24	35
	Control Box Assy	9-3/4 x 20-1/2 x 21-3/4	53
	Fuel Tank	8-1/2 x 20 x 20-1/4	18
	Skid Base and Welded Mounts	13-3/4 x 24 x 59	102

POWER UNIT



Power Unit PE-185-B

FUNCTIONAL DESCRIPTION

The PE-185-B is intended to supply power for the operation of electrical equipment.

The unit consists of a Diesel engine and a generator to which the Diesel engine is directly connected. The unit is shipped complete with tools, spare parts, muffler, fire extinguisher, fuel can, oil can, battery electrolyte, and technical manuals.

No field changes in effect at time of preparation (28 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: Vertical in-line, 4 cycle, airless injection.

CYLINDERS: 6.

October 1957

Radio-Auxiliary

PE-185-B**POWER UNIT**

BORE: 4-1/4 in.
 STROKE: 5-1/2 in.
 PISTON DISPLACEMENT: 468.3 cu. in.
 SPEED: 1200 rpm.
 HORSEPOWER: 60.
 BATTERY: 12 v.

GENERATOR

KILOWATTS: 25 kw at 0.8 pf.
 KVA: 31.1.
 VOLTAGE: 208/120 v.
 CURRENT: 87 amp.
 SPEED: 1200 rpm.
 PHASE: 3.
 CYCLE: 60 cps.
 EXCITATION VOLTAGE: 125 v.
 EXCITATION CURRENT: 5.7 amp.

EXCITER

KILOWATTS: 1 kw.
 VOLTAGE: 125
 CURRENT: 8 amp.
 SPEED: 1200 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

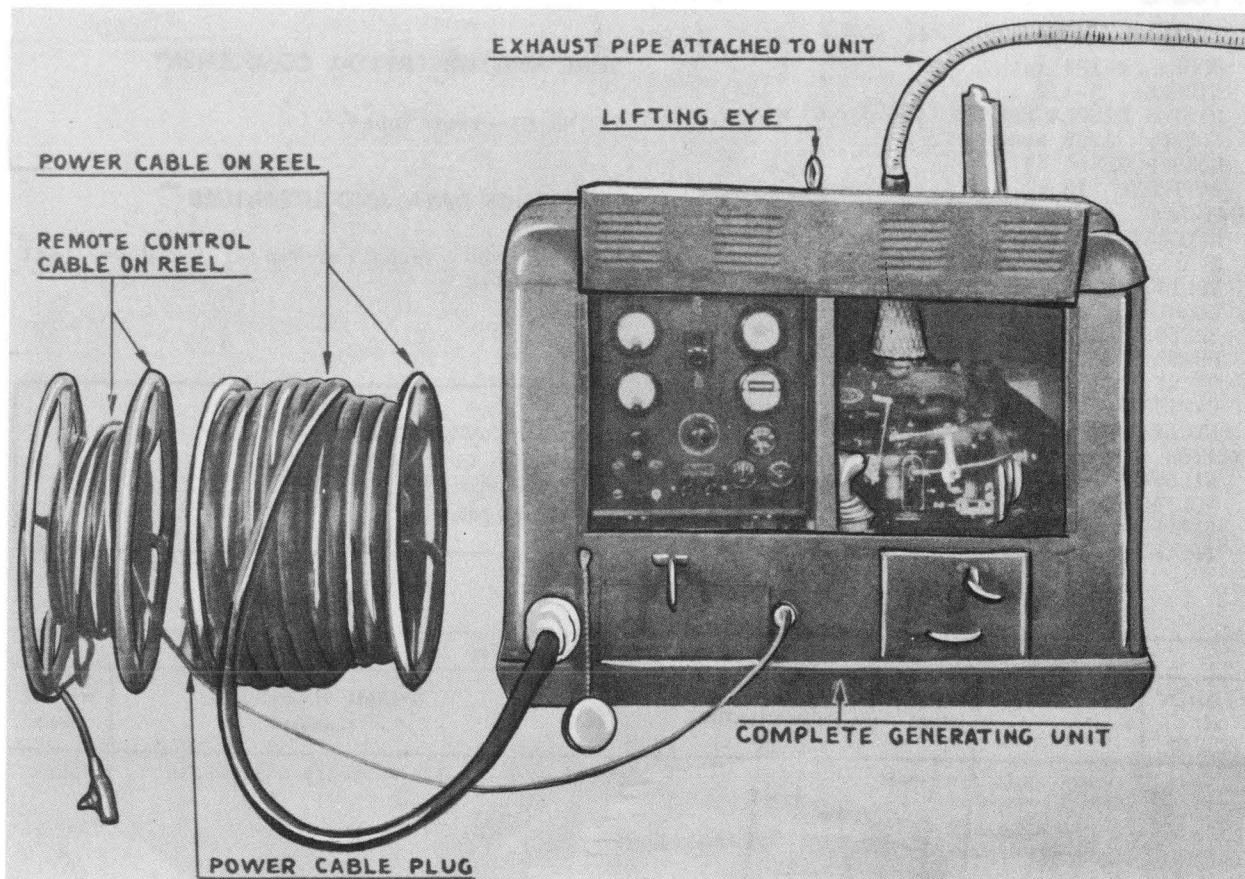
TM11-925-B: Technical Manual for Power Unit
 PE-185-B.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUSHIPS PROCUREMENT COGNIZANCE STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-185-B	34-3/4 x 76-3/4 x 119-5/16	5100

POWER UNIT



Power Unit PE-197

FUNCTIONAL DESCRIPTION

The PE-197 is a self contained power plant consisting of a gasoline engine, a power generator and a control panel. The entire assembly is mounted on a welded steel skid base and enclosed in a sheet metal housing.

A 5-gallon fuel tank mounted within the housing above the main generator, is provided with a fuel gauge and a hinged filler cap.

A 150-foot power cable and a 150-foot remote-control cable are mounted on separate reels. The power cable is provided with plugs on both ends while the remote-control cable has a plug on one end and an ON-OFF remote-control switch at the other. A flexible exhaust tube is also provided to carry the exhaust away from the unit.

The unit delivers single phase, 120 volt, 60 cycle AC power at 1800 rpm. It is rated for continuous duty at 6.3 KVA at 80% power factor. An overload of 25% may be permitted for as long as a 2-hour period.

No field changes in effect at time of preparation (19 November 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: Vertical L-head.
 CYLINDERS: 4.
 CYCLES: 4.
 COOLING: Liquid cooled.
 BORE: 2-5/8 in.
 STROKE: 3 in.
 PISTON DISPLACEMENT: 64.9 cu. in.
 HORSEPOWER: 14 hp.
 SPEED: 1800 rpm.
 SPEED CONTROL: Mechanical governor.

GENERATOR

TYPE: Revolving field.
 OUTPUT: 120 v, 60 cps single ph.
 SPEED: 1800 rpm.
 RATING: 6.3 KVA
 POWER FACTOR: 80%.
 FULL LOAD CURRENT: 52.5 amp.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

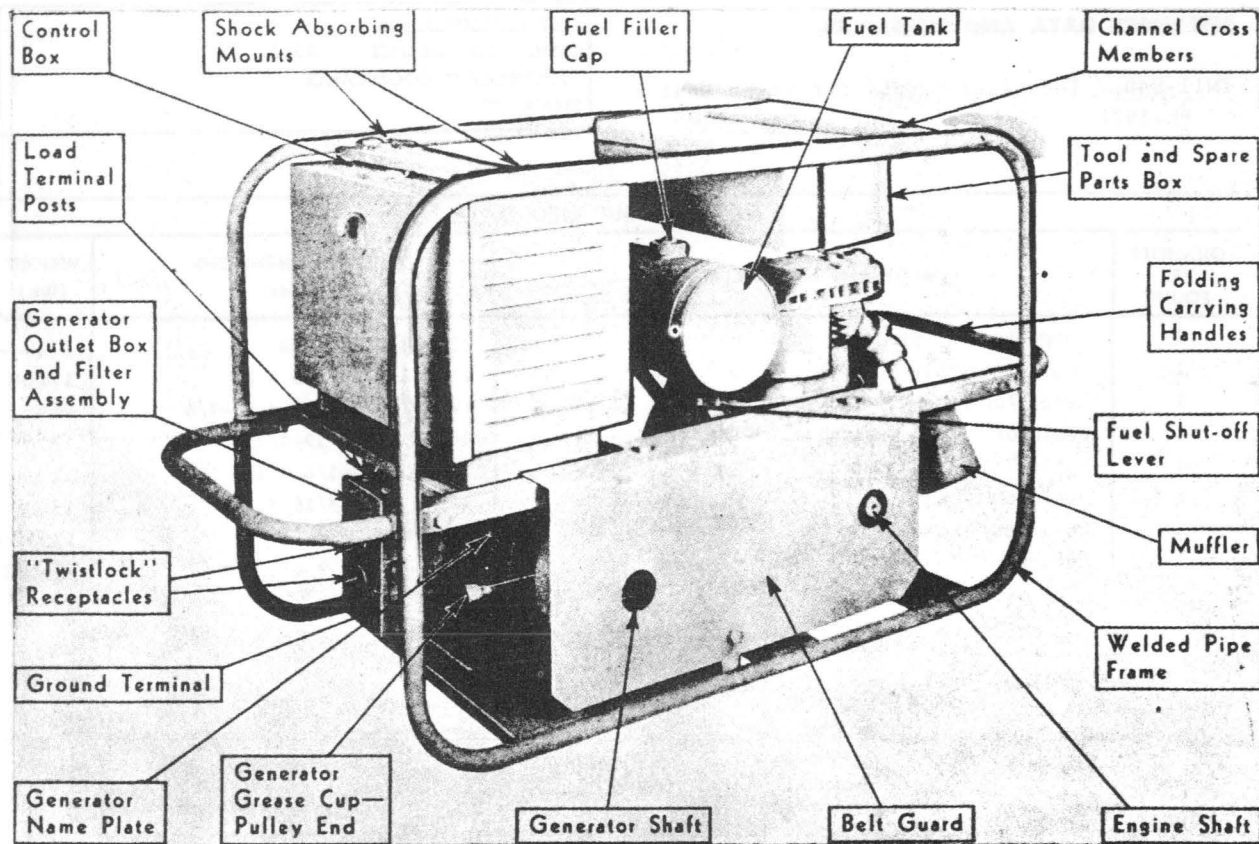
TM11-940: Technical Manual for Power Unit
PE-197.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Complete Unit PE-197	22-1/4 X 30 X 44	770
1	Engine Assembly	17-1/2 X 18-7/8 X 22	171
1	Generator Assembly	14-1/2 X 14-1/2 X 13-7/8	211
1	Radiator	8-3/4 X 9 X 19-1/2	17
1	Control Cabinet Assembly	5-3/8 X 14-1/4 X 18	32
1	Fuel Tank	9-1/2 X 10-3/16 X 14	13
1	Skid Base and housing	22-1/4 X 30 X 44	135
1	Battery	7 X 8-5/8 X 9	37-1/2

October 1957

POWER UNITRadio-Auxiliary
PE-201-A*Power Unit PE-201-A***FUNCTIONAL DESCRIPTION**

The PE-201-A is a portable, self-contained, electric generating set consisting of a 1 - cylinder, 4 - cycle, L - head, air cooled, gasoline engine with an AC, DC generator of the revolving-field, dual-winding, belt-driven type.

It is used to furnish power for the operation of Telephone Terminal Set TC-21, Telephone Terminal CF-1, and Telegraph Terminal CF-2.

No field changes in effect at time of preparation (19 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

RATED: 2.75 hp at 2400 rpm.
CYLINDERS: 1.

BORE: 2-5/8 in.
STROKE: 2-5/8 in.
COMPRESSION RATIO: 4.5 to 1.
CYCLE: 4.
HEAD: L.
SPEED: 2400 rpm.
FUEL USED: Gasoline.
STARTING: Manual (rope).
GOVERNOR: Flyball.
IGNITION: Flywheel magneto.

GENERATOR

TYPE: AC, DC, revolving field.

RATING

AC: 1 kw, 115 v 8.3 amp.
DC: 0.3 kw, 14.6 v, 20 amp.

POWER FACTOR: 100%.

CYCLE: 60.
PHASE: Single.
WIRES: 2.
SPEED: 1800 rpm.

October 1957

Radio-Auxiliary
PE-201-A

POWER UNIT**TUBE AND/OR CRYSTAL COMPLEMENT**

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM 11-914: Technical Manual for Power Unit
 PE-201-A.

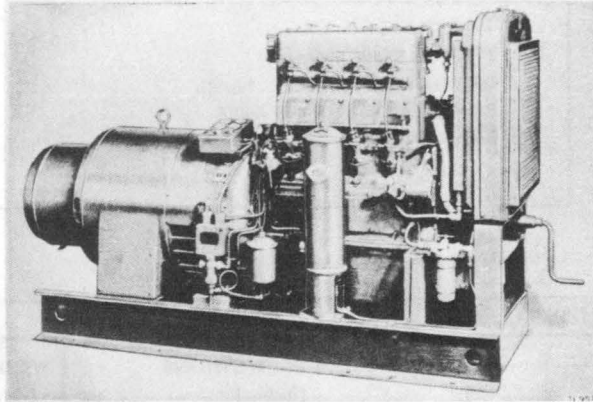
TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-201-A	19 X 24 X 36	300

POWER UNIT

PE-205-A



Power Unit PE-205-A

FUNCTIONAL DESCRIPTION

Power Unit PE-205-A is a diesel-engine-driven electric power plant designed to generate AC for the operation of equipment requiring an input within the rating of the unit.

No field changes in effect at time of preparation (25 June 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

- MAKE: Hill Diesel Engine Co.
- MODEL: 4R.
- TYPE: 4-stroke-cycle.
- TYPE CYLINDER HEAD: Valve-in-head.
- NUMBER OF CYLINDERS: 4.
- SPEED: 1,200 rpm.
- HORSEPOWER: 34.
- IGNITION: Bosh-pump, fuel.
- STARTING SYSTEM: Gasoline starting engine.
- STARTING BATTERY: 24 volts.

- FUEL: Diesel fuel oil.
- FUEL TANK: External.
- GAS TANK CAPACITY: 1 gallon.
- TYPE LUBRICATION: Full-pressure system.
- CRANKCASE CAPACITY: 30 quarts.
- TYPE COOLING: Water.
- AIR CLEANER: Oil-bath type.

AC GENERATOR

- ALTERNATOR
- MAKE: General Electric.
- MODEL: 12G342.
- TYPE: Amortisseur.
- POWER OUTPUT: 120/240 v AC, 78 amp.
- FREQUENCY: 60 cycle.
- RATING: 15 kw (18.75 kva).
- POWER FACTOR 80%.
- SPEED: 1,200 rpm.
- PHASE: Single.
- TYPE OF OPERATION: Parallel.
- EXCITER
- MAKE: General Electric.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

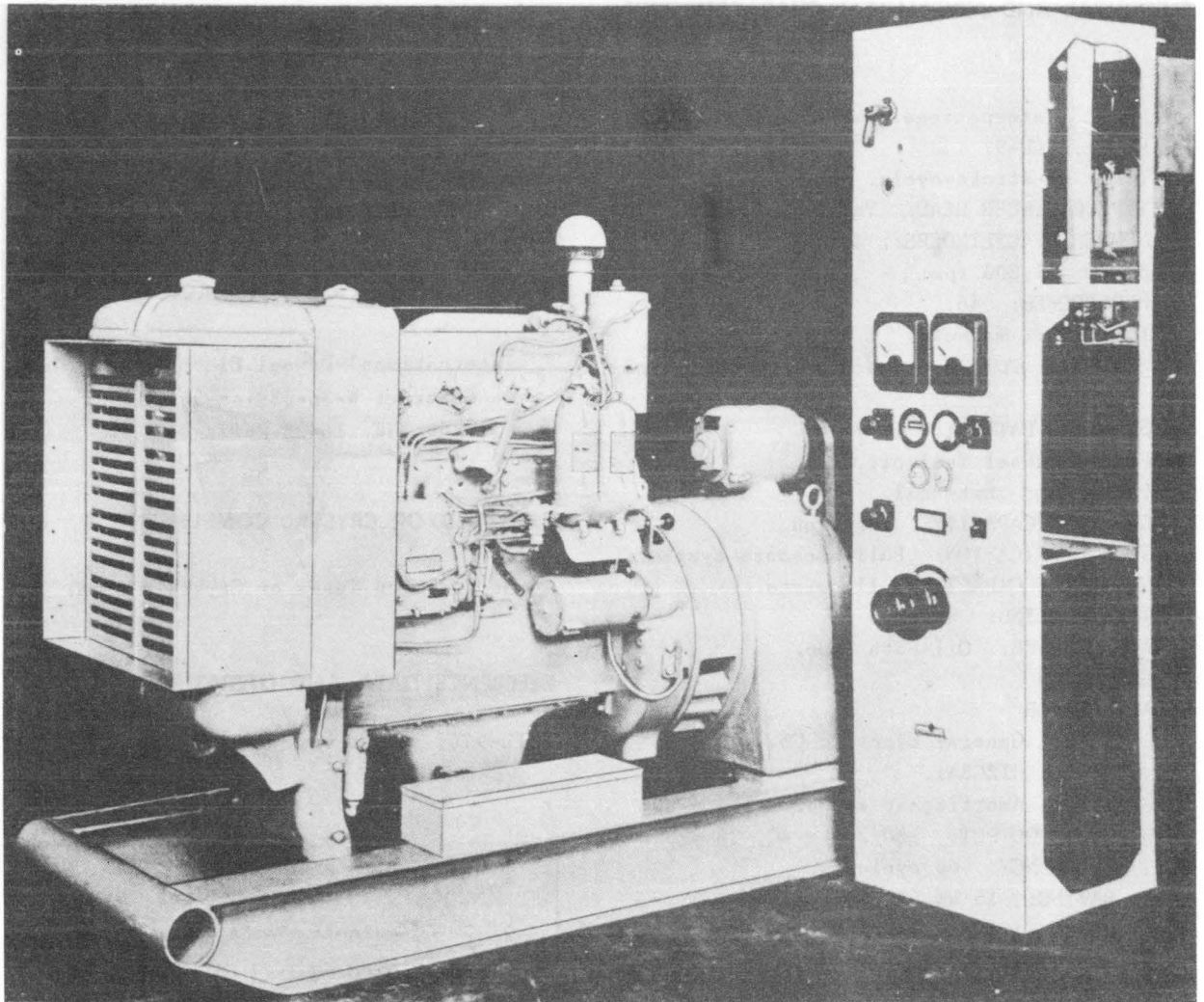
TM-11-223: Technical Manual for Sig POWER UNIT.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-205-A	30 X 61 X 90	3,876

POWER UNIT



Power Unit PE-205-B

FUNCTIONAL DESCRIPTION

Power Unit PE-205-B is a diesel-engine-driven electric power plant designed to generate AC for the operation of equipment requiring an input within the rating of the unit.

The power unit consists of a gasoline-starting Diesel engine, an AC generator, and a free-standing switchboard for generator control. Except for the switchboard, the complete unit is mounted on a welded steel base.

The gasoline and ignition system is used only for starting the unit. It may be start-

ed either by an electrical cranking system or manually by a handcrank.

The switchboard is electrically connected to the alternator by multiple conductor cables. It contains all of the controls and instruments necessary for controlling the electrical output of the power unit.

No field changes in effect at time of preparation (25 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(2) 6 volt batteries.

February 1960

Radio-Auxiliary

PE-205-B**POWER UNIT****ELECTRICAL AND MECHANICAL CHARACTERISTICS****ENGINE**

MAKE: International Harvester Co.
 MODEL: UD-9.
 TYPE: 4-stroke-cycle.
 TYPE CYLINDER HEAD: Valve-in-head.
 NUMBER OF CYLINDERS: 4.
 SPEED: 1,200 rpm.
 HORSEPOWER: 46.
 IGNITION: Magneto.
 STARTING SYSTEM: Gasoline starting engine.
 STARTING BATTERY: 12 volts.
 FUEL: Diesel fuel oil.
 FUEL TANK: External.
 GAS TANK CAPACITY: 1 gallon.
 TYPE LUBRICATION: Full-pressure system.
 CRANKCASE CAPACITY: 11 quarts.
 TYPE COOLING: Water.
 AIR CLEANER: Oil-bath type.

AC GENERATOR**ALTERNATOR**

MAKE: General Electric Co.
 MODEL: 12G341.
 TYPE: Amortisseur wound.
 POWER OUTPUT: 120/240 v AC, 78 amp.
 FREQUENCY: 60 cycle.
 RATING: 15 kw (18.75 kva).
 POWER FACTOR: 80%.
 SPEED: 1,200 rpm.
 PHASE: Single.
 TYPE OF OPERATION: Parallel.

EXCITER

MAKE: General Electric Co.
 MODEL: No. 5BC78DE2A.
 TYPE: Shunt wound.
 POWER OUTPUT: 64 v DC, 23.4 amp.
 RATING: 1.5 kw.
 SPEED: 2,000 rpm.
 TYPE OF DRIVE: Belt.

MANUFACTURER'S OR CONTRACTOR'S DATA

International Diesel Electric Co., Inc.
 Contract W-36-039-sc-5599.
 Order No. 16428-Phila-44.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-970: Technical Manual for POWER UNIT
 PE-205-B.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Engine-Generator Assy			
1	Switchboard			
1	Spare Parts			
1	Exhaust and Installation Material			
1	Exhaust Material			
1	Tools			
1	Battery Acid			

UNCLASSIFIED

February 1960

Radio-Auxiliary

PE-205-B

POWER UNIT

EQUIPMENT SUPPLIED DATA

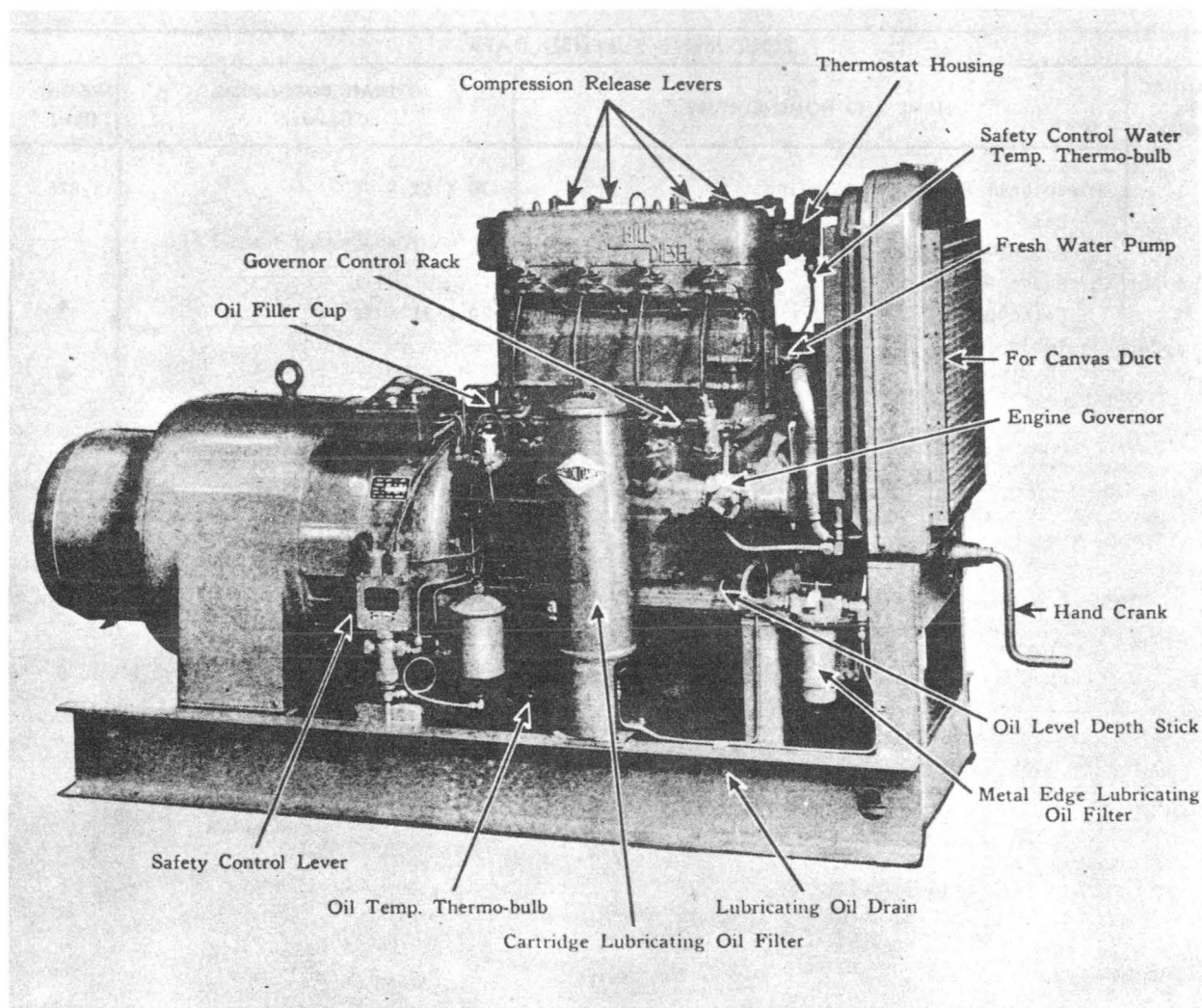
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-205-B Including:	30 X 61 X 90	3,876
1	Base		
1	Engine-Generator Assy		
1 Set	Spare Parts		
1	Switchboard.	20 X 31 X 76	475
1 Set	Tools		

UNCLASSIFIED

1.2 PE-205-B: 3

POWER UNIT

PE-207-A



Diesel Engine Generator Set PE-207-A

FUNCTIONAL DESCRIPTION

The PE-207-A is an electric generating set consisting of a 4 cylinder, 4 cycle, valve-in-head, liquid cooled, electric starting Diesel engine, directly connected to an AC generator.

No field changes in effect at time of preparation (9 April 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: 4 cycle.

HEAD: Valve-in-head.

CYLINDERS: 4.

BORE: 3-1/2 in.

STROKE: 5-1/2 in.

HORSEPOWER: 34 at 1200 rpm.

SPEED: 1200 rpm.

COMPRESSION RATIO: 15-1/2 to 1.

DISPLACEMENT: 212 cu. in.

FUEL: Fuel oil.

STARTING: Electric 24 v.

GENERATOR

KILLOWATTS: 15.

VOLTAGE: 120/208 v.

CURRENT: 90/52 amp.

CYCLE: 60 cps.

Radio-Auxiliary

PE-207-A

POWER UNIT

PHASE: 3.
POWER FACTOR: 80%.
SPEED: 1200 rpm.
WIRES: 4.
DRIVE: Direct.

REFERENCE DATA AND LITERATURE

Technical Manual for POWER UNIT PE-207-A.

EXCITER

KILLOWATTS: 1.
VOLTAGE: 125 v.
CURRENT: 8 amp.
SPEED: 1200 rpm.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

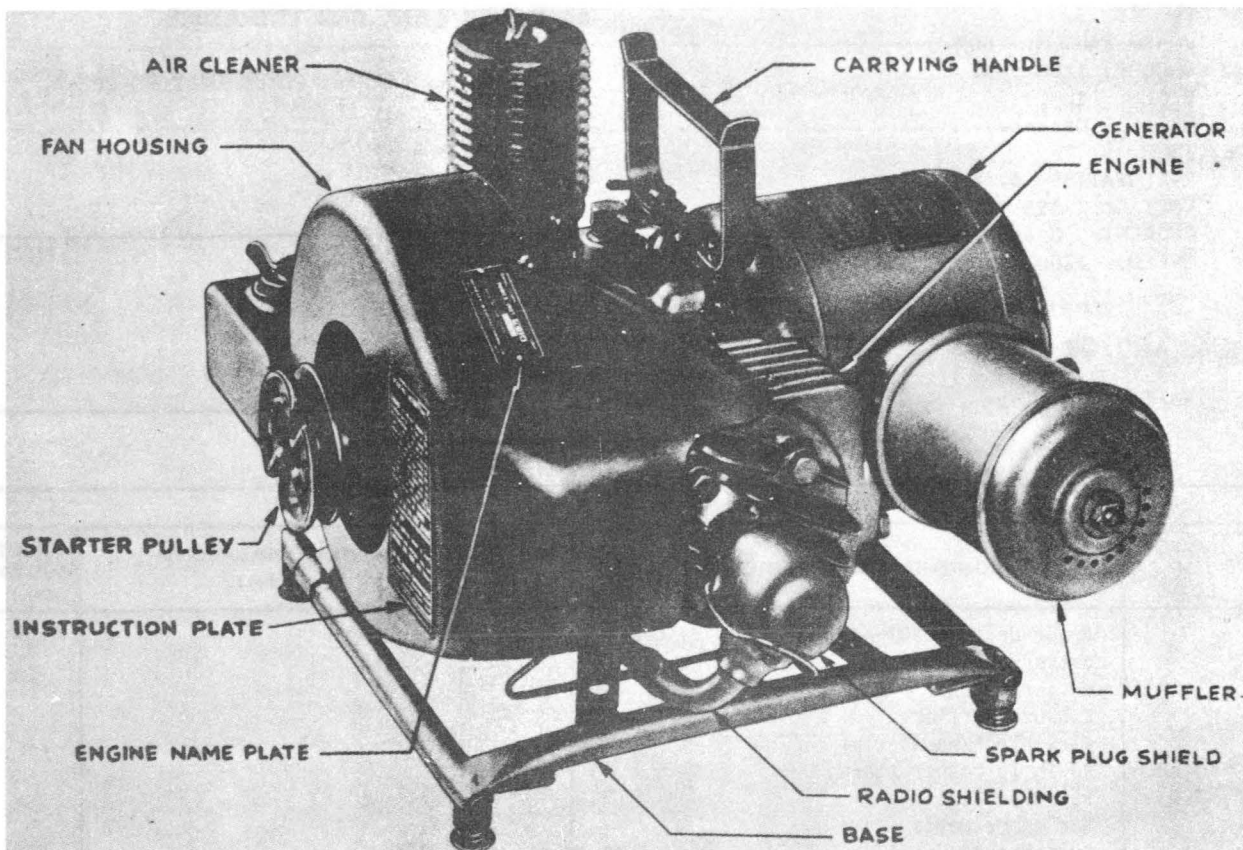
SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-207-A Battery Cables Battery Rack Exhaust Muffler Flexible Exhaust Pipe 30 ft lg copper tubing Bag Pipe Fittings Set Spare Parts	128		4000
1	Switchboard	46		470
2	Battery	3.5		200
2	Battery Acid	2.2		67
2	Filter Cartridges	14		180

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Engine-Generator Set	30 x 51 x 92	3000
	Engine	26 x 40 x 40-3/8	1440
	Generator	23-1/2 x 27-1/4 x 36-13/16	1104
1	Switchboard	24 x 30 x 76	200
4	Battery, 6 v, 3 cell		

POWER UNIT



Power Unit PE-214-A

FUNCTIONAL DESCRIPTION

The PE-214-A is intended to furnish power for field communication equipment. It is a compact, light-weight, gasoline engine driven generator, of the manual starting type, with an output of 300 w.

No field changes in effect at time of preparation (27 March 1957).

POWER FACTOR: 100%.

OUTPUT: 300 w.

SPEED: 3600 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

CYLINDERS: 1.
TYPE: 2 cycle.
BORE: 2 in.
STROKE: 1-1/2 in.
PISTON DISPLACEMENT: 4.72 cu. in.
SPEED: 3600 rpm.
HORSEPOWER: 1 hp at 3600 rpm.
TYPE COOLING: air.

GENERATOR

TYPE: revolving field.
VOLTAGE: 120 or 240 v AC.
PHASE: single.
CYCLE: 60 cps.

REFERENCE DATA AND LITERATURE

TM11-913: Technical Manual for Power Unit
PE-214-A

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

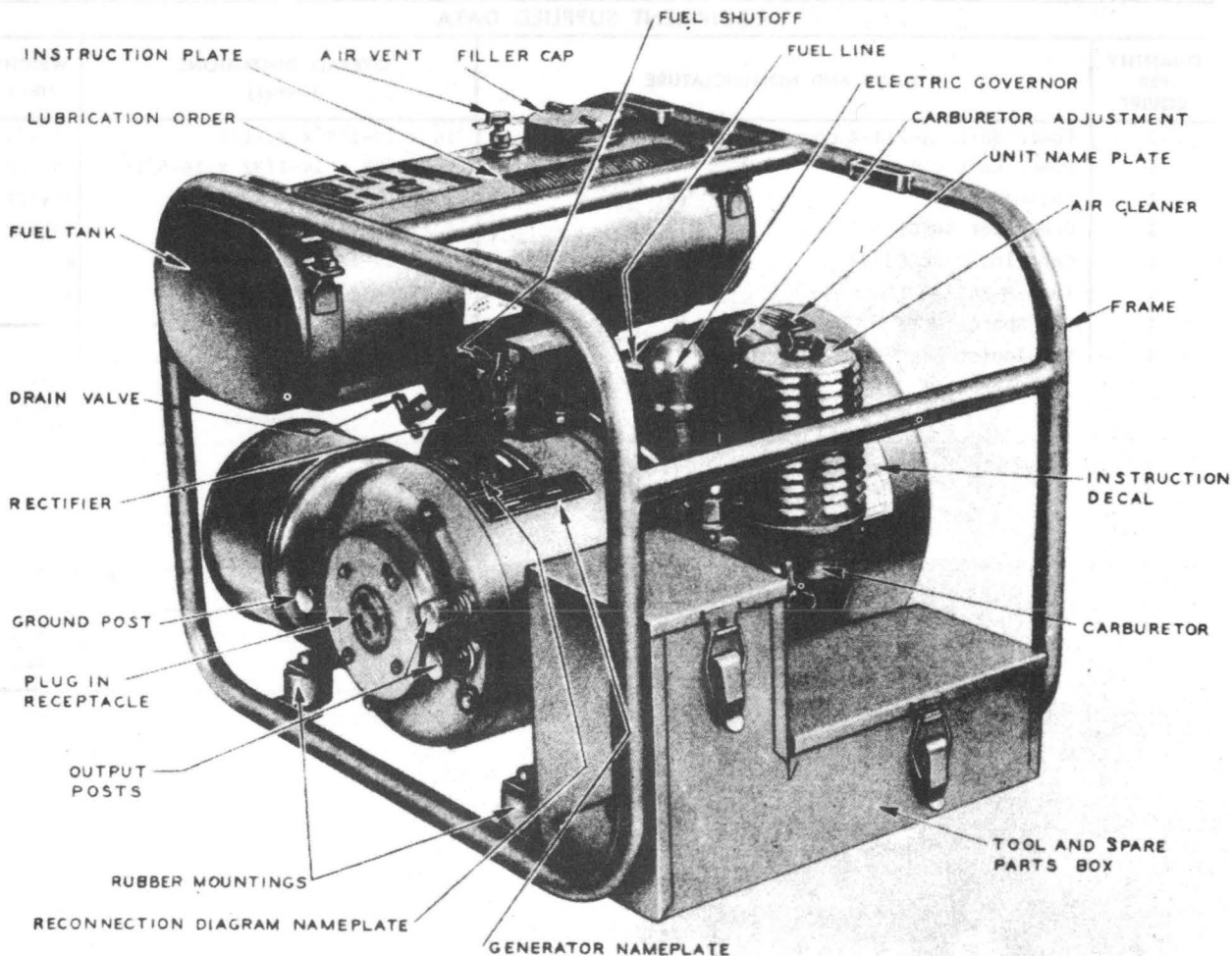
PE-214-A

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-214-A complete	16 x 19-1/4 x 23-1/4	86-3/4
1	Power Unit Only	10-29/32 x 14-1/32 x 18-5/16	39-3/4
1	Engine GE-12	10-29/32 x 12 x 18-5/16	20-1/2
1	Generator GN-51	6 x 6	19-1/2
1	Carrying Case CS-98	16 x 19-1/4 x 23-1/4	42
1	Tank M-343-A	4-1/8 x 6-5/8 x 10-1/4	1
1	Set Spare Parts		
1	Set Tools		

POWER UNIT



Power Unit PE-214-B

FUNCTIONAL DESCRIPTION

The PE-214-B and PE-214-C are a compact, light-weight, electric generating set, consisting of a gasoline engine and an AC generator. It is designed to deliver 300 w at either 120 or 240 v AC.

Data on this sheet reflects the following field changes, FC 1 (27 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: 2 cycle.
CYLINDERS: 1.

BORE: 2 in.
STROKE: 1-1/2 in.
PISTON DISPLACEMENT: 4.72 cu. in.
SPEED: 3600 rpm.
HORSEPOWER: 1.25 at 3600 rpm.
TYPE COOLING: Air.
IGNITION: Fly-wheel magneto.
STARTING: Rope.

GENERATOR

TYPE: Revolving field.
VOLTAGE: 120 or 240 v AC.
PHASE: Single ph, 2 wire.
CYCLE: 60 cps.

POWER FACTOR

PE-214-B: 100%.
PE-214-C: 80%.
OUTPUT: 300 W.

Radio-Auxiliary

PE-214-B,-C

POWER UNIT

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-945: Technical Manual for Power Unit
PE-214-B and PE-214-C.

TYPE CLASSIFICATION DESIGN COGNIZANCE TASSA PROCUREMENT COGNIZANCE STOCK NO.

SHIPPING DATA

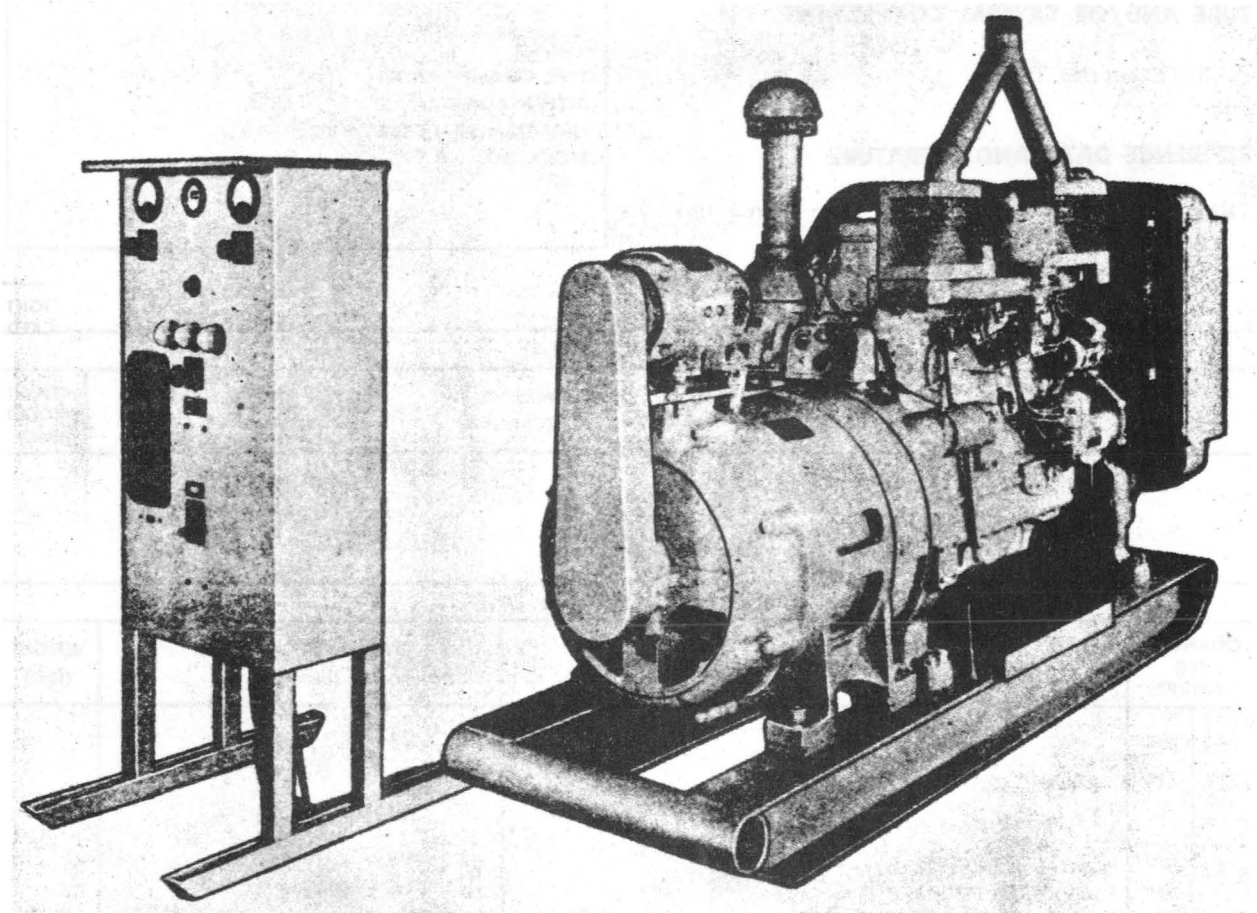
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-214-B or -C			

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT		NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
PE-214-B	PE-214-C			
1		Power unit PE-214-B	12-13/16 X 14-1/8 X 17-1/8	56
	1	Power Unit PE-214-C	12-13/16 X 14-1/8 X 17-1/8	57
1	1	Engine GE-12-B	12-13/16 X 13-1/8 X 17-1/8	37
1		Generator GN-51-B	6 X 6 X 7-1/2	19
	1	Generator GN-51-C	6 X 7-1/4 X 7-1/2	20
1		Basic Engine	4-7/16 X 7-3/16 X 7-5/8	8.75

POWER UNIT

PE-215-B



Power Unit PE-215-B

FUNCTIONAL DESCRIPTION

The PE-215-B consists of a six-cylinder, gasoline-starting, diesel engine directly coupled to a 50 kw, 240 v, 4 wire, AC generator with a separate, belt-driven exciter. The engine is liquid-cooled through a conventional radiator, fan and forced-circulation water pump.

No field changes in effect at time of preparation (19 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

BORE: 4.75 in.
STROKE: 6.5 in.
CYLINDERS: 6.
DISPLACEMENT: 691 cu in.

GOVERNED: 1200 rpm.
PISTON SPEED AT 1200 RPM: 1300 rpm.
COMPRESSION PRESSURE: 465 lbs.
COMPRESSION RATIO: 13.67 to 1.
FUEL: Diesel, fuel, oil.
HORSEPOWER: 76.

ALTERNATOR

RATING: 62.5 kva, 50 kw, 80% pf, 240 v,
4-wire, 150 amp, ~60 cycle at 1200 rpm.

EXCITER

TYPE: DC.
RATING: 1.5, kw, 125 v, 12 amp, at 1800 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

October 1957

Radio-Auxiliary

PE-215-B

POWER UNIT

REFERENCE DATA AND LITERATURE

TM11-941: Technical Manual for Power Unit
PE-215-B.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

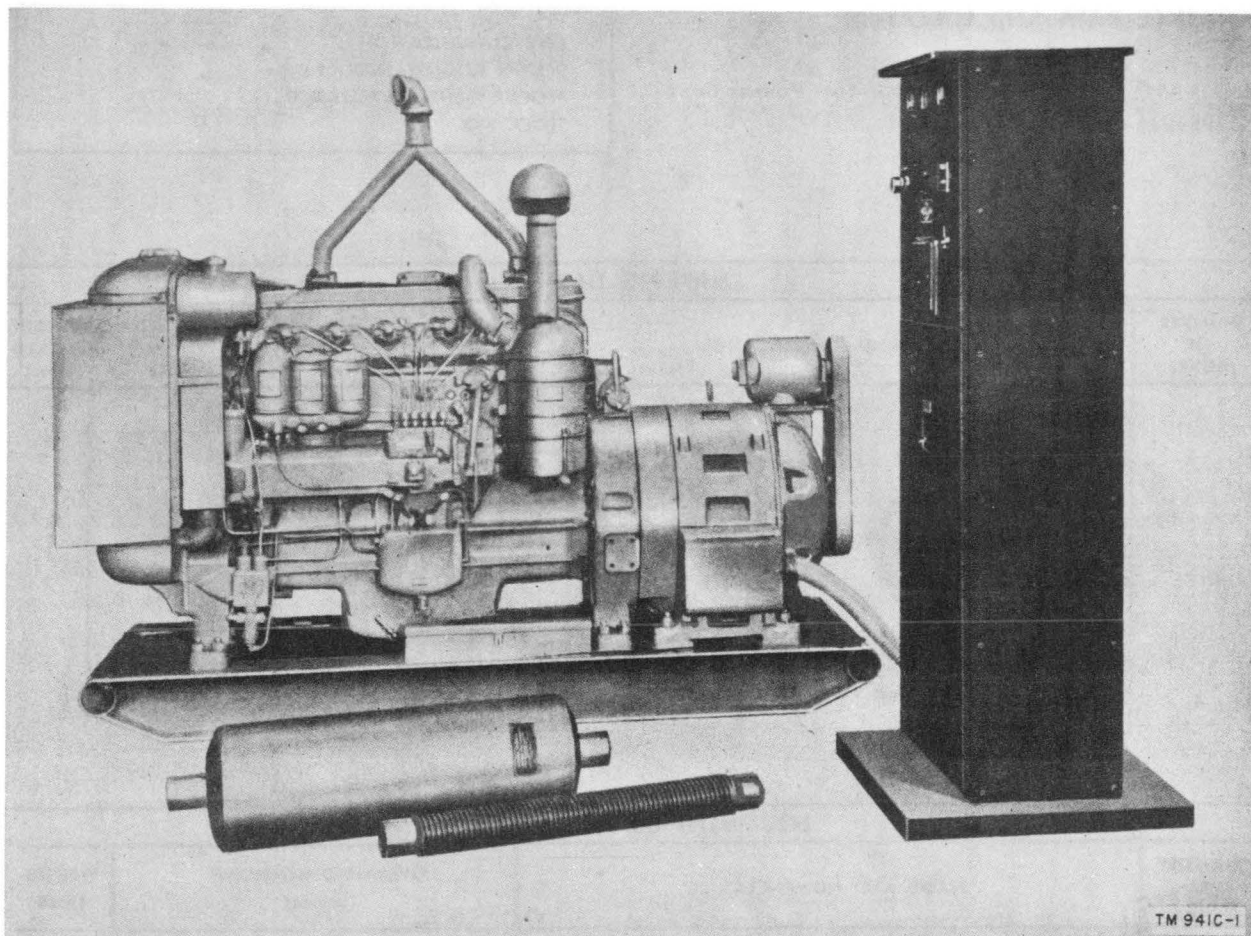
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit Control Cabinet Batteries Silencer (Snubber) (1) Flexible Metal Hose (2) Copper Tubing Wiring Diagram Tool Box Tools and Spare Parts			
1	Electrolyte			

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-215-B consists of:		
	Control Cabinet	24-1/2 x 32 x 60	280
	Engine	36 x 62 x 96	3125
	Exciter	10-3/4 x 11 x 20-1/4	125
	Generator	28-1/4 x 31 x 34-1/4	1525
	Skid Base	8 x 33 x 110	520

POWER UNIT

PE-215-C, PE-215-E



Power Unit PE-215-C

FUNCTIONAL DESCRIPTION

The PE-215-C and PE-215-E are intended as sources of power for Radio Set AN/CPS-1 and fixed Plant Communication Equipment.

The units consist of six-cylinder, gasoline starting, Diesel engines which are directly coupled to a 50 kw, 120/240 v, four wire, 60 cps generators with separate belt driven exciters and separately mounted control panels.

No field changes in effect at time of preparation (26 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

TYPE: 4 cycle, gasoline starting, Diesel.

TYPE CYLINDER HEAD: Overhead valve.

CYLINDERS: 6.

BORE: 4.75 in.

STROKE: 6.5 in.

PISTON DISPLACEMENT: 691 cu. in.

COMPRESSION RATIO

PE-215-C: 13.67 to 1.

PE-215-E: 15.5 to 1.

SPEED: 1200 rpm.

HORSEPOWER

PE-215-C: 76.

PE-215-E: 82.

TYPE IGNITION

GASOLINE: Magneto.

DIESEL: Compression.

BATTERIES: Two, 6 v, series connected.

GENERATOR

VOLTAGE

PE-215-C: 120/208 v AC.

PE-215-E: 120/240 v AC.

FREQUENCY: 60 cps.

Radio-Auxiliary

PE-215-C, PE-215-E

POWER UNIT

PHASE: 3.
POWER FACTOR: 80%.
RATING: 50 kw, 62.5 kva.
AMPERE OUTPUT
PE-215-C: 174.
PE-215-E: 150.
SPEED: 1200 rpm.
DRIVE: Direct.
EXCITER
RATING: 1.5 kw, 64 v DC.
SPEED: 2000 rpm.
DRIVE: Dual V belts.

REFERENCE DATA AND LITERATURE

TM11-941C: Technical Manual for Power Units
PE-215-C and PE-215-E.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	PE-215-C		
1	Power Unit PE-215-C w/accessories	38-9/16 X 59-7/16 X 106	6500
1	Alternator and Exciter	30 X 30-3/4 X 37-3/16	1730
1	Switchboard	22-1/8 X 26 X 76	436
1	Steel Base	8 X 33 X 104	475
1	Coupling	19-7/8 dia X 5-1/2	132
2	Battery	7 X 8-1/4 X 12-1/2	91
	PE-215-E		
1	Power Unit PE-215-E w/accessories	38-11/16 X 61-5/8 X 106-1/4	5800
1	Switchboard	12-1/4 X 20 X 67	240
2	Battery	7 X 8-1/4 X 12-1/2	91

INVERTER UNIT

PE-218-C

FUNCTIONAL DESCRIPTION

The PE-218-C is designed to convert 27.5 v DC into 115 v, 400 cps, single ph power.

No field changes in effect at time of preparation (12 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OUTPUT: 115 v, 400 cps, single ph.
DC INPUT: 27.5 v, 92 amp, 8000 rpm.
EXCITER VOLTS: 27.5 v
FIELD AMPERE: 4.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

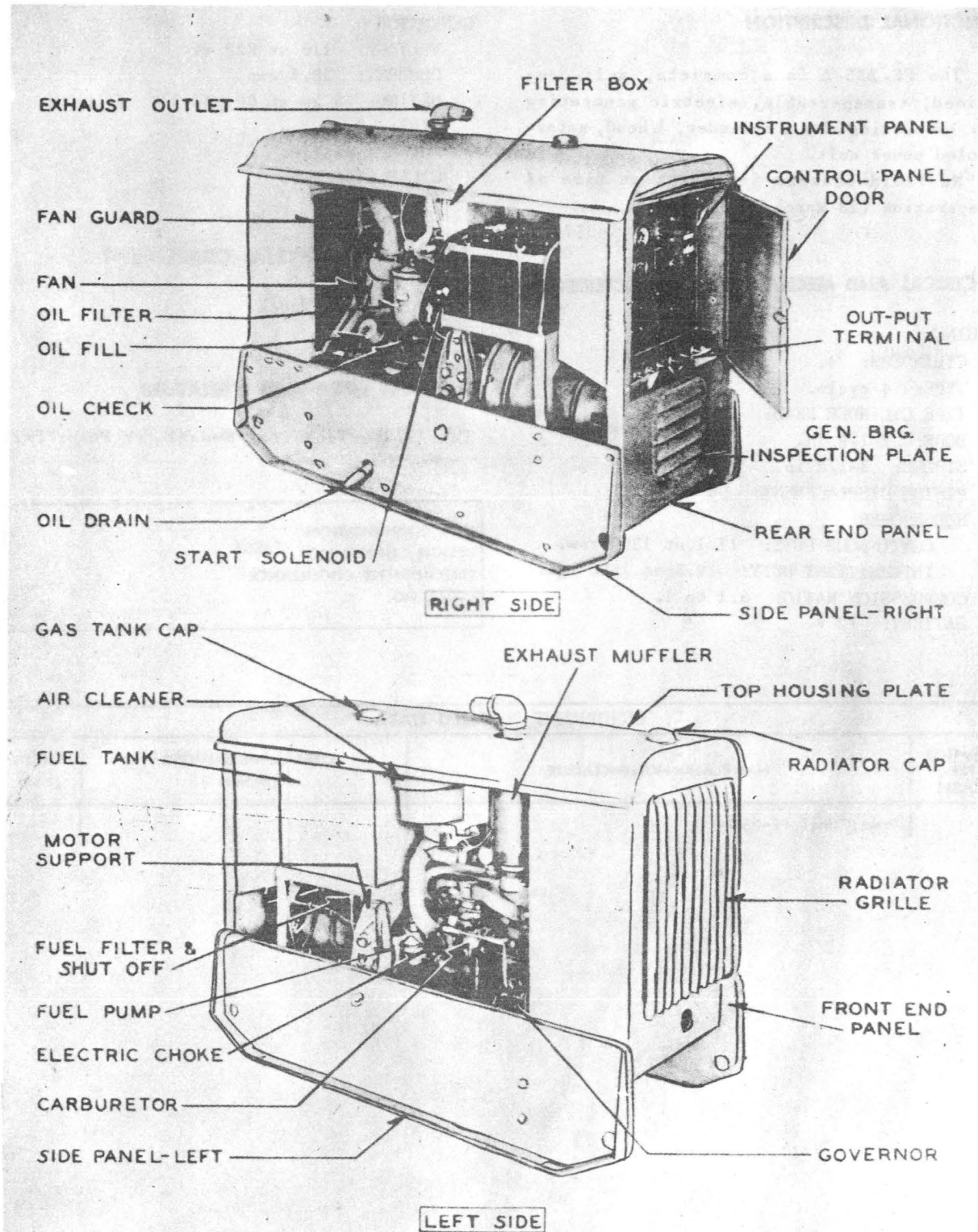
Technical Manual for Inverter Unit PE-218-C.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Inverter Unit PE-218-C	5-3/4 x 10 x 17	51
1	Mounting FT-398	9/32 x 7 x 10-1/2	2.5

POWER UNIT



Power Unit PE-235-A

POWER UNIT

FUNCTIONAL DESCRIPTION

The PE-235-A is a complete, self-contained, transportable, electric generating set consisting of a 4 cylinder, Lhead, water-cooled power unit.

No field changes in effect at time of preparation (28 March 1957).

GENERATOR

VOLTAGE: 110 or 220 v.
CURRENT: 28.4 amp.
RATING: 5 kw at 80 pf.
WIRE: #3.
PHASE: single.
CYCLE: 60 cps.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

CYLINDERS: 4.
TYPE: 4 cycle.
TYPE CYLINDER HEAD: L.
BORE: 2-7/8 in.
STROKE: 3-1/2 in.
PISTON DISPLACEMENT: 90 cu. in.
HORSEPOWER
CONTINUOUS DUTY: 17.1 at 1800 rpm.
INTERMITTENT DUTY: 19.3 at 1800 rpm.
COMPRESSION RATIO: 6.1 to 1.
BATTERY: 12 v.

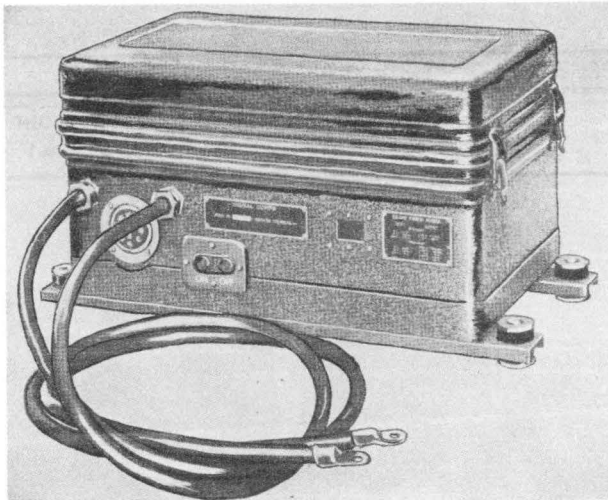
REFERENCE DATA AND LITERATURE

TM11-972: Technical Manual for Power Unit
PE-235-A.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-235-A		



Vibrator Power Supply PE-237

FUNCTIONAL DESCRIPTION

The PE-237 is a compact, self-contained, vehicular unit designed to convert 6, 12 or 24 volt DC input into necessary operating voltages for radio receiver and transmitter units.

The unit incorporates two independent supply systems: a heavy duty unit for supplying power to the receiver and transmitter for normal two-way communication and a small unit for supplying only receiver voltage during long periods of listening. A switch is provided inside the cover which allows the operator to change all connections simultaneously to correspond with the voltage of the vehicular battery. A circuit breaker in the battery circuit protects the unit in case of accidental short circuit. This unit is housed in a waterproof metal case.

No field changes in effect at time of preparation (25 July 1956).

RELATION TO OTHER EQUIPMENT

PE-237 is used to furnish power for the operation of Receiver-Transmitter RT-77/GRC-9

in Radio Set AN/GRC-9 and Radio Receiver and Transmitter BC-1306 in Radio Set SCR-694-C.

Equipment Required but not Supplied: (1) Vibrator power output cable to Receiver-Transmitter.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER INPUT: 6 v DC at 36 amp, 12 v DC at 17 amp or 24 v DC at 9.5 amp.

HEAVY DUTY SECTION OUTPUT: 525 v at 95 ma, 105 v at 42 ma, 6.5 v at 2 amp, 6 v at 500 ma and 1.35 v at 450 ma.

LIGHT DUTY SECTION OUTPUT: 1.35 v at 450 ma and 100 v at 17 ma.

MANUFACTURER'S OR CONTRACTOR'S DATA

Rauland Corp., Chicago, Illinois Pt/dwg VG-1096.

Contract MIPR-800-19046-51 no date.

Approximate Cost: \$450.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1005 (1) 1006

Total Tubes (2)

REFERENCE DATA AND LITERATURE

TM 11-487E Dept. of Army Technical Manual, Directory of Signal Corps Equipments-Power Equipments.

TM 11-263 Dept. of Army Technical Manual for Radio Set AN/GRC-9.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	TASSA
PROCUREMENT COGNIZANCE	71-3164
STOCK NO.	

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Vibrator Power Supply PE-237 Cord-CD-1086 (44")	4.6	14-7/8 X 19-1/2 X 26-5/8	138

PE-237

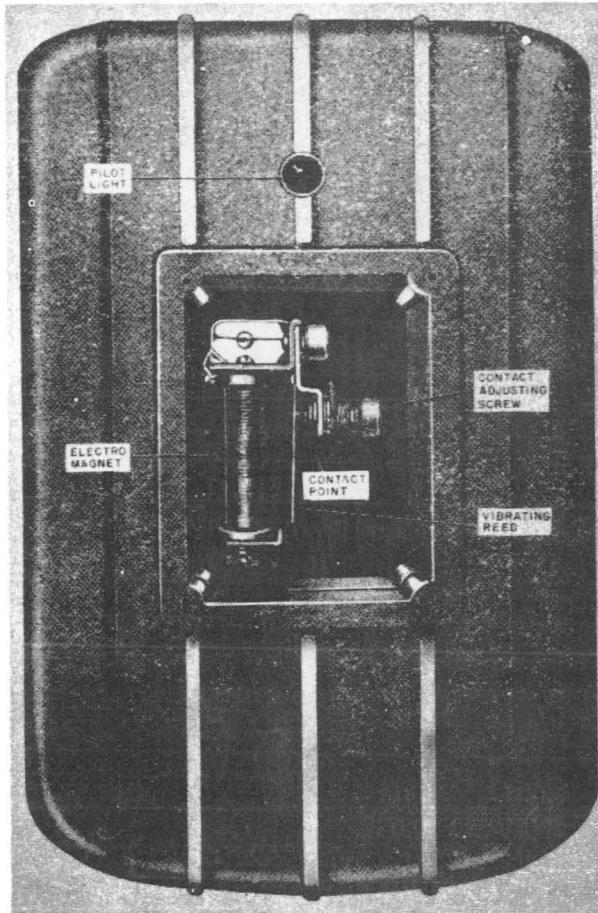
VIBRATOR POWER SUPPLY

December 1956

EQUIPMENT SUPPLIED DATA			
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Vibrator Power Supply-PE-237	9-15/16 X 11 X 20-3/16	88
2	Heavy Rubber Cables		

INTERRUPTER

PE-250



Interrupter PE-250

nating-current power supply in telephone central office installations. Usually it is mounted as part of telephone office equipment, but in some instances they are furnished independently and can be mounted on a wall a short distance from the equipment with which the unit is to be used.

No field changes in effect at time of preparation (15 April 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

INPUT: 110 to 115 v, 60 cps.

TYPE: Vibrating reed.

OUTPUT: 90 v, 20 cps, 30 w.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TB SIG 203, TO16-40PE250-5, Technical Manual for Interrupter PE-250 and Static Ringing Generators TA-248/TT and TA-248A/TT.

FUNCTIONAL DESCRIPTION

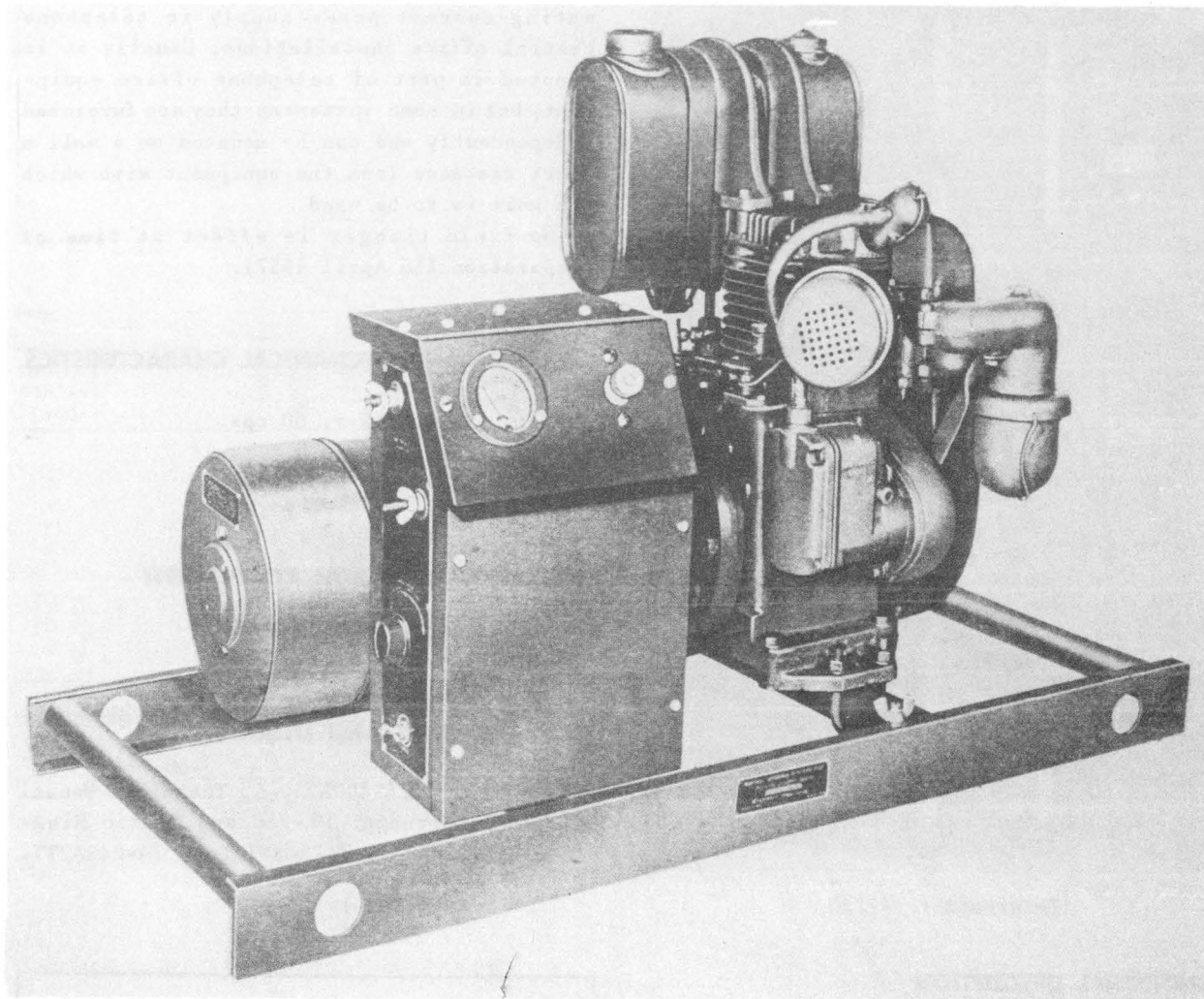
The PE-250 is a vibrating reed type of frequency converter for supplying 30 watts of 90 volt, 20 cycle power to ringing equipment from a 110/115 volt, 60 cycle alter-

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Interrupter PE-250	4 x 8-1/2 x 12	

POWER UNIT



Power Unit PE-49-C,D,F

FUNCTIONAL DESCRIPTION

The PE-49-C, PE-49-D, and PE-49-F are compact, self-contained, light-weight, portable power generating sets, designed to supply continuous high and low voltage direct current for field radio transmitters. Both outputs are available either separately or simultaneously. Provision is made for either electric or manual starting.

No field changes in effect at time of preparation (17 April 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER OUTPUT: 0.715 kw, 1000 v DC, 350 ma and 14.6 v DC, 25 amps.

ENGINE DATA

HORSEPOWER

PE-49-C: 2.7 at 2650 rpm.

PE-49-D,F: 3.5 at 2700 rpm.

FUEL CAPACITY: 1 gal.

RUNNING TIME: Approx 3 hrs at full load on 1 filling of fuel tank.

GENERATOR DATA

TYPE

PE-49-C,D: Shunt-wound.

PE-49-F: Compound-wound.

Radio-Auxiliary

PE-49-C,D,F

POWER UNIT

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TML1-920: Technical Manual for Power Units
PE-49-C, -D, -F, and -G and Motor Generator
MG-37-A.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

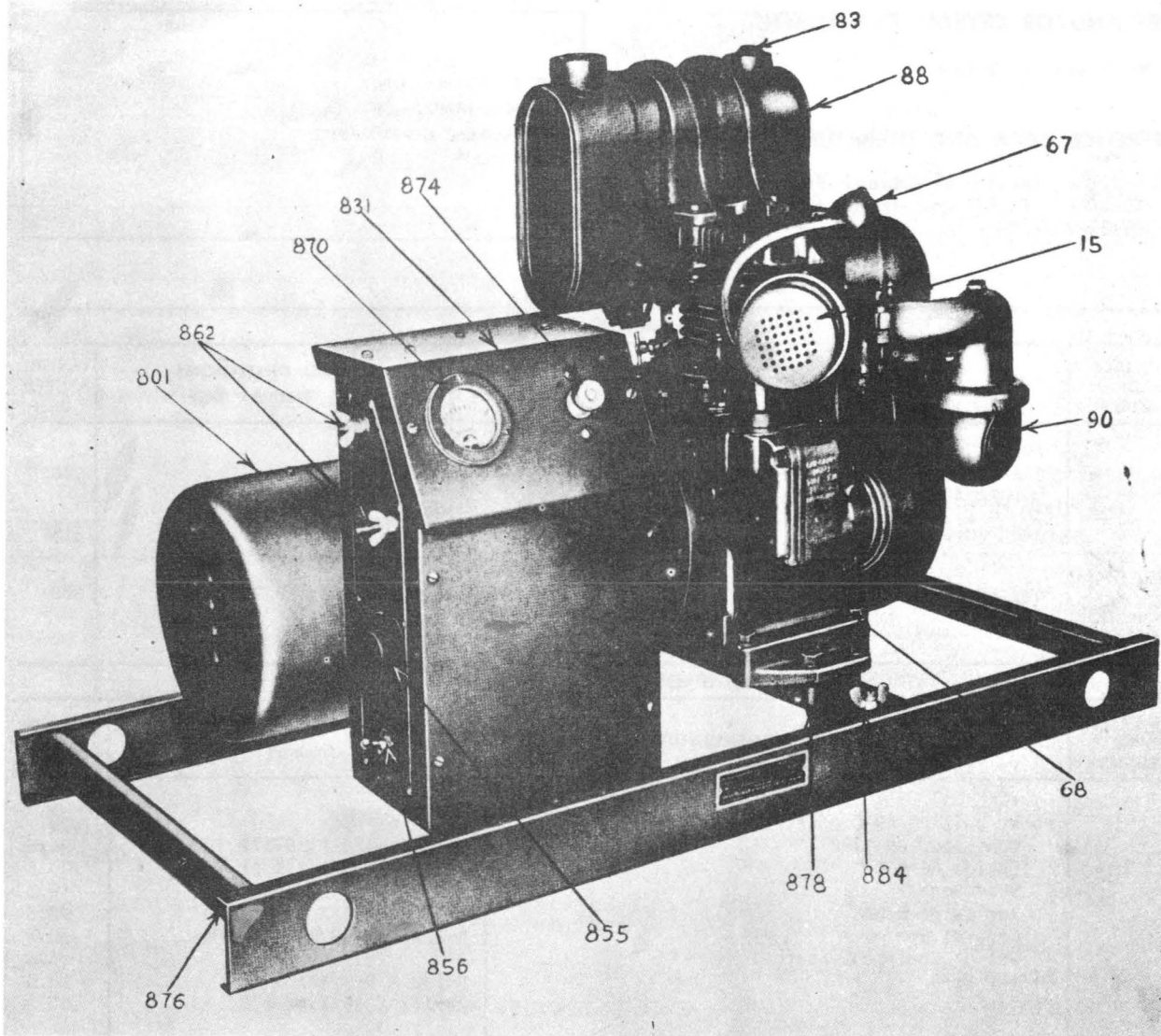
SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	PE-49-C Power Unit PE-49-C	17.8	24-1/4 X 30 X 42-5/8	340.5
1	PE-49-D Power Unit PE-49-D	15.5	23-1/4 X 27 X 42-1/2	313
1	PE-49-F Power Unit PE-49-F	11.4	19-5/8 X 27-1/8 X 37	300

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	PE-49-C Power Unit PE-49-C consisting of: Generator GN-39-C Engine GE-9-C Skid Base Inclosing Hood Control Box Set of Equipment Spares	19 X 26 X 36 11 X 12-1/2 X 18-1/2 12-1/2 X 18-1/2 X 21 3-7/8 X 18-1/2 X 36 19 X 22-1/8 X 29 4-1/2 X 10-3/4 X 10-3/4	255 96.5 103.5 16.5 22.5 9.5 6.5
1	Filter FL-9	8-1/2 X 8-3/4 X 9	18.5
1	Crate	24-1/2 X 30 X 42-5/8	67
1	PE-49-D Power Unit PE-49-D consisting of: Control Box Engine GE-9-D Filter Box Generator GN-39-D Hood, Steel Skid Base, Steel Set of Tools and Equipment Spares	18 X 23-3/4 X 36 8-1/2 X 10-1/2 X 11-1/2 12-3/4 X 16 X 20-1/4 7-1/4 X 7-1/2 X 14-7/8 8 X 8-3/4 X 16-3/4 18 X 22-1/4 X 32-1/4 2-1/2 X 17 X 36	260 14 90 11 85 27 23 10
1	PE-49-F Power Unit PE-49-F consisting of: Control Box Engine GE-9-F Generator GN-39-F Hood, Wood Hood Base, Wood Skid Base, Steel Set of Tools and Equipment Spares	19-5/8 X 27-1/8 X 37 7-3/4 X 9-1/4 X 12-13/16 12-3/4 X 16 X 20-1/4 8 X 8-3/4 X 16-3/4 19-5/8 X 25-1/4 X 36 1-7/8 X 19-5/8 X 37 2-1/2 X 18 X 36	300 16 103 80 50 16 25 10

POWER UNIT



Power Unit PE-49-G

FUNCTIONAL DESCRIPTION

The PE-49-G is a complete, self-contained, gasoline-engine-driven generating unit designed for supplying high and low voltage direct current for field radio transmitters. It has a high-voltage output of 1,000 volts, 350 milliamperes and a low-voltage output of 14.6 volts, 25 amperes. Both outputs are available simultaneously. Provision is made for both electric and manual starting.

No field changes in effect at time of preparation (17 April 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OUTPUT: 1000 v DC, 350 ma and 14.6 v DC, 25 amps.

ENGINE DATA

HP DEVELOPED: 3.5 at 2700 rpm.

FUEL CAPACITY: 1 gal.

RUNNING TIME: Approx 3 hrs at full load for one filling of fuel tank.

GENERATOR DATA

TYPE: Compound-wound, self-excited, with 2 main poles and 2 inter-poles and a double wound armature.

October 1957

Radio-Auxiliary

PE-49-G

POWER UNIT

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

REFERENCE DATA AND LITERATURE

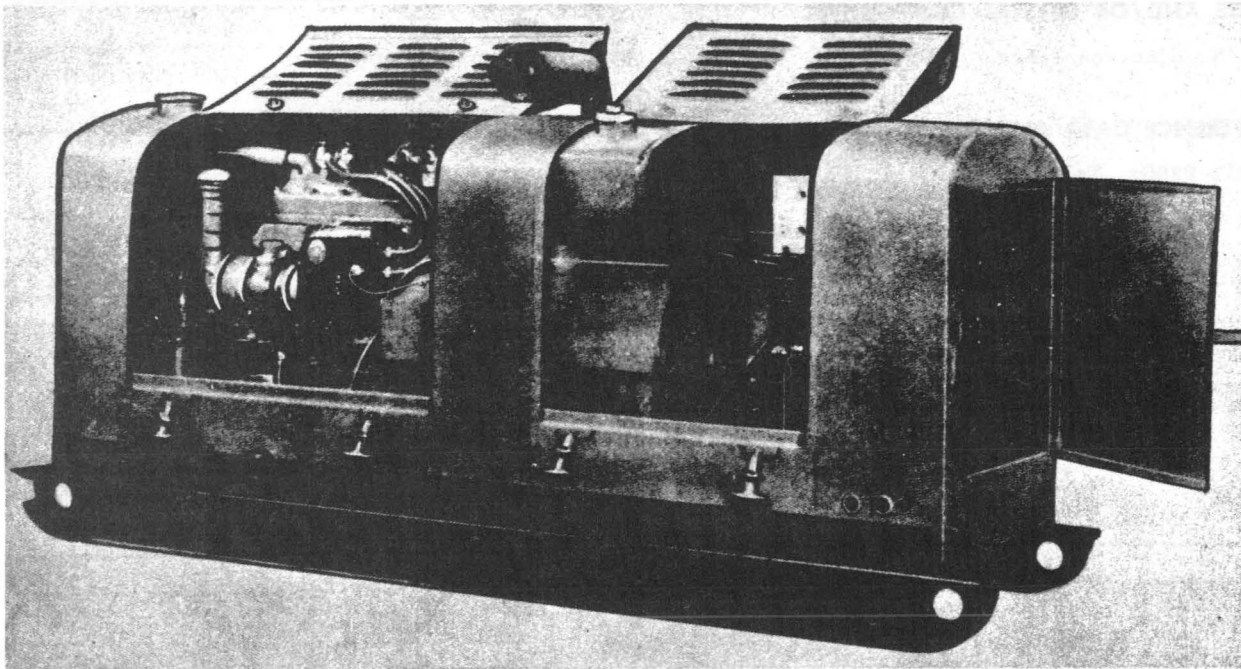
TM11-920G: Technical Manual for Power Unit
 PE-49-G.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-49-G	11.5	19-5/8 x 27-3/16 x 37	325

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-49-G consisting of:		
	Engine GE-9-F	10-7/8 x 11 x 20-1/4	103
	Generator GN-39-G	8 x 8 x 16-1/2	85
	Control Box	5 x 8 x 13	15
	Skid Base, Steel	2-1/2 x 17 x 38	23
	Sub-Base, wood	3-1/4 x 19-5/8 x 37	19
	Hood	19-5/8 x 23-15/16 x 37	71
	Set of Tools		6
	Set of Spare Parts		3

POWER UNIT**PE-52-B***Power Unit PE-52-B***FUNCTIONAL DESCRIPTION**

The PE-52-B is designed as a portable self-contained power supply for radio communication. The unit furnishes 3 kva, 115 v, 60 cps and operates at 1800 rpm.

No field changes in effect at time of preparation (18 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

TYPE: 4 cycle.
 TYPEHEAD: L.
 CYLINDER: 4.
 SPEED: 1800 rpm.
 HORSEPOWER: 12.

ALTERNATOR

TYPE: Revolving field.
 RATING: 3 kva, 115 v, 60 cps.
 SPEED: 1800 rpm.

MANUFACTURER'S OR CONTRACTOR'S DATA

United States Motor Corp., Oshkosh, Wis.

Contract W-287-sc-2327, dated 21 June, 1940.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

Technical Manual for Power Unit PE-52-B.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

October 1957

Radio-Auxiliary

PE-52-B

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-52-B consists of:	22 X 40 X 66	900
	Engine	18 X 19 X 26	306
	Generator	14 X 14 X 23	243
	Base	7 X 20 X 66	175
	Radiator	6 X 19 X 25	28
	Control Panel	11 X 18 X 18	30
	Hood	19 X 24 X 55	80
	Battery	8 X 10 X 11	40

16 May 1962

6115-643-0123

POWER UNIT PE-74

Cog Service: USA

FSN: 6115-643-3736 W/S

Functional Class:

USA

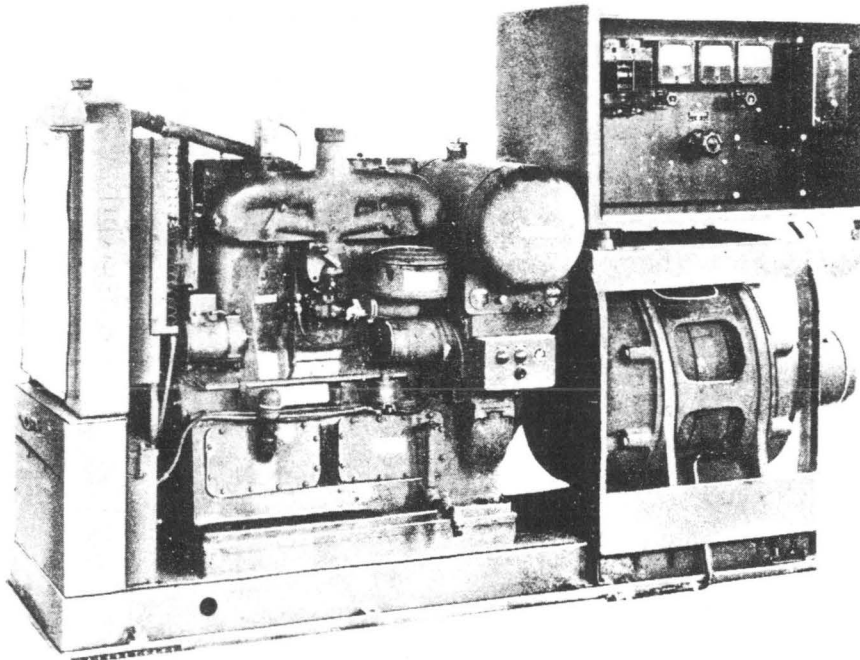
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER:



Power Unit PE-74

FUNCTIONAL DESCRIPTION:

Power Unit PE-74 is a portable, self-contained, gasoline-electric power plant. No field changes in effect at time of preparation (4 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: LeRoi Co.

MODEL: DB-471.

TYPE: 4 stroke-cycle.

TYPE CYLINDER HEAD: Overhead valve.

NUMBER OF CYLINDERS: 4.

SPEED: 1200 rpm.

HORSEPOWER: 70.

IGNITION SYSTEM: Magneto.

STARTING BATTERY: 12 v.

FUEL: Gasoline.

FUEL TANK: External

TYPE LUBRICATION: Pressure.

CRANKCASE CAPACITY: 15 qts.

TYPE COOLING: Water.

AIR CLEANER: Oil-bath type.

PE-74 POWER UNIT

AC GENERATOR
ALTERNATOR
MAKE: Westinghouse Electric Corp.
MODEL: G.
TYPE: Revolving field.
POWER OUTPUT: 120 or 280 v ac.
FREQUENCY: 60 cyc.
RATING: 25 kw.
POWER FACTOR: 80%.

SPEED: 1200 rpm.
PHASE: Three.
TYPE OF DRIVE: Direct.
DC EXCITER
MAKE: Westinghouse Electric Corp.
MODEL: SK.
TYPE: Rotating armature.
SPEED: 1200 rpm.
TYPE OF DRIVE: Direct.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-74		32 x 63-1/4 x 111-3/4	

REFERENCE DATA AND LITERATURE:

TM11-909: Technical Manual for Power Units PE-74, PE-74-B, PE-74().

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1		4,460

PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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26 April 1962

POWER UNIT PE-75

Cog Service: USA

FSN: 6115-635-4532 W/S

Functional Class:

USA

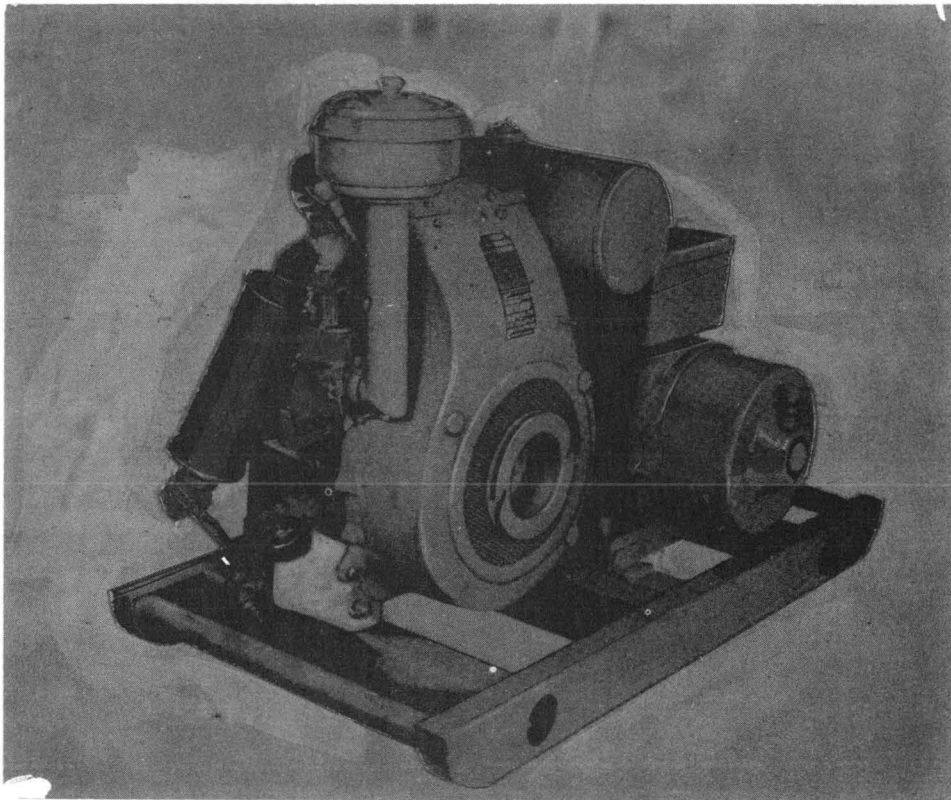
USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:



Power Unit PE-75

FUNCTIONAL DESCRIPTION:

Power Unit PE-75 is a portable, gasoline-engine-driven electric generating set used as a power source for the operation of telephone, radio, public address, and meteorological equipment. It may also be used to supply light and power for small installations.

No field changes in effect at time of preparation (4 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Briggs and Stratton.

MODEL: ZZ.

TYPE: 4-stroke-cycle.

TYPE OF CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 1.

PE-75 POWER UNIT

SPEED: 2,380 rpm.
HORSEPOWER: 6.
IGNITION SYSTEM: High-tension magneto.
TYPE OF STARTING: Manual.
FUEL: Gasoline.
TYPE LUBRICATION: Combination splash and jet.
CRANKCASE CAPACITY: 4 pts.
TYPE COOLING: Air.
AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: Leland Electric Co.
MODEL: A.
TYPE: Self-excited.
POWER OUTPUT: 120 v ac, 17 amp.
FREQUENCY: 60 cyc.
RATING: 2.5 kw.
POWER FACTOR: 100%.
SPEED: 1,800 rpm.
PHASE: Single.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-75		19 x 26 x 36	319

REFERENCE DATA AND LITERATURE:

TM11-900: Technical Manual for Power Units.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1		

PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

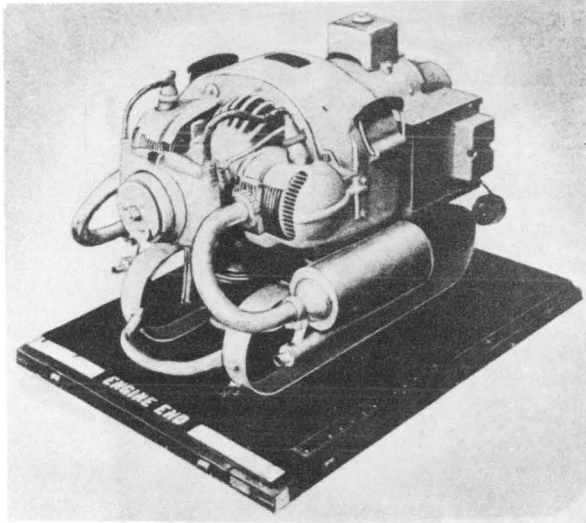
CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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February 1960

Radio-Auxiliary

POWER UNIT

PE-75-A



Power Unit PE-75-A

FUNCTIONAL DESCRIPTION

Power Unit PE-75-A is a portable, gasoline-engine-driven electric generating set used as a power source for the operation of telephone, radio, public address, and meteorological equipment. It also may be used to supply light and power for small installations.

No field changes in effect at time of preparation (10 July 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

MAKE: Homelite Corp.
 MODEL: HTR.
 TYPE: 4-stroke-cycle.
 TYPE CYLINDER HEAD: Ported.

NUMBER OF CYLINDERS: 1
 SPEED: 3,600 rpm.
 HORSEPOWER: 3.35.
 IGNITION SYSTEM: High-tension magneto.
 TYPE OF STARTING: Manual.
 FUEL: Gasoline.
 FUEL TANK CAPACITY: 8 quarts.
 TYPE LUBRICATION: Combination splash and jet.
 CRANKCASE CAPACITY: None.
 TYPE COOLING: Air.
 AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: Homelite Corp.
 MODEL: HTR.
 TYPE: Self-excited.
 POWER OUTPUT: 120 volts ac, 17 amp.
 FREQUENCY: 60 cy.
 RATING: 2.5 kw.
 POWER FACTOR: 100%.
 SPEED: 3,600 rpm.
 PHASE: Single.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

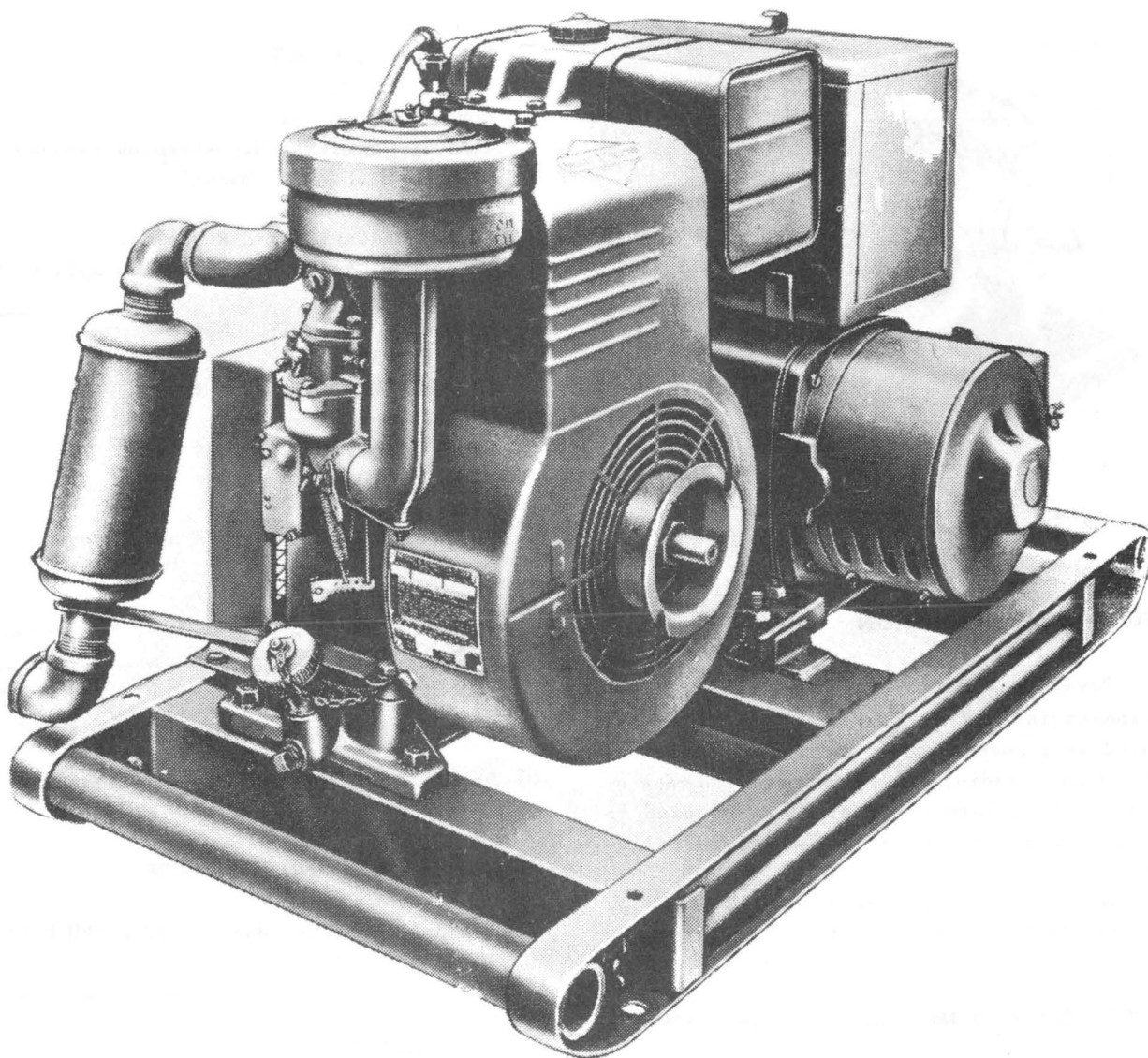
TML-223: Technical Manual for POWER UNITS.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE SPEC 71-952 (SIG C)
 STOCK NO.
 R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-75-A	24-1/2 X 25-1/2 X 32	310

POWER UNIT



Power Unit PE-75-AF

FUNCTIONAL DESCRIPTION

Power Unit PE-75-AF is a portable, self-contained, gasoline-engine-driven electric generating set of the manual starting type. It is intended as a power source for the operation of telephone, radio, public address, and meteorological equipment, and may be used for any purpose that requires AC within the rated electrical output of the equipment.

No field changes in effect at time of preparation (11 August 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

MAKE: Briggs and Stratton.

MODEL: PD-31/U.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 1.

SPEED: 2,800 rpm.

HORSEPOWER: 6.5.

IGNITION SYSTEM: Magneto.

TYPE OF STARTING: Manual.

June 1961

Radio-Auxiliary

PE-75-AF**POWER UNIT**

FUEL: Gasoline.
 FUEL TANK CAPACITY: 6 qts.
 TYPE LUBRICATION: Splash.
 CRANKCASE CAPACITY: 5 pints.
 TYPE COOLING: Air.
 AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: Leland or Kurz-Root.
 MODEL: G-40/U.
 TYPE: Self-excited.
 OUTPUT VOLTAGE: 120 v ac.
 FREQUENCY: 60 cyc.
 RATING: 2.5 kw.
 POWER FACTOR: 100%.
 SPEED: 1,800 rpm.
 PHASE: Single.

MANUFACTURER'S OR CONTRACTOR'S DATA

Penn-Boiler and Burner Mfg. Corp, Lancaster, Pa.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-900A: Technical Manual for POWER UNIT PE-75-AF.

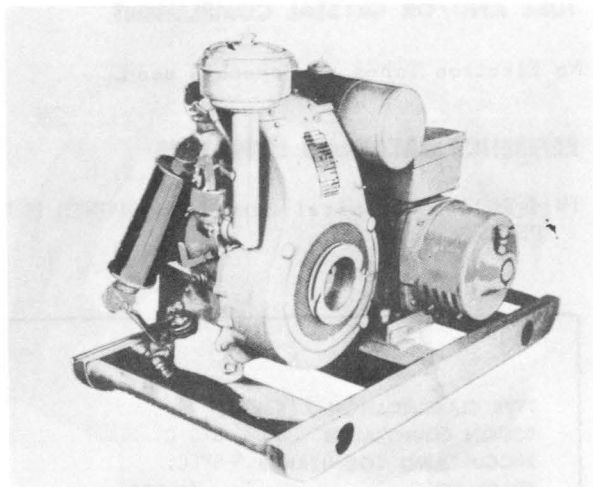
TYPE CLASSIFICATION	(NAVY)
DESIGN COGNIZANCE	USA, SIG C
PROCUREMENT COGNIZANCE	SPEC:
STOCK NO.	71-952
R.D.B. IDENT. NO.	

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-75-AF including:	19 x 24-1/2 x 36	298
1	AC Generator G-40/U		
1	Cotton duck Cover		
1	Electrical Noise Suppressor F-155/U		
1	Flexible Tubing	240 lg	
1	Fuel Adapter Assembly		
1	Gasoline Engine PD-3/U		
1	Handle (to transport Power Unit)		
1	Maintenance Parts Kit (carburetor)		
1	Skid Base		
1	Starter Rope		
1 set	Tools		

February 1960

Radio-Auxiliary

POWER UNIT**PE-75-C***Power Unit PE-75-C***FUNCTIONAL DESCRIPTION**

Power Unit PE-75-C is a portable, gasoline-engine-driven electric generating set used as a power source for the operation of telephone, radio, public address, and meteorological equipment. It also may be used to supply light and power for small installations.

No field changes in effect at time of preparation (26 June 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

MAKE: Briggs and Stratton.
 MODEL: ZZL type 304627.
 TYPE: 4-stroke-cycle.
 TYPE CYLINDER HEAD: L.
 NUMBER OF CYLINDERS: 1.
 SPEED: 2,380 rpm.
 HORSEPOWER: 6.

IGNITION SYSTEM: High-tension magneto.
 TYPE OF STARTING: Manual.
 FUEL: Gasoline.
 FUEL TANK CAPACITY: 5 quarts.
 TYPE LUBRICATION: Combination splash and jet.
 CRANKCASE CAPACITY: 4 pints.
 TYPE COOLING: Air.
 AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: Leland Electric.
 MODEL: A.
 TYPE: Self-excited.
 POWER OUTPUT: 120 v AC, 17 amp.
 FREQUENCY: 60 cycle.
 RATING: 2.5 kw.
 POWER FACTOR: 100%.
 SPEED: 1,800 rpm.
 PHASE: Single.

TUBE AND/OR CRYSTAL COMPLEMENT

- No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-900: Technical Manual for POWER UNITS PE-75-C, D, J, K, P, S, T, U, W, AA, AB, AC and AE.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-75-C			

Radio-Auxiliary

February 1960

PE-75-C

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-75-C Including:	19 X 26 X 36	290
1	AC Generator		
1	Cotton Duck Cover		
1	Flexible Tubing		
1	Fuel Adapter Ass'y		
1	Gasoline Engine		
1	Handle		
1	Maintenance Parts Kit (Carburetor)		
1	Skid Base	3 X 19 X 36	42
1	Starter Rope		
1 set	Tools		

June 1961

Radio-Auxiliary

POWER UNIT**PE-75 -D, -K, -P, -T, -U, -W,
-AA, -AB, -AC, -AE****FUNCTIONAL DESCRIPTION**

Power Units PE-75-D, -K, -P, -T, -U, -W and PE-75-AA through PE-75-AE are self-contained, compact, portable gasoline-engine driven generating sets of the manual-starting type. They are designed to deliver 2500 W at 120 v, 60 cps alternating current. All these units are identical in performance and differ only in design and material. In general these differences are incorporated in changes of generators, material used and design of gas engines, power unit assemblies, outlet and filter boxes and muffler mounting.

No field changes in effect at time of preparation (29 August 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE: Briggs and Stratton.
 MODEL: ZZ, Cycle: 4.
 TYPE OF CYLINDER HEAD: L-head.
 NUMBER OF CYLINDERS: 1.
 BORE: 3 in.
 STROKE: 3-1/4 in.
 PISTON DISPLACEMENT: 22.97 cu in.
 COMPRESSION RATIO: 4.42 to 1.
 ENGINE SPEED: 2200 to 3200 rpm.
 TYPE OF COOLING: Air cooled.
 HORSEPOWER: 6 at 2200 to 2300 rpm.
 PISTONS: Aluminum.
 PISTON RINGS: Cast-iron, 2 compression, 1 oil control.
 PISTON PIN: Slip fit.
 LUBRICATION SYSTEM: Combination splash and jet w/plunger type oil pump.
 AIR CLEANER: Oil bath type, United Air Cleaner.
 OIL FILTER: None.
 SPARK PLUG: Champion 5-Commercial 18 mm.
 FUEL TANK CAPACITY: 5 qts on PE-75-C through early models of PE-75-U, 8 qts on late models of PE-75-U through PE-75-AE.
 CRANKCASE OIL CAPACITY: 4 pints.
 GOVERNOR: Mechanical type.

MAIN BEARINGS

DRIVE SIDE: Ball bearings.

MAGNETO SIDE: Babbit-lined bearings.

GENERATOR: Westinghouse Type C on PE-75-AB, Kurz and Root type A-102 on PE-75-W and -AE, Leland type A on all others.

RATING: 2.5 kw, 120 v.

POWER FACTOR: 100%.

GENERATOR SPEED: 1800 rpm (1850 rpm, no load, 1780 rpm, full load).

EXCITATION: Self-excited.

GENERATOR BRUSHES: Carbon w/pigtail, interchangeable on all models.

EXCITER BRUSHES: Carbon w/pigtail, interchangeable on all models.

GENERATOR BEARING: Ball bearing, fully sheathed, interchangeable on all models.

MANUFACTURER'S OR CONTRACTOR'S DATA

Approximate Cost: \$350.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-900: Technical Manual for Power Units PE-75-C, -D, -J, -K, -P, -S, -T, -U, -W, -AA, -AB, -AC, and -AE.

TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-75-D or PE-75-K or PE-75-P or PE-75-T or PE-75-U or PE-75-W or PE-75-AA or PE-75-AB or PE-75-AC or PE-75-AE	*21 **18	27 x 31 x 43-1/2 26 x 29-7/8 x 43-1/2	491 508

NOTE: * packaged for export w/flexible barrier
 ** packaged for export w/sheet metal barrier

June 1961

Radio-Auxiliary

PE-75-D, -K, -P, -T, -U, -W,
-AA, -AB, -AC, -AE

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-75-D or PE-75-K or PE-75-P or PE-75-T or PE-75-U or PE-75-W or PE-75-AA or PE-75-AB or PE-75-AC or PE-75-AE	19 x 26 x 36	315 to 330
	c/o		
1	Engine w/accessories	15-3/4 x 20-3/4 x 23	115 to 130
1	Generator w/pulley and filterbox	9-1/4 x 12-1/4 x 19	125
1	Outlet and Filter Box	4 x 1-1/2 x 6-1/4	5-1/2
1	Toolbox w/tools and running spare parts	7-3/8 x 9 x 13	21
1	Skid Base	3 x 19 x 36	42

January 1958

Radio-Auxiliary

POWER UNIT**PE-75-J****FUNCTIONAL DESCRIPTION**

The PE-75-J is a self-contained, compact portable, gasoline-engine-driven generator set of the manual starting type. It is designed to deliver 2500 watts at 120 volts, 60 cycle alternating current.

The engine is a single cylinder, air cooled, four-cycle gasoline engine, rated at 6 hp at 2380 revolutions per minute.

The generator is a single-phase, 120 volt, 60 cycle, 1800 rpm unit of the self-excited type, rated at 2500 watts at 100% power factor. It is coupled to the gas engine by dual V-belts. Generator load connections are made in the outlet and filter box mounted on the generator frame.

No field changes in effect at time of preparation (1 July 1957).

RELATION TO OTHER EQUIPMENT

Similar to Power Units PE-75-C through PE-75-D and to PE-75-K, -P, -S, -T, -U, -W, -AA, -AB, -AC, -AE.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

CYCLE: 4.

HEAD TYPE: "L".
 CYLINDERS: 1.
 BORE: 3 in.
 STROKE: 3-1/4 in.
 PISTON DISPLACEMENT: 22.97 cubic in.
 SPEED: 2200 to 3200 rpm.
 COOLING METHOD: Air.
 HORSEPOWER: 6.
 FUEL TANK CAPACITY: 5 quarts.
 GENERATOR RATING: 2.5 kw, 120 v.
 POWER FACTOR: 100%.
 GENERATOR SPEED: 1800 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-900, Technical Manual for Power Units
 PE-75-C, -D, -J, -K, -P, -S, -T, -U, -W,
 -AA, -AB, -AC and -AE.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	TASSA
PROCUREMENT COGNIZANCE	
STOCK NO.	

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-75-J c/o	19 x 26 x 36	315 to 330
1	(1) Engine w/accessories	15-3/4 x 20-3/4 x 23	115 to 130
	(1) Generator w/pulley and filter box	9-1/4 x 12-1/4 x 19	125
	(1) Outlet and Filter Box	4 x 4-1/4 x 6-1/4	5-1/2
	(1) Toolbox w/tools and running spare parts	7-3/8 x 9 x 13	21
	(1) Skid Base	3 x 19 x 36	42

19 July 1962

Cog Service: USA FSN:

POWER UNIT PE-75-S

Functional Class:

USA

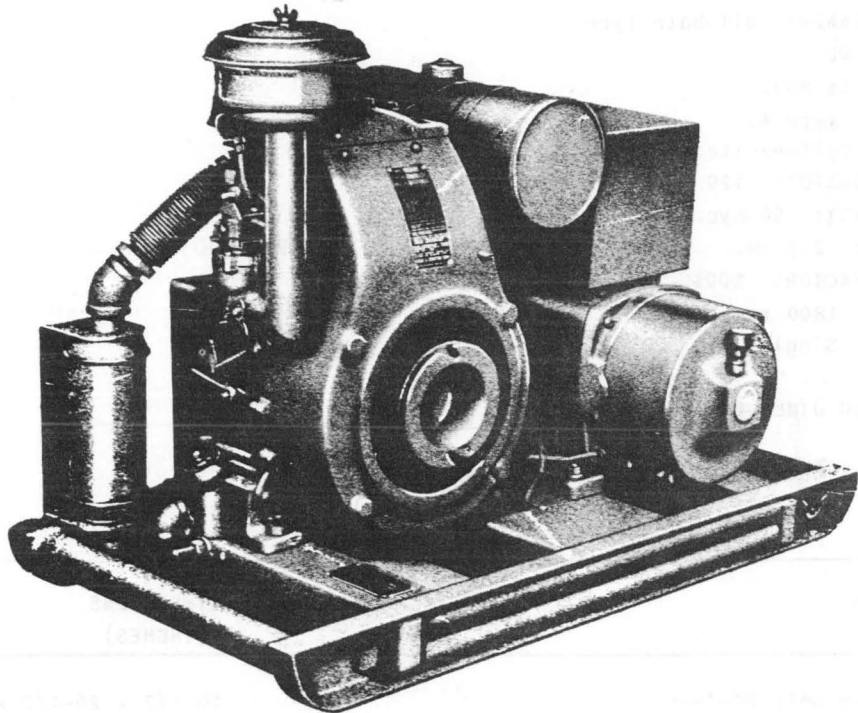
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Climax Engineering Co.



Power Unit PE-75-S

FUNCTIONAL DESCRIPTION:

Power Unit PE-75-S is a portable, gasoline-engine-driven electric generating set used as a power source for the operation of telephone, radio, public address, and meteorological equipment. It also may be used to supply light and power for small installations.

No field changes in effect at time of preparation (29 August 1960).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Briggs and Stratton.

MODEL: ZZ.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 1.

PE-75-S POWER UNIT

SPEED: 2400 rpm.
HORSE POWER: 5.75.
IGNITION SYSTEM: High-tension magnet.
TYPE OF STARTING: Manual.
FUEL: Gasoline.
FUEL TANK CAPACITY: 5 qts.
TYPE LUBRICATION: Combination splash and jet.
CRANK CASE CAPACITY: 4-1/2 pts.
TYPE COOLING: Air.
AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: Leland.
MODEL: Type A.
TYPE: Self-excited.
POWER OUTPUT: 120 v ac, 17 amp.
FREQUENCY: 60 cyc.
RATING: 2.5 kw.
POWER FACTOR: 100%.
SPEED: 1800 rpm.
PHASE: Single.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-75-S		19-1/2 x 26-1/2 x 36	321.6

REFERENCE DATA AND LITERATURE:

TM-11-900S: Technical Manual for Power Unit PE-75-S.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	14	440

PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Climax Engineering Co.		13097-Phila-43	

POWER UNIT**PE-77-A,B,C,D,E****FUNCTIONAL DESCRIPTION**

The PE-77-A, B, C, D, and E are compact, portable, gasoline-engine-driven generating sets designed to develop 250 watts, 110 volt direct current at 2,600 to 3,000 revolutions per minute. They contain air-cooled, manual-starting gasoline engines that operate efficiently on any commercial grade of low test gasoline.

No field changes in effect at time of preparation (22 April 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OUTPUT: 250 W, 110 v DC at 2600 to 3000 rpm, 40 deg C.

TEMPERATURE RANGE: -22 to +122 deg F.

ENGINE CAPACITY (GASOLINE)

PE-77-A,B,C,D: 0.5 gal will run unit 5 hrs at 1/2 load, 3 hrs at full load.

PE-77-E: 1 gal will run unit 7 hrs at 1/2 load.

GOVERNOR: Holds generator output between +5 and -1 v at all constant load levels.

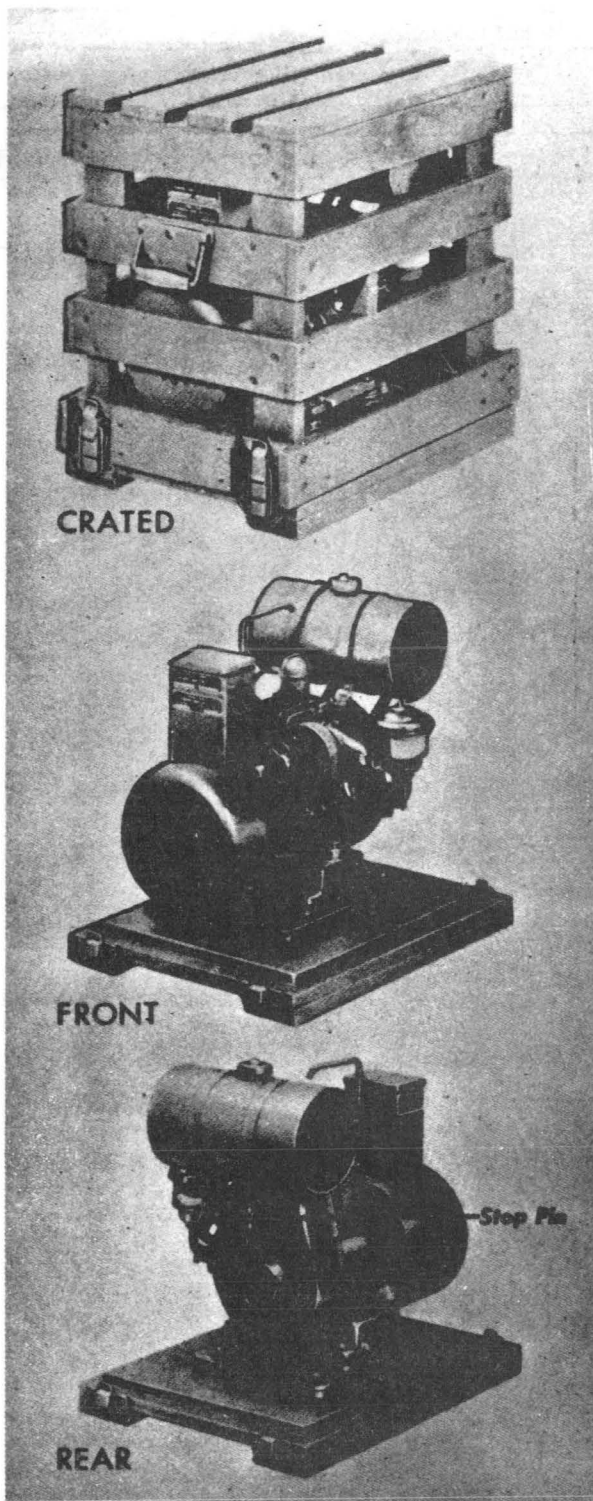
TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-903: Technical Manual for Power Unit PE-77-A,B,C,D and E.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.



Power Unit PE-77-E

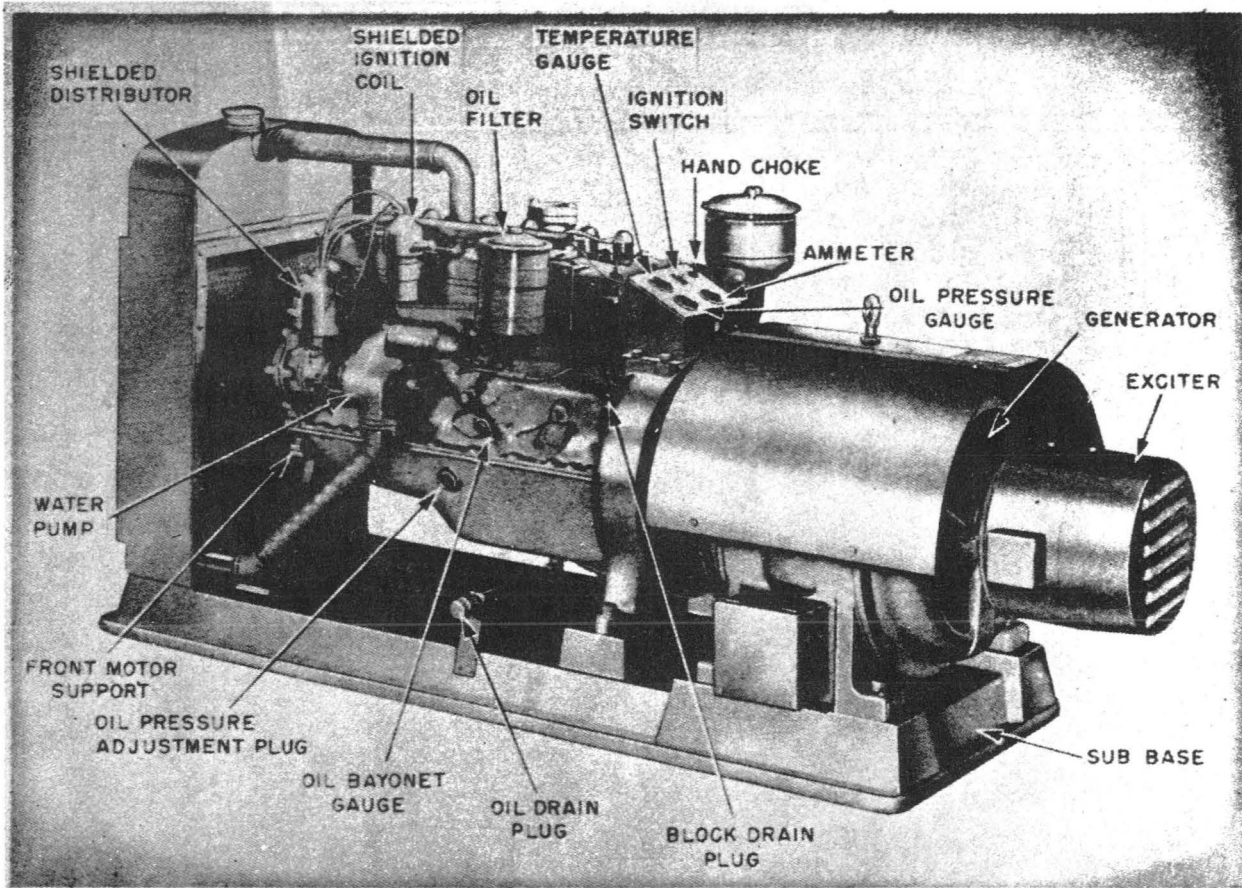
PE-77-A,B,C,D,E

POWER UNIT

EQUIPMENT SUPPLIED DATA			
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	PE-77-A, B, C, D		
1	Power Unit PE-77-A or PE-77-B or PE-77-C or PE-77-D	16 x 20 x 22	72
	PE-77-E		
1	Power Unit PE-77-E	12 x 22 x 22	86

POWER UNIT

PE-78-G,-H



Power Unit PE-78-G,-H

FUNCTIONAL DESCRIPTION

The PE-78-G and PE-78-H are of the electric starting type designed primarily to be suitable for supplying emergency power to permanently installed radio receiving equipment. The plants furnish 10 kw, 240/120 v, 60 cps, single phase current and operate at 1200 rpm. The complete unit is radio shielded.

No field changes in effect at time of preparation (13 Mar 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: 6 cylinder.
BORE: 3-5/8 in.
STROKE: 4-1/4 in.
DISPLACEMENT: 263 cubic in.
COMPRESSION RATIO: 5.85 to 1.

GENERATOR

OUTPUT: 10 kw, single ph, 3 wire, 240/120 v, 60 cps, 1200 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-911: Technical Manual for Power Units PE-78-G and-H.

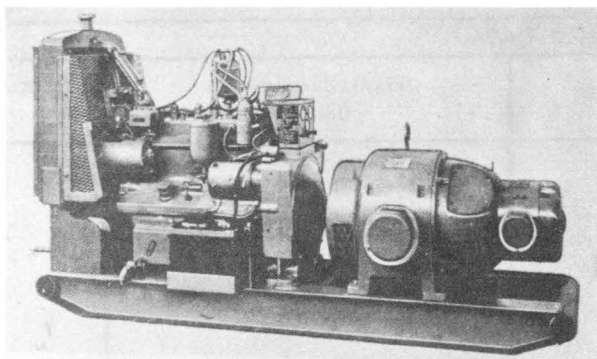
TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

Radio-Auxiliary
PE-78-G,-H

POWER UNIT

EQUIPMENT SUPPLIED DATA			
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-78-G or PE-78-H consist of:	25-3/4 x 40-1/2 x 84	2050
1	Engine Generator Assy		
1	Flexible Exhaust Tube	6-3/4 dia x 37-3/8	
1	Exhaust Silencer		
1	Switchboard		
1	Set Spare Parts		
1	Set Tools		
1	Starting Battery w/cables		

POWER UNIT



Power Unit PE-79-F

FUNCTIONAL DESCRIPTION

Power Unit PE-79-F is a complete gasoline-engine-driven electric generating plant. It is used to furnish three-phase ac to operate signal equipment, lights, motors, heating units, and other appliances when commercial power is not available.

This equipment consists of a gasoline engine, an ac generator consisting of an alternator and a dc generator (exciter), and a power control panel.

The engine-generator assembly is mounted on a steelskid base. The power control panel is separately mounted on a welded steel frame. It contains the indicating instruments, the necessary controls, and the wiring for the regulation of the generator output.

No field changes in effect at time of preparation (23 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

- (1) 6 v battery.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

MAKE: Continental.

MODEL: F-266.
TYPE: 4-stroke-cycle.
TYPE CYLINDER HEAD: L.
NUMBER OF CYLINDERS: 6.
SPEED: 1,200 rpm.
HORSEPOWER: 26.6.
IGNITION SYSTEM: Battery.
STARTING BATTERY: 6 volts.
FUEL: Gasoline.
FUEL TANK: External.
TYPE LUBRICATION: Forced feed.
TYPE COOLING: Water.
RADIATOR CAPACITY: 4 gallons.
AIR CLEANER: Oil bath.
AC GENERATOR (ALTERNATOR)
MAKE: Westinghouse Electric.
MODEL: AC type G.
TYPE: Direct drive.
PHASE: Three.
POWER OUTPUT: 240 v AC, 30 amp.
FREQUENCY: 60 cycle.
RATING: 10 kw 12-1/2 kva.
POWER FACTOR: 80%.
SPEED: 1,200 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-912F: Technical Manual for POWER UNIT PE-79-F.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-79-F Including: Installation Parts Tools Spare Parts	125	38 X 59 X 96	2,970
1	Bottle Battery Electrolyte	1.75	12 X 12 X 25	43

Radio-Auxiliary

PE-79-F

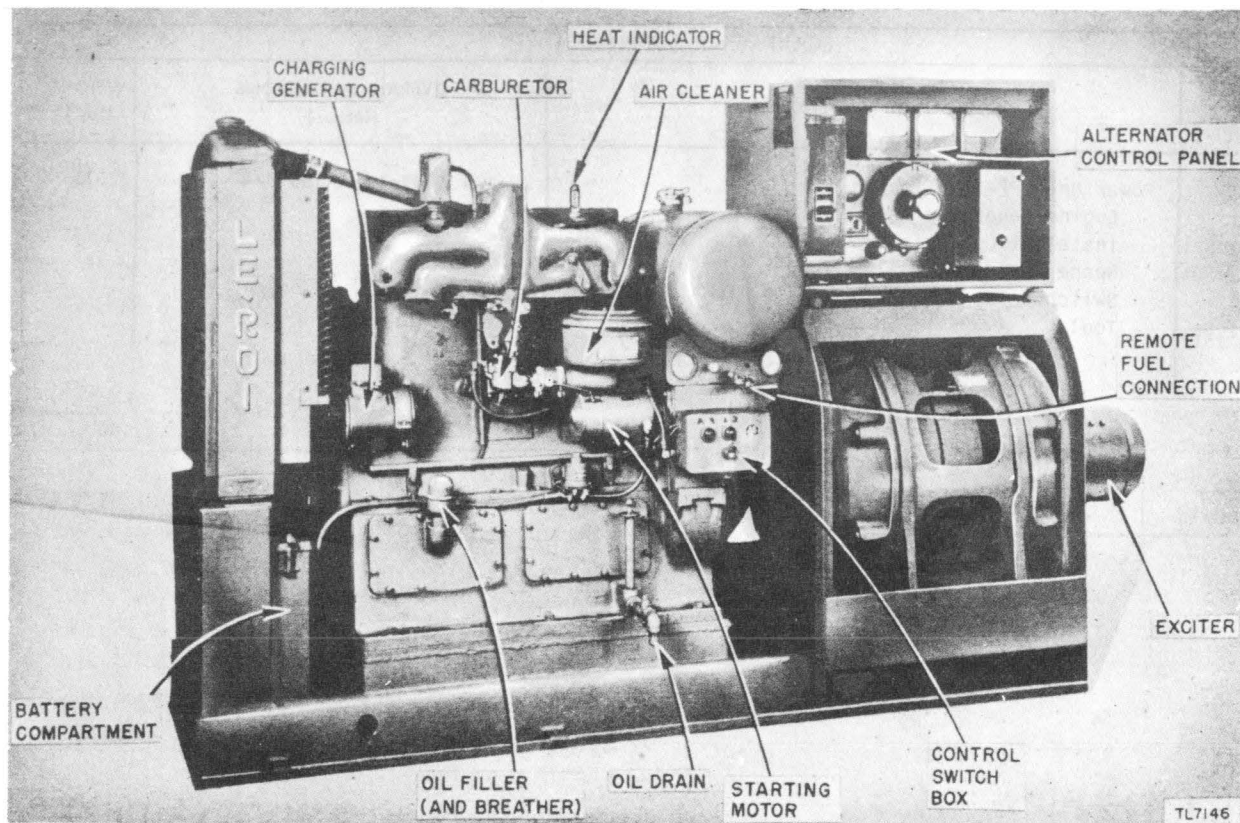
POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-79-F Including:	20-1/4 X 44-1/2 X 80-3/4	1,675
1	Engine-Generator Assy		
1 Set	Installation Parts		
1 Set	Spare Parts		
1	Switchboard		
1 Set	Tools		

POWER UNIT

PE-84-A, -C, -D



Power Unit PE-84-A, -C, -D

FUNCTIONAL DESCRIPTION

The PE-84-A, -C and -D are self-contained, gasoline-engine-driven, electrical generating units for fixed installation within a truck, building or other shelter. The units are provided with both electric and manual starting equipment, and provision is made to permit drawing fuel from either the built-in or remote fuel tank.

No field changes in effect at time of preparation (28 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**ENGINE**

TYPE: 4 cycle.
TYPE CYLINDER HEAD: I.
CYLINDERS: 4.

BORE: 4-1/2 in.

STROKE: 6 in.

PISTON DISPLACEMENT: 382 cu. in.

COMPRESSION RATIO: 6 to 1.

SPEED

PE-84-C and -D: 900 rpm.

PE-84-A: 1200 rpm.

TYPE COOLING: Water.

HORSEPOWER

PE-84-C and -D: 56 hp at 900 rpm.

PE-84-A: 55 hp at 1200 rpm.

BATTERY: 12 v; 120 amp hr.

GENERATOR

RATING: 2 kva.

VOLTAGE: 120 v.

POWER FACTOR: 0.8.

SPEED

PE-84-C and -D: 900 rpm.

PE-84-A: 1200 rpm.

PHASE: Single.

Radio-Auxiliary

PE-84-A, -C, -D

POWER UNIT

WIRES: 2.
CYCLE: 60 cps.
EXCITER
RATING: 1-3/4 kw.
VOLTAGE: 125 v DC.

REFERENCE DATA AND LITERATURE

TM11-915: Technical Manual for Power Unit
PE-84-A, -C, -D.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

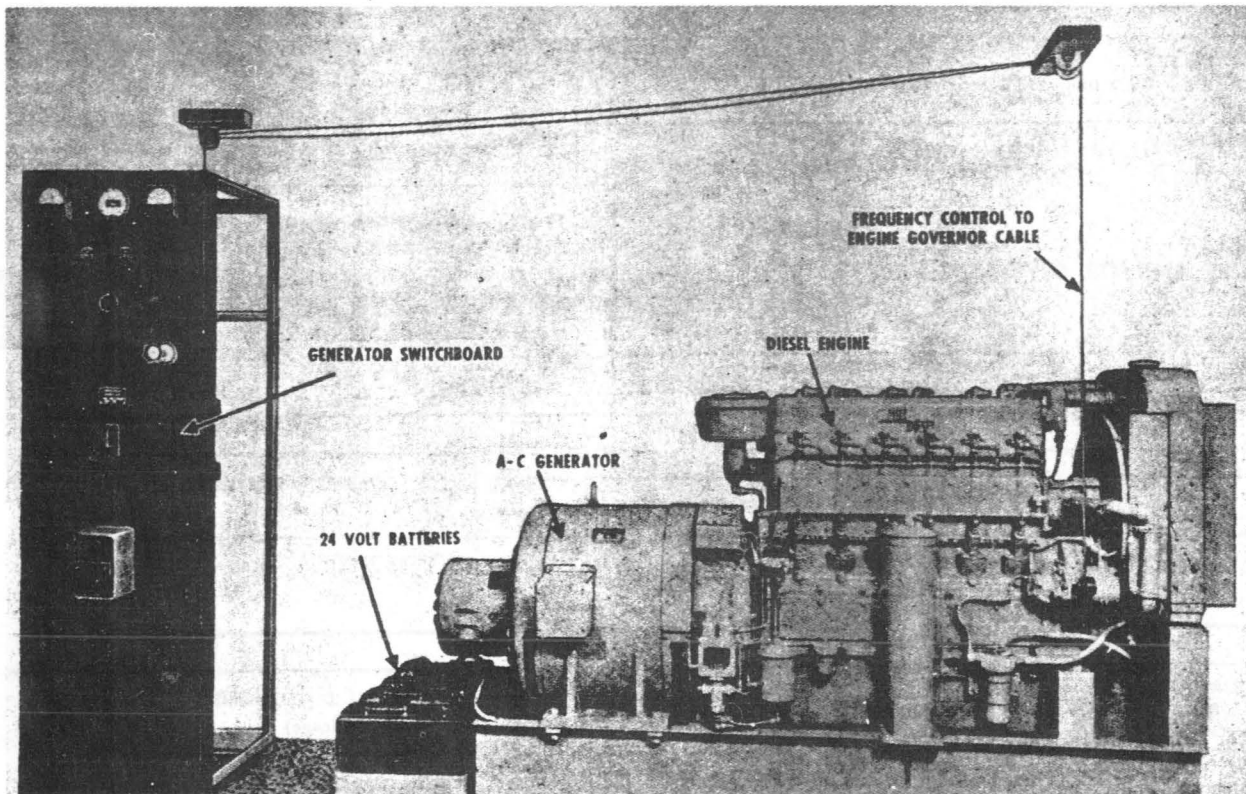
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-84-A, -C, -D	12.7	23 X 26 X 40	5525

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-84-A, -C or -D consists of: Engine w/accessories Generator w/exciter Radiator Assy Battery Fuel Tank Assy Control Panel Assy Base Assy	35 X 64-1/8 X 111-3/4 24-1/2 X 52-7/16 X 55 30 X 32 X 47 26 X 36 8-1/2 X 10 X 20-1/2 14 X 32-1/2 20 X 22 X 32 32 X 96-5/8	5000
1	Box Tools and Spare Parts	23 X 26 X 40	525

POWER UNIT

PE-85-L



Power Unit PE-85-L

FUNCTIONAL DESCRIPTION

The PE-85-L is a base-mounted, compact electric generating set consisting of a Diesel engine, an AC generator, and a control panel. It is designed to deliver 25 kw at 80% power factor, 230 v, 3 ph, 60 cps.

No field changes in effect at time of preparation (28 March 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

TYPE: 4 cycle.
 TYPE CYLINDER HEAD: one-piece casting (overhead valve).
 CYLINDERS: 6.
 BORE: 3-1/2 in.
 STROKE: 5-1/2 in.
 PISTON DISPLACEMENT: 317.4 cu. in.
 COMPRESSION RATIO: 15.5 to 1.
 SPEED: 1200 rpm.
 TYPE COOLING: radiator.
 HORSEPOWER: 51 hp max at 1200 rpm.
 BATTERY: (4) 6 v.

GENERATOR

VOLTAGE: 230 v AC
 RATING: 25 kw at 80% pf.
 SPEED: 1200 rpm.

EXCITER

VOLTAGE: 125 v DC.
 RATING: 1 kw.
 SPEED: 1200 rpm.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-916L: Technical Manual for Power Unit PE-85-L.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	TASSA
PROCUREMENT COGNIZANCE	
STOCK NO.	

PE-85-L

POWER UNIT

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-85-L		38 x 65 x 108	5050
1	Switchboard		32 x 36 x 84	500
1	5 gal Carboy		15 x 16 x 26	100
1	2 gal Carboy		14 x 17 x 22	70

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-85-L	34 x 53-9/16 x 95-1/8	4050
1	Switchboard	24 x 32-1/4 x 76	400
1	5 gal Carboy	11 x 12 x 22	60
1	2 gal Carboy	10 x 13 x 18	40

POWER UNIT

PE-85-M

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE

CYCLE: 4.
 TYPE HEAD: Single-piece, over-head valve.
 CYLINDERS: 4.
 BORE: 4.4 in.
 STROKE: 5.5 in.
 PISTON DISPLACEMENT: 334.5 cu. in.
 COMPRESSION RATIO
 DIESEL CYCLE: 14.2 to 1.
 GASOLINE CYCLE: 6 to 1.
 SPEED: 1200 rpm.
 HORSEPOWER: 45.5 at 1200 rpm.
 BATTERY: 6 v, 3 cell, heavy-duty.

GENERATOR

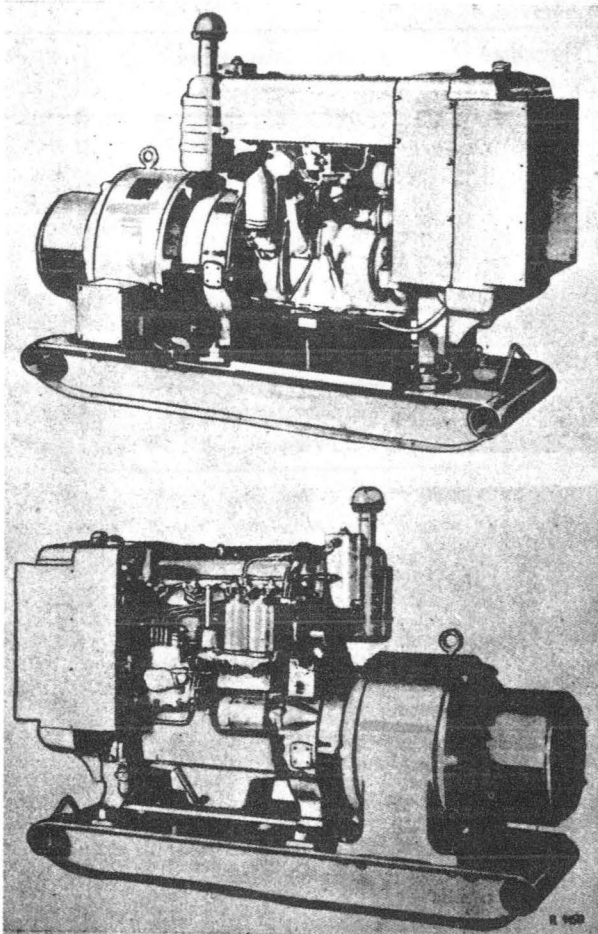
RATING: 25 kw (31.25 kva).
 POWER FACTOR: 80%.
 VOLTAGE: 230 v.
 CYCLE: 60 cps.
 PHASE: 3.
 WIRES: 3.
 CURRENT: 79 amp.
 SPEED: 1200 rpm.
 DRIVE: Direct.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-916M: Technical Manual for POWER UNIT PE-85-M.



Power Unit PE-85-M

FUNCTIONAL DESCRIPTION

The PE-85-M is a portable self-contained power plant consisting of a Diesel engine and an AC generator, which are connected by a mechanical coupling. It is designed to supply three phase AC for fixed radio installations. A system of safety controls provide protection during operation.

No field changes in effect at time of preparation (9 April 1957).

TYPE CLASSIFICATION
 DESIGN COGNIZANCE
 PROCUREMENT COGNIZANCE
 STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Power Unit PE-85-M		36-1/2 X 66 X 132	5880

PE-85-M

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-85-M	34-3/8 X 60-1/2 X 88-3/4	4430
1	Engine	27-1/2 X 52-1/2 X 88-3/4	1950
1	Alternator w/Exciter		1250
1	Control Panel	13-1/4 X 15-1/2 X 26-1/2	
1	Base	8 X 27-1/2 X 82	450
1	Accessories, less exhaust material		300

POWER UNIT**PE-88****ELECTRICAL AND MECHANICAL CHARACTERISTICS****ENGINE**

MAKE: D. W. Onan and Sons.
 TYPE: 4-stroke-cycle.
 TYPE CYLINDER HEAD: L.
 NUMBER OF CYLINDERS: 1.
 SPEED: 1,800 rpm.
 HORSEPOWER: 1.
 IGNITION SYSTEM: Battery.
 STARTING BATTERY: 12 v (one 12 v battery
 or two 6 v batteries in series).
 FUEL: Gasoline.
 FUEL TANK CAPACITY: 2-3/4 quarts.
 TYPE LUBRICATION: Splash.
 TYPE COOLING: Air.
 AIR CLEANER: Filter.

AC GENERATOR

MAKE: D. W. Onan and Sons.
 TYPE: Series wound.

AC WINDING

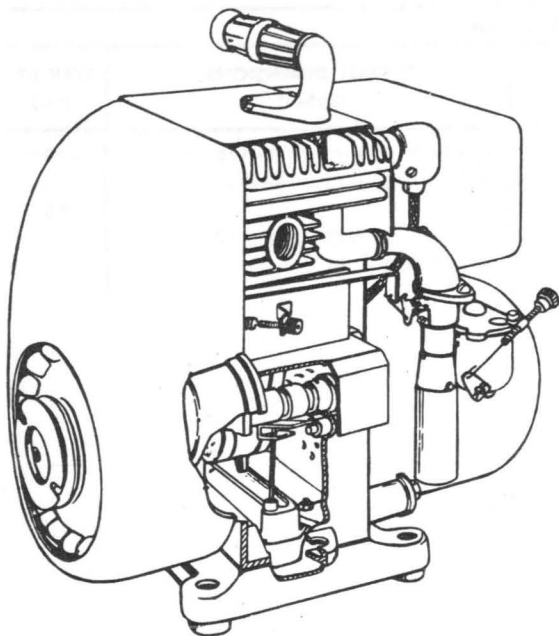
OUTPUT VOLTAGE: 115 v AC.
 FREQUENCY: 60 cycle.
 CURRENT RATING: 3.1 amp.
 POWER OUTPUT: 350 W.
 SPEED: 1,800 rpm.
 POWER FACTOR: 100%.
 TYPE DRIVE: Direct.
 REGULATION: 130 v at no load; 112 v
 at full load; 3 cycles when adjust-
 ed for a no load frequency below 63
 cycles and a full-load frequency
 above 58 cycles.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-997: Technical Manual for POWER UNIT
 PE-88 and PE-88-A.



Power Unit PE-88

FUNCTIONAL DESCRIPTION

Power Unit PE-88 is a complete gasoline-engine-operated electric generating plant used to furnish electric power to operate radio communication equipment. It may be used to operate signal systems, lights, heating units, small motors, and other appliances that require 115 v, 60 cycle AC.

The engine may be cranked by electric power supplied by a 12 v starting battery or manually by a rope starter. A DC winding on the generator armature supplies 12 v DC to charge the battery and is used as a 12 v starting winding when the generator is used as a starting motor.

The control box contains all the controls and switches necessary for operation of the power unit and regulation of the generator output.

No field changes in effect at time of preparation (22 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(1) 12 v storage battery.

TYPE CLASSIFICATION

DESIGN COGNIZANCE TASSA

PROCUREMENT COGNIZANCE

STOCK NO.

February 1960

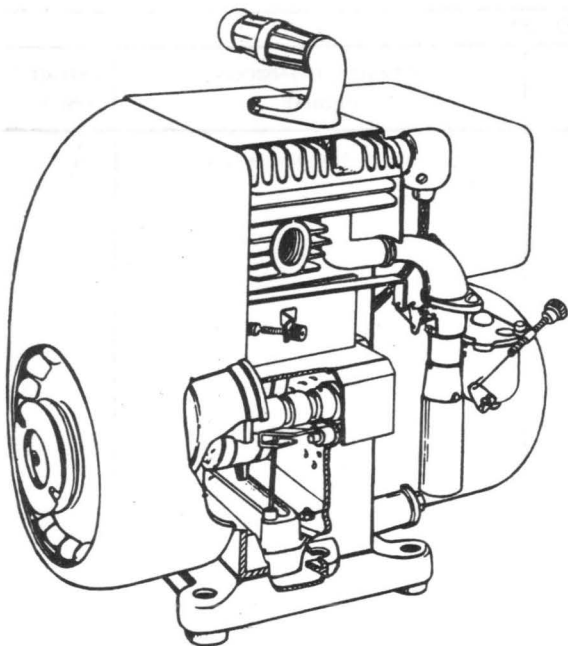
Radio-Auxiliary

PE-88

POWER UNIT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-88 Including:	16-1/2 X 18-3/4 X 19-1/4	84.5
1	AC Generator		
1	Control Box		
1	Gasoline Engine		
1	Muffler		
1	Oil Drain Nipple and Coupling		
1 Set	Spare Parts		
1	Starter Rope		
1 Set	Tools		

POWER UNIT**PE-88-A****ELECTRICAL AND MECHANICAL CHARACTERISTICS**

Power Unit PE-88-A

FUNCTIONAL DESCRIPTION

Power Unit PE-88-A is a complete gasoline-engine-operated electric generating plant used to furnish electric power to operate radio communication equipment. It may be used to operate signal systems, lights, heating units, small motors, and other appliances that require 115 v, 60 cycle AC.

The engine may be cranked by electric power supplied by a 12 v starting battery or manually by a rope starter. A DC winding on the generator armature supplies 12 v DC to charge the battery and is used as a 12 v starting winding when the generator is used as a starting motor.

The control box contains all the controls and switches necessary for operation of the power unit and regulation of the generator output.

No field changes in effect at time of preparation (22 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

- (1) 12 v storage battery.

ENGINE

MAKE: D. W. Onan and Sons.
 TYPE: 4-stroke-cycle.
 TYPE CYLINDER HEAD: L.
 NUMBER OF CYLINDERS: 1.
 SPEED: 1,800 rpm.
 HORSEPOWER: 1.
 IGNITION SYSTEM: Battery.
 STARTING BATTERY: 12 v (one 12 v battery or two 6 v batteries in series).
 FUEL: Gasoline.
 FUEL TANK CAPACITY: 2-3/4 quarts.
 TYPE LUBRICATION: Splash.
 TYPE COOLING: Air.
 AIR CLEANER: Filter.

AC GENERATOR

MAKE: D. W. Onan and Sons.
 TYPE: Series wound.
 AC WINDING
 OUTPUT VOLTAGE: 115 v AC.
 FREQUENCY: 60 cycle.
 CURRENT RATING: 3.1 amp.
 POWER OUTPUT: 350 W.
 SPEED: 1,800 rpm.
 POWER FACTOR: 100%.
 TYPE DRIVE: Direct.
 REGULATION: 117 v at 50 W load; 109 v at 350 W load frequency within the limits of 62 cycles at 50 W load to 58.5 cycles at 350 W load.
 DC WINDING: 12 v DC.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-997: Technical Manual for Power Units PE-88 and PE-88-A.

TYPE CLASSIFICATION DESIGN COGNIZANCE TASSA PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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February 1960

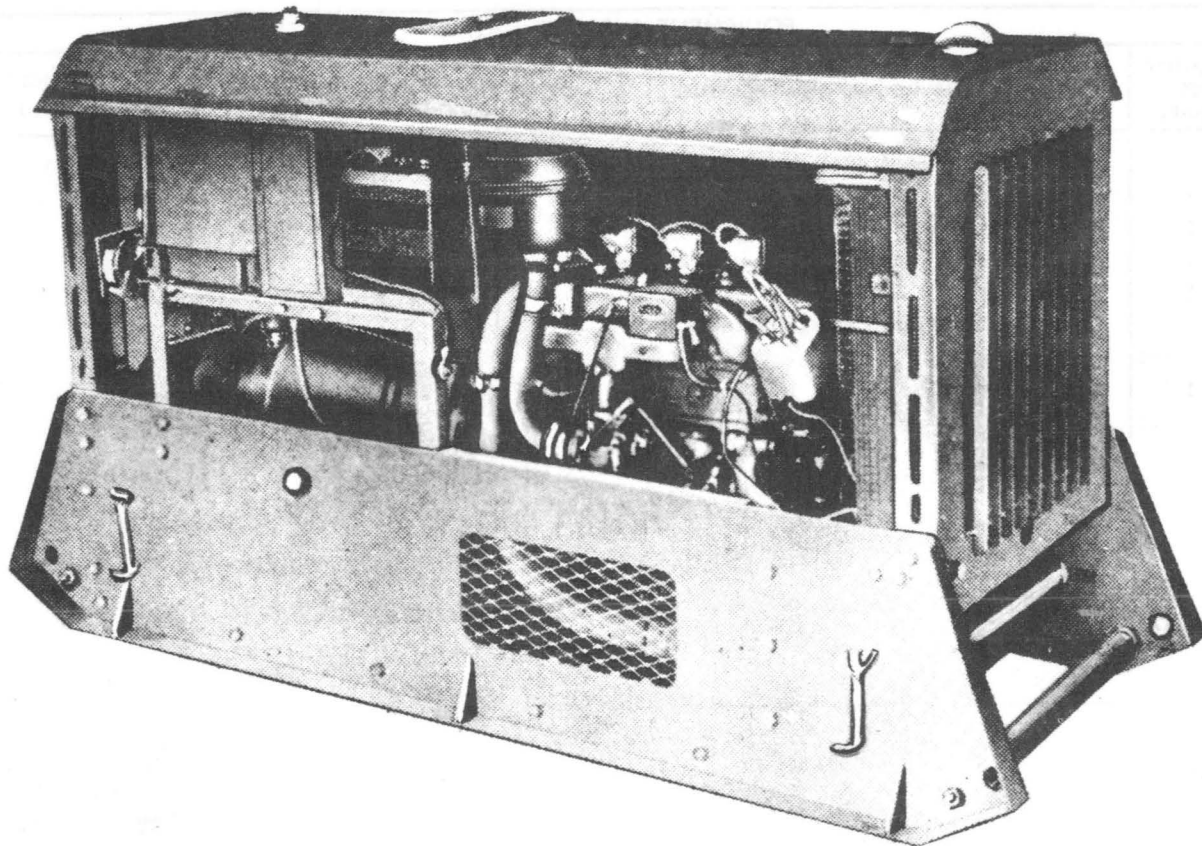
Radio-Auxiliary

PE-88-A**POWER UNIT****EQUIPMENT SUPPLIED DATA**

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Power Unit PE-88-A Including:	14-3/16 X 17-1/8 X 19-1/2	90
1	AC Generator		
1	Control Box		
1	Gasoline Engine		
1	Muffler		
1	Oil Drain Nipple and Coupling		
1 set	Spare Parts		
1	Starter Rope		
1 set	Tools		

GENERATOR SET, GASOLINE ENGINE

PE-95



Power Unit PE-95

FUNCTIONAL DESCRIPTION

The PE-95 is a complete, self-contained, transportable electric generating set consisting of a 4 cylinder, 4-cycle, L-head, liquid-cooled, electric starting gasoline-engine directly connected to an AC generator of the revolving-field, self-excited type.

A control panel is mounted at one end of the unit on which all necessary meters, terminals and controls are mounted. The complete assembly is mounted on a welded-steel skid base and inclosed within a sheet metal housing. The housing is provided with doors and removable panels enabling the operator to reach any part of the equipment.

The unit is designed for installation in Trailer K-52 and is used to furnish power for the operation of Radio Sets AN/TRC-5, AN/TRC-6, SCR-399, SCR-499; Radio Control Central AN/TRQ-1, Radio Direction Finder Control

TC-8 and Radio Intercept Control TC-9.

No field changes in effect at time of preparation (25 February 1957).

RELATION TO OTHER EQUIPMENT

Identical to PE-95-A, PE-95-B and PE-95-C.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE:

HORSEPOWER: 20 hp.

SPEED: 1200 rpm.

CYLINDERS: 4.

BORE: 3-3/16 in.

STROKE: 3-3/4 in.

COMPRESSION RATIO: 6.1 to 1.

CYCLE: 4.

HEAD: L.

Radio-Auxiliary

October 1957

PE-95

GENERATOR SET, GASOLINE ENGINE

COOLING: Liquid.
 COOLING SYSTEM CAPACITY: 4-1/4 gal.
 FUEL USED: Gasoline.
 FUEL TANK CAPACITY: 10-1/2 gal.
 FUEL CONSUMPTION: 1.2 gal per hr at
 rated load.
 LUBRICATION SYSTEM: pressure.
 CRANKCASE OIL CAPACITY: 4 qts.
 AIR CLEANER: oil bath type: 2 pt.
 STARTING: Electric (on 12 v battery).
 GOVERNOR: flyball.
 IGNITION: magneto.

GENERATOR

OUTPUT RATING: 5 kw, 115 v, 54.8 amp.
 POWER FACTOR: 80%.
 FREQUENCY: 60 cps.
 PHASE: single.
 WIRES: 2.
 OPERATING SPEED: 1200 rpm.
 DRIVE: direct.

MANUFACTURER'S OR CONTRACTOR'S DATA

Approximate Cost: \$1180.00 with equip-
 ment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-487E: Dept of Army Technical Manual.
 Directory of Signal Corps Equipments,
 Power Equipment.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE
 STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Generator Set, Gasoline Engine PE-95	84		1700

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Generator Set, Gasoline Engine PE-95	27 x 39 x 73	1360

26 April 1962

POWER UNIT, TRAILER MOUNTED PE-95-A W/K-52

Cog Service: USA FSN: 6115-308-5212

Functional Class:

USA

USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

Power Unit PE-95-A is a complete, self-contained, gasoline-engine-driven electric generating unit designed to generate ac for mobile and fixed plant installation. It may be used for any other application that requires an output within the rating of the unit.

No field changes in effect at time of preparation (5 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE:

MAKE: Ford Motor Co.

MODEL: ONY.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 4.

SPEED: 1,200 rpm.

HORSEPOWER: 24.

IGNITION SYSTEM: Magneto.

STARTING BATTERY: 12 v.

FUEL: Gasoline.

FUEL TANK CAPACITY: 10-1/2 gallons.

FUEL CONSUMPTION: 1.2 gallons per hour.

TYPE LUBRICATION: Forced feed.

CRANKCASE CAPACITY: 4 qts.

TYPE COOLING: Water.

RADIATOR CAPACITY: 15.5 qts.

AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: D. W. Onan.

MODEL: WC-75s.

TYPE: Revolving field.

POWER OUTPUT: 120 v ac, 54.8 amp; 240 v ac, 27.4 amp.

FREQUENCY: 60 cyc.

RATING: 5 kw.

POWER FACTOR: 80%.

SPEED: 1,200 rpm.

PHASE: Single.

TYPE OF DRIVE: Direct.

EXCITER: Built-in.

TRAILER

PE-95-A W/K-52 POWER UNIT, TRAILER MOUNTED

QUANTITY OF WHEELS: 2.
TYPE OF BODY: Lattice.
MATERIAL OF BODY: Steel.
CAPACITY RATING: 1 ton.
TYPE OF COUPLING: Plain, offset, lunette type.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-95-A		27-1/4 x 38-1/2 x 72-1/2	1,497
1	Trailer K-52		67-1/2 x 73 x 145-1/2	3,000

REFERENCE DATA AND LITERATURE:

TM11-904: Technical Manual for Power Units PE-95-A, PE-95-B, and PE-95-C.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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1590-CHI-42

26 April 1962

POWER UNIT, TRAILER MOUNTED PE-95-B W/K-52

Cog Service: USA FSN: 6115-308-5212

Functional Class:

USA

USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

Power Unit PE-95-B is a complete, self-contained, gasoline-engine-driven electric generating unit designed to generate ac for mobile and fixed plant installation. It may be used for any other application that requires an output within the rating of the unit.

No field changes in effect at time of preparation (5 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Ford Motor Co.

MODEL: ONY.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 4.

SPEED: 1,200 rpm.

HORSEPOWER: 24.

IGNITION SYSTEM: Magneto.

STARTING BATTERY: 12 v.

FUEL: Gasoline.

FUEL TANK CAPACITY: 10-1/2 gallons.

FUEL CONSUMPTION: 1.2 gallons per hour.

TYPE LUBRICATION: Forced feed.

CRANKCASE CAPACITY: 4 qts.

TYPE COOLING: Water.

RADIATOR CAPACITY: 15.5 qts.

AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: D.W. Onan.

MODEL: WC-75s.

TYPE: Revolving field.

POWER OUTPUT: 120 v ac, 54.8 amp; 240 v ac, 27.4 amp.

FREQUENCY: 60 cyc.

RATING: 5 kw.

POWER FACTOR: 80%.

SPEED: 1,200 rpm.

PHASE: Single.

TYPE OF DRIVE: Direct.

EXCITER: Built-in.

TRAILER

PE-95-B W/K-52 POWER UNIT, TRAILER MOUNTED

QUANTITY OF WHEELS: 2.
TYPE OF BODY: Lattice.
MATERIAL OF BODY: Steel.
CAPACITY RATING: 1 ton.
TYPE OF COUPLING: Plain, offset, lunette type.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-95-B		27-1/4 x 38-1/2 x 72-1/2	1,497
1	Trailer K-52		67-1/2 x 73 x 145-1/2	3,000

REFERENCE DATA AND LITERATURE:

TM11-904: Technical Manual for Power Units PE-95-A, PE-95-B, and PE-95-C.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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1.2 PE-95-B W/K-52: 2

26 April 1962

POWER UNIT, TRAILER MOUNTED PE-95-C W/K-52

Cog Service: USA FSN: 6115-308-5212

Functional Class:

USA

USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

Power Unit PE-95-C is a complete, self-contained, gasoline-engine-driven electric generating unit designed to generate ac for mobile and fixed plant installation. It may be used for any other application that requires an output within the rating of the unit.

No field changes in effect at time of preparation (5 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Ford Motor Co.

MODEL: ONY.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 4.

SPEED: 1,200 rpm.

HORSEPOWER: 24.

IGNITION SYSTEM: Magneto.

STARTING BATTERY: 12 v.

FUEL: Gasoline.

FUEL TANK CAPACITY: 10-1/2 gallons.

FUEL CONSUMPTION: 1.2 gallons per hour.

TYPE LUBRICATION: Forced feed.

CRANKCASE CAPACITY: 4 qts.

TYPE COOLING: Water.

RADIATOR CAPACITY: 15.5 qts.

AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: D.W. Onan.

MODEL: WC-75s.

TYPE: Revolving field.

POWER OUTPUT: 120 v ac, 54.8 amp; 240 v ac, 27.4 amp.

FREQUENCY: 60 cyc.

RATING: 5 kw.

POWER FACTOR: 80%.

SPEED: 1,200 rpm.

PHASE: single.

TYPE OF DRIVE: Direct.

EXCITER: Built-in.

TRAILER

PE-95-C W/K-52 POWER UNIT, TRAILER MOUNTED

QUANTITY OF WHEELS: 2.
TYPE OF BODY: Lattice.
MATERIAL OF BODY: Steel.
CAPACITY RATING: 1 ton.
TYPE OF COUPLING: Plain, offset, lunette type.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-95-C		27-1/4 x 38-1/2 x 72-1/2	1,497
1	Trailer K-52		67-1/2 x 73 x 145-1/2	3,000

REFERENCE DATA AND LITERATURE:

TM11-904: Technical Manual for Power Units PE-95-A, PE-95-B, and PE-95-C.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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26 April 1962

Cog Service: USA

FSN: 6115-643-3693

POWER UNIT, TRAILER MOUNTED PE-95-G W/K-52

Functional Class:

USA

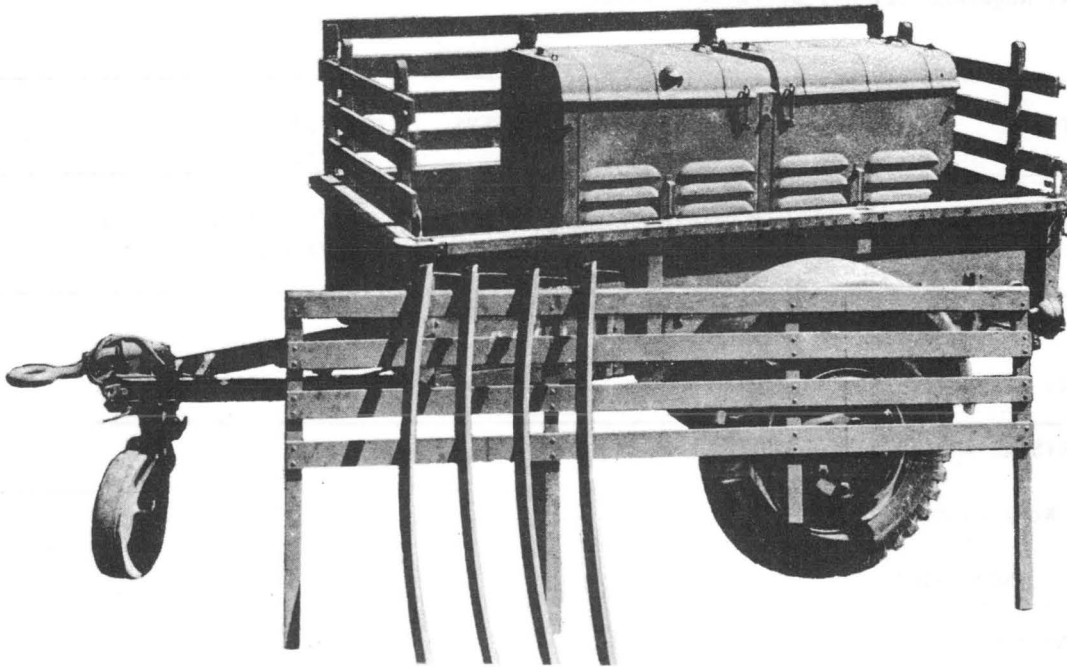
USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:



Power Unit, Trailer Mounted PE-95-G W/K-52

FUNCTIONAL DESCRIPTION:

Power Unit PE-95-G is a complete, self-contained, gasoline-engine-driven electric generating unit designed to generate ac for mobile and fixed plant installations. The unit may be used for any other application which requires an output within the rating of the unit.

No field changes in effect at time of preparation (5 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Willys-Overland.

MODEL: JP-441.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 4.

PE-95-G W/K-52 POWER UNIT, TRAILER MOUNTED

SPEED: 1,800 rpm.
HORSEPOWER: 35.
IGNITION SYSTEM: Battery and distribution.
STARTING BATTERY: 12 v.
FUEL: Gasoline.
FUEL TANK CAPACITY: 10-1/2 gallons.
FUEL CONSUMPTION: 1.1 gallons per hour.
TYPE LUBRICATION: Force feed.
CRANKCASE CAPACITY: 5 qts.
TYPE COOLING: Water.
RADIATOR CAPACITY: 15.5 qts.
AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: D. W. Onan.
MODEL: 10111.
TYPE: Revolving field.
POWER OUTPUT: 120 v ac, 104 amp; 240 v ac, 52 amp.
FREQUENCY: 60 cyc.
RATING: 10 kw.
POWER FACTOR: 80%.
SPEED: 1,800 rpm.
PHASE: Single.
TYPE OF DRIVE: Dual V-belts.
EXCITER: Built-in.

TRAILER

QUANTITY OF WHEELS: 2.
TYPE OF BODY: Lattice.
MATERIAL OF BODY: Steel.
CAPACITY RATING: 1 ton.
TYPE OF COUPLER: Plain, offset, lunette type.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-95-G		28-1/4 x 38-1/2 x 67-1/2	1,556
1	Trailer K-52		67-1/2 x 73 x 145-1/2	3,000

REFERENCE DATA AND LITERATURE:

TM11-904H: Technical Manual for Power Units PE-95-G and PE-95-H.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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23 April 1962

Cog Service: USA FSN: 6115-643-3693

POWER UNIT, TRAILER MOUNTED PE-95-H W/K-52

Functional Class:

USA

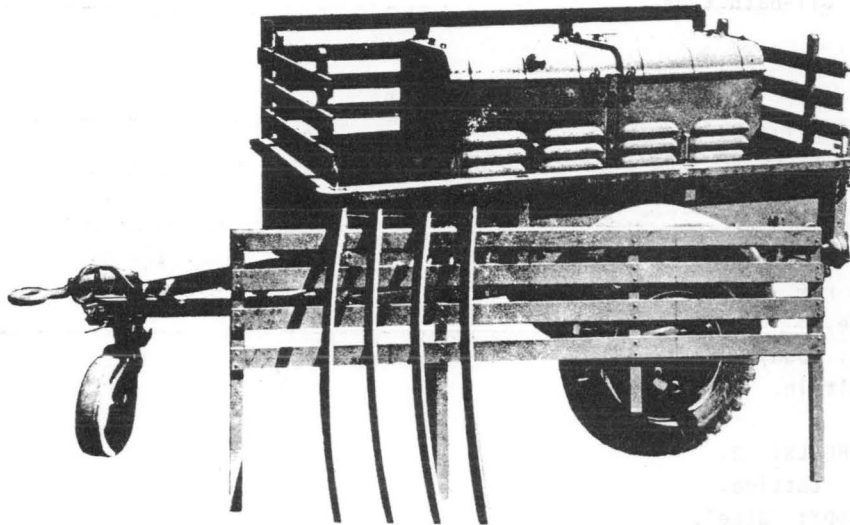
USN

USAF

Used by

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER:



Power Unit, Trailer Mounted PE-95-H W/K-52

FUNCTIONAL DESCRIPTION:

Power Unit PE-95-H is a complete, self-contained, gasoline-engine-driven electric generating unit designed to generate ac for mobile and fixed plant installations. The unit may be used for any other application which requires an output within the rating of the unit.

No field changes in effect at time of preparation (5 April 1961).

TECHNICAL CHARACTERISTICS:

ENGINE

MAKE: Willys-Overland.

MODEL: JP-441.

TYPE: 4-stroke-cycle.

TYPE CYLINDER HEAD: L.

NUMBER OF CYLINDERS: 4.

PE-95-H W/K-52 POWER UNIT, TRAILER MOUNTED

SPEED: 1,800 rpm.
HORSEPOWER: 35.
IGNITION SYSTEM: Battery and distribution.
STARTING BATTERY: 12 v.
FUEL: Gasoline.
FUEL TANK CAPACITY: 10-1/2 gallons.
FUEL CONSUMPTION: 1.1 gallons per hour.
TYPE LUBRICATION: Force feed.
CRANKCASE CAPACITY: 5 qts.
TYPE COOLING: Water.
RADIATOR CAPACITY: 15.5 qts.
AIR CLEANER: Oil-bath type.

AC GENERATOR

MAKE: D. W. Onan.
MODEL: 10111.
TYPE: Revolving field.
POWER OUTPUT: 120 v ac, 104 amp; 240 v ac, 52 amp.
FREQUENCY: 60 cyc.
RATING: 10 kw.
POWER FACTOR: 80%.
SPEED: 1,800 rpm.
PHASE: Single.
TYPE OF DRIVE: Dual V-belts.
EXCITER: Built-in.

TRAILER

QUANTITY OF WHEELS: 2.
TYPE OF BODY: Lattice.
MATERIAL OF BODY: Steel.
CAPACITY RATING: 1 ton.
TYPE OF COUPLER: Plain, offset, lunette type.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Power Unit PE-95-H		28-1/4 x 38-1/2 x 67-1/2	1,556
1	Trailer K-52		67-1/2 x 73 x 145-1/2	3,000

REFERENCE DATA AND LITERATURE:

TM11-904-H: Technical Manual for Power Units PE-95-G and PE-95-H.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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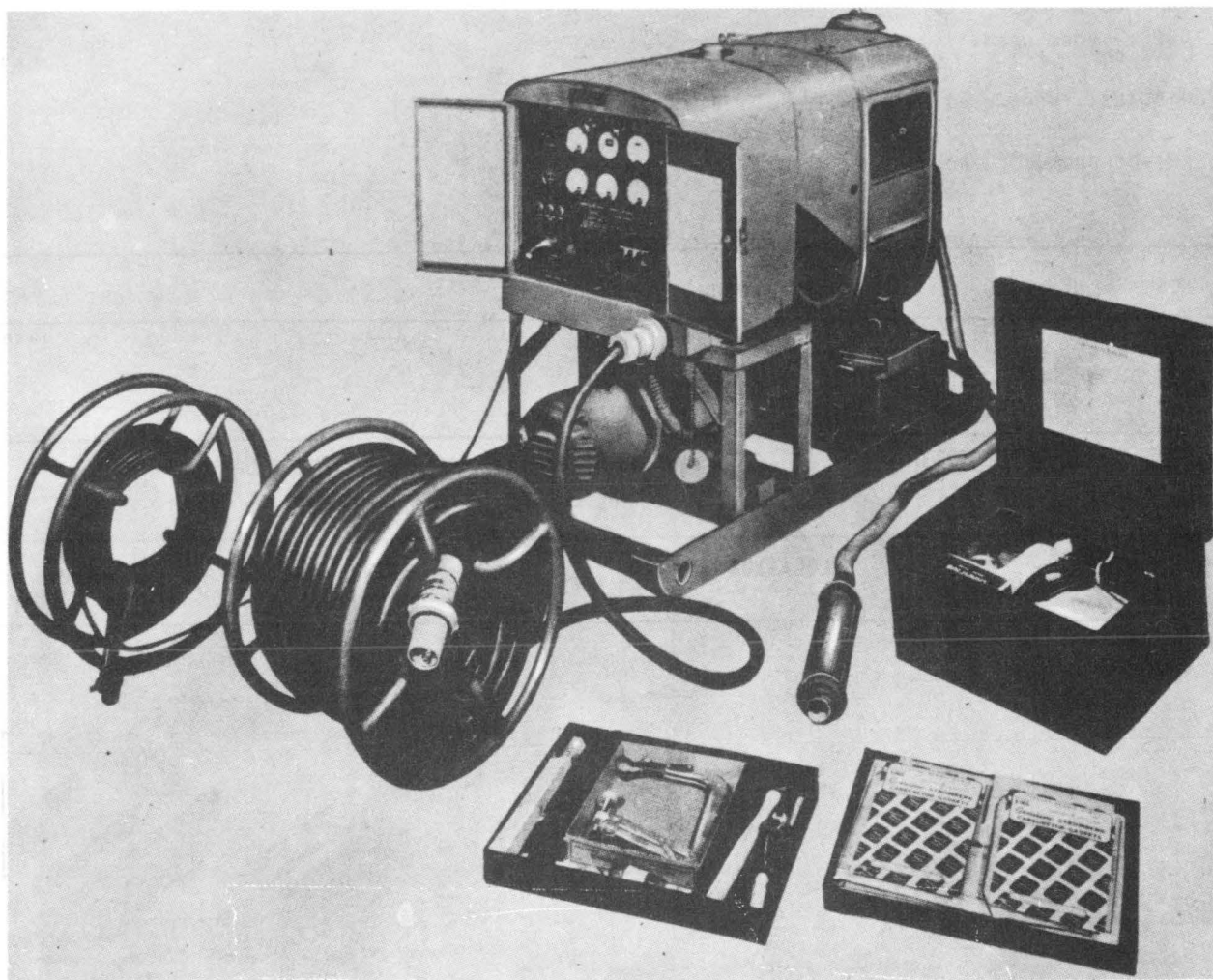
PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
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POWER UNIT



Power Unit PE-99-F

FUNCTIONAL DESCRIPTION

The PE-99-A through -G are designed primarily as AC power sources for ground radio station installations. They incorporate remote control facilities and may be located at a distance from the radio equipment. These units contain a gasoline engine-driven generator having an output of 120 v, 60 cps, three phase alternating current at 7.5 kva. Connections for obtaining 12 DV, 60 cps, single phase alternating current are also available.

The major assemblies are a four-cylinder,

air-cooled gasoline engine, an exciter generator, and a control panel. All these assemblies are installed on an angle-iron, skid type mounting so designed that it may be permanently mounted on a suitable base or installed in a truck or a small trailer. Trailer K-63 is usually used for this purpose, when the power unit is used with mobile or portable radio equipment. Each of the eight models procured incorporates the major assemblies noted. Slight variation exist between these assemblies of the various models.

Radio-Auxiliary

PE-99-A thru -G

POWER UNIT

No field changes in effect at time of preparation (17 December 1956).

RELATION TO OTHER EQUIPMENT

All models of the power unit are mechanically interchangeable except for variations in physical sizes. Electrically, all models except PE-99-A are interchangeable. This power unit has a two conductor remote control cable therefore PE-99-A cannot be interchanged with other models without installing a new remote control cable or wiring the three-conductor cable in such a way that it will operate with the A model.

Equipment Required but not Supplied: (1) Shelter HO-3 or (2) Trailer K-63 and (1) 1/2 in. dia X 6 ft lg ground rod.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ENGINE CHARACTERISTICS

HORSEPOWER: 20.5.
TYPE: "V" type.
SPEED: 2200 rpm.
QUANTITY OF CYLINDERS: 4.
BORE: 3 in.
STROKE: 3-1/4 in.
DISPLACEMENT: 91.88 cu in.
CYCLE: 4.
METHOD OF COOLING: Air-cooled.
FUEL USED: 80 octane leaded gasoline.
FUEL TANK CAPACITY: 9-3/4 gal except for PE-99-A and -B which have a capacity of 7 gal. All models have facilities

for a remote supply.
FUEL CONSUMPTION: 4 to 6 hr continuous running per full tank.
OIL SYSTEM: Splash and forced feed combination.
CRANKCASE OIL CAPACITY: 4 qt.
STARTING: Electric, 12 v.
GOVERNOR: Centrifugal type.
IGNITION: Magneto.
NOISE SUPPRESSION: Shielded.
GENERATOR CHARACTERISTICS
TYPE: AC, built-in exciter, direct-connected.
RATING: 7.5 kva, 120 v, 60 cps, 3 phase or single ph.
SPEED: 1800 rpm.
DRIVE: Direct.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

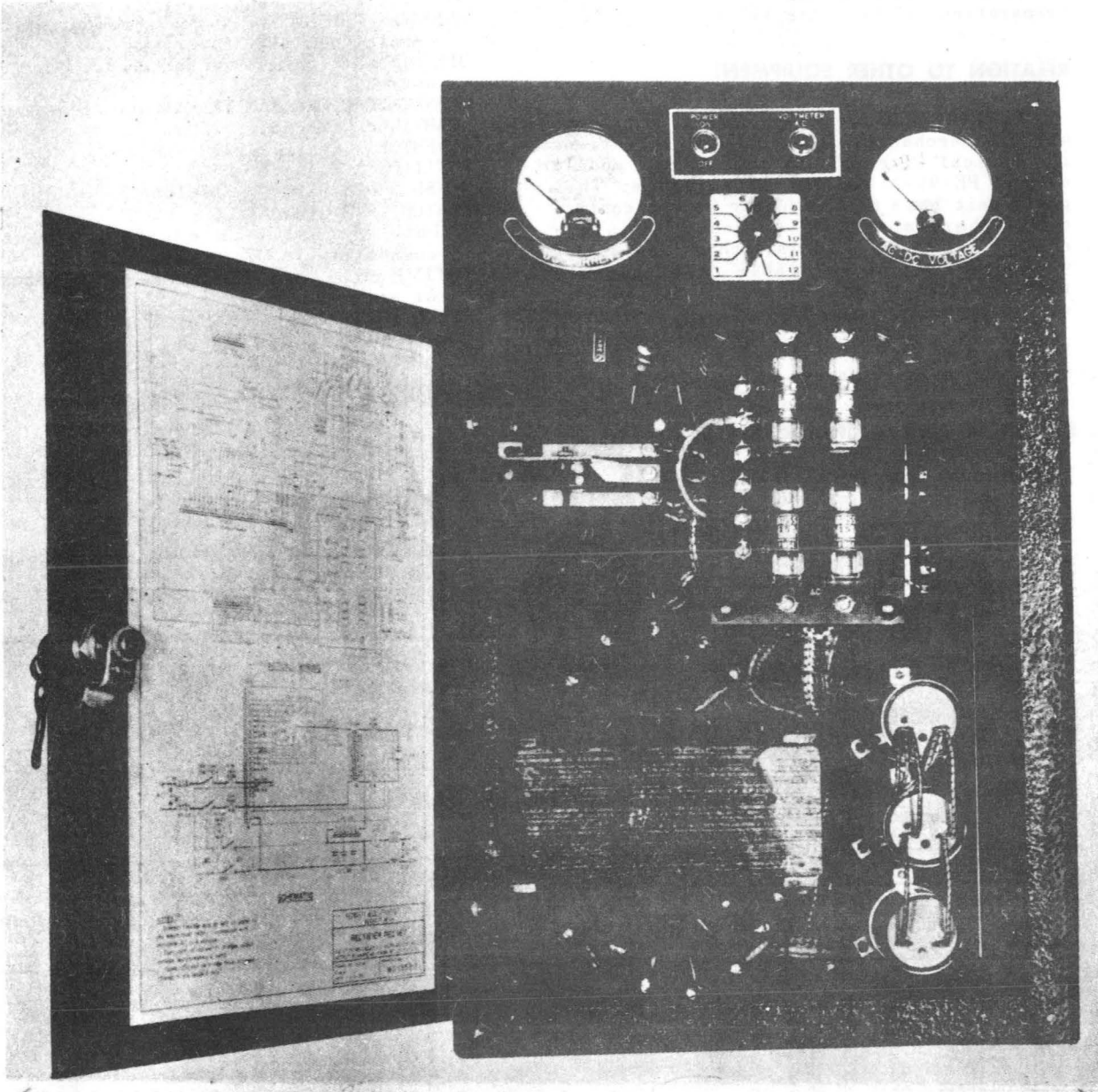
AN16-40PE99-2: Technical Manual for Power Unit PE-99-A, PE-99-B, PE-99-C, PE-99-D, PE-99-E, PE-99-F and PE-99-G.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	BUAER
PROCUREMENT COGNIZANCE	
STOCK NO.	

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	POWER Unit PE-99-A or	28 X 50 X 55	1150
1	POWER Unit PE-99-B or	28 X 41 X 60	1140
1	POWER Unit PE-99-C or	28 X 41 X 60	1080
1	POWER Unit PE-99-D or	28 X 42 X 60	1140
1	POWER Unit PE-99-E or	28 X 40 X 59	1085
1	POWER Unit PE-99-F or	28 X 42 X 59	1015
1	POWER Unit PE-99-G	28 X 41 X 60	1080
1	Exhaust Muffler	4 in. dia X 18	
1	Flexible Exhaust Hose	72 lg	
1	3 conductor, Power Cable	150 ft	
1	Remote Control Cable w/start-stop switch	150 ft	
2	Reels		
1	Set of Equipment Spares		
1	Set of Tools		
1	Metal Box for Spare Parts and Tools		

RECTIFIER

Radio-Auxiliary
PEC-167*Rectifier PEC-167***FUNCTIONAL DESCRIPTION**

The PEC-167 rectifier is designed to supply filtered DC for the operation of printing teletype equipment. The rectifier element is a full wave rare gas type tube that is capable of operating at low ambients. Control is by means of a tap switch.

The rectifier consists essentially of an auto-transformer, a plate transformer, a

heater transformer, a filter reactor and condensers, a rectifier tube, a tap switch, a 0 to 10 DC ammeter, and 0 to 150 AC-DC voltmeter, a time delay relay, a terminal and fuse panel, a power switch and a voltmeter switch, and necessary resistors and radio frequency filters all mounted in a metal cabinet arranged for wall mounting.

No field changes in effect at time of preparation (12 April 1957).

Radio-Auxiliary
PEC-167

RECTIFIER

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Total Tubes: (1)

INPUT: 105 to 125 v or 210 to 250 v, 50 to 60 cps, single ph.
OUTPUT: 0 to 6 amp DC continuous.

REFERENCE DATA AND LITERATURE

Technical Manual for Rectifier PEC-167.

MANUFACTURER'S OR CONTRACTOR'S DATA

Power Equipment Co., Detroit, Michigan.
Contract NXsr-67947.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) EL6CF

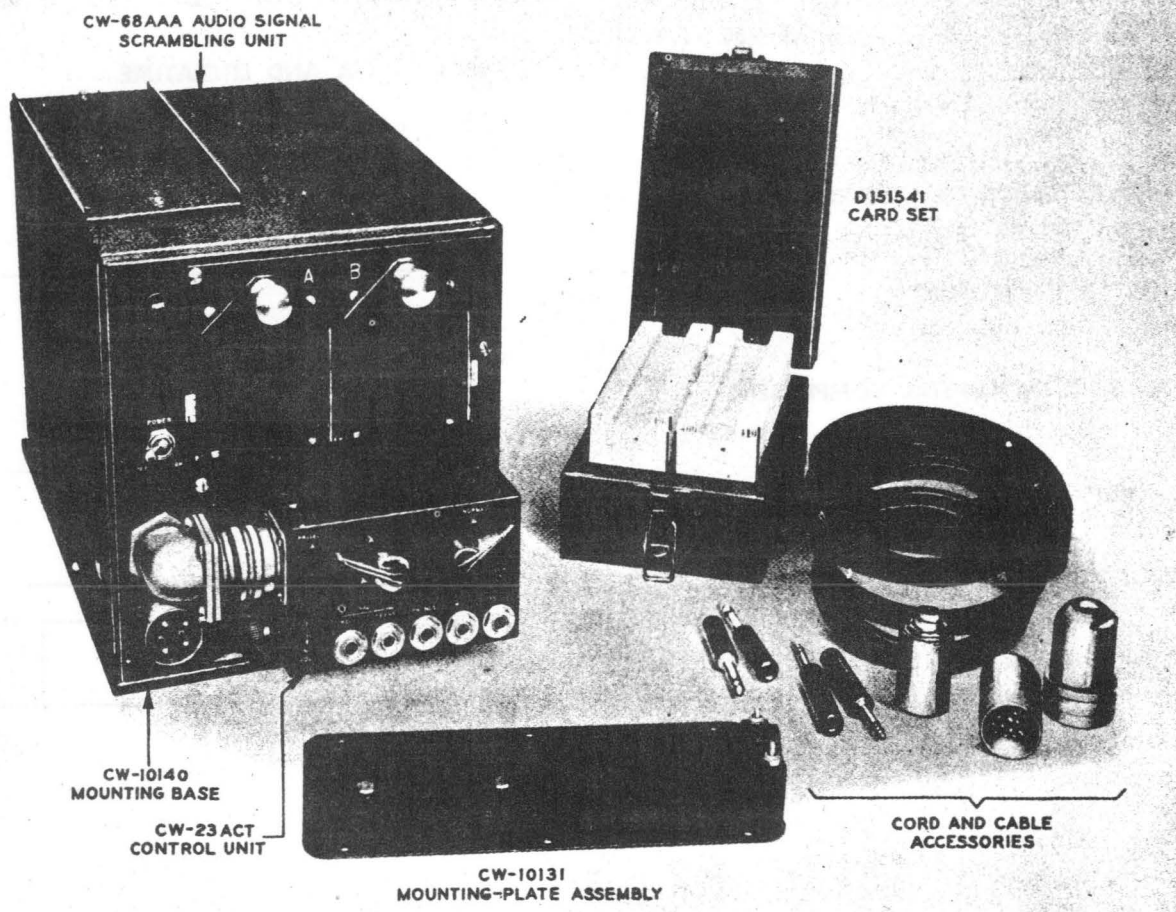
EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Rectifier PEC-167		

March 1957

AUDIO SIGNAL SCRAMBLING EQUIPMENT

PF



Model PF Audio Signal Scrambling Equipment

FUNCTIONAL DESCRIPTION

The Model PF is a device for obtaining speech and telegraphy privacy by scrambling (or coding) either type of signal at the transmitting terminal of the communication link, and unscrambling (or decoding) at the receiving terminal. It is normally used in conjunction with a suitable transmitter and radio receiver for this purpose.

No field changes in effect at time of preparation (16 August 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER REQUIREMENTS: 22 to 30 v DC.
TEMPERATURE: -40°F to +140°F.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co., Inc., New York, N.Y.

Contract NXs 4526, dated 30 April 1942.
Approximate Cost: \$1650.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 6V6GT	(1) 6SJ7	(1) 2051 or 2050
(1) 6SR7	(1) 6J5	(1) 6L7
Total Tubes: (7)		

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,922: Preliminary Technical Manual for Model PF Audio Signal Scrambling Equipment.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUSHIPS PROCUREMENT COGNIZANCE STOCK NO.

PF

AUDIO SIGNAL SCRAMBLING EQUIPMENT

March 1957

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Audio Signal Scrambling Unit and Enclosure NT-68AAA	8-1/2 x 8-1/2 x 14	22-13/16
1	Control Unit NT-23ACT	2-1/2 x 3 x 6	15/16
1	Mounting Plate Assy for Remote Control NT-10131	1-1/2 x 4 x 9	5/16
1	Mounting Base NT-10140	2 x 9 x 13	5/8
1	Card Set NT-151541	3-3/4 x 4-3/4 x 7-1/2	3-13/16
1	Set of Bulk Cordage for Power and Patch cords, Interconnecting Cables, Plugs and Fittings		

December 1956

SOUND REPRODUCING EQUIPMENT**PG**

No field changes in effect at time of preparation (17 August 1956).

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: (1) Set Headphones.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER REQUIREMENTS: 110 to 120 v, 58 to 62 cps, single ph, 110 W.
 TURN TABLE SIZE: 16-1/4 in. dia.
 GROOVE TRAVEL: 7 in. to not more than 1 in per sec.
 REVERSING PERIOD: 0.4 sec min to over 2 sec.
 ROTATION: Clockwise or counter-clockwise.
 IMPEDANCE OUTPUT: 600 ohm.
 FREQUENCY RANGE: 200 to 3000 cps.

MANUFACTURER'S OR CONTRACTOR'S DATA

MEMOVOX, Inc. Beverly Hills, California
 Contract NXss-15073, dated 6 March 1943.

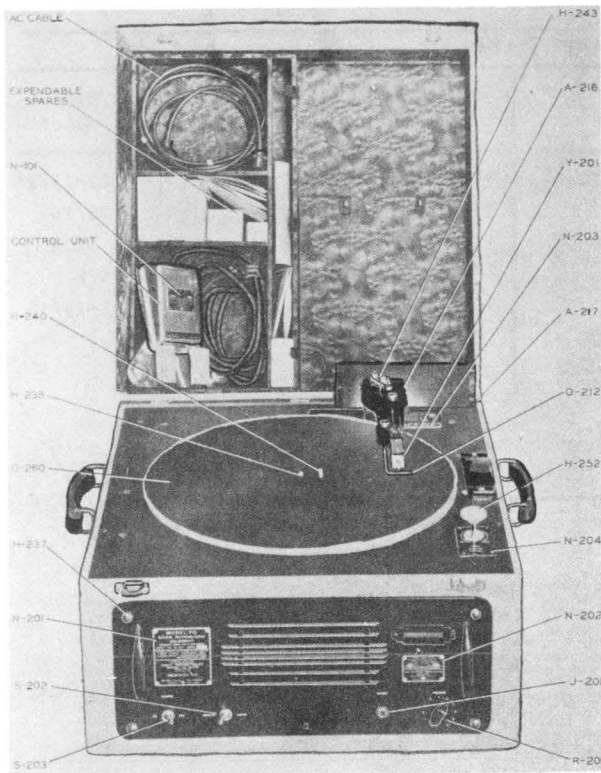
TUBE AND/OR CRYSTAL COMPLEMENT

(1) 6SJ7GT (2) 6SN7GT
 (1) 6V6GT (1) 5Y3GT
 Total Tubes: (5)
 (1) MEMOVOX PT. No. 1943
 Total Crystals: (1)

REFERENCE DATA AND LITERATURE

NAVSHIPS 95207: Preliminary Technical Manual for Sound Reproducing Equipment Model PG.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.



Sound Reproducing Equipment

FUNCTIONAL DESCRIPTION

The Navy Model PG is a portable sound reproducing equipment consisting of a Variable Speed Reproducer Unit NT-67011 which is designed to reproduce the audio signals embossed upon Memodiscs by the Navy Model PE and PF-1 Voice Recording Equipment, and a foot-operated Control Unit NT-23362 which permits the operator to start and stop reproduction at will, and to cause the repeating of as much of the material just reproduced as may be desired.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Sound Reproducing Equipment Model PG consisting of:	13-3/4 X 22 X 24-1/2	100
1	Variable Speed Reproducer Unit NT-67011		
1	Control Unit NT-23362		
1	Set Expendable Spares		
2	Technical Manuals NAVSHIPS 95207		
1	Spare Parts Box and Accessories	8-1/2 X 12 X 20-1/2	30

September 1956

CAMERA, MOTION PICTURE**PH-5011/U****FUNCTIONAL DESCRIPTION**

The PH-5011/U is a general purpose, silent type 16 mm motion picture camera.

No field changes in effect at time of preparation (27 July 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FILM ACCOM: 16 mm.

FILM LOAD: 100 ft spool capacity

SHUTTER DATA

ROTARY DISK: 8, 16, 24, 32, or 64 frames per sec.

SHUTTER OPENING: 165 deg max (adj).

LENS DATA

FOCAL LG: 25 mm.

APERTURE: F1.9 max.

TURRET MTG: 2 lens revolving.

MANUFACTURER'S OR CONTRACTOR'S DATA

Eastman Kodak, Rochester, N.Y.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

Nomenclature Card for Camera Motion Picture
PH-5011/U

TYPE CLASSIFICATION
DESIGN COGNIZANCE
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Camera, Motion Picture PH-5011/U	3-3/8 X 5-1/2 X 9	

SOUND RECORDING EQUIPMENT

Radio-Auxiliary
PJ



Sound Recording Equipment PJ

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 200 to 3000 cycles operating power; 115 v, 60 cps, single ph, 0.53 amp, 55 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

The Soundscriber Corp, New Haven, Conn.
Contract NXss 16639, dated 31 October 1942.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 6SL7GT (2) 6V6GT (1) 6X5GT
Total Tubes: (5)

FUNCTIONAL DESCRIPTION

The PJ is a complete voice recording equipment for transcribing voice, or other audio signals, on discs and reproducing the signals from the discs. It is suitable for recording and reproducing cw or voice signals. The signals may be monitored with headphones while actually recording on the disc.

No field changes in effect at time of preparation (28 November 1956).

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: (1) Microphone 213264-6.

REFERENCE DATA AND LITERATURE

NAVSHIPS 95209: Technical Manual for Sound Recording Equipment PJ.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Transcriber-Reproducer Unit NT-67009	11 x 11-1/2 x 18-1/2	68
1	Carrying Case		
2	Technical Manual		
as required	Disc		28
1	Set Spare Parts		40