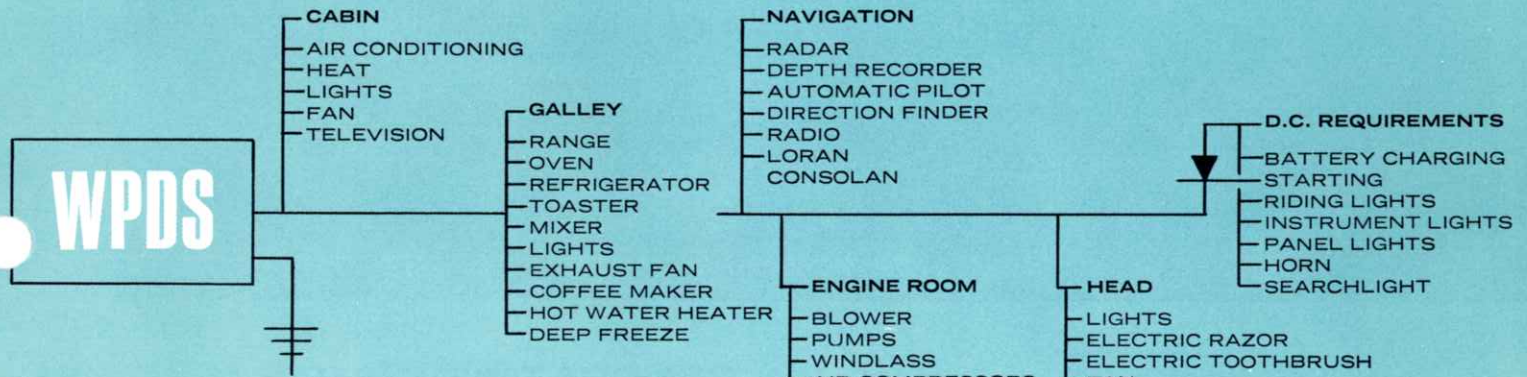


# WESTERBEKE STATIC-EXCITED MARINE DIESEL GENERATOR SETS SERIES

# WPDS

**DEPENDABLE ELECTRIC POWER FOR ALL SEAGOING CHORES**



Westerbeke marine diesel generator sets have been selected for use aboard fine yachts designed or built by John G. Alden Company, Bristol Boats, Burger Boat Company, Century Boat Company, Robert E. Derektor, Eldredge-McInnis, Equitable Equipment Company, Fred S. Ford, Jr., Gibbs Corporation, Hodgdon Brothers, Huckins Yacht Corporation, The Matthews Company, Philip Rhodes, Stephens Marine Inc., John Trumpy & Sons, and many others, both in this country and abroad.

Important reasons for selection of these generator sets have been: light weight, compact size, smooth and quiet operation, superior design and equipment, quick and unfailing starts, and excellent performance records.

Today's sophisticated electrical equipment requires closely regulated frequency and voltage to operate correctly and for protection against sudden surges. WPDS static-excited generator sets are unique in this respect. Voltage is regulated electronically and restored to rated value almost instantly. Voltage fluctuations with load changes are insignificant compared to those of inherently regulated machines. The frequency is regulated by a precise mechanical governor so that over the full range of loads, frequency is maintained at  $\pm 1\%$ . When you use sophisticated electronic equipment, you need this dependably constant source of electricity power.



M. Y. Sirdar of Christchurch, New Zealand built in 1965 by De Vries-Lentsch. Electrical power supplied by 2 Westerbeke 12.5 kw., 50 cycle generators.

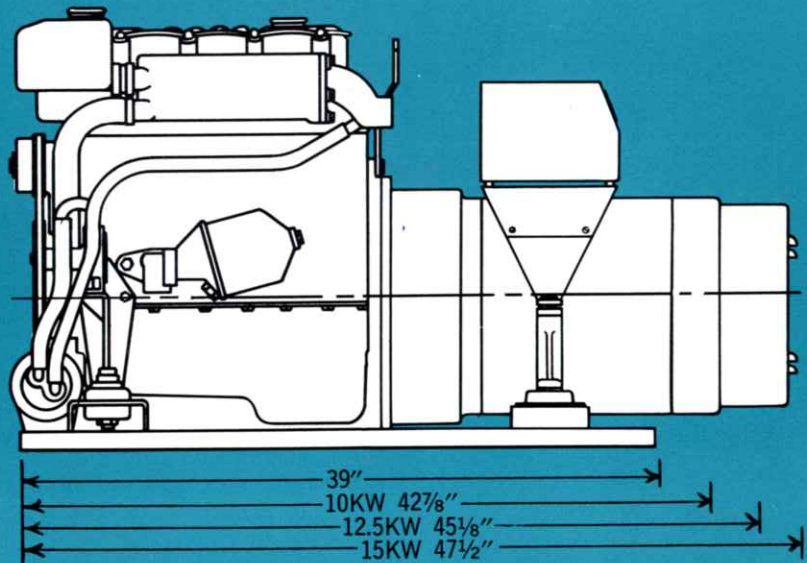
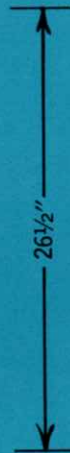
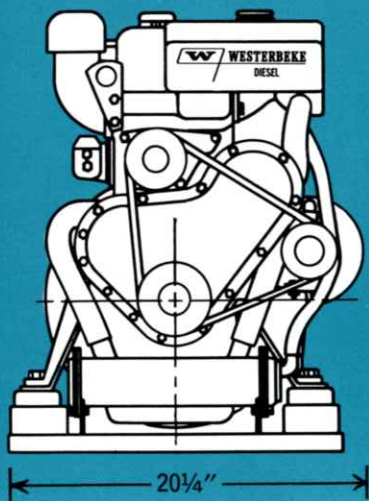


## J. H. WESTERBEKE CORP.

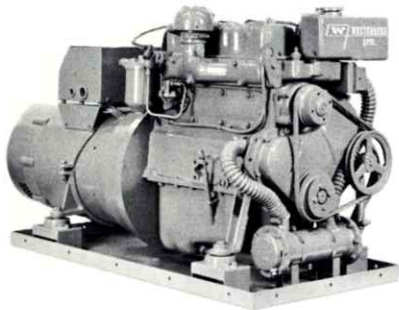
35 TENEAN STREET, BOSTON, MASSACHUSETTS 02122

Manufacturers of the FOUR-107 and FOUR-236 auxiliary diesel engines.

RATED OUTPUT	10
LENGTH OVERALL	42
WEIGHT	825
RATED OUTPUT AS A PERCENT OF AVAILABLE ENGINE POWER	60



## 10, 12.5, 15 KW GENERATORS ARE POWERED BY WESTERBEKE'S FOUR-107 MARINE DIESEL ENGINE



### ENGINE—FOUR-107

- TYPE:** Diesel, 4 cylinder in line, 4 cycle  
**DISPLACEMENT:** 107 cu. in. Bore 3.125". Stroke 3.5"  
**COMPRESSION:** 22 to 1  
**POWER:** Rated output at shaft 26 h.p. at 1800 r.p.m.  
**STARTING:** 12 volt positive engaging heavy duty starting motor  
**FUEL INJECTION EQUIPMENT:** Distributor-type fuel pump with a solenoid-operated fuel valve  
**COOLING:** Fresh water through heat exchanger  
**MOUNTING:** Engine-generator assembly rubber mounted to eliminate 95% of all vibration. Base has integral drip pan  
**FUEL CONSUMPTION:** Approximately 0.1 gallon per kilowatt-hour  
**CONTROL:** Complete control panel either mounted on engine or remote

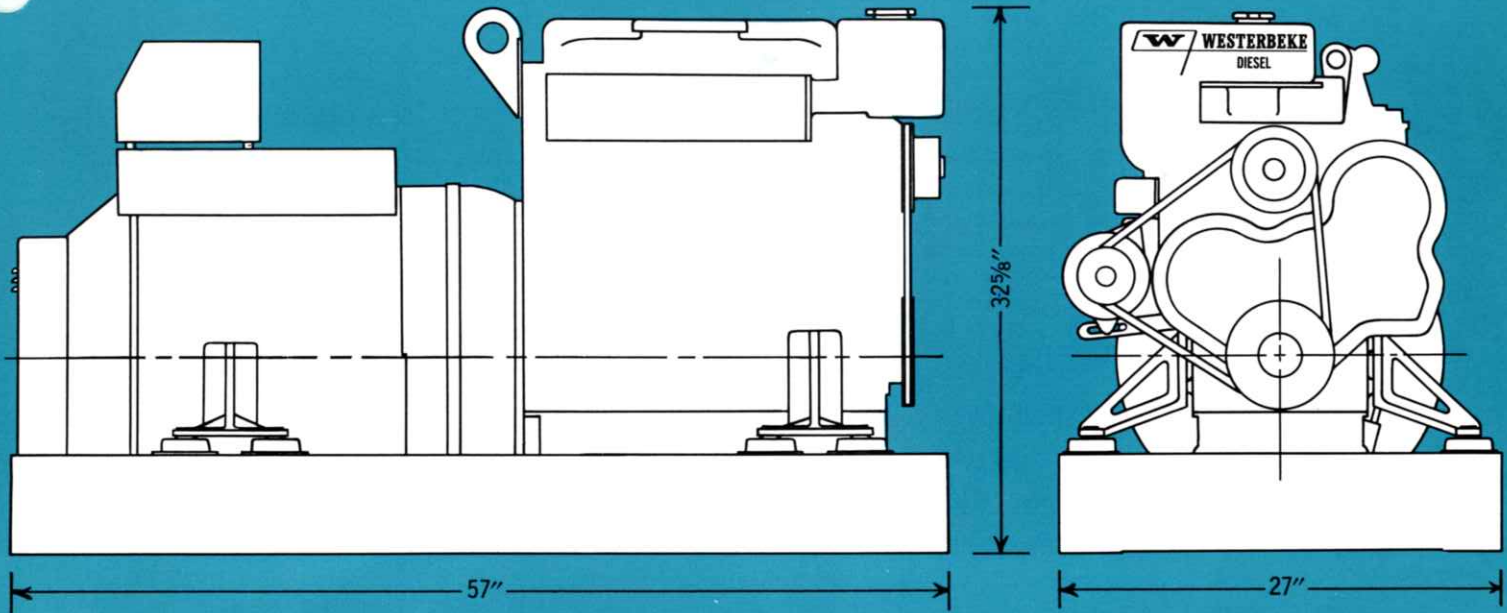
### GENERATOR—10, 12.5, 15, 30 KW

- VOLTS:** 120/240 static regulated to within  $\pm 1\%$   
**OUTPUT:** 10 KW, 12.5 KW, 15 KW, or 30 KW, as rated, for continuous operation  
**FREQUENCY:** 60 cycles governed to within  $\pm 1/2$  cycle, no load to full load. 50 cycles available for export requirements.  
**PHASE:** Single  
**POWER FACTOR:** Unity  
**CURRENT OPTIONS:** 120 or 120/240 volt (A simple reconnection makes the change.)  
**ACCESSORIES:** Accessory D.C. requirements may be supplied either by the generator through rectifying equipment or by 12, 24 or 32 volt alternators in 40, 60, or 100 amp size mounted on the engine.

- STATIC EXCITER:** Eliminates rotating exciter used in other generators.  
**REGULATOR:** No moving parts—No delicate multiple contact points.  
**CONSTRUCTION:** Only rugged coils and windings—Will not go out of adjustment.  
**SIMPLICITY:** Eliminates hundreds of electrical connections, commutator and its brush rig and many other breakdown points.  
**SERVICE:** All components easily accessible—no need to completely dismantle generator for exciter repairs, as is necessary for rotating exciters.  
**ADJUSTMENTS:** No extra-sensitive adjustments necessary—regulation and stability are built in.  
**VOLTAGE RECTIFIER:** Rated voltage restored within two seconds after maximum load change compared with five seconds for rotating exciters.  
**VOLTAGE FLUCTUATIONS:** Voltage fluctuation is less than half that of rotating exciters.  
**PRECISION GOVERNOR:** Regulates frequency within one cycle, making your electronic devices function better.  
**HIGH CRANKING SPEED:** Makes cold weather starting easy. Time delay relays are unnecessary when operating with DYNAMONITOR automatic switchgear.  
**COMPLETE PROTECTION:** Standard equipment includes high water temperature and low oil pressure protection, tied in with the fuel solenoid. (30 KW set also has overspeed protection.)

FEATU

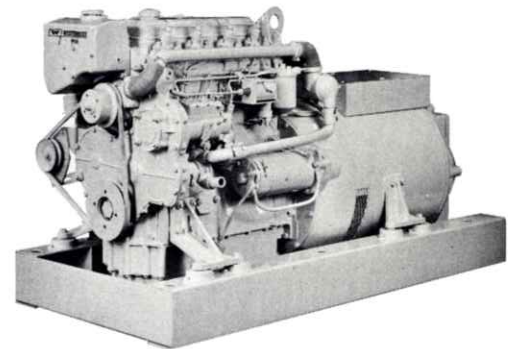
KW	12.5 KW	15 KW	30 KW
Height	45 1/8"	47 1/2"	57"
Weight (BS)	870 LBS.	915 LBS.	1700 LBS.
Efficiency	75%	91%	60%



## THE 30 KW GENERATOR SET IS POWERED BY WESTERBEKE'S FOUR-236 MARINE DIESEL ENGINE

### CONTROLS

- MOUNTING:** Control box mounted on top of generator, or remote if desired.
- STARTER CONTROL:** Relays and resistors provide either manual electric start at selected locations, or control from *DYNAMONITOR* automatic demand control panel.
- INSTRUMENTATION:** Water temperature gauge, oil pressure gauge, battery charge ammeter.
- SAFETY DEVICES:** High temperature shut-off—low oil pressure shut-off. Over-speed limiter is provided on 30 KW model only.



### FEATURES

- FUEL SOLENOID:** Designed and built by Westerbeke, makes possible both manual and automatic control as well as the operation of the safety devices.
- WESTERBEKE INSTRUCTION BOOK:** 180 pages of instruction for engine and generator with drawings, exploded views, parts list, and helpful information.
- LIGHT WEIGHT:** The lightest weight generator sets per rated output in the industry.
- MOST COMPACT:** Fits in where others will not.
- EXTRA VALUE ACCESSORIES:** The following accessories are standard equipment on WPDS generators:
1. High capacity primary fuel oil filter, with large sump for water, replaceable filter element and a convenient draincock for removal of water and sediment.
  2. Your choice of exhaust flanges—bored for tubing, threaded for 1 1/2" pipe, or with drop elbow and water discharge connection for 2" rubber exhaust hose.
  3. Flexible fuel line connections—for fuel oil supply and return.
  4. Handy sump pump—for making oil changes.
  5. Running time meter—for following recommended service procedures.

### ENGINE—FOUR-236

- TYPE:** Diesel, 4 cylinder in line, 4 cycle
- DISPLACEMENT:** 236 cu. in. Bore 3.875". Stroke 5"
- COMPRESSION:** 16 to 1
- POWER:** Rated output at shaft 56 h.p. at 1800 r.p.m.
- STARTING:** 12 volt positive engaging heavy duty starting motor
- FUEL INJECTION EQUIPMENT:** Distributor-type fuel pump with a solenoid-operated fuel valve
- COOLING:** Fresh water through heat exchanger.
- MOUNTING:** Engine-generator assembly rubber mounted on sturdy box-type base with drip pan and drain fitting included
- FUEL CONSUMPTION:** Approximately 0.1 gallon per kilowatt-hour
- CONTROL:** Complete control panel as with smaller sizes but with over-speed protection added

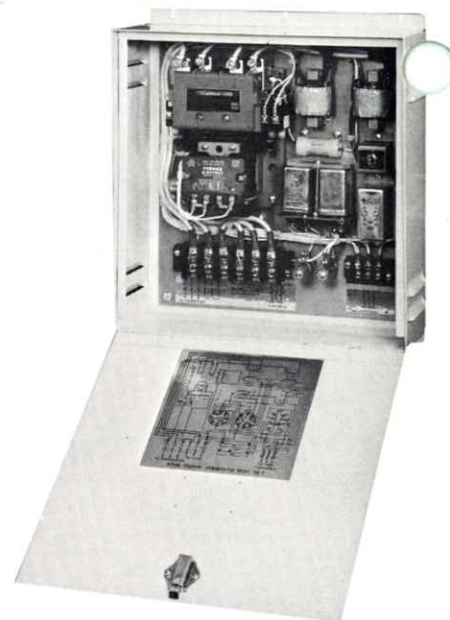
# DYNA-MONITOR

The Westerbeke *DYNA-MONITOR* is a heavy duty demand control with features which make it unique among controllers. Its contactor, the load carrying component, is extra large for long life. Circuitry is basically a simple two-wire control system operating on full battery voltage. The reactor component has been carefully designed to allow a high differential in wattage between starting and running relays. Both starting and running relays are single function units, hermetically sealed against dirt or moisture.

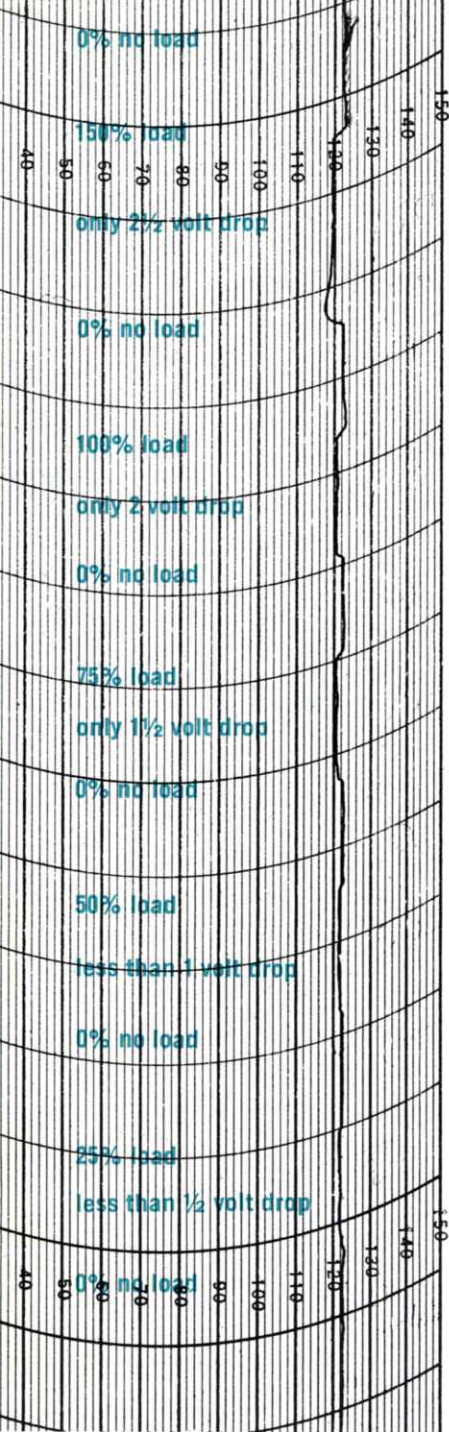
This combination of parts forms a demand switch which, when used with Westerbeke generators, will start the generator when a load is applied, stop the generator when a load is removed, and prevent annoying false starts.

*DYNA-MONITOR* goes to work instantly, automatically, if a light is turned on, or if a refrigerator calls for electricity, or when you plug in the coffee maker for that first cup of coffee. It stops the set automatically as soon as the current is no longer required.

Another feature for those who prefer times of absolute silence is the ability to cut out the automatic feature at will by means of simple toggle switches conveniently placed.



The Westerbeke WPDS series generator, when used with *DYNA-MONITOR*, is a superior automatic electrical supply system for any diesel-powered yacht.



Close voltage regulation by static-excited generators protects delicate electronic equipment and gives better service.

Test results made on a fast chart show the remarkable voltage regulation under severe instantaneous load changes of up to 150% of normal maximum load. This is an actual tape from the test of a Westerbeke Model WPDS 30 KW marine diesel generator. Horizontal lines are spaced at six seconds. Vertical lines are spaced at two volts.

The Westerbeke diesel generator set was first introduced in 1960 as a 10 KW model, WPD-10, and rapidly established a world-wide reputation for design excellence and reliable operation. Since its introduction, improvements have been made upon the original model, expanding the line from 10 KW to 30 KW and culminating in the static-excited WPDS series. Since their introduction, Westerbeke diesel generators have been recognized as superior units for diesel powered yachts. Many of the finest modern yachts have their electrical requirements satisfied by Westerbeke generators. In addition to shipboard installations, Westerbeke generators have been used in aids to navigation and in many shoreside locations where dependability and fuel economy count. These shoreside units are radiator cooled and are made to special order.

If your requirements are such that they cannot be satisfied by the versions of the generators shown in this brochure, Westerbeke may be able to design and build special configurations to better suit your needs.

