# generator design specifications

Generator Model, 60Hz (50Hz)	5 BCDBR (4 BCDBR)	<b>7.6 BTDR</b> (5.7 BTDR)	8 BTDAR (6 BTDAR)	<b>10 BTDAR</b> (7.5 BTDAR)	<b>12 BTDR</b> (9.9 BTDR)
Generator power @ 1800 (1500) rpm	5kW (4kW)	7.6kW (5.7kW)	8kW (6kW)	10kW (7.5kW)	12kW (9.9kW)
Amperage, 1 phase, 60Hz (50Hz)	42 (17.3)	63/32 (24.8)	66/33 (26.1)	83/42 (32.6)	100/50 (43.5)
Voltage regulator (type)	Capacitor Transformer				
Voltage regulation, no load-full load, +/-	5%  Built-in, mechanical External, electronic				
Governor type		Built-in, mechanical			
Frequency regulation, no load-full load	3.0 Hz (5%)				0.5Hz (.6%)
Cylinders	<u> </u>				
Cycles  Displacement ou in (liters)	40.21 ( 000)	E0.00 ( 0E2)		00.42 (1.210)	00.42 (1.210)
Displacement - cu.in. (liters)	49.31 (.808)	58.09 (.952) 2.99 x 2.76 (75.9 x 70.0)	80.43 (1.318) 3.07 x 3.62 (78.0 x 92.0)	80.43 (1.318) 3.07 x 3.62 (78.0 x 92.0)	80.43 (1.318) 3.07 x 3.62 (78.0 x 92.0)
Bore and stroke - in. (mm)  Cylinder head/block	2.76 x 2.76 (70.0 x 70.0)	Cast iron			
Crankshaft	Forged crankshaft, four main bearings				
Fuel system	Self-bleeding				
Fuel injection pump	Bosch type, solenoid shut-off				
Fuel supply and return piping - in. (mm)	1/4 (6.35) I.D. minimum, 3/8 (9.53) I.D. maximum				
Fuel filter	Replaceable element				
Cooling system	Radiator				
Cooling capacity - qts. (liters)	6.0 (5.5)	6.0 (5.5)	8.0 (7.6)	8.0 (7.6)	8.0 (7.6)
Exhaust manifold	, ,	·	Dry (wet optional)	. ,	, ,
Lubricant capacity - quarts (liters)	3.2 (3.0)	3.8 (3.6)	4.0 (3.8)	4.0 (3.8)	4.0 (3.8)
Oil fill	Top & side				
Lube oil filter	Spin-on, disposable				
Battery charging alternator	N/A, 10 amp regulator 50 amp				
Starting aid			12 V, sheathed type glow plug		
Cold cranking amps	190	190	240	240	240
Start			Local or optional remote		
Maximum angle of continuous operation	25 de	•		15 degrees	
Dry weight - lbs. (kgs.)	375 (170.1)	450 (204.1)	511 (231.8)	560 (254.0)	560 (254.0)
Generator Dims LxWxH Inches	34 x 18.1 x 24.2	34.4 x 18.4 x 24.2	34.57 x 19.96 x 26.14	37.68 x 20.01 x 26.14	37.68 x 20.01 x 26.14
Generator Dims LxWxH Millimeters	863.6 x 459.7 x 614.7	873.8 x 467.4 x 614.7	878.1 x 507.0 x 664.0	957.1 x 508.3 x 664.0	957.1 x 508.3 x 664.0
Generator Model, 60Hz (50Hz)	<b>12.5 BTDBR</b> (9.4 BTDBR)	15 BTDCR (12 BTDCR)	<b>20 BEDAR</b> (16 BEDAR)	25 BEDR (20 BEDR)	<b>32 BEDAR</b> (25 BEDAR)
Generator power @ 1800 (1500) rpm	12.5kW (9.4kW)	15kW (12kW)	20 BEDAR (16 BEDAR) 20kW (16kW)	25 BEDR (20 BEDR) 25kW (20kW)	32kW (25kW)
Amperage, 1 phase, 60Hz (50Hz)	104/52 (40.9)	125/63 (52.2)	166/83 (69.6)	208/104 (87.0)	266/133 (108.7)
Voltage regulator (type)	Transf	· '	100/03 (07.0)	Electronic	200/133 (100.7)
Voltage regulation, no load-full load, +/-	5% 2%				
Governor (type)	Built-in, mechanical External, electronic				
Frequency regulation, no load-full load	3.0 Hz (5%) 0.3 Hz (.5%)				
Cylinders	4				
Cycles			4		
Displacement - cu.in. (liters)	107.27 x (1.758)	107.27 x (1.758)	154.0 (2.5)	182.0 (3.0)	210.8 (3.5)
Bore and stroke - in. (mm)	3.07 x 3.62 (78.0 x 92.0)	3.07 x 3.62 (78.0 x 92.0)	3.50 x 4.00 (88.9 x 101.6)	3.74 x 4.13 (95.0 x 105.0)	3.94 x 4.33 (100.1 x 110.0)
Cylinder head/block	Cast iron				
Crankshaft	Forged crankshaft, five main bearings				
Fuel system	Self-bleeding Manual-bleed				
Fuel injection pump					Cam, in-line, solenoid shut-off
		1/4 (6.35) I.D. r			
Fuel supply and return piping - in. (mm)			ninimum, 3/8 (9.53) I.D. maxin		
Fuel filter	Replaceab		. ,	Spin-on, disposable	
Fuel filter Cooling system		le element	Radiator	Spin-on, disposable	20.0 (40.0)
Fuel filter Cooling system Cooling capacity - qts. (liters)	Replaceab 8.3 (7.8)		Radiator 16.0 (15.1)		20.0 (18.9)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold	8.3 (7.8)	e element 8.3 (7.8)	Radiator 16.0 (15.1) Dry (wet optional)	Spin-on, disposable 16.0 (15.1)	
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters)	8.3 (7.8) 5.5 (5.2)	8.3 (7.8) 5.5 (5.2)	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7)	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	7.4 (7.0)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill	8.3 (7.8)	8.3 (7.8) 5.5 (5.2)	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7)	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter	8.3 (7.8) 5.5 (5.2)	8.3 (7.8) 5.5 (5.2)	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	7.4 (7.0)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator	8.3 (7.8) 5.5 (5.2)	8.3 (7.8) 5.5 (5.2) a side	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	7.4 (7.0)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid	8.3 (7.8) 5.5 (5.2) Top 8	8.3 (7.8) 5.5 (5.2) a side	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	7.4 (7.0) Top & side
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid Cold cranking amps	8.3 (7.8) 5.5 (5.2)	8.3 (7.8) 5.5 (5.2) a side	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)	7.4 (7.0)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid Cold cranking amps Start	8.3 (7.8) 5.5 (5.2) Top 8	8.3 (7.8)  5.5 (5.2) a side	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)  pp  300	7.4 (7.0) Top & side
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid Cold cranking amps	8.3 (7.8) 5.5 (5.2) Top 8	8.3 (7.8)  5.5 (5.2)  side  270  grees	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug 300 Local or optional remote	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)  pp  300  25 degrees	7.4 (7.0) Top & side  400-600 (includes heater)
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid Cold cranking amps Start Maximum angle of continuous operation	8.3 (7.8) 5.5 (5.2) Top 8	8.3 (7.8)  5.5 (5.2) a side	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)  pp  300	7.4 (7.0) Top & side
Fuel filter Cooling system Cooling capacity - qts. (liters) Exhaust manifold Lubricant capacity - quarts (liters) Oil fill Lube oil filter Battery charging alternator Starting aid Cold cranking amps Start Maximum angle of continuous operation Dry weight - lbs. (kgs.)	8.3 (7.8) 5.5 (5.2) Top 8 270 15 de 607 (275.3)	8.3 (7.8)  5.5 (5.2)  side  270  grees  615 (279.0)	Radiator 16.0 (15.1) Dry (wet optional) 6.0 (5.7) To Spin-on, disposable 50 amp 12 V, sheathed type glow plug 300 Local or optional remote	Spin-on, disposable  16.0 (15.1)  6.2 (6.2)  p  300  25 degrees  1075 (487.6)	7.4 (7.0) Top & side  400-600 (includes heater)







Fire-Rescue Mobile-Industrial

# Proven in Over 65 Years of Marine Service

Years of Sea Duty brings Unmatched Reliability On-Shore

#### Westerbeke

The marine pioneer in lightweight diesel generators, Westerbeke is today's choice for "The right product" in dependable mobile power applications. Offshore marine dependability in now available onshore for today's electric and electronic needs. Long the leader in quality, innovation and custom features, Westerbeke continues its leadership role from its world headquarters and plant in Taunton, MA, USA.



Westerbeke 15 BTDCR

## **Easy Starting and Custom Options**

"GenRemote"—multi station remote controls allow Westerbeke generators to "start on the run" for "Search and Roll" with one touch start, no need to stop to start. Only Westerbeke and XRT® offer "Combi" the ultimate combination of both electric and hydraulic rescue power in a space saving diesel power plant. Add more onboard DC output with "DC-Plus" and Westerbeke.



Westerbeke 25 BEDR

## **Full Range-Full Feature**

Westerbeke offers a full range of liquid cooled, 1800 RPM diesel generators. Ratings from a mini 5.0 to a husky 32.0, Westerbeke offers the smallest, lightest diesel generators in the mobile market. All Westerbeke generators feature self priming fuel systems and full instruments at the start panel.



### Quiet, Compact and Easy to Service

Westerbeke generators run quiet, are easy to install and economical to operate. All Westerbeke generators offer the ease of single side service, protection of automatic safety shutdowns and the reliability of all weather starting.

#### **Clean Machines**

Westerbeke generators produce clean, stable electricity with electronic voltage regulating and engine speed governing on mid and large size generators. Westerbeke meets all current EPA and CARB exhaust emission regulations so all our generators are clean running, environmentally friendly machines.









#### Each Westerbeke Diesel Generator Set Offers these Benefits:

- Compact lightweight design
- Quiet
  - Runs at 1800 RPM (60 Hz) or 1500 RPM (50 Hz)
  - Tuned air intake silencer
- Frequency regulation to .3 Hz (.5%) with electronic governing
- Built-in power take off capable of full engine torque
- Optimum vibration isolation
- Multi-station remote starting capability
- User-friendly trouble-free controls
- Easy-to-read operator's manual and parts list
- Emergency stop switch
- Steel mounting skid
- Electronic governing (Standard: 12.6 BTDR, 20 BEDAR-32 BEDAR) (Optional: 5 BCDBR, 8 BTDAR-15 BTDCR)
- Electronic voltage regulation (Standard: 20 BEDAR-32 BEDAR) (Optional: 10 BTDAR-15 BTDCR)

#### **Each Westerbeke Engine Includes these Standard Features:**

- Low maintenance costs
- Low fuel consumption
- Self-bleeding fuel system (5 BCDBR-25 BEDR)
- Easy one-side servicing
- Water-cooled cast iron block for a longer life
- Cooling designed for high ambient temperatures
- 12 volt starter motor
- 12 volt 50 ampere alternator (7.6 BTDR-32 BEDAR)
- Full engine instrumentation
  - Water temperature
  - Oil pressure
  - Hour meter
  - DC voltmeter
- Safety shutdowns
  - High water temperature
  - Low oil pressure
- Glow plugs for cold weather starting
- Electric fuel pump
- Built-in lube oil drain hose
- Dry element air filter
- Full flow lube oil filter
- · Coolant overflow kit

#### Each Westerbeke Generator Includes these Standard Features:

- · Compact lightweight design
- Brushless-revolving field
- Single or three phase (10 BTDAR-32 BEDAR)
- Class H insulation
- Conforms to NEMA temperature rise standards
- Easy field conversion
  - 60 HZ or 50 HZ AC output





Westerbeke 7.6 BTDR