



# PC Industries, LLC

www.powerlinecomponents.com

## Start-up Inspection Report For Detroit Diesel Engines

Customer Name: \_\_\_\_\_ R.O. # \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Application \_\_\_\_\_ Make of Equipment \_\_\_\_\_ Equipment Model # \_\_\_\_\_

M/V Name \_\_\_\_\_ Official # \_\_\_\_\_ Model # \_\_\_\_\_ Serial # \_\_\_\_\_

Governor Type:  Hydraulic  Variable Speed  Limiting Speed  Constant Speed

### BASIC ENGINE CHECK LIST

- Check Crankshaft End Play (.004 Min)
- Check Throttle and Shutdown Linkage
- Check Engine Mounts

#### \* Test Alarm System \*

- 1) Low Oil Pressure
- 2) High Water Temp
- 3) Low Water Temp
- 4) Low Oil Level
- 5) Oil Temp

- Idle Speed \_\_\_\_\_

- Max No Load Speed \_\_\_\_\_

- Full Load Speed

1) Against Dock \_\_\_\_\_

2) Under Tow \_\_\_\_\_

- Adjust Buffer Screw
- Change Air Compressor
- Check Condition of other accessories



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### FUEL SYSTEM

- Injector Size \_\_\_\_\_

- Check for Correct Fuel Line Routing and Size

Series	Supply	Return
53, 71, 92	#8	#6
16V71, 16V92	#12	#8
149	#12	#10

- If incorrect size, record size found

Supply \_\_\_\_\_ Return \_\_\_\_\_

- Pressure Test fuel System

- Fuel Inlet Restriction (6in hg - clean) \_\_\_\_\_

- Check Condition of Fuel Lines

- Service Fuel Filters

- Inspect Fuel Cooler and Routing of lines to Cooler

- Check for Restricted Fitting

### OIL SYSTEM

- Check Dipstick for Proper Oil Level in Engine

- Change Oil Filter

**- Check Condition of Oil Pressure Gauge and Line**

1) Engine Room

2) Wheel House

3) Others

**- Remote Oil Filters**

1) Change Filter Bypass Valve

2) Check Condition of Hoses

3) Check for Correct Size of Hoses (refer to Field Data Book)

**- Oil Pressure**

1) Idle \_\_\_\_\_ 2) Full Load \_\_\_\_\_



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### COOLING SYSTEM

- Replace All Coolant Hoses
- Check for Proper Deaeration Lines

53, 71, 92 Series      1 - # 6 Line  
149 Series              2 - # 8 Lines

#### - Radiator Cooled Engines

- 1) Check Condition of Radiator
- 2) Check Radiator Cap
- 3) Change all Drive Belts

#### - Heat Exchanged Cooled Engines

- 1) Change all Zinc Electrodes
- 2) Check Condition of Heat Exchanger
- 3) Check Condition of Raw Water Pump, Sea Strainer and Piping
- 4) Prime Raw Water Pump

#### - Keel Cooled Engines

- 1) Check Day Tank and Coolant Fill Line
- 2) Bleed Air from Engine and Keel Cooler
- Pressure Test Closed Cooling System
- Check for Antifreeze or Corrosion Inhibitor
- Check for Proper Operation of Water Temp Gauge
- 1) Engine Room
- 2) Wheel House
- 3) Other
- Water Temp at Full Load \_\_\_\_\_

### AIR SYSTEM

- Inspect all Components of Air Cleaner Sys for Cracks, Holes, Leaks, etc.
- Change Air Filter Elements
- Check Air Restriction Gauge
- Check for Proper Operation of Emergency Shutdown
- Air Cleaner
- 1) Make \_\_\_\_\_ 2) Size \_\_\_\_\_ 3) Quantity \_\_\_\_\_



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### EXHAUST SYSTEM

- Check for Correct Muffler size (refer to Field Data Book)
- Check for Rain Cap if Needed
- Check Piping for Exhaust Leaks

### DRIVE UNIT

- 1) Make \_\_\_\_\_
- 2) Model # \_\_\_\_\_
- 3) Serial # \_\_\_\_\_

### Marine Gear

- Ratio \_\_\_\_\_
- Check Oil Level
- Change Rubber Blocks

### Oil Cooler

- 1) Engine Mounted
- 2) Remote Mounted
- Oil Pressure, Full Load \_\_\_\_\_

### PTO ASSEMBLY

- Change Pilot Bearing
- Lubricate all Grease Points
- Adjust Engagement Pressure

### TORQUE CONVERTER OR TRANSMISSION

- Check Fluid Level
- Check for Proper Operation
- Check Transmission Mounts

### POWER GENERATOR

- RPM \_\_\_\_\_ - Cycles \_\_\_\_\_
- Voltage \_\_\_\_\_ - KW \_\_\_\_\_
- Phase \_\_\_\_\_
- Check for Proper Operation



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## **Start-up Inspection Report For Detroit Diesel Engines**

Date \_\_\_\_\_ Repair Order # \_\_\_\_\_ Model # \_\_\_\_\_ Serial # \_\_\_\_\_

### **NOTES**

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### **RECOMMENDATIONS TO CUSTOMER FOR ENGINE LONGEVITY**

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**This inspection, which I understand is for the purpose of achieving proper operating performance on the rebuilt engine, has been completed to my satisfaction.**

Date \_\_\_\_\_ Signature \_\_\_\_\_ Title \_\_\_\_\_

Owner's Comments \_\_\_\_\_  
\_\_\_\_\_

Inspected By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_