

PERFORMANCE WORK STATEMENT (PWS)

USCGC HEALY (WAGB-20) – Main Propulsion Diesel Generator (MPDG) – Governor, Overspeed Corrective Maintenance & Cylinder Head Replacement.

Location:

USCGC Healy (WAGB 20)
1519 Alaskan Way South
Seattle, WA 98134
Phone: (206) 217-6815

Period of Performance:

Coordinate days onsite between: 13 Oct 2026 – 31 Oct 2026

References:

- Core Consulting Group Doc CGC-20260801-260901, USCG Healy Investigation, Rev 0 (03SEP2026)
- USCG Technical Publication (TP) 5016, SWBS 233, Section A, Main Diesel Engine (MDE) – Model 12ZAV40S – Technical Manual Supplement (Vol 1), Rev - (01SEP2022)
- USCG Technical Publication (TP) 5017, SWBS 233, Section A, Main Diesel Engine (MDE) – Model 12ZAV40S – Operational Manual (Vol 2), Rev - (01OCT2022)
- USCG Technical Publication (TP) 5018, SWBS 233, Section A, Main Diesel Engine (MDE) – Model 12ZAV40S – Maintenance Manual (Vol 3), Rev - (01OCT2022)
- USCG Technical Publication (TP) 5019, SWBS 233, Section A, Main Diesel Engine (MDE) – Model 12ZAV40S – Spare Parts Code Book (Vol 4), Rev A (01OCT2022)
- USCG Technical Publication (TP) 5020, SWBS 233, Section A, Main Diesel Engine (MDE) – Model 12ZAV40S – Auxiliary Equipment Manual (Vol 5, Part 1), Rev A (01DEC2022)

Objective 1: Mechanical Overspeed Cutout Maintenance

Provide a Qualified Service Technician, familiar with Wärtsilä New Sulzer Diesel (NSD) Model ZAV40 engines/gensets, to disassemble, remove, clean/inspect, repair, recalibrate, bench test and reinstall the mechanical overspeed shutdown for the #1 and #3 MPDGs.

Objective 2: Electro-pneumatic Overspeed Limiter Maintenance

Provide a Qualified Service Technician, familiar with Wärtsilä New Sulzer Diesel (NSD) Model ZAV40 engines/gensets, to disassemble, remove, clean/inspect, repair, recalibrate, bench test and reinstall the electro-pneumatic overspeed safety cut-out for the #1 and #3 MPDGs.

Objective 3: Woodward Governor and Booster Overhaul

Provide a Qualified Service Technician, familiar with Wärtsilä New Sulzer Diesel (NSD) Model ZAV40 engines/gensets and Woodward Model PGG-EG-58 governors to disassemble, remove, clean/inspect, overhaul, recalibrate, bench test and reinstall the Electro-Hydraulic Governor/Actuator assemblies and their respective booster for the #1 and #3 MPDGs. The

governors and boosters appeared to be operating properly but there is no record of service or overhaul. These engines have 40K+ operating hours.

Governor/booster inspection, overhaul and bench testing must be conducted by an authorized service facility for Woodward governors.

* The government reserves the right to provide spare boosters in inventory for inspection, overhaul and bench testing in lieu of existing attached boosters.

Objective 4: Governor Lube Oil Cooler Maintenance

Provide a Qualified Service Technician, familiar with Wärtsilä New Sulzer Diesel (NSD) Model ZAV40 engines/gensets to remove, clean/inspect, hydrostatically test, and reinstall the governor oil coolers for the #1 and #3 MPDGs.

Engine	Cooler Make	Model	Part Number
#1 MPDG	Young	HF-201-HY-1P	307008
#3 MPDG	Young	HF-201-HY-1P	307008

Objective 5: Governor Drive Maintenance

Provide a Qualified Service Technician, familiar with Wärtsilä New Sulzer Diesel (NSD) Model ZAV40 engines/gensets to disassemble, remove, clean/inspect, overhaul, and reinstall the Governor Drive Assemblies for the #1 and #3 MPDGs & A2 Cylinder Head on #3 MDE.

Objective 6: MDE #3 Cylinder Head Replacement (A2)

Replace the Unit A2 cylinder head due to damage to the dummy valve seating surface and dummy valve body.

Engine	Governor Type	Part Number	Serial Number
#1 MPDG	Woodward PGG-EG 58	8576-957	13620732
#3 MPDG	Woodward PGG-EG 58	8576-351	2667353

Engine	Booster Make	Model
#1 MPDG*	Woodward	8901-067
#3 MPDG*	Woodward	8901-067

* The government reserves the right to provide spare boosters in inventory for inspection, overhaul and bench testing in lieu of existing attached boosters.

Background:

CGC HEALY suffered a catastrophic overspeed failure of its #2 MPDG. The RCFA report (CGC 20260801-260901) for the event identified immediate corrective action is required for the #1 and #3 MPDG, with respect to maintenance of the overspeed devices and governor equipment.

Scope:

The Contractor shall provide all labor, equipment and parts necessary to perform the maintenance tasks specified herein. The Contractor shall also possess knowledge and/or have access to all OEM documentation and proprietary system information as well as industry/regulatory standards. The Contractor shall additionally account for all personnel travel costs and shipping of tools/equipment related expenses, as needed.

CLIN 0001 - Mechanical Overspeed Cutout Maintenance

The Contractor must remove, disassemble, clean, inspect, and overhaul (or renew) all components of the mechanical overspeed from the #1 and #3 MPDGs, in accordance with Section 5303-1 of USCG TP 5018.

- The inspection should include the springs, pistons, sealing elements, moving components, and associated actuating mechanisms to identify any evidence of wear, corrosion, seizure, contamination, mechanical damage, or deterioration.
- Any component found defective, damaged, or outside the specified tolerances should be repaired or replaced as applicable.
- At minimum CFM Renewal parts should include:

Minimum CFM renewal list	
PN	DESCRIPTION
KS53077	Sealing for KS 53076
KS53075	Sealing for KS 53074
KS 53078	Compression spring for KS 53052
KS 53079	Compression spring for KS 53052
KS53032	Cyl. pin for KS 53031
KS53035	Sealing for KS 53034
KS 53012	Shaft
KS 53013	Shut-off piston for KS 53011
KS 53014	Spindle for KS 53011
KS 53015	Spring plate for KS 53013
KS 53016	Adjusting screw for KS 53011
KS 53018	Clamping piece for KS 53014
KS 53019	Spring plate for KS 53011
KS 53022	Spring for KS 53013
KS 53023	Spring for KS 53011
KS 53024	Spring for KS 53011
KS 53026	Circlip type J for KS 53013
KS 53027	Circlip type J for KS 53011
KS 53029	Ball for KS 53011

KS 53030	Ball for KS 53011
KS 53050	Latch
KS 53051	Pin for KS 53050
KS 53054	Rod
KS 53094	Screw for KS 53001
KS 53101	Joint ring for KS 53094

- Contractor may renew complete Shaft assembly (PN KS 53011) in lieu of parts KS 53012- KS 53030, if renewal adds no additional cost to the government.

Upon completion of the inspection and reconditioning, device should be properly reassembled, adjusted, and calibrated in accordance with the Original Equipment Manufacturer (OEM) specifications. Functional bench testing should then be performed to verify proper operation and confirm that the devices operate reliably within the established engine safety parameters.

The Contract shall reassemble all components of the mechanical overspeed, on to each of the affected MPDGs, in accordance with OEM instructions.

1.1 - Electro-pneumatic Overspeed Limiter Maintenance

The Contractor must identify the speed sensing source, set point, output/solenoid and pneumatic path for any independent electro-pneumatic overspeed function.

Contractor must remove, clean, and inspect the pneumatic safety cut-out valve and all associated components on the MPDGs. Renew any worn, corroded, or damaged parts.

Perform a functional bench test of electro-pneumatic valves to confirm that the devices operate reliably within the established engine safety parameters as per USCG TP 5017. Simulate electrical trip signals and calibrate trip setpoints to engine specs.

Reassemble components onto the original MPDGs; rewire and connect all pneumatic piping.

1.2 - Woodward Governor and Booster Overhaul

The Contractor must remove, overhaul, calibrate, bench test and reinstall each governor and booster in accordance with USCG TP 5020 and OEM specifications.

During removal, the contractor must drain all oil from the governor, disconnect all linkages, electrical connectors and piping. Plug all piping and protect connectors upon removal to prevent contamination.

The overhaul facility must conduct the following on the governor and booster.

- Document serial numbers, model designations, part numbers, and as-received physical conditions.

- Inspect all external surfaces for housing cracks and mechanical damage.
- Completely disassemble all components to piece-part level in accordance with OEM disassembly procedures.
- Clean all components using OEM approved cleaning methods.
- Inspect, measure, and document all components against OEM wear limits.
- Inspect and test all electrical components against OEM standards.
- At a minimum, renew all o-rings, oil seals, gaskets, crush washers, filter screens, roll pins, and bearings with OEM parts during reassembly.
- Bench test each governor and booster in accordance with OEM procedures.
- Provide full inspection and testing report with the overhauled governor and booster.

Prior to reinstallation, clean and inspect all linkages, bushings, and connectors.

Reinstall the governors and boosters, refill oil, verify all linkage is attached and operates freely and properly.

1.3 Governor Lube Oil Cooler Maintenance

The Contractor must remove, clean, inspect, pressure test and reinstall each governor oil cooler.

During removal the contractor must drain all fluids and cap/plug all piping to prevent contamination.

Mechanically and chemically clean each cooler as required to descale the cooler.
Flush/neutralize all cleaning fluids and dry thoroughly.

Perform a pressure test of the shell side and tube side of each cooler. Zero pressure drop and zero tube joint or casing leakage is allowed.

- Apply test pressure to the exterior tube walls equaling 125 percent of the working design operating pressure of the tubes and hold for a minimum of 15 minutes. Visually inspect tubes for leaks.
- Apply test pressure to the interior tube walls equaling 125 percent of the working design operating pressure of the tubes and hold for a minimum of 15 minutes. Visually inspect tubes for leaks.
- While maintaining the test pressure on the interior of the tubes, apply a test pressure of 125 percent of the shell's working design operating pressure for a minimum of 15 minutes. Visually inspect shell for leaks.

Reinstall each cooler on the engine using new seals.

1.4 Governor Drive Maintenance

The Contractor must remove, overhaul, and reinstall each governor drive assembly in accordance with USCG TP 5018 and USCG TP 5019.

After removal the contractor must blank plate the engine casing to prevent contamination and foreign objects from entering the engine.

Conduct and record axial clearance and backlash prior to disassembly.

Disassemble each governor drive components, down to the piece part level, in accordance with USCG TP 5018. Thoroughly clean and inspect all components for damage and wear.

Reassemble each governor drive using all new bushings and locking wire.

Check/record axial clearances and backlash after reassembly to ensure it meets OEM tolerance. Reinstall each governor drive on the engine using new gaskets.

CLIN 0002 - Replace MDE#3 Cylinder Head A2

Replace the Unit A2 cylinder head due to damage to the dummy valve seating surface and dummy valve body. Send the removed cylinder head and dummy valve to the machine shop for inspection and reconditioning in accordance with OEM specifications.

- Remove the Unit A2 cylinder head and associated components/connections.
- Clean and inspect the cylinder block and cylinder head mating surfaces.
- Install the replacement/serviceable cylinder head with a new cylinder head gasket set and tighten in accordance with OEM specifications.
- Reinstall the dummy valve with a new sealing ring and verify correct seating.
- Reinstall The injector valve with new sealing ring.
- Reinstall the rocker arms and adjust the valve clearance.
- At minimum **Contractor Furnished Material (CFM)** renewal parts should include:

PN	QUANTITY	DESCRIPTION
107.122.903.200 NIIN:014652075	1	CYLINDER HEAD
KS 27290	2	Set of O-rings and joints (KS 27266 and KS 27271)
KS 27025	1	O-ring for KS 27201
KS 21451	1	Set of O-rings and joints (KS 21420, 21421, 21425, 21426)
KS 27029	3	O-ring
KS 27030	2	O-ring
KS 27016	1	Joint for KS 27400
KS 44119	2	Sealing for KS 44118
KS 44130	4	O-ring for KS 44118

2.1 Service Report Deliverable

The contractor shall provide a written service report documenting maintenance actions performed for the #1 and #3 MPDGs no later than **5 working days** after completion of onsite work performance.

The report shall include:

- Summary of maintenance actions performed for mechanical overspeed cutout.
- Summary of maintenance actions performed for electro-pneumatic overspeed limiter.
- Summary of maintenance actions performed for the Woodward governor and booster.
- Summary of maintenance actions performed for the governor lube oil cooler.
- Summary of maintenance actions performed for the governor drive.

CLIN 0003 –Potential Repairs Based on CFRs (not to exceed \$60,000)

Pricing for any additional travel costs, material, or field service days will be requested and handled by the KO under the terms of the contract. Any repairs beyond the base scope identified because of the troubleshooting shall be documented in a Condition Found Report (CFR) with a technical description of the recommended repairs. The CFR shall be provided to the Technical POCs and the Contracting Officer.

Any additional work will be authorized only by the KO through a written contract modification. The contractor shall not perform any repairs beyond the base scope until specifically authorized in writing by the KO. If the Government elects to proceed with additional repairs, the KO will issue a written contract modification that identifies the authorized additional work and associated firm fixed price. The contractor shall base any proposal for additional repairs on the findings in the CFR.

Vendor Qualifications:

- *Engine Technicians* shall be Qualified Service Technicians to perform inspections and repairs of New Sulzer Diesel (NSD) Model ZAV40 engines/gensets and/or other large marine engines/gensets with rotating piston design. Technicians must have a minimum of 5 yrs of demonstrable experience, via resume, in diesel engine inspections and assessment. Submit the resume of each Technician at the time of proposal.
- *Governor Technicians* shall be Qualified Service Technicians to perform inspections, repair and calibration of Woodward Model PGG governors and/or related ancillary equipment. Technicians must have a minimum of 5 yrs of demonstrable experience, via resume, in diesel engine inspections and assessment. Submit the resume of each Technician at the time of proposal.

Government Furnished Support:

- The government will provide access to the cutter, escort as required, access to each MPDG and the related spaces as operationally available.
- Ships Force will provide available operational logs, maintenance history, casualty information, and equipment identification data as available.
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Points of Contact:

- Asset Manager – MKCM Armando Perez – Armando.Perez@uscg.mil
- Supervisor – LCDR Andrew Constant – Andrew.S.Constant@uscg.mil
- Port Engineer – LCDR Joshua Martin - Joshua.A.Martin@uscg.mil

Acceptance Criteria:

The services below will be considered complete upon:

- USCG inspector review and acceptance of the Mechanical Overspeed Cutout Maintenance performed.
- USCG inspector review and acceptance of the Electro-pneumatic Overspeed Limiter Maintenance performed.
- USCG inspector review and acceptance of the Woodward Governor and Booster Maintenance performed.
- USCG inspector review and acceptance of the Governor Lube Oil Cooler Maintenance performed.
- USCG inspector review and acceptance of the Governor Drive Maintenance performed.
- USCG inspector review and acceptance of #3 MDE A2 Cylinder Head replacement performed.
- Completion of a verbal out-brief to the onsite designated USCG representative summarizing the onsite maintenance actions accomplished and any follow-on recommended actions.
- Delivery of the written service report within **5 working days** after completion of the onsite maintenance actions.