**SPECIFICATION 304 – MAIN ENGINE FUEL INJECTION PUMP OVERHAUL**

**SFI Reference**: 233 – Fuel Injection System

**🔹 DESCRIPTION**

This job covers the **removal, overhaul, testing, and reinstallation** of all **Main Engine Fuel Injection Pumps**, including their **shock absorbers**, in accordance with **manufacturer’s guidelines** (e.g. MAN B&W or equivalent).

The overhaul will include **timing checks, component replacement, calibration, and report documentation**. Attendance of a **manufacturer’s authorized service engineer** is mandatory.

**🔹 SCOPE OF WORK / INSTRUCTIONS**

1. **Preparation & Removal**
   * Remove fuel injection pumps and shock absorbers from the main engine
   * Tag, document, and transport to workshop
2. **Overhaul & Inspection**
   * Fully dismantle each unit
   * Clean, inspect, and measure all parts
   * Replace O-rings, seals, and worn parts (owner-supplied)
   * Reassemble and calibrate per maker’s manual
   * Shock absorbers to be overhauled and function tested
3. **Timing Check**
   * Check and reset **injection timing** for each unit using dial gauge or electronic tool
   * Log values before and after adjustment
4. **Testing**
   * Perform function test using test bench (if available)
   * Leak check and performance verification
5. **Reinstallation**
   * Return pumps to engine, reinstall, align, and torque tighten
   * Reconnect fuel and return lines, ensure correct sealing
6. **Final Verification**
   * Run engine at quay or sea trial to verify performance
   * Complete **performance test** and obtain Chief Engineer's sign-off

**🔹 SPECIAL NOTES**

* All removed parts and waste oil to be disposed of per **MARPOL regulations**
* Seal rings and consumables to be **owner-supplied**
* Maker’s Service Engineer from **MAN B&W (or approved equivalent)** must attend and supervise

**🔹 SERVICES LINES**

| **Service Line #** | **Service Description** | **UoM** | **Qty** |
| --- | --- | --- | --- |
| 304.1 | Dismantle, transport to workshop, overhaul, function test, report, reinstallation, and waste disposal | Piece | TBD |

**🔹 FINAL DELIVERABLES**

* Overhaul report with:
  + Before/after measurements
  + Timing settings
  + Leak test records
* Waste oil disposal documentation
* Class/Owner’s final clearance log