**SPECIFICATION 303 – MAIN ENGINE EXHAUST VALVE OVERHAUL**

**SFI Reference**: 233 – Exhaust Valves & Components

**🔹 DESCRIPTION**

This job involves the **complete removal, overhaul, testing, and potential renewal** of the **main engine exhaust valve** and its actuator. The scope includes dismantling, calibration, and inspection as per **OEM instructions and Class standards**.

**🔹 REQUIRED DETAILS TO BE SPECIFIED PRIOR TO WORK**

* **Make / Model / Serial No.** of exhaust valve
* **Lifting requirements**: weight, rigging arrangement, lifting points
* **Access constraints**: height, overhead clearance, lighting
* **Drawings/manuals** (to be attached to tender package)
* Any known damage, wear, or failure history (with photos if available)

**🔹 SCOPE OF WORK / INSTRUCTIONS**

**A. REMOVAL & DISMANTLING**

1. Disconnect exhaust valve from cylinder head and hydraulic pipes
2. Transport to workshop using approved lifting arrangements
3. Dismantle valve completely:
   * Remove valve spindle, bush, guide, springs, seat ring
   * Clean all parts thoroughly

**B. INSPECTION & TESTING**

1. Inspect valve components visually and dimensionally
2. Conduct **Dye Penetration Test** on spindle and seat areas
3. Perform **hydraulic pressure testing** (where applicable)

**C. ACTUATOR OVERHAUL**

1. Dismantle the **exhaust valve actuator**, clean, measure, and inspect all parts
2. Record measurements and compare with maker's tolerances
3. Reassemble and re-install on the overhauled valve body

**D. REPAIRS / REPLACEMENT (IF REQUIRED)**

1. Machine or grind **valve seat** if found pitted or worn
2. Renew **exhaust valve casing bush** if out of tolerance or scored (to be quoted separately)

**E. FINAL REASSEMBLY & REINSTALLATION**

1. Refit exhaust valve to engine with new O-rings and gaskets
2. Carry out operational check during engine rotation or trial
3. Submit measurement report, test logs, and before/after photos

**🔹 SERVICES LINES**

| **Service Line #** | **Service Description** | **UoM** | **Qty** |
| --- | --- | --- | --- |
| 303.1 | Removal of exhaust valve, transport to workshop, dismantle, clean, calibrate, dye check, pressure test | Piece | TBD |
| 303.2 | Overhaul of exhaust valve actuator – dismantle, inspect, record, reassemble | Piece | TBD |
| 303.3 | Machining/grinding of valve seat | Piece | TBD |
| 303.4 | Renewal of exhaust valve casing bush | Piece | TBD |

**🔹 NOTES**

* All consumables, tools, and staging to be **yard-supplied**
* Valve spare parts (spindle, seat, bush) – **owner-supplied** unless quoted separately
* Final clearance to be obtained from **Chief Engineer or Superintendent**