# MAIN ENGINE EXHAUST VALVE CYLINDER HEAD REPAIR SPECIFICATIONS

**DESCRIPTION**

This specification covers the overhaul and reconditioning of Main Engine Exhaust Valve and Cylinder Head components installed onboard the vessel. The activity includes dismantling, reconditioning at an OEM-approved workshop, reassembly, and testing to ensure class and OEM compliance.  
Inventory Identification:   
MAKE: [ ] , MODEL: [ ] , TYPE: [ ], OUTPUT / RATING: [ ]   
QUANTITY / NUMBER OF UNITS: [ ]   
- Location: Engine Room

**SCOPE OF WORK / INSTRUCTIONS**

Preparatory Measures:   
- Secure all relevant work permits and safety clearances.   
- Isolate engine systems and enforce Lock Out Tag Out (LOTO) protocol.   
- Arrange proper lighting, ventilation, and scaffolding/platforms.   
- Brief all technicians on safety procedures and job sequence.   
- Coordinate logistics with OEM-authorized reconditioning workshop.  
  
Job Breakdown:   
1. Disconnection & Transport   
2. Exhaust Valve Overhaul   
3. Cylinder Head Reconditioning   
4. Reassembly & Testing  
  
Standards & Compliance:   
- OEM Technical Manuals and Reconditioning Standards.   
- Classification Society requirements.

**MATERIAL & SUPPORT**

Owner Supply:   
- Exhaust valve spares: Spindles, seats, bushes, shear pins, O-rings, gaskets.   
- OEM drawings, special tools (if required).   
- Certificates for Owner-supplied materials.  
Yard Supply:   
- Tools and lifting arrangements.   
- Internal transport and access equipment.   
- Lighting, power, ventilation, and cleaning support.   
- Temporary scaffolding and waste disposal setup.  
Test Equipment Required:   
- Hydraulic pressure testing rig.   
- Dye penetrant kits.   
- Dimensional measuring tools.

Access & Logistics:   
- Crane capacity required.  
- Storage arrangements for removed parts.   
- Access via Engine Room crane or external rigging.   
- Transport coordination with OEM workshop.

**SERVICE LINES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Service Line # | Description of Service | UoM | Qty | Remarks |
| 303.1 | Removal, transport, dismantling, cleaning, calibration, dye check, pressure test | Piece | [QTY] | Complete valve reconditioning |
| 303.2 | Overhaul of exhaust valve actuator | Piece | [QTY] | Actuator inspection and calibration |
| 303.3 | Machining/grinding of valve seat | Piece | [QTY] | Precision reconditioning |
| 303.4 | Renewal of exhaust valve casing bush | Piece | [QTY] | If defective |
| 322.1 | Cylinder head reconditioning by OEM authorized workshop | Piece | [QTY] | Full overhaul |
| 322.2 | Exhaust valve spindle reconditioning by OEM authorized workshop | Piece | [QTY] | Including testing |
| 322.3 | Exhaust valve seat reconditioning by OEM authorized workshop | Piece | [QTY] | Machining and verification |

**APPROVAL & SUPERVISION**

Work Authorization:   
- Approved and supervised by Chief Engineer.   
- Owner’s Technical Superintendent to oversee.   
- OEM certification and Class Surveyor attendance.  
Documentation:   
- Reconditioning certificates from OEM.   
- Test reports: hydraulic pressure, dye penetrant, dimensional check.   
- Final work photographs.   
- Updated vessel maintenance and class records.   
- Documentation to be submitted to Owner’s Technical Office.