

Inspection Procedure and Checklist

Department of Industries & Commerce (Boilers)

Department website: <https://haryanaindustries.gov.in/>

Check List for Boiler Inspection

1	Two Number safety Valve installed or not	Yes /No	
2	Duration of safety valve blowing	Daily/in ----day	
3	Mobrey control provided	Yes/No	
4	Lead Plug changed every year/during the year	Yes/No	
5	Two no's of Gauge glass installed	Yes/No	
6	Two no's of feed Pump installed	Yes/No	
7	How many times de-scaling of Boiler/servicing of mounting and fitting during the year	One/Two/Three/---	
8	Cleanliness surrounding the boiler	Yes/No	
9	Boiler run in the presence of Boiler Attendant	Yes/No	
10	Repair of IBR parts perform by IBR approved erector	Yes/No	

Inspection Procedure:

1 STANDARD INSPECTION PROCEDURE FOR DRY AND THOROUGH INSPECTION

- a) Checking Registration Number of the Boiler.
- b) Carry out thorough visual inspection of boiler inside and outside after proper cleaning
- c) Checking defects like crack, erosion, corrosion, bulging, pitting, deformation of pressure parts etc.
- d) Checking of thickness of pressure parts.
- e) Checking of Mountings and Fittings.
- f) Witnessing Non-destructive Testing if required

2 STANDARD INSPECTION PROCEDURE FOR GROUND INSPECTION OF BOILER UNDER REGISTRATION/ERECTION

- a) Verification of documents of pressure parts with relevant IBR certificates, MTC etc.
- b) Verification of the approved drawings and documents.
- c) Checking of the facsimile of the makers' stamp and other identification marking with Form-II or other relevant IBR certificates.
- d) Checking of the leading dimension of the pressure parts with the approved drawing.
- e) Checking of the general condition of the pressure parts (like denting, deformation, crack pitting etc.).
- f) Checking of all Mountings and Fittings with relevant IBR document.

3 STANDARD INSPECTION PROCEDURE FOR MATERIAL INSPECTION

- a) Verification of the approved drawing corresponding to the material and documents.
- b) Checking of the pressure part material with relevant IBR certificate and approved drawing (Name of Part, Material Specification, Heat No., Cast No., Class, Size, Identification Number, Stamping etc.)
- c) Checking of leading dimension of the pressure parts with the approved drawing
- d) Checking of the general condition of the pressure parts visually.
- e) Selection of Samples for Physical and Chemical testing if required.

4 STANDARD INSPECTION PROCEDURE FOR FIT-UP/ TACK WELD INSPECTION

- a) Verification of the approved drawing.
- b) Verification of the Welder's Certificate.

- c) Verification of the certificates of the Welding Consumables.
- d) Verification of the approval of the Contractor for the particular job.
- e) Verification of the approved Welding Procedure Specification.
- f) Verification of the satisfactory result of the site Simulation Test.
- g) Verification of the satisfactory Check Test result of the pipe/ tube/ plate.
- h) Checking of the Root gap, Weld groove profile, Alignment of the pressure parts to be welded as per approved drawing etc.
- i) Ensure weld joint area to be free from rust, scale, oil, grease, crack etc.
- j) Check provision for baking of electrode for low hydrogen electrode.
- k) Check weld joint identification number.

5 STANDARD INSPECTION PROCEDURE FOR HYDRAULIC TEST

- a) Verification of the satisfactory Non-destructive Testing report of the welded joints.
- b) Verification of the Positive Material Identification (PMI) Report.
- c) Verification of the Pressure Parts Calculation approval.
- d) Verification of all previous Inspection Reports and PWHT Charts.
- e) Checking of calibration certificate of pressure gauge.
- f) Witnessing Hydraulic Test carried out as per Indian Boiler Regulations, 1950.
- g) Checking of Deflection, Distortion and extension of pressure parts during Hydraulic Test.
- h) Thorough Checking of the pressure parts during Hydraulic Test for detecting any leakage or sweating.

6 STANDARD INSPECTION PROCEDURE FOR STEAM TEST OF BOILER

- a) Verification of the Provisional Order of the Boiler.

- b) Witnessing the Steam Test as per Indian Boiler Regulations, 1950.
- c) Checking of the Popping Pressure, Reset Pressure, Percentage Blow Down, Accumulation, Lift, Chattering etc. during Steam Test.
- d) Checking of the performance of all Mountings and Fittings during Steam Test.

7 STANDARD INSPECTION PROCEDURE FOR FINAL INSPECTION

- a) To carry out thorough visual inspection.
- b) Checking dimension and configuration as per approved drawing.
- c) Check the Identification Mark on the job.
- d) Stamp the pressure part with the Official Seal.

8 STANDARD INSPECTION PROCEDURE FOR APPROVAL / RECOGNITION OF MANUFACTURER

- a) Scrutiny of submitted documents.
- b) Inspection of Premises, Verification of Manpower along with their Experience and Machineries.
- c) Submission of Report
- d) Technical Discussion.
- e) Issuance of Recognition Certificate.

9 STANDARD INSPECTION PROCEDURE FOR APPROVAL OF ERECTORS

- a) Scrutiny of Submitted Documents.
- b) Inspection of Premises, Verification of Manpower along with their Experience and Machineries.
- c) Submission of Report
- d) Technical Discussion.
- e) Issuance of Recognition Certificate.