

परियोजना (PROJECT) :

ग्राहक (CLIENT) :

उपस्कर का नाम (NAME OF EQUIPMENT) :Hydraulic Hoist

विक्रेता (VENDOR) :

एनआईटी/ क्रय आदेश संदर्भ (NIT/P.O. REFERENCE) :

MODEL QUALITY ASSURANCE PLAN (MQAP)

SET Special instructions: -	
1	Contractors/Manufacturers/Sub-suppliers are advised to submit QAP for equipments/ materials after incorporating all tests for bought out items, in process inspection and final inspections as per their latest manufacturing practice and Indian/ International Standards (with latest amendments, if any).
2	Contractors/Manufacturers/Sub-suppliers are required to use properly calibrated instruments /equipments during testing/inspection, for which necessary calibration certificates are required to be provided/presented to the Inspecting Officer.
3	Contractors/Manufacturers/Sub-suppliers has to make on their own all arrangements for testing facilities at their works for testing of equipments/materials.
4	One set of complete test certificates as per the requirement of QAP be made available to the Inspecting Officer at the time of inspection/testing.
5	All the records, as per the requirement of QAP are to be made available for review by the Inspecting Officer during inspection.
6	Field tests are to be carried out as per the requirements of the contract / purchase order.

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क्र. सं. SR. NO.	मद/घटक एवं विशेषता ITEM /COMPONENTS & CHARACTERISTICS	जाँच की प्रकृति NATURE OF CHECKS	जाँच की मात्रा QUANTUM OF CHECKS	संदर्भ दस्तावेज़ / स्वीकृति मानदंड REFERENCE DOCUMENTS/ ACCEPTANCE NORMS	रिकॉर्ड प्रारूप RECORD FORMAT	निरीक्षण एजेंसी (INSP. AGENCY)			टिप्पणी REMARKS
						प्रदर्शन Perform	गवाह Witness	सत्यापन Verify	
1	Raw Material :-								
1.1	Hydraulic Cylinder, Piston & Allied parts	Chem & Mech Prop	Sample/Lot	Tech. Spec./ App. Drgs/ Relevant Std.	TC	3/2	-	1	TC
2	Bought out Items								
2.1	Seal, Spherical Bearing, Control Valves etc.	Dim. Report & Mtl Prop	100%	-do-	TC	3/2	-	1	TC
3	In Process Inspection								
3.1	Welding :- If applicable								
3.1.1	Butt Weld: Before stress relieving	RT, UT, MPI, DPT (as applicable)	-do-	-do-	TC	3/2	-	1	TC
3.1.2	Fillet Weld: Before stress relieving	RT, UT, MPI, DPT (as applicable)	-do-	-do-	TC	3/2	-	1	TC
3.1.3	Post Weld Stress Relieving	Heat treatment	-do-	-do-	TC	3/2	-	1	TC
3.1.4	Welding Test after stress relieving	RT, UT, MPI, DPT (as applicable)	-do-	-do-	TC	3/2	-	1	TC
3.2	Machining of major items Cylinder, Piston Rod, Piston, End Flanges etc.	Visual / Measurement	-do-	-do-	IR	3/2	-	1	RR
3.3	Hydrostatic Pressure Test	Measurement	-do-	-do-	TC	3/2	-	1	TC
3.4	Chrome Plating, Polishing (Piston Rod)	Visual / Measurement	-do-	-do-	TC	3/2	-	1	TC
3.5	Dimensions	Measurement	-do-	-do-	IR	3/2	-	1	RR
3.6	Fitment of Cylinder components : Fits & Tolerance	Clearance Measurement	-do-	-do-	TC	3/2	-	1	TC
4	Final Inspection								
4.1	Welding Examination								
4.1.1	Welder Certification	Visual	-do-	-do-	TC	3/2	-	1	TC
4.1.2	Fillet weld (If applicable)	RT, UT, MPI, DPT (as applicable)	10%	-do-	JIR	3/2	1	-	CHP

Signature
(QA&I DEPT.)

Signature & Seal
(VENDORS Q.C. DEPT. OR REPRESENTATIVE)

गुणवत्ता आश्वासन योजना (MODEL QUALITY ASSURANCE PLAN) : MODEL

परियोजना (PROJECT) : डुगर एचई प्रोजेक्ट (Dugar HE Project)

ग्राहक (CLIENT) : एनएचपीसी लिमिटेड (NHPC LTD.)

उपस्कर का नाम (NAME OF EQUIPMENT) : Hydraulic Hoist

विक्रेता (VENDOR) :

एनआईटी / क्रय आदेश संदर्भ (NIT/P.O. REFERENCE) :

क्र. सं. SR. NO.	मद/घटक एवं विशेषता ITEM /COMPONENTS & CHARACTERISTICS	जाँच की प्रकृति NATURE OF CHECKS	जाँच की मात्रा QUANTUM OF CHECKS	संदर्भ दस्तावेज़ / स्वीकृति मानदंड REFERENCE DOCUMENTS/ ACCEPTANCE NORMS	रिकॉर्ड प्रारूप RECORD FORMAT	निरीक्षण एजेंसी (INSP. AGENCY)			टिप्पणी REMARKS
						प्रदर्शन Perform	गवाह Witness	सत्यापन Verify	
4.2	Shop Assembly								
4.2.1	Dimensional Checks	Measurement	Critical Dim.	Tech. Spec./ App. Drgs/ Relevant Std.	JIR	3/2	1	-	CHP
4.2.2	Travel of Stem at Test Pressure – Stroke Length (Smooth Operation)	Visual /Measurement	100%	-do-	JIR	3/2	1	-	CHP
i)	Moving in	Measurement	-do-	-do-	JIR	3/2	1	-	CHP
ii)	Moving out	-do-	-do-	-do-	JIR	3/2	1	-	CHP
4.2.3	Leakage Test at Test Pressure (Hydraulic Pressure Test)	Measurement	-do-	-do-	JIR	3/2	1	-	CHP
4.2.4	Max. Speed & Min. Speed (If actual Power Pack is available)								
5	Surface Preparation & Painting	Visual /Measurement	100%	-do-	TC	3/2	-	1	TC

- Note:
- In 'Inspection Agency' column figure 1,2,or 3 to be filled. 1- will indicate 'NHPC Ltd', 2- will indicate 'supplier' & 3- will indicate 'sub-supplier'.
 - In 'Remarks' column following abbreviations shall be used - RR-Review of Records, T.C. - Test Certificate, CHP - Customer Hold Point & JIR-Joint Inspection Report.
 - The firm shall obtain acceptance/clearance of finished product for further activities based on Test Certificates & Internal Report (IR)
 - Any additional test required as per the requirement of equipment in accordance with Contract Agreement/Relevant standard apart from QAP will be carried out by the firm without any additional financial implication.
 - This QAP does not absolve the Contractor/sub-contractor of his responsibility to supply the correct products, strictly in conformity to the specifications given in the purchase order/contract. The above Model QAP stipulates the bare minimum requirements which shall be complied by the contractor. The above QAP has been made presuming subletting of work shall be allowed in the tender. In case subletting of work is not allowed in the tender, then "3/2" shall be replaced by "2" under the column " Perform".
 - At the time of Inspection the supplier shall arrange the requisite calibrated measuring instruments i.e. micrometer, vernier caliper, pie tape, surface roughness tester, dial gauge etc. Material testing shall be conducted from NABL accredited lab/Govt. approved lab. NDT shall be conducted from NABL accredited lab/Govt. approved lab/Level-2 or 3 certified person.

Signature
(QA&I DEPT.)

Signature & Seal
(VENDORS Q.C. DEPT. OR REPRESENTATIVE)