

S.CRANE STANDARD QUALITY ASSURANCE PLAN FOR EOT CRANES, HOIST & LIFTS

Sr.No.	Components/ Operations	Characteristics	Class	Type/Method of check	Quantum of check	Reference Document	Acceptance Norm	Format of Records	Agency		
									M	I	C
1	2	3	4	5		7	8	9	10		
1	RAW MATERIALS CONTROL										
1.1	STRUCTURAL MATL. SIDE PLATES, I-BEAM, ANGLE, CHANNEL,	Chemical & Mechanical	Major	Chemical & Mechanical	1 sample per size	IS-2062- 1992	IS-2062-1992	Mill TCs	P	V	V
1.2	GEARS & WHEELS (STEEL / FORGE)	Chemical Dimensional	Major	Chemical	1 sample per size	As per drg.	EN - 9	TC	P	V	V
1.3	PINION	Chemical Dimensional	Major	Chemical	1 sample per size	As per drg.	EN - 31	TC	P	V	V

LEGEND:

M=Manufacturer

I = Inspecting Agency.

C=Customer.

P=Perform

W=Witness

V=Verification as appropriate.

IR=Internal Inspection Report.

TC=Test Certificate.

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1		3	4	5	6	7	8	9	10		
2	Boughtout Items										
2.1	WIRE ROPES	Identification of dimensional conformity	Major	Test Certificate.	100%	IS-2266 /2002	IS-2266 /2002	Manufacturers test report	P	V	V
2.2	HOOK	Tensile strength	Major	MFG. Test Certificate. Proof load test	100%	IS-8610 IS-3815	IS-8610 IS-3815	Manufacturers test report	P	V	V
2.3	MOTORS	No load current, Insulation .Interlock	Major	Performance test , No load operation test(During load test)	100%	IS:325/IEC60034-1	IS:325/IEC60034-1	Routine T.C	P	V	V
2.4	ELECTRO MAGNETIC D.C BRAKES.	Verification of type, rating & make.	Major	Operational & Functional Test	100%	as per motor HP IS:325	as per motor HP IS:325	Manufacturer's Test certificate	P	V	V
2.5	CONTACTORS	Verification of type, Rating & Make.	Major	Visual	100%	As Per Drg.	As Per Drg.	No Records	P	V	V
2.6	CABLE.	Verification of type, & Make.	Major	Visual	100%	As Per Drg.	As Per Drg.	No Records	P	V	V
2.7	LIMIT SWITCH	Verification of type,	Major	Visual	100%	As Per Drg.	As Per Drg.	No Records	P	V	V
2.8	BEARINGS	Visual type & Dimensional	Major	Visual.	100%	Bearing - Catalogue	Bearing - Catalogue	No Record	P	V	V

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3	IN PROCESS CONTROL										
3.1	Steel Fabrication (Welding)	a) Butt welding b) Fillet welding	Major	DP Test/ Visual	In tension Zone Only	Fabrication & Drwing .	Fabrication & Drwing .	No Records	P	V	V
3.2	Gears, Pinions.	Hardness; Gear 20 - 25 HRC Pinion 27 - 32 HRC	Major	Hardness testing	100%	Component & Drwing .	Component & Drwing .	I.R.	P	V	V
3.3	Gear Boxes	(after 8hrs.running oil leakage) Back lash & tooth contact.	Major	Leakage check Measurement.	100%	As per drg.	NO Leakage.	I.R.	P	V	V
3.4	Wheels	Hardness 32-37 HRC	Major	Hardness testing	100%	As per drg.	As per drg.	I.R	P	V	V
3.5	Rope Drum & Rope Guide	Visual & Dimensional	Major	Visual & Measurement	100%	As per drg.	As per drg.	I.R	P	V	V
3.6	Control panel	Sequence of operations insulation & Interlock	Major	Sequence of operations insulation & Interlock	100%	As Per drawing	As Per drawing	I.R	P	V	V
3.7	Painting	Appearance Painting&surface preparation	Major	Visual	100%	Golden Yellow	Golden Yellow	No record	P	V	V
						Firozy Blue	Firozy Blue				

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4	Final Inspection										
4.1	Complete assembled Crane at shop floor for no load test & Full Load test	Dimensional inspection and speed verification as per appd. GA drawing. no load current check Load test deflection	Major	Measurement of dimension & speeds & no load current checking Load test	100%	IS:3177 / G.A.drg.	IS-3177 / appd. GA.drawings.	Inspection Report.	P	V	V
4.2	Overload test	25 % over load	Major	Capacity of the crane to handle 25 % overload on hoist,CT & LT	100%	IS:3177 / Apprd GA drg	IS:3177 / Apprd GA drg	Inspection Report.	P	V	V
4.3	Packing & forwarding	Packing	Major	Visual	Roadworthy	Mfgr's std	Mfgr's std	Packing list	P		V

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