



**QM-C-7.1/Coupler/0001/C**  
**Inspection Plan(Check Sheet)**

**Item:** Lock  
**Specn. :** 48-BD-08  
**Amd.:**  
**Drg. No. & Alt.:** SK-62724, Alt.23, Item-8

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Firm's Name :

Date (period) of Inspection :

Contract Details :

- Contract no. and date.
- Order placing authority.
- Specification no.
- Drawing no.

Quantity on order :

Quantity offered for inspection

Date on which offered

Consignee

Quality Control Manager of  
M/s

Inspecting Official of RDSO



Lot Size – 200 Nos.

**SUMMARY OF RESULTS**

SN	Parameters	Specified Value	Observation	
			Max.	Min.
1	Visual & Operational Check	No cracks, hot tears, cold shuts & weld cracks and surface condition by SCRATA & Marking as per Drg. Components should operate freely in assembled condition		
2	Dimensional	By go-no go gauges (As per RDSO Drawing listed at Sn.8)		
3	Physical Properties	Gr. E (Minimum)		
	i) Tensile Strength	84.35 Kg/mm <sup>2</sup> or 827.47 N/mm <sup>2</sup>		
	ii) Yield Strength	70.30 Kg/mm <sup>2</sup> or 689.64 N/mm <sup>2</sup>		
	ii) Elongation	14%		
	iii) Reduction in area	30%		
4	Chemical composition (Maximum%)	C-0.28-0.33, Mn-0.8-1.10, P-0.03, S-0.03, Si-0.40-0.60, Cr-0.50-0.80 Ni-0.50-0.60, Mo- 0.15-0.25		
5	Hardness	241-311 BHN		
6	Heat treatment	Record to be checked.		
7	Weight variation	+5% to -3%		

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1. **Visual, Operation & Marking** : Sample size-5% or min 10 nos.

	Specified	Observed Value									
		1	2	3	4	5	6	7	8	9	10
<b>Surface defect</b>	No cracks, hot tears, cold shuts & weld cracks and surface condition by SCRATA										
<b>Marking</b>	As per respective drawing										
<b>Operation</b>	Components should operate freely in assembled condition.										

2. **Dimensions**: Sample size-5% or min 10 nos.

Specified	Observed Value										
	1	2	3	4	5	6	7	8	9	10	
As per respective drawing and with gauges as listed by RDSO. At Sno.8 of check sheet.											

3. **Physical Test** : Sample size- One from each heat.

Mechanical Properties	Grade E (Min)	Observed Value									
		1	2	3	4	5	6	7	8	9	10
<b>UTS</b>	827.47 N/ mm <sup>2</sup> or 84.35 Kg/mm <sup>2</sup>										
<b>YS</b>	689.64 N/ mm <sup>2</sup> or 70.30 Kg/mm <sup>2</sup>										
<b>Elongation</b>	14%										
<b>RA</b>	30%										

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4. **Chemical Composition:** Sample size- one from each heat.

Heat No.	
Body Sl. No.	
Qty. Cast	
Qty. Offered	
Qty. Passed	
Qty. Balanced	

Chemical Analysis	Specified Value	Observed Value										
	Grade E (max %)	Heat	1	2	3	4	5	6	7	8	9	10
C	0.28-0.33											
Mn	0.8-1.10											
P	0.03											
S	0.03											
Si	0.40-0.60											
Cr	0.50-0.80											
Ni	0.50-0.60											
Mo	0.15-0.25											

5. **Hardness :** Sample size-5% or min 5 nos. (Testing should be done as per ASTM A 370)

Grade	Specified Value	Observed Value										
	BHN	1	2	3	4	5	6	7	8	9	10	
Grade E	241-311 Except Knuckle											

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6. **Heat treatment :**

Record of heat treatment to be verified as per clause 3.6. of Specn.	OK / NOT OK	
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7. **Variation of Weight:** One component per P.O.

Specified Value	Observation
Within +5% to -3%	

8. **Gauge Check:** As per RDSO Drawing.  
(Sample size-5% or min 10 nos.)

	Parameters	Gauge No. WD-84073-S-	Observation
<b>COUPLER PARTS</b>	Lock Contour guard arm side	56-RC	
	Lock Contour Knuckle Side	57-RC	
	Lock Toggle	58-RC	
	Lock Parallel & thickness	59-RC	
	Lock slot	60-RC	
	Lock Toggle arm width-GO & NO GO	61-RC	

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