

QUALITY ASSURANCE PLAN

- 1.0 Nomenclature : **CONE RING.**
- 2.0 Drg No. & Det. No. : ARDE 2139 (Issue-I) Det. No. 6 Sht. 2
- 3.0 Nature of Item : **Non-Critical**
- 4.0 Inspecting Officer
- (a) Raw Material : **G.M., O.F.D.C.**
- (b) Advance Sample : **Jointly by OFDC & Authorised AQAW (A), if applicable.
[BPC will be accorded by Authorised AQAW (A)]**
- (c) Bulk : **G.M., O.F.D.C.**
- 5.0 Method of Manufacture : Forging / Machining
- 6.0 Raw Material : Steel to IS 2004 Class-2/^{2A}Normalised Condition.
OR IS 2062 Fe 410 WB
- 7.0 Tests/Checks and Acceptance Criteria of Raw Material :

Sl. No.	Raw Material	Acceptance
1.	Steel to IS: 2004 Class-2/2A Normalised Condition	Chemical Composition & Physical/ Mechanical Properties to conform Specification IS: 2004 Class-2/2A, Normalised Condition
OR		
2	Steel to IS: 2062 Fe 410 WB	Chemical Composition & Physical/ Mechanical Properties to conform Specification IS: 2062 Fe 410 WB

Note : Raw material should be tested from NABL/Govt. Lab.

- (i) **If the item is manufactured through Forging**
- (a) Chemical Test Sample will be drawn from the billet/blank and to be checked before undertaking manufacture by Forging.
- (b) Qty. 03 Nos. test samples (to be forged) for Mechanical Test will be selected from the same billet/blank after satisfactory result of Chemical Test.
- (c) All the test samples (03 Nos.) are to be Forged and Heat Treated along with the initial samples (i.e. Advance Samples).
- (d) The details of Forging parameters such as temperature of blank, die and hammer/ram force etc and Heat Treatment parameter shall be recorded. Records of the same to be submitted to Insp. Authority.
- (e) Qty. 01 No. test piece will be subjected to Mechanical Test.
- (f) If the test piece fails to meet required mechanical properties, balance 02 Nos. samples will be subjected to Mechanical Test.
- (g) If any one of these test pieces fails to meet the specification requirements, the Raw Material representing the test samples, initial samples & the Forging Process shall be rejected.

8.1 Visual Inspection :

Sl. No.	Details of Feature	Sample Size	Acceptance Criteria
1.	Sharp Edges & Burrs	100 %	Not Allowed
2.	Tool Marks, Dents	100 %	Not Allowed

8.2 Dimensional Inspection:

Sl. No.	Dimensions / Features	Sample Size	Inspection Method
1	Critical Dimensions ($22^{\circ}30' \pm 30'$, R 187 +0.1, $\varnothing 344 +0.2$ & 18 +0.2)	100 %	Gauge / GE
	All Dimensions	10 %	Gauge / GE

- Note :**
1. Sample size (for inspection) may vary at the discretion of Inspecting Authority.
 2. Gauges as per Gauge Schedule No. AIR/I-453/6-2 or G.S./01-06/2.
 3. Gauges calibration report / certificate to be submitted.


9.0 Tests/Checks on Finished Items & acceptance Criteria

Sl. No.	Details of Feature	Sample Size	Acceptance Criteria
1	Phosphating	Base material test Coupon for every Batch	To conform Specification IS : 3618 Class-B

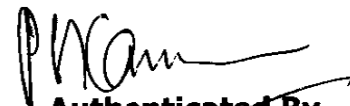
Note : Testing (Phosphating) to be done from NABL accredited/ Govt. lab

Dated : 30 June 15


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