

**REAR SIGHT ASSEMBLY (12003047)**

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drng . No.	12003047								QAP No: OFT/QAP/M2HB/12003047
Nomenclature	REAR SIGHT ASSEMBLY, OOW50BMG. REQD FOR HB ASSEMBLY ( 7265636)								
Material	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness)	Remarks
Rear Sight Assembly (Raw material)	General appearance	Non Critical	Visual	100%	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 12003047 & Components		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003047 & Components		Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003047 & Components		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003047 & Components		Firm Inspection report	W	
<p><b>*Note :</b> As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable. (ii) In case of hard ware items, NAI, Trichy will review the reports, if required.</p>									

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	7267936								QAP No: OFT/QAP/M2HB/7267936
Nomenclature	LEAF ASSEMBLY, REAR SIGHT. FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness)	Remarks
Leaf Assembly, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 7267936 & Components		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 7267936 & Components		Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 7267936 & Components		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 7267936 & Components		Firm Inspection report	W	

\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.


(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.


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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013610 ✓								QAP No: OFT/QAP/M2HB/5013610
Nomenclature	KNOB,REAR SIGHT ELEVATING SCREW. FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1117, 1118.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Knob, Rear Sight Elevating Screw (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1117, 1118.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	CARBURIZE TO A CASE DEPTH OF 0.203 TO 0.305 IAW AMS 2759/7. AUSTENITIZE IF NECESSARY, OIL QUENCH AND TEMPER, AFTER TEMPERING THE CARBURIED SURFACE HARDNESS SHALL BE HR15N 90 MINIMUM.		Test report from NABL lab	R	Firm will be undertaking 100% Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013610		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013610		Firm Inspection report	W	

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003249								QAP No: OFT/QAP/M2HB/12003249
Nomenclature	LEAF REAR SIGHT, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1018-1022								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Leaf Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1018-1022		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 12003249		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003249		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003249		Firm Inspection report	W	

(\* ) Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for out sourced components. JRI will be done by NAI & OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013162								QAP No: OFT/QAP/M2HB/5013162
Nomenclature	PIN, STRAIGHT, HEADLESS, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A576, GRADES 1080 THRU 1095 OR TOOL STEEL, ASTM A686: CLASS W1-8 THRU 9, GRADE 'C'.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Pin, Straight, Headless (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A576, GRADES 1080 THRU 1095 OR TOOL STEEL, ASTM A686: CLASS W1-8 THRU 9, GRADE 'C'.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013162		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013162		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013162		Firm Inspection report	W	


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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5163398								QAP No: OFT/QAP/M2HB/5163398
Nomenclature	PLUNGER, CLICK, ELEVATING SCREW KNOB, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1018 THRU 1022, 1117 OR 1118.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Plunger, Click, Elevating Screw Knob (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1018 THRU 1022, 1117 OR 1118.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5163398		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	AMS 2753C	FERRITIC NITRO CARBURIZING	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5163398		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5163398		Firm Inspection report	W	


\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00 Date of Issue / / 2021
Drg . No.	6008973								QAP No: OFT/QAP/M2HB/6008973
Nomenclature	SCRW, ELEVATING, REAR SIGHT, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1117, 1118.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Screw, Elevating, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1117, 1118.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6008973		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008973		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008973		Firm Inspection report	W	

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003250								QAP No: OFT/QAP/M2HB/12003250
Nomenclature	SLIDE, REAR SIGHT, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1018 TO 1022. INVESTMENT CASTING: STEEL SAE AMS-S-22141, GRADE IC4340. TENSILE TEST SHALL NOT APPLY. CLASSIFICATION & INSPECTION OF INVESTMENT CASTINGS SHALL BE IAW SAE AMS-2175, CLASS 2, GRADE 'C'.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Slide, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1018 TO 1022. INVESTMENT CASTING: STEEL SAE AMS-S-22141, GRADE IC4340. TENSILE TEST SHALL NOT APPLY. CLASSIFICATION & INSPECTION OF INVESTMENT CASTINGS SHALL BE IAW SAE AMS-2175, CLASS 2, GRADE 'C'.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 12003250		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003250		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003250		Firm Inspection report	W	

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5163397								QAP No: OFT/QAP/M2HB/5163397
Nomenclature	SPRING, HELICAL COMPRESSION, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	WIRE, MUSIC, ASTM A228.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Spring, Helical Compression (Raw material)	General appearance	Non Critical	Visual	100%	WIRE, MUSIC, ASTM A228.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	STRESS RELIEVE AT 224°C ± 5°C FOR 30 MINUTES AFTER FORMING.		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.3 + 30.7 OR 5.3.2.3 + 30.7	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5163397		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5163397		Firm Inspection report	W	
<p><b>(*) Note :</b> As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									

NAI

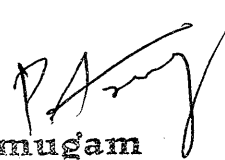
Civilian Technical Officer (Stock)  
for Inspection/Inspector Of Naval Armament  
The Yard, Cochin


OFT

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COAST GUARD, MIN. OF DEFENSE  
DRAGONAGE FACTORY  
MADRAS 600 015

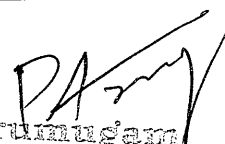
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	MS51923-142								QAP No: OFT/QAP/M2HB/MS51923-142
Nomenclature	PIN, COILED SPRING, FOR: LEAF ASSEMBLY, REAR SIGHT, OOW50BMG (7267936)								
Material	STEEL COMP 302								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Pin, Coiled Spring (Raw material)	General appearance	Non Critical	Visual	100%	STEEL COMP 302		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing MS51923-142		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing MS51923-142		Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing MS51923-142		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing MS51923-142		Firm Inspection report	W	


\***Note** : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.

NAI  
  
**P Arumugam**  
 Civilian Technical Officer (Mech)  
 for Principal Inspector Of Naval Armament  
 Tiruchirappalli.

OFT  
  
**G.DEVENDIRANE, I.O.F.S.**  
 ASST WORKS MANAGER  
 GOVT.OF.INDIA, MIN.OF.DEFENCE  
 ORDNANCE FACTORY  
 TIRUCHIRAPPALLI, TAMIL NADU

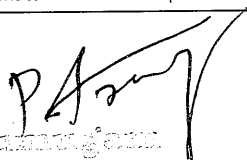
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003051								QAP No: OFT/QAP/M2HB/12003051
Nomenclature	RISER, REAR SIGHT FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1018-1040								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Riser, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1018-1040		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 12003051		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003051		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003051		Firm Inspection report	W	
<p>(*) Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									

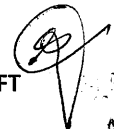
  
 P. Arumugam  
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 for Principal Inspector Of Naval Armament  
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 OFT  
 G. DEVENDIRANE, I.O.E.S.  
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 TIRUCHIRAPPALLI - 620002

QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013607								QAP No: OFT/QAP/M2HB/5013607
Nomenclature	SCALE, WINDAGE, REAR SIGHT: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	STEEL, CARBON; ASTM A109								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Scale, Windage Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CARBON; ASTM A109		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013607		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013607		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013607		Firm Inspection report	W	

(\*) Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for out sourced components. JRI will be done by NAI & OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.

NAI  
  
 Civilian Technical Officer (Mech)  
 for Principal Inspector Of Naval Armament  
 (Truchireppalli).

OFT  
  
 CIVILIAN TECHNICAL OFFICER  
 FOR PRINCIPAL INSPECTOR OF NAVAL ARMAMENT  
 (TRUCHIREPPALI)


QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013167								QAP No: OFT/QAP/M2HB/5013167
Nomenclature	SCALE, WINDAGE, REAR SIGHT: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	CARBON STEEL BARS, ASTM A108, GRADES 1018, 1020, 1117, 1118.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Scale, Windage Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADES 1018, 1020, 1117, 1118.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013167		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013167		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013167		Firm Inspection report	W	

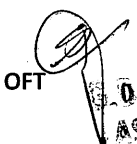
\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.

NAI  
Principal Technical Officer (MoU)  
(in Charge) Director of Naval Armament  
Tiruchirappalli.

OFT  
G.DEVENDIRANE, I.O.F.S.  
ASST. WORKS MANAGER  
GOVT. OF INDIA, MIN. OF DEFENCE  
ORDNANCE FACTORY  
TIRUCHIRAPPALLI, TAMIL NADU

QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00 Date of Issue / / 2021
Drg . No.	12003052								QAP No: OFT/QAP/M2HB/12003052
Nomenclature	SPRING, REAR SIGHT: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	CARBON STEEL, ASTM A684, GRADES 1050 TO 1074.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Spring, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL, ASTM A684, GRADES 1050 TO 1074.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	HEAT TO THE AUSTENITIZING TEMPERATURE, QUENCH AND TEMPER TO HR15N 81-84 IAW SAE AMS 2759.		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003052		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003052		Firm Inspection report	W	
<p>(*) Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for out sourced components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									

  
 P Arumugam  
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 Technical Inspector Of Naval Armament  
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 GOVT. OF INDIA, MIN. OF DEFENCE  
 ORDNANCE FACTORY  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013160								QAP No: OFT/QAP/M2HB/5013160
Nomenclature	WINDAGE SCREW, REAR SIGHT: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	STEEL, CARBON; SAE 1117, 1118; ASTM A108.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Windage Screw, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CARBON; SAE 1117, 1118; ASTM A108.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013160		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013160		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013160		Firm Inspection report	W	

\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.


NAI  
P. Arunugam  
Civilian Technical Officer (Mech)  
for Principal Inspector Of Naval Armament  
Tiruchirappalli.


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ORDNANCE FACTORY  
TIRUCHIRAPPALLI, TAMIL NADU



QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	6008809								QAP No: OFT/QAP/M2HB/6008809
Nomenclature	KNOB, REAR SIGHT WINDAGE SCREW: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	STEEL, CARBON; SAE 1018 THRU 1022, 1117, 1118; ASTM A108 - COLD DRAWN.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Knob, Rear Sight Windage Screw (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CARBON; SAE 1018 THRU 1022, 1117, 1118; ASTM A108 - COLD DRAWN.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6008809		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008809		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008809		Firm Inspection report	W	

\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
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NAI  
  
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 for Principal Inspector Of Naval Armament  
 Tiruchirappalli

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 ASST. WORKS MANAGER  
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 ORDNANCE FACTORY  
 TIRUCHIRAPPALLI

QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	MS39086-56								QAP No: OFT/QAP/M2HB/MS39086-56
Nomenclature	PIN, COILED SPRING: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	1050-1095 SPRING STEEL								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Pin, Coiled Spring (Raw material)	General appearance	Non Critical	Visual	100%	1050-1095 SPRING STEEL		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing MS39086-56		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing MS39086-56		Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing MS39086-56		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing MS39086-56		Firm Inspection report	W	
<p>*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable. (ii) In case of hard ware items, NAI, Trichy will review the reports, if required.</p>									

NAI


Principal Director (NAI)  
Or Principal Director (Naval Armament)  
Trichy


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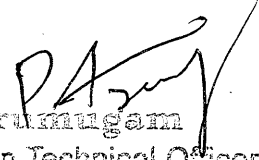
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drng . No.	5013155								QAP No: OFT/QAP/M2HB/5013155
Nomenclature	PLUNGER, CLICK, WINDAGE: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	HOT WROUGHT CARBON STEEL BAR, ASTM A576. GRADE 1085 TO 1095, OR TOOL STEEL: ASTM A686. CLASS W1-8 THRU 11, GRADE 'C'.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Plunger, Click, Windage (Raw material)	General appearance	Non Critical	Visual	100%	HOT WROUGHT CARBON STEEL BAR, ASTM A576. GRADE 1085 TO 1095, OR TOOL STEEL: ASTM A686. CLASS W1-8 THRU 11, GRADE 'C'.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	HEAT TO THE AUSTENITIZING TEMPERATURE, QUENCH, AND TEMPER TO HRA 73.5-77 IAW SAE AMS 2759.		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.2 OR 5.3.2.2	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013155		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013155		Firm Inspection report	W	


\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
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NAI  
  
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 Civilian Technical Officer (Mech)  
 Inspector General & Assistant  
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 ASST. WORKS MANAGER  
 GOVT. OF INDIA, MIN. OF DEFENCE  
 ORDNANCE FACTORY  
 TIRUCHIRAPPALLI, TAMIL NADU

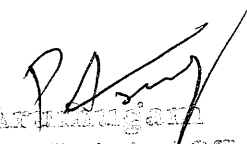
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013154								QAP No: OFT/QAP/M2HB/5013154
Nomenclature	SPRING, HELICAL COMPRESSION: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	WIRE, MUSIC, STEEL, ASTM A228.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Spring, Helical Compression (Raw material)	General appearance	Non Critical	Visual	100%	WIRE, MUSIC, STEEL, ASTM A228.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	STRESS RELIEVE AT 224°C ± 5°C FOR 30 MINUTES AFTER COILING		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	MIL-STD-171	FINISH 5.3.1.3 + 30.7 OR 5.3.2.3 + 30.7	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013154		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013154		Firm Inspection report	W	
<p><b>(*) Note :</b> As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									


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 C. DEVENDRAN, I.O.F.S.  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	MS35191-216								GAP No: OFT/QAP/M2HB/MS35191-216
Nomenclature	MACHINE SCREW, PHILLIPS HEAD, 2-64 UNF: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	STEEL, COMP 1010, 1011 OR 1013.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Machine Screw, Phillips Head, 2-64 UNF. (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, COMP 1010, 1011 OR 1013.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing MS35191-216		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	CADMIUM PER QQ-P-416	TYPE-II, CLASS B	Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing MS35191-216		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing MS35191-216		Firm Inspection report	W	

\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.

NAI  
  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003056								GAP No: OFT/QAP/M2HB/12003056
Nomenclature	BASE ASSEMBLY, REAR SIGHT: FOR: REAR SIGHT ASSEMBLY, OOW50BMG (12003047)								
Material	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness)	Remarks
Base Assembly, Rear Sight. (Raw material)	General appearance	Non Critical	Visual	100%	AS PER MATERIAL SPECIFICATION IN THE ASSEMBLY PARTLIST.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 12003056 & Components		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Protective Finish	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003056 & Components		Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003056 & Components		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003056 & Components		Firm Inspection report	W	


\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.


NAI

*(Signature)*  
Civilian Technical Officer (Mech)  
for Principal Inspector Of Naval Armament  
Trichirappalli.


OFT *(Signature)*  
G. DEVENDIRANE, I.O.F.S.  
ASST. WORKS MANAGER  
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TRICHIRAPPALLI, TAMILNADU


QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003048								QAP No: OFT/QAP/M2HB/12003048
Nomenclature	BASE, REAR SIGHT: FOR: BASE ASSEMBLY, REAR SIGHT, OOW50BMG (12003056)								
Material	STEEL, CARBON, ASTM A109 TEMPER NO.4 OR 5.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Base, Rear Sight (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CARBON, ASTM A109 TEMPER NO.4 OR 5.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003048		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003048		Firm Inspection report	W	
<p>(*) Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									

  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003049								QAP No: OFT/QAP/M2HB/12003049
Nomenclature	BUSHING, WINDAGE SCREW: FOR: BASE ASSEMBLY, REAR SIGHT, OOW50BMG (12003056)								
Material	CARBON STEEL BARS, ASTM A108, GRADE 1141, CARBON STEEL BAR, ASTM A331, GRADE 4140 OR 4150, OR TOOL STEEL, ASTM A681, TYPE A2 OR S7.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Bushing, Windage Screw (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADE 1141, CARBON STEEL BAR, ASTM A331, GRADE 4140 OR 4150, OR TOOL STEEL, ASTM A681, TYPE A2 OR S7.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	PART MAY BE HEAT TREATED BEFORE ASSEMBLY OR LOCALLY HARDENED AFTER PROVIDED HARDNESS REQUIREMENT HRC 48 MIN. IS SATISFIED AFTER BRAZING.		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003049		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003049		Firm Inspection report	W	
<p><b>(*) Note :</b> As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									


  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003053								QAP No: OFT/QAP/M2HB/12003053
Nomenclature	RETAINER, SPRING: FOR: BASE ASSEMBLY, REAR SIGHT, OOW50BMG (12003056)								
Material	CARBON STEEL SHEET OR STRIP, AMS QQ-S-700, GRADES 1040-1050.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by NAI / GM/OFT (Review/Witness) (*)	Remarks
Retainer, Spring (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL SHEET OR STRIP, AMS QQ-S-700, GRADES 1040-1050.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%		PART MAY BE HEAT TREATED BEFORE ASSEMBLY OR LOCALLY HARDENED AFTER PROVIDED HARDNESS REQUIREMENT SPECIFIED HEREON IS SATISFIED AFTER BRAZING. HARDNESS: ROCKWELL HARDNESS HRC 48 MIN.	Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%		As per Drawing 12003053	Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%		As per Drawing 12003053	Firm Inspection report	W	
<p><b>(*) Note :</b> As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause No. 3(b), Sub clause (i) is applicable for In-House manufacturing and inspection by GM/OFT. Sub clause (ii) is applicable for <u>out sourced</u> components. JRI will be done by NAI &amp; OFT on sampling basis. For springs: (i) Trade : Raw material to finished product QA by NAI. (ii) In house : Dimension inspection and Load test on sampling basis by NAI.</p>									


  
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	12003050								QAP No: OFT/QAP/M2HB/12003050
Nomenclature	STOP, REAR SIGHT LEAF: FOR: BASE ASSEMBLY, REAR SIGHT, OOW50BMG (12003056)								
Material	CARBON STEEL BARS, ASTM A108, GRADE 1141, CARBON STEEL BAR, ASTM A331, GRADE 4140 OR 4150, OR TOOL STEEL, ASTM A681, TYPE A2 OR S7.								
Component Nomenclature/ operations	Characteristics	Class	Type of check	Quantum of check	Reference document	Acceptance norms	Format of record	Inspection by GM/OFT (Review/Witness) (*)	Remarks
Stop, Rear Sight Leaf (Raw material)	General appearance	Non Critical	Visual	100%	CARBON STEEL BARS, ASTM A108, GRADE 1141, CARBON STEEL BAR, ASTM A331, GRADE 4140 OR 4150, OR TOOL STEEL, ASTM A681, TYPE A2 OR S7.		Firm Inspection report	R	Sample will be drawn and sealed by Inspection Agency
	Chemical properties	Non Critical	Chemical Lab analysis	100%			Test report from NABL lab	R	
	Mechanical properties	Non Critical	Mechanical Lab analysis	100%			Test report from NABL lab	R	
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	PART MAY BE HEAT TREATED BEFORE ASSEMBLY OR LOCALLY HARDENED AFTER PROVIDED HARDNESS REQUIREMENT HRC 48 MIN. IS SATISFIED AFTER BRAZING.		Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
In process	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 12003050		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 12003050		Firm Inspection report	W	

\*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.  
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.

  
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