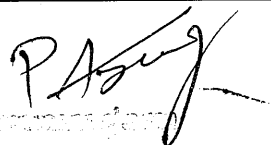



WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	6535477-S								QAP No: OFT/QAP/M2HB/6535477-S
Nomenclature	WITH SAFETY, SPADE GRIP ASSEMBLY OOW50BMG. : REQD FOR HB ASSY (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
With Safety, Spade Grip 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 6535477-S		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 6535477-S		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6535477-S		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.	5564307								QAP No: OFT/QAP/M2HB/5564307
Nomenclature	PLATE ASSEMBLY, BACK,(OOW50BMG. REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
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
Plate Assembly, Back (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 5564307		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 5564307		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5564307		Firm Inspection report	W	

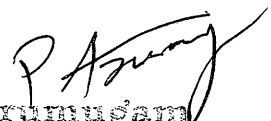
*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	6535475								GAP No: OFT/QAP/M2HB/6535475
Nomenclature	PLATE, BACK, OOW50BMG: REQD. FOR PLATE ASSEMBLY, BACK,(5564307)OOW50BMG.								
Material	ASTM A322 OR A331,4140 OR 41L40								
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
Plate, Back (Raw material)	General appearance	Non Critical	Visual	100%	ASTM A322 OR A331,4140 OR 41L40		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 As Per drg.No. 6535475	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6535475		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6535475	Heat at 838 °C to 860°C Oil Quench. Temper 1 Hour minimum to Hardness Specified (RH C35-40)	Test report from NABL lab	R	
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	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6535475		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 & 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.	6008936								QAP No: OFT/QAP/M2HB/6008936
Nomenclature	FRAME, HANDLE, LOWER OOW50BMG : REQD. FOR PLATE ASSEMBLY, BACK,(5564307)OOW50BMG.								
Material	STEEL,ASTM A108 OR ASTM A684,1045,1050 OR ASTM A322 OR A331,4140,8640								
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
Frame,Handle, lower (Raw material)	General appearance	Non Critical	Visual	100%	STEEL,ASTM A108 OR ASTM A684,1045,1050 OR ASTM A322 OR A331,4140,8640		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 As Per drg.No. 6008936	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008936		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6008936	Heat at 838 °C to 860°C Oil Quench. Temper 1 Hour minimum to Hardness Specified (RH A67-70)	Test report from NABL lab	R	
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	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008936		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 & 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.	6008937								GAP No: OFT/QAP/M2HB/6008937
Nomenclature	FRAME, HANDLE, UPPER OOW50BMG : REQD. FOR PLATE ASSEMBLY, BACK,(5564307)OOW50BMG.								
Material	STEEL,ASTM A108 OR ASTM A684,1045,1050 OR ASTM A322, OR A331,4140,8640								
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
Frame,Handle, Upper (Raw material)	General appearance	Non Critical	Visual	100%	STEEL,ASTM A108 OR ASTM A684,1045,1050 OR ASTM A322, OR A331,4140,8640		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 As Per drg.No. 6008937	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008937		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6008937	Heat at 838 °C to 860°C Oil Quench. Temper 1 Hour minimum to Hardness Specified (RH A67-70)	Test report from NABL lab	R	
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	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008937		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 & 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.	5009287								QAP No: OFT/QAP/M2HB/5009287
Nomenclature	RIVET,SOLID OOW50BMG : REQD. FOR PLATE ASSEMBLY, BACK,(5564307)OOW50BMG.								
Material	WIRE,STEEL, ASTM A510:1035 THRU1038								
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
Rivet,Solid (Raw material)	General appearance	Non Critical	Visual	100%	WIRE,STEEL, ASTM A510:1035 THRU1038		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 As Per drg.No. 5009287	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009287		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 5009287		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.	5009369								GAP No: OFT/QAP/M2HB/5009369
Nomenclature	TUBE, HANDLE, OOW50BMG REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	SEAMLESS CARBON AND ALLOY STEEL MECHANICAL TUBING, ASTM A519, GRDES MTX1015-1020, MT1015-1020; COLD DRAWN AND STRESS RELIEVED. ALTERNATE TUBING: ELECTRIC RESISTANCE-WELDED CARBON OR ALLOY STEEL MECHANICAL TUBING, ASTM A513, TYPE 5, GRADE MT1020, MANDREL DRAWN, STRESS RELIEVED. ALTERNATE MATERIALS: STEEL BARS, CARBON, COLD FINISHED, ASTM A108, GRADES 1117, 1118, 1015-1020								
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
Tube, Handle (Raw material)	General appearance	Non Critical	Visual	100%	SEAMLESS CARBON AND ALLOY STEEL MECHANICAL TUBING, ASTM A519, GRDES MTX1015-1020, MT1015-1020; COLD DRAWN AND STRESS RELIEVED. ALTERNATE TUBING: ELECTRIC RESISTANCE-WELDED CARBON OR ALLOY STEEL MECHANICAL TUBING, ASTM A513, TYPE 5, GRADE MT1020, MANDREL DRAWN, STRESS RELIEVED. ALTERNATE MATERIALS: STEEL BARS, CARBON, COLD FINISHED, ASTM A108, GRADES 1117, 1118, 1015-1020		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 5009369	Stress Relieved	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 -As per Drawing 5009369	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009369		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009369		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 & 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.	7265561								QAP No: OFT/QAP/M2HB/7265561
Nomenclature	GRIP, HANDLE, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	PLASTIC MOLDING, THERMOSETTING, SPEC ASTM D5948, TYPE CF1-20; SEMI-DULL BLACK AS DERIVED FROM MOLDING THE PART IN A CAVITY HAVING A SAND BLASTED SURFACE. RESULTANT SURFACE GLOSS SHALL NOT EXCEED THAT OF LUSTERLESS OR SEMI-GLOSS COLOR CHIPS 37038 OR 27038 OF FED-STD-595 AS DETERMINED BY VISUAL COMPARISON.								
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
Grip, Handle (Raw material)	General appearance	Non Critical	Visual	100%	PLASTIC MOLDING, THERMOSETTING, SPEC ASTM D5948, TYPE CF1-20; SEMI-DULL BLACK AS DERIVED FROM MOLDING THE PART IN A CAVITY HAVING A SAND BLASTED SURFACE. RESULTANT SURFACE GLOSS SHALL NOT EXCEED THAT OF LUSTERLESS OR SEMI-GLOSS COLOR CHIPS 37038 OR 27038 OF FED-STD-595 AS DETERMINED BY VISUAL COMPARISON.		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 -As per Drawing 7265561	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 7265561		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 7265561		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 & 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.	5009394								QAP No: OFT/QAP/M2HB/5009394
Nomenclature	SCREW, HANDLE TUBE, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL ASTM A108, 1117								
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, Handle Tube (Raw material)	General appearance	Non Critical	Visual	100%	STEEL ASTM A108, 1117		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 5009394		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 -As per Drawing 5009394	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009394		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009394		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.	5152869								QAP No: OFT/QAP/M2HB/5152869
Nomenclature	PLATE, BUFFER, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A322 OR A331:4147, 4150, 6150, 41L50								
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
Plate, Buffer (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A322 OR A331:4147, 4150, 6150, 41L50		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 5152869	HEAT AT 816°C - 843°C IN A PROTECTIVE ATMOSPHERE. OIL QUENCH. TEMPER FOR 1 HOUR MIN TO RH C50-57 (FOR MATL. 4147, 4150)	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 -As per Drawing 5152869	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5152869		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5152869		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.	5152835								QAP No: OFT/QAP/M2HB/5152835
Nomenclature	DISK,BUFFER, FIBER, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	VULCANIZED FIBER SHEETS, RED, COMMERCIAL GRADE PER ASTM D710								
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
Disk,Buffer,Fiber (Raw material)	General appearance	Non Critical	Visual	100%	VULCANIZED FIBER SHEETS, RED, COMMERCIAL GRADE PER ASTM D710		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 -As per Drawing 5152835	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5152835		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 5152835		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>									


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 DEPARTMENT OF DEFENSE
 CIVILIAN TECHNICAL OFFICER
 CHENNAI, INDIA
 09/09/2021

QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5152834								QAP No: OFT/QAP/M2HB/5152834
Nomenclature	SCREW, ADJUSTING, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A322 OR A331:4147, 4150, 6150, 8645								
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, Adjusting (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A322 OR A331:4147, 4150, 6150, 8645		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 5152834	FOR MATERIAL 4150, 4147, 8645 HEAT AT 838°C - 860°C OIL QUENCH. TEMPER 1 HOUR MIN TO HARDNESS SPECIFIED. FOR MATERIAL 6150 HEAT AT 843°C - 871°C OIL QUENCH. TEMPER 1 HOUR MIN TO HR15N 73.5-77	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 -As per Drawing 5152834	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5152834		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5152834		Firm Inspection report	W	

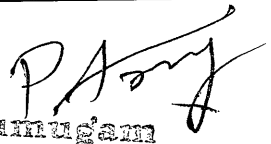
*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.



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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5009300								GAP No: OFT/QAP/M2HB/5009300
Nomenclature	SPRING, HELICAL COMPRESSION, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL WIRE, MUSIC SPRING QUALITY, ASTM A228/ A228M.								
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%	STEEL WIRE, MUSIC SPRING QUALITY, ASTM A228/ A228M.		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 30MIN 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 3.3.1 WITH MIL-PRF-3150 SUPPLEMENTARY OIL TREATMENT.	Test report from NABL lab	R	
In process -As per Drawing 5009300	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009300		Firm Inspection report	R	
Load Test	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	LOAD TEST SHALL BE CARRIED OUT AS PER DRAWING 5009300		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009300		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.	5152839								QAP No: OFT/QAP/M2HB/5152839
Nomenclature	PLUNGER, ADJUSTING SCREW, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A576: 1095 OR STEEL ASTM A686: CLASS W1-8 THRU 10, 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, Adjusting Screw (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A576: 1095 OR STEEL ASTM A686: CLASS W1-8 THRU 10, 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 AT 787°C TO 829°C. OIL QUENCH. TEMPER FOR ONE HOUR TO RH 15N 80-84.	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 -As per Drawing 5152839	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5152839		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5152839		Firm Inspection report	W	

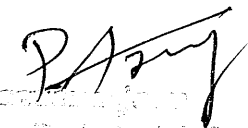
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5504094								QAP No: OFT/QAP/M2HB/5504094
Nomenclature	SLEEVE ASSEMBLY, BUFFER TUBE, OOW50BMG. : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
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
Sleeve Assembly, Buffer Tube (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 5504094 & 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 5504094 & 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 5504094 & Components		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5504094 & 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.	6008926								QAP No: OFT/QAP/M2HB/6008926
Nomenclature	SLEEVE,BUFFER TUBE, OOW50BMG : REQD.FOR SLEEVE ASSEMBLY, BUFFER TUBE,(5504094) OOW50BMG.								
Material	TUBING,STEEL, ASTM A519 OR ASTM A513 :MT1020								
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
Sleeve,Buffer Tube (Raw material)	General appearance	Non Critical	Visual	100%	TUBING,STEEL, ASTM A519 OR ASTM A513 :MT1020		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 -As per Drawing 6008926	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008926		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 6008926		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 & 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

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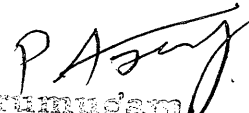
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	6008945								QAP No: OFT/QAP/M2HB/5008945
Nomenclature	LOCK, BOLT LATCH RELEASE OOW50BMG : REQD.FOR SLEEVE ASSEMBLY, BUFFER TUBE,(5504094) OOW50BMG.								
Material	ASTM A684:1065,1074/1075								
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
Lock,Bolt Latch Release (Raw material)	General appearance	Non Critical	Visual	100%	ASTM A684:1065,1074/1075		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 -As per Drawing 6008945	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008945		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 6008945	HEAT AT 816°C TO 843°C. OIL QUENCH, TEMPER 30 MINUTES TO HARDNESS SPECIFIED RH A73-76.5	Test report from NABL lab	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008945		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 & 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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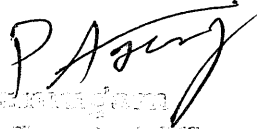
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013536								QAP No: OFT/QAP/M2HB/5013536
Nomenclature	SPRING, BUFFER TUBE SLEEVE OOW50BMG : REQD.FOR SLEEVE ASSEMBLY, BUFFER TUBE, (5504094) OOW50BMG.								
Material	ASTM A684:1095								
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, Buffer Tube Sleeve (Raw material)	General appearance	Non Critical	Visual	100%	ASTM A684:1095		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 -As per Drawing 5013536	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013536		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013536	HEAT AT 787°C TO 816°C. OIL QUENCH, TEMPER 30 MINUTES TO RH C46-52	Test report from NABL lab	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013536		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 & 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.	5013538								QAP No: OFT/QAP/M2HB/5013538
Nomenclature	STUD, BUFFER TUBE SLEEVE SPRING OOW50BMG : REQD.FOR SLEEVE ASSEMBLY, BUFFER TUBE, (5504094) OOW50BMG.								
Material	STEEL ASTM A576:1095 ALTERNATE MATERIAL : STEEL,W1 DRILL ROD 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
Stud,Buffer Tube Sleeve Spring (Raw material)	General appearance	Non Critical	Visual	100%	STEEL ASTM A576:1095 ALTERNATE MATERIAL : STEEL,W1 DRILL ROD 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	
In process -As per Drawing 5013538	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013538		Firm Inspection report	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
Heat Treatment	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	As per Drawing 5013538	As per Drg. 5013538	Test report from NABL lab	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013538		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.	5013537							QAP No: OFT/QAP/M2HB/5013537	
Nomenclature	RIVET, SOLID COUNTERSUNK HEAD OOW50BMG : REQD.FOR SLEEVE ASSEMBLY, BUFFER TUBE, (5504094) OOW50BMG.								
Material	WIRE,STEEL, ASTM A510:1035 THRU 1038.								
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
Rivet,Solid,Countersunk Head (Raw material)	General appearance	Non Critical	Visual	100%	WIRE,STEEL, ASTM A510:1035 THRU 1038.		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 -As per Drawing 5013537	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013537		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 5013537		Firm Inspection report	W	

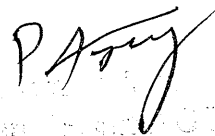
*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.
(ii) In case of hard ware items, NAI, Trichy will review the reports, if required.

NAI

Principal Inspector of Ordnance
Trichirappalli.

OFT
C. DEVENDRAN, I.O.E.S.
ASST. WORKS MANAGER
GOVT. OF INDIA, MIN. OF DEFENCE
ORDNANCE FACTORY
TRICHIRAPPALLI

QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	6008949								
Nomenclature	LATCH, BACK PLATE,OOW50BMG. : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL,ASTM A331 OR A322: 4140, 4150 OR SPEC MIL-S-22141, IC-4140.								
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
Latch, Back Plate (Raw material)	General appearance	Non Critical	Visual	100%	STEEL,ASTM A331 OR A322: 4140, 4150 OR SPEC MIL-S-22141, IC-4140.		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 6008949	HEAT AT 838°C - 860°C OIL QUENCH. TEMPER ONE HOUR MINIMUM TO RH C38-46.	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 -As per Drawing 6008949	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6008949		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6008949		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 & 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

 Project Engineer / Level Assistant
 Tiruchirappalli

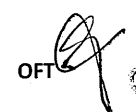
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G. DEVENDIRANE, I.O.F.S.
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ORDNANCE FACTORY
TIRUCHIRAPPALLI, TAMIL NADU

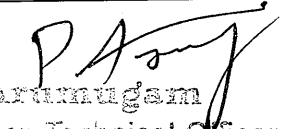
QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5009275								QAP No: OFT/QAP/M2HB/5009275
Nomenclature	PIN,STRAIGHT,HEADLESS, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A576:1095,1070,1080 (OR) 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
Pin, Straight, Headless (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A576:1095,1070,1080 (OR) 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%	As per Drawing 5009275	HEAT AT 787°C - 816°C OIL QUENCH. TEMPER FOR 1 HOUR MIN TO HARDNESS 15N 81-84.	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 -As per Drawing 5009275	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009275		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009275		Firm Inspection report	W	


*Note : As per the MoU No: OFT / SRGG / 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. Arumugam
 Civilian Technical Officer (Mech)
 for Principal Inspector Of Naval Armament
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5009356								QAP No: OFT/QAP/M2HB/5009356
Nomenclature	SPRING, HELICAL COMPRESSION, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	ASTM A228 MUSIC WIRE								
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%	ASTM A228 MUSIC WIRE		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 Min 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 3.3.1 WITH MIL-PRF-3150 SUPPLEMENTARY OIL TREATMENT.	Test report from NABL lab	R	
In process -As per Drawing 5009356	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009356		Firm Inspection report	R	
Load Test	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	LOAD TEST SHALL BE CARRIED OUT AS PER DRAWING 5009356		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009356		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 & 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.	5262799								QAP No: OFT/QAP/M2HB/5262799
Nomenclature	PIN, BACK PLATE LATCH LOCK SPRING, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, SPECIAL QUALITY, HOT ROLLED CARBON STEEL, 1008, 1010, 1012, 1015, 1017, 1018, 1020, ASTM A576								
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, Back Plate Latch Lock Spring (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, SPECIAL QUALITY, HOT ROLLED CARBON STEEL, 1008, 1010, 1012, 1015, 1017, 1018, 1020, ASTM A576		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	
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	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
In process -As per Drawing 5262799	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5262799		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5262799		Firm Inspection report	W	

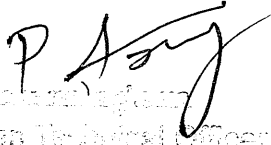
*Note : As per the MoU No: OFT / SRCG / M2HBGun / MoU /01 Dt: 20.09.2021, Clause 3(c) sub clause (i) NAI, Trichy may do Surveillance audit of the reports, if applicable.
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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	11010453								QAP No: OFT/QAP/M2HB/11010453
Nomenclature	LOCK, BACK PLATE LATCH,OOW50BMG.: REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A322 OR A331: 4140 FOR CASTING: STEEL, MIL-S-22141; IC 4140. TENSILE TEST SHALL NOT APPLY. INSPECTION SHALL BE IN ACCORDANCE WITH CLASS 4 OF MIL-STD-2175.								
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
Lock, Back Plate Latch (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A322 OR A331: 4140 FOR CASTING: STEEL, MIL-S-22141; IC 4140. TENSILE TEST SHALL NOT APPLY. INSPECTION SHALL BE IN ACCORDANCE WITH CLASS 4 OF MIL-STD-2175.		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 11010453	HEAT AT 838 °C to 860°C OIL QUENCH. TEMPER ONE HOUR MINIMUM TO RH C44-50.	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 -As per Drawing 11010453	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 11010453		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 11010453		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.	6243607								QAP No: OFT/QAP/M2HB/6243607
Nomenclature	SPRING , BACK PLATE LATCH LOCK, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, CMPSN 1050, 1055 OR 1065, ASTM A684.								
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, Back Plate Latch Lock (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CMPSN 1050, 1055 OR 1065, ASTM A684.		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 6243607	HEAT AT 816°C - 843°C OIL QUENCH. TEMPER FOR 1 HOUR MIN TO HARDNESS SPECIFIED 15N 81-84.	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 WITH MIL-PRF-3150	Finish 3.3.1	Test report from NABL lab	R	
In process -As per Drawing 6243607	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 6243607		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 6243607		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.


 P. Anandaram
 NAI
 Chief Technical Officer (Mech)
 In-charge of the Quality Assurance
 Department


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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	5013581								QAP No: OFT/QAP/M2HB/5013581
Nomenclature	PIN, STRAIGHT, HEADED , OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A576: 1095, 1070, 1080, 1045 OR STEEL, ASTM A686: CLASS W1-8 THRU 10, 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, Headed (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, ASTM A576: 1095, 1070, 1080, 1045 OR STEEL, ASTM A686: CLASS W1-8 THRU 10, 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 AT 787°C TO 816°C. OIL QUENCH. TEMPER FOR ONE HOUR MINIMUM TO HARDNESS SPECIFIED. (15N 82-85.5)		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 -As per Drawing 5013581	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5013581		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5013581		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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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drng . No.	7312517								QAP No: OFT/QAP/M2HB/7312517
Nomenclature	PIN,LOCKING, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	WIRE, STEEL, ASTM A231, ANNEALED AND 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
Pin,Locking (Raw material)	General appearance	Non Critical	Visual	100%	WIRE, STEEL, ASTM A231, ANNEALED AND 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 7312517	HEAT AT 843°C - 871°C OIL QUENCH. TEMPER ONE HOUR AT 427°C.	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 -As per Drawing 7312517	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 7312517		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 7312517		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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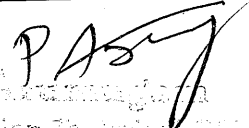

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QUALITY ASSURANCE PLAN (M2HB GUN IM PHASE)									Issue No : 01 Rev No: 00
									Date of Issue / / 2021
Drg . No.	13016069								QAP No: OFT/QAP/M2HB/13016069
Nomenclature	CASTING TRIGGER ,OOW50BMG.: REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	ALLOY STEEL BAR, 4340 PER ASTM A108, A322, AMS 6414, AMS 6415, AMS 6409, AMS 6484, AMS-S-5000. FOR INVESTMENT CASTING: STEEL, SAE AMS-S-22141, GRADE IC 4340. TENSILE TEST SHALL NOT APPLY. INSPECTION SHALL BE IN ACCORDANCE WITH SAE AMS 2175, CLASS 2, GRADE B.								
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
Casting Trigger (Raw material)	General appearance	Non Critical	Visual	100%	ALLOY STEEL BAR, 4340 PER ASTM A108, A322, AMS 6414, AMS 6415, AMS 6409, AMS 6484, AMS-S-5000. FOR INVESTMENT CASTING: STEEL, SAE AMS-S-22141, GRADE IC 4340. TENSILE TEST SHALL NOT APPLY. INSPECTION SHALL BE IN ACCORDANCE WITH SAE AMS 2175, CLASS 2, GRADE B.		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 13016069	MACHINED PART: HEAT TO AUSTENITIZING TEMPERATURE, QUENCH AND DOUBLE TEMPER TO RH A74-78 IAW SAE AMS 2759. NO DECARBURIZATION PERMITTED. CASTING: STRESS RELIEVED AFTER CASTING PROCESS	Test report from NABL lab	R	Firm will be undertaking 100 % Checks and Pre inspection Report for the same be submitted
In process -As per Drawing 13016069	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 13016069		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 13016069		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 & 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.	5009352								QAP No: OFT/QAP/M2HB/5009352
Nomenclature	SPRING, HELICAL COMPRESSION, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL WIRE, MUSIC SPRING QUALITY, ASTM A228 / A228M								
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%	STEEL WIRE, MUSIC SPRING QUALITY, ASTM A228 / A228M		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 Min 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 3.3.1 WITH MIL-PRF-3150 SUPPLEMENTARY OIL TREATMENT.	Test report from NABL lab	R	
In process -As per Drawing 5009352	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 5009352		Firm Inspection report	R	
Load Test	Mechanical properties	Non Critical	Mechanical Lab analysis	100%	LOAD TEST SHALL BE CARRIED OUT AS PER DRAWING 5009352		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 5009352		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 & 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.	13018130								QAP No: OFT/QAP/M2HB/13018130
Nomenclature	TRIGGER BLOCK,OOW50BMG. : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	4140 OR 4340, 30-34HRC.								
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
Trigger, Block (Raw material)	General appearance	Non Critical	Visual	100%	4140 OR 4340, 30-34HRC.		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 13018130	FERRITIC NITROCARBURIZINE, BLOCK.	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 13018130		Test report from NABL lab	R	
In process -As per Drawing 13018130	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 13018130		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 13018130		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 & 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.	13018131								QAP No: OFT/QAP/M2HB/13018131
Nomenclature	SPRING, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, CARBON STEEL, COLD ROLLED, ASTM A684: 1055, 1060, 1065, 1070, 1074 OR 1075, SHEET, GAUGE 25 (THICKNESS 0.533 ± 0.076)								
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 (Raw material)	General appearance	Non Critical	Visual	100%	STEEL, CARBON STEEL, COLD ROLLED, ASTM A684: 1055, 1060, 1065, 1070, 1074 OR 1075, SHEET, GAUGE 25 (THICKNESS 0.533 + 0.076)		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 13018131	AUSTINITIZE, QUENCH AND TEMPER IAW AMS 2759, TEMPER TO ROCKWELL HARDNESS 15N 82-85.	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 -As per Drawing 13018131	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 13018131		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 13018131		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.	13018132								QAP No: OFT/QAP/M2HB/13018132
Nomenclature	SCREW, OOW50BMG : REQD. FOR WITH SAFETY, SPADE GRIP ASSEMBLY (6535477-S)								
Material	STEEL, ASTM A322 OR A331; 4140, 4340								
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 material) (Raw	General appearance	Non Critical	Visual	100%	STEEL, ASTM A322 OR A331; 4140, 4340		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 13018132	HEAT AT 838°C TO 860°C OIL QUENCH. TEMPER 1 HOUR MINIMUM TO RHC 34-38. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT HARDNESS REQUIREMENT IS MANDATORY AND TIME AT TEMPERING TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.	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	Test report from NABL lab	R	
In process -As per Drawing 13018132	Dimensions Specified in the Inspection report of the component	Non Critical	Dimensional measurement	100%	As per Drawing 13018132		Firm Inspection report	R	
Final Inspection	General appearance	Non Critical	Visual and Dimensional Checks	100%	As per Drawing 13018132		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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