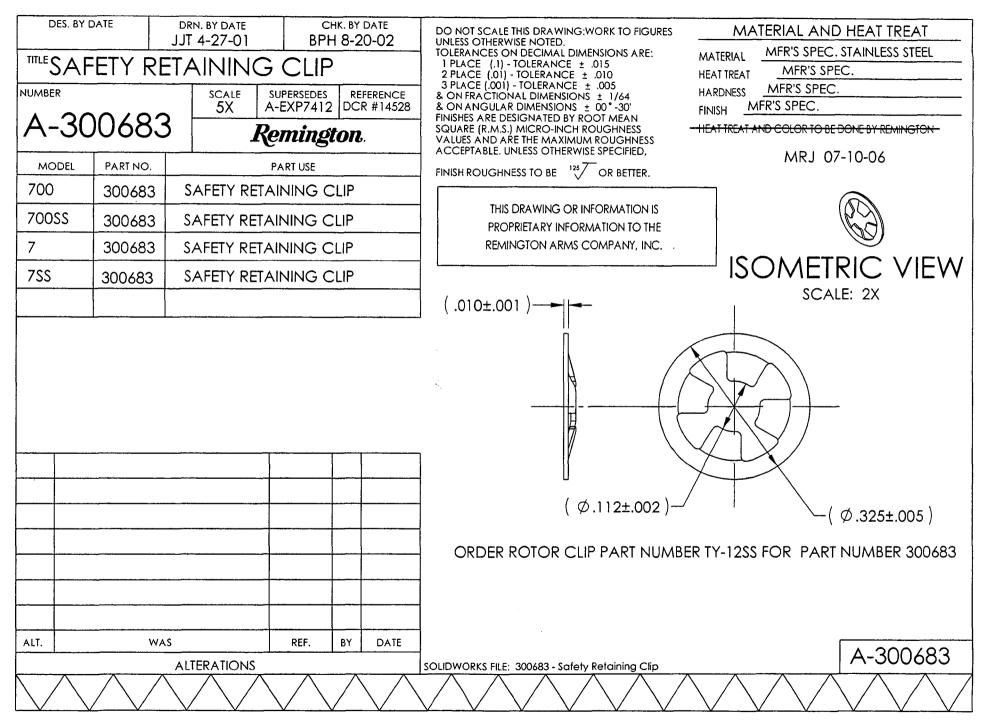
	ALT	ERATIONS			I	SOLIDWOR	KS FILE : 301460 - secondary trig		2193304
ALT.	WAS		REF.	BY	DATE	FIGURES O SPRING. THESE FIG	GIVÊN IN THE MANUFACTU! THE MANUFACTURER MAY,	EMENTS IN THE INSPECTION SECTION. RE SECTION INDICATE THE PREFERRED WITH PRIOR APPROVAL, DEVIATE FROM GN DATA SECTION ARE BASED ON DN.	
						14. SF 15. ST 16. D' 17. TC 18. SC 19. SF 20. TC 21. C 22. V 23. C 24. TC	ELOCITY IMPACTING RITICAL FREQUENCY	285990 LB./SQ.IN/SQ.IN285990 LB./SQ.IN	
	C	3)				9. WII 11. O	UFACTURE RE DIA. <u>0.025</u> UTSIDE DIA. <u>0.120</u> HECK HERE FOR SET R	10. FREE LENGTH <u>0.402</u> 12. COILS: ACTIVE <u>7.9</u> EMOVAL □ TOTAL <u>9.9</u>	
XMP-EA	301460	SECONDA	RY TRIGO	GER PU	LL SPRING	3. LO. LO 4. SO 6. FRE	E LENGTH <u>0.412</u> MA	3. AT <u>0.375</u> (L1)	<u>D</u> _
JWR 8-28-0		10-5-06			-21-07	1. TO	ECTION WORK FREELY IN A <u>0</u>	MRJ 11-20-08 .125_ DIA. HOLE.	
SPRING,	CONDARY							HEAT TREAT: STRESS RELIEVE FINISH: OIL	E
A 30	1460	SCALE	adison, NO SUPERSED 301460 RE	ES R	EFERENCE 08-0219		PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC.	MATERIAL : MUSIC WIRE (AS	STM A228)
SHEET SIZE NUMBE	R R	REMINGT			O., INC.		THIS DRAWING OR INFORMATION IS	MATERIAL AND HEAT	TREAT

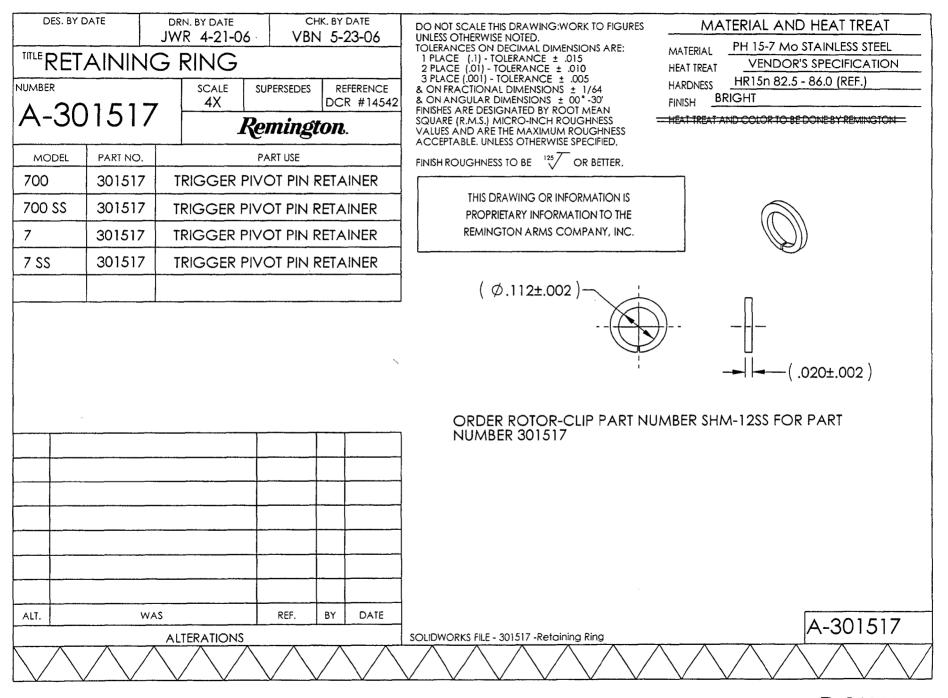
	00694	SCALE NONE A	Emingl SUPERSEDES -EXP7885	RE	FERENCE	THIS DRAWING OR INFORMATION IS PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC. MATERIAL MUSIC WIRE (ASTM A 228) HEAT TREAT STRESS RELIEVE FINISH OIL
SPRING, DES. BY DA JWR 1-	-	RN. BY DATE R 1-11-02	ž.	8-20		INSPECTION MRJ 07-10-06 1. TO WORK FREELY IN A 0.118 DIA. HOLE 2. TO WORK FREELY ON A 0.055 DIA. PIN
MODEL		PART US	E			3. LOAD 4.25 TO 5.75 LB. AT 0.200 (L1)
700	TRIGGER PU	LL SPRING				LOAD 5.00 TO 6.50 LB. AT 0.193 (L2)
700SS	TRIGGER PU	LL SPRING				4. SOLID HEIGHT 0.161 MAX. 5. WIND LEFT HAND 6. FREE LENGTH 0.237 MIN. 7. ENDS CLOSED & GROUND.
7	TRIGGER PU					8. CHECK HERE FOR NON-COMMERCIAL TOLERANCES
7\$\$	TRIGGER PU	LL SPRING				MANUFACTURE 9. WIRE DIA. 0.023 10. FREE LENGTH 0.247 . 11. OUTSIDE DIA. 0.114 12. COILS: ACTIVE 5.0 . 13. CHECK HERE FOR SET REMOVAL TOTAL 7.0 .
	DO NOT SET S INSPECTION	PRING TO S	SOLID HE	(GHT	FOR	DESIGN DATA 14. SPRING RATE 107 LB./IN. 15. STATIC STRESS AT SOLID 247500 LB./SQ.IN. 16. DYNAMIC STRESS 0 LB./SQ.IN. 17. TOTAL STRESS 247500 LB./SQ.IN. 18. SOLID LOAD 9.2 LBS. 19. SPRING INDEX 3.96 20. TORSIONAL MODULUS 11500000 LB./SQ.IN. 21. CURVATURE CORRECTION FACTOR 1.126 (WAHL) 22. VELOCITY IMPACTING MASS 0 IN/SEC. 23. CRITICAL FREQUENCY 7730 HZ. 24. TOTAL STRESS AS % OF TENSILE STRENGTH 69% 25. ENERGY FROM L1 TO L2 0.0055 IN-LBS.
					<u></u>	
						THIS SPRING MUST MEET THE REQUIREMENTS IN THE INSPECTION SECTION. FIGURES GIVEN IN THE MANUFACTURE SECTION INDICATE THE PREFERRED SPRING. THE MANUFACTURER MAY, WITH PRIOR APPROVAL, DEVIATE FROM THESE FIGURES. FIGURES IN THE DESIGN DATA SECTION ARE BASED ON THOSE IN THE MANUFACTURE SECTION.
ALT.	WAS	TED A TIONIS	REF.	BY	DATE	A-300694
L	AL	TERATIONS				SOLIDWORKS FILE: 300694 - Trigger Pull Spring

R 2193305

NUMBER			Re	ming	ton		MATERIAL AND HEAT TREAT	
A-30	0688	5	_	UPERSEDES		FERENCE	THIS DRAWING OR INFORMATION IS PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC. MATERIAL MUSIC WIRE (ASTM A 228)	
/ () (NONE A-	EXP7446		R #14528	HEATTREAT STRESS RELIEVE	
TITLE	SEA	R S	PRING				FINISH OIL	
DES. BY DA			RN. BY DATE	· Cu	K. BY D	A TC	INSPECTION MRJ 07-10-06	
JWR 3-			VR 5-4-01			20-02	1. TO WORK FREELY IN A 0.150 DIA. HOLE	
MODEL	T						2. TO WORK FREELY ON A 0.060 DIA. PIN	
			PART USE				3. LOAD 1.40 TO 1.69 LB. AT 0.369 (L1) LOAD 4.0 TO 4.6 LB. AT 0.289 (L2)	
700	SEAR SF	RINC	} 				4. SOLID HEIGHT 0.265 MAX. 5. WIND EITHER HAND	
700SS	SEAR SF	PRING	}				6. FREE LENGTH 0.405 MIN. 7. ENDS CLOSED & GROUND	`
-7	CEARCE						8. CHECK HERE FOR NON-COMMERCIAL TOLERANCES	_
7	SEAR SP	RING	,					
7SS	SEAR SF	PRINC)				MANUFACTURE	
							9. WIRE DIA. 0.023 10. FREE LENGTH 0.414	
	<u> </u>						11. OUTSIDE DIA. 0.135 12. COILS: ACTIVE 8.3	
							13. CHECK HERE FOR SET REMOVAL TOTAL	
							DESIGN DATA	
							14. SPRING RATE 34.6 LB./IN.	
							15. STATIC STRESS AT SOLID_190380LB./SQ.IN.	
							16. DYNAMIC STRESS <u>0</u> LB./SQ.IN.	
							17. TOTAL STRESS 190380 LB./SQ.IN.	
 		· · · · · · · · · · · · · · · · · · ·	····		1		18. SOLID LOAD 6.16 LBS.	
					<u> </u>		19. SPRING INDEX 4.87	
							20. TORSIONAL MODULUS 11500000 LB./SQ.IN.	
					 	· 	21. CURVATURE CORRECTION FACTOR 1.102 (WAHL)	
	· · · · · · · · · · · · · · · · · · ·						22. VELOCITY IMPACTING MASS 0 IN/SEC. 23. CRITICAL FREQUENCY 3072 HZ.	
							23. CRITICAL FREQUENCY 3072 HZ. 24. TOTAL STRESS AS % OF TENSILE STRENGTH 53%	
							25. ENERGY FROM L1 TO L2 0.522 IN-LBS.	
							25. EITEKO I TKOM ET TO EZ 0.022 ITT EBS.	
_							THIS SPRING MUST MEET THE REQUIREMENTS IN THE INSPECTION SECTION. FIGURES GIVEN	1
<u> </u>							IN THE MANUFACTURE SECTION INDICATE THE PREFERRED SPRING. THE MANUFACTURER MAY, WITH PRIOR APPROVAL, DEVIATE FROM THESE FIGURES. FIGURES IN THE DESIGN DA	λΤΑ
ALT.	· · · · · · · · · · · · · · · · · · ·	VAS		REF.	BY	DATE	SECTION ARE BASED ON THOSE IN THE MANUFACTURE SECTION.	
A			ERATIONS	RLF.	1 61	UNIE	SOLIDWORKS FILE: 300686 - Sear Spring A-300686	6
····					-		the control of the co	

R 2193306





B- 24484

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DO NOT SCALE THIS DRAWING: WORK TO FIGURES UNLESS OTHERWISE NOTED. TOLERANCES ON DECIMAL DIMENSIONS ARE: 1 PLACE (.1) - TOLERANCE ± .015
2 PLACE (.01) - TOLERANCE ± .010
3 PLACE (.001) - TOLERANCE ± .005
& ON FRACTIONAL DIMENSIONS ± 1/64
& ON ANGULAR DIMENSIONS ± 00° -30°
FINISHES ARE DESIGNATED BY ROOT MEAN SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE. UNLESS OTHERWISE SPECIFIED, FINISH ROUGHNESS TO BE OR BETTER.

MATERIAL AND HEAT TREAT

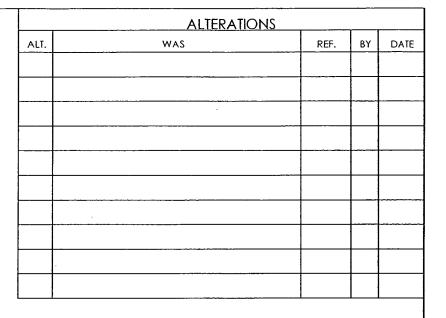
MATERIAL AISI C-1095 OR A50100 OF A52100

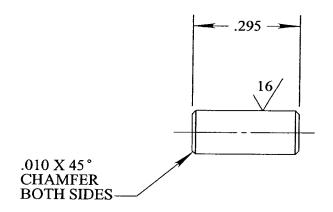
HARDEN HEAT TREAT

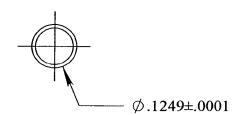
HARDNESS R45n 43-49

FINISH NITRE BLACK

HEAT TREAT AND COLOR TO BE DONE BY REMINGTON







NOTE:

ORDER BLANK NO. 105919

- 1. □ DIMENSIONS SHOWN WITH THIS SYMBOL WILL BE SUBJECT TO CONTROL AND INSPECTION AS SPECIFIED IN THE PROCESS RECORD OR PURCHASED PARTS INSPECTION DOCUMENTATION.
- DIMENSION SHOWN WITH THIS SYMBOL ARE SIGNIFICANT AND MUST HAVE CpK VALUES GREATER THAN 1.33.
- 3. FOR VENDED COMPONENTS ALL SAMPLE SUBMISSIONS ARE TO BE SUBMITTED IN ACCORDANCE TO THE PUBLICATION "PRODUCTION PART APPROVAL PROCESS" AS PUBLISHED BY THE AUTOMOTIVE INDUSTRY ACTION GROUP (AIAG), 1993, LEVEL 3.
- 4. ALL GEOMETRIC TOLERANCES AND GAGE DIMENSION IMPLY INSPECTION FOR CONFORMANCE.

40 X	S	SEAR LEVER PIN 2 OZ.						
7 24484 B			В	BOLT STOP PIN				
MODEL PART NO.				PART USE				
				RN, BY DATE CHK, BY DATE W 11-03-04				
TITLE PIN	ſ							
NUMBER O A A O A				SCALE 4:1	SUPER	RSEDES	REFERENCE DCR#15663	
B- 244			Ren	ningt	on.			
\	· ·							

SOLIDWORKS FILENAME - 24484 - Bolt Stop Pin

B-300680

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2 PLACE (.01) - TOLERANCE ± .000
3 PLACE (.001) - TOLERANCE ± .005
& ON FRACTIONAL DIMENSIONS ± 1/64
& ON ANGULAR DIMENSIONS ± 00° -30°
FINISHES ARE DESIGNATED BY ROOT MEAN
SQUARE (R.M.S.) MICRO-INCH ROUGHNESS
VALUES AND ARE THE MAXIMUM ROUGHNESS
ACCEPTABLE. UNLESS OTHERWISE SPECIFIED,

FINISH ROUGHNESS TO BE TO BETTER.

MATERIAL AND HEAT TREAT

MATERIAL MUSIC WIRE (ASTM A228)

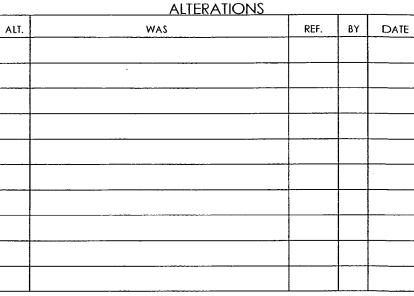
HEAT TREAT STRESS RELIEVE

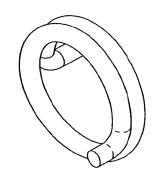
HARDNESS N/A

FINISH OIL

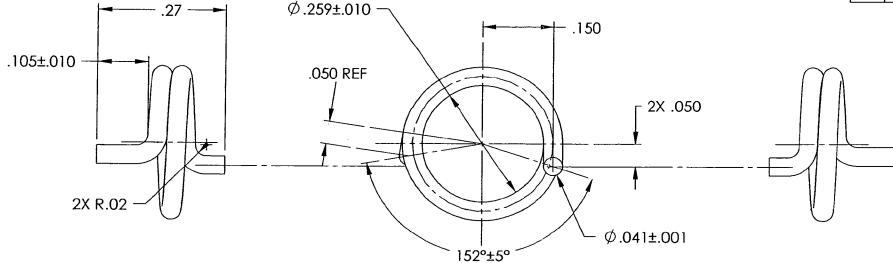
HEAT TREAT AND COLOR TO BE DONE BY REMINGTON

MRJ 07-10-06





ISOMETRIC VIEW
SCALE 5X



NOTE: SPRING IS SHOWN IN ITS FREE STATE.

TORSION SPRING DATA:				
WIRE DIAMETER =	0.041		ARM LENGTH 1 =	0.050
SPRING RATE =	0.048		ARM LENGTH 2 =	0.050
NPS ANGLE =	211	DEG.	SPRING INDEX =	7.317
MAX ROTATION =	46	DEG.	MAX BODY LENGTH =	0.110
FREE STATE:				
NUMBER OF COILS =	1.47		BODY LENGTH =	0.107
ARM ANGLE (REF.) =	171	DEG.	MEAN DIAMETER =	0.300
POSITION #1:				
NUMBER OF COILS =	1.62		STRESS (PSI) =	324K
ARM ANGLE (REF.) =	222	DEG.	% OF TENSILE =	99%

-				
700SS LH 3006		SAFETY DETENT S	PRING - LEFT HAND	
300	680	SAFETY DETENT SPRING - LEFT HAND		
PART	NO.	PART USE		
	J,	DRN. BY DATE CHK. BY D. JAW 01-11-02 BPH 8-20		
	300		300680 SAFETY DETENT S PART NO. PA TE DRN. BY DATE	

""E SAFETY DETENT SPRING - LH

B-300680

SCALE SUPERSEDES REFERENCE B-EXP7884 DCR #14528

Remington.

SOLIDWORKS FILE: 300680 - Safety Detent Spring - LH

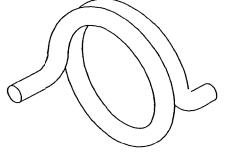
B-300679

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2 PLACE (.01) - TOLERANCE ± .010
3 PLACE (.001) - TOLERANCE ± .005
& ON FRACTIONAL DIMENSIONS ± 1/64
& ON ANGULAR DIMENSIONS ± 00° -30 '
FINISHES ARE DESIGNATED BY ROOT MEAN SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE. UNLESS OTHERWISE SPECIFIED,

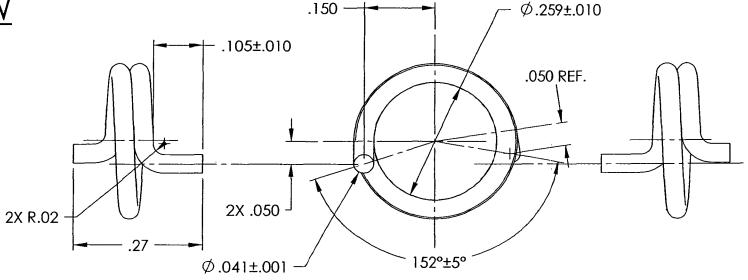
FINISH ROUGHNESS TO BE \\ \ \ OR BETTER.

MATERIA	L AND HEAT TREAT
MATERIAL MUSIC WIF	RE (ASTM A228)
HEATTREATSTRESS R	ELIEVE
HARDNESS N/A	
FINISH OIL	
-HEAT TREAT AND COLOR TO	D BE DONE BY REMINGTON

MRJ 07-10-06



ISOMETRIC VIEW



NOTE: SPRING IS SHOWN IN IT	S FREE STATE

TORSION SPRING DATA:				
WIRE DIAMETER =	0.041		ARM LENGTH 1 =	0.050
SPRING RATE =	0.048		ARM LENGTH 2 =	0.050
NPS ANGLE =	211	DEG.	SPRING INDEX =	7.317
MAX ROTATION =	46	DEG.	MAXBODY LENGTH =	0.110
FREE STATE:				
NUMBER OF COILS =	1.47		BODY LENGTH =	0.107
ARM ANGLE (REF.) =	171.4	DEG.	MEAN DIAMETER =	0.300
POSITION #1:				_
NUMBER OF COILS =	1.62		STRESS (PSI) =	324K
ARM ANGLE (REF.) =	222	DEG.	% OF TENSILE =	99%

7\$\$	3006	579	SA	SAFETY DETENT SPRING - RIGHT HAND				
7	300679		SA	SAFETY DETENT SPRING - RIGHT HAND				
700SS 300679			SA	SAFETY DETENT SPRING - RIGHT HAND				
700	300679 S			SAFETY DETENT SPRING - RIGHT HAND				
MODEL PART NO.				PART USE				
-				DRN. BY DATE CHK. BY DATE AW 6-12-01 BPH 8-20-02				
TITLE SAFETY DETENT SPRING - RH								
B-300679				scale 5X		RSEDES	REFERENCE DCR #14528	
					<u> </u>	ningt	on.	

<u>ALTERATIONS</u>

WAS

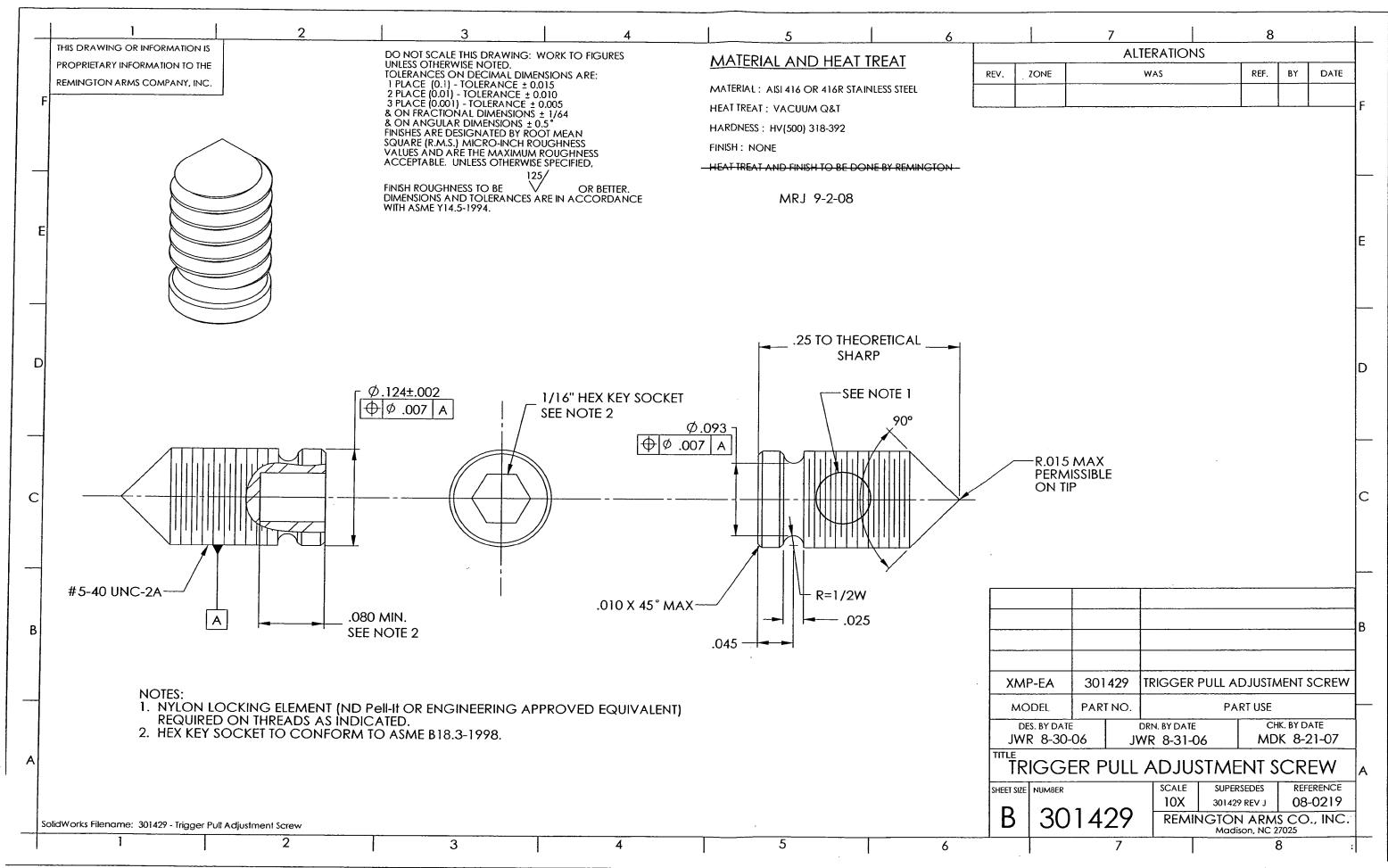
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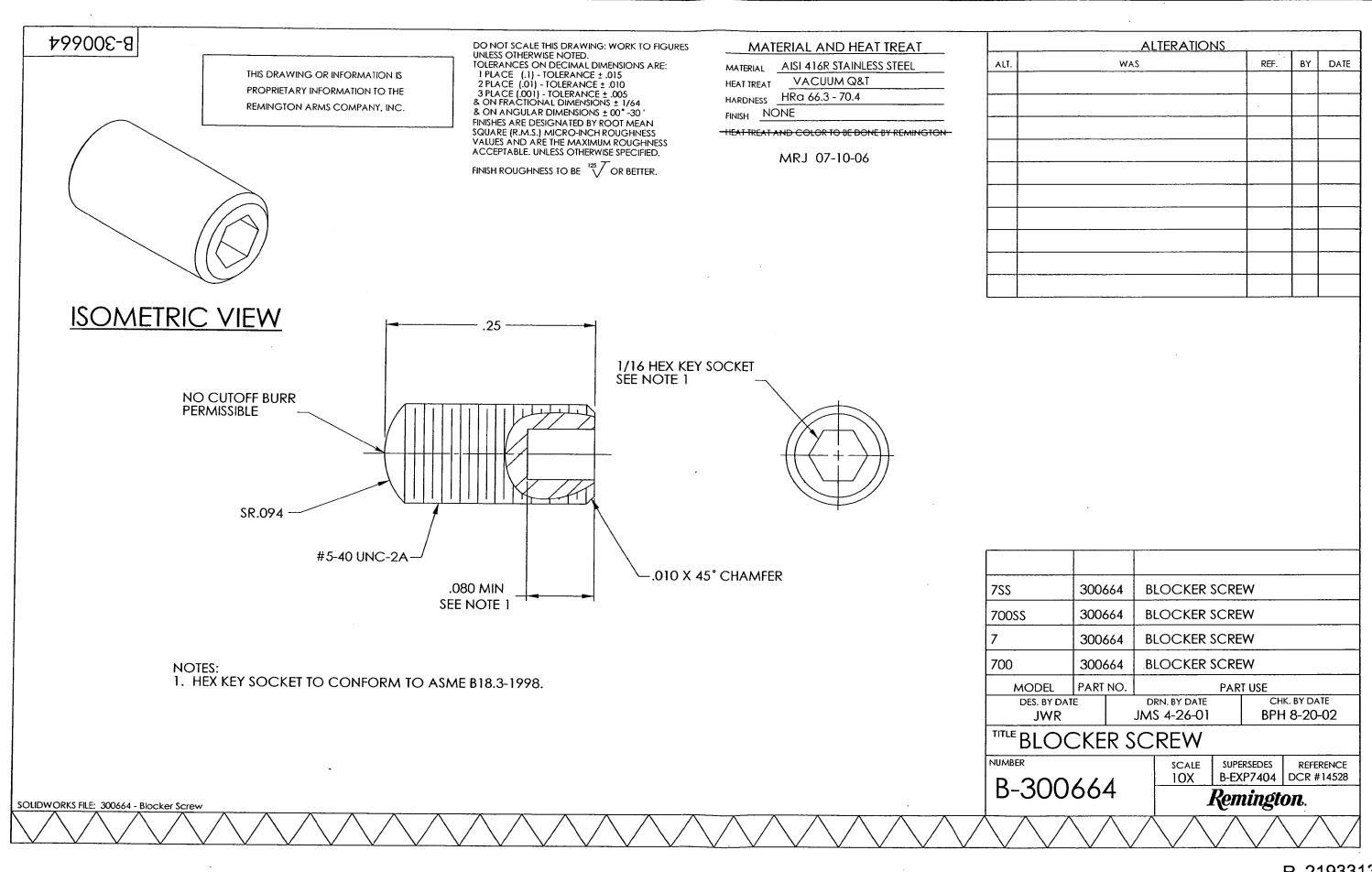
BY

REF.

DATE

SOLIDWORKS FILE: 300679 - Safety Detent Spring - RH





99900E-8 DO NOT SCALE THIS DRAWING: WORK TO FIGURES MATERIAL AND HEAT TREAT DO NOT SCALE THIS DRAWING: WORK TO FIGU UNLESS OTHERWISE NOTED. TOLERANCES ON DECIMAL DIMENSIONS ARE: 1 PLACE (.1) - TOLERANCE ± .015 2 PLACE (.01) - TOLERANCE ± .010 3 PLACE (.001) - TOLERANCE ± .005 & ON FRACTIONAL DIMENSIONS ± 1/64 & ON ANGULAR DIMENSIONS ± 00° -30° EINISHES A DE DESIGNATED BY DOOT AREA NO AISI 416R STAINLESS STEEL MATERIAL THIS DRAWING OR INFORMATION IS **VACUUM Q&T** HEAT TREAT PROPRIETARY INFORMATION TO THE HARDNESS HRa 66.3 - 68.9 REMINGTON ARMS COMPANY, INC. FINISH NONE FINISHES ARE DESIGNATED BY ROOT MEAN SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE. UNLESS OTHERWISE SPECIFIED, HEAT TREAT AND COLOR TO BE DONE BY REMINCTON MRJ 07-10-06 FINISH ROUGHNESS TO BE OR BETTER. **ISOMETRIC VIEW** 2X R.010 MAX SCALE 5X .055±.0015 -- .06 2X .0075±.0025 96 PITCH STRAIGHT **KNURL** \emptyset .225±.003 - .02 2X 45° $\phi_{.103}^{.113}$ after knurling Ø.100±.001 Ø.160±.0015 .035 .355

	ALTERATIO	ONS		,,	
ALT.	WAS		REF.	ВҮ	DATE
					,
			<u> </u>		
	1 to				
					
		1			

7 SS	300666		BLOCKER HOLD DOWN STUD			
700SS	300666		BLOCKER HOLD DOWN STUD			
7	300666		BLOCKER HOLD DOWN STUD			
700	300666		BLOCKER HOLD DOWN STUD			
MODEL	PART NO.		PART USE			
DES. BY DATE JWR 4-26-01		DRN. BY DATE JJT 4-26-01		CHK, BY DATE BPH 8-20-02		

BLOCKER HOLD DOWN STUD

NUMBER

B-300666

SCALE SUPERSEDES REFERENCE DCR #14528

Remington.

SOLIDWORKS FILE: 300666 - Blocker Hold Down Stud

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1 PLACE (.1) - TOLERANCE ± .015

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3 PLACE (.001) - TOLERANCE ± .005

& ON FRACTIONAL DIMENSIONS ± 17.64

& ON ANGULAR DIMENSIONS ± 00° -30 '
FINISHES ARE DESIGNATED BY POOT MEAN FINISHES ARE DESIGNATED BY ROOT MEAN SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE. UNLESS OTHERWISE SPECIFIED,

FINISH ROUGHNESS TO BE OR BETTER.

MATERIAL AND HEAT TREAT

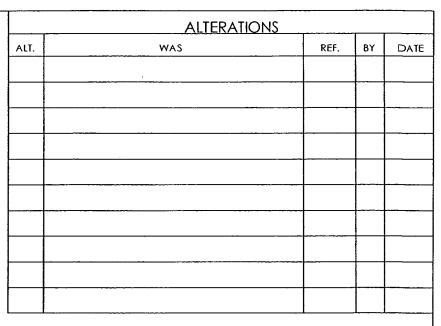
AISI 440A OR 440C STAINLESS STEEL

VACUUM Q&T HEAT TREAT HRa 73.1 - 76.0 HARDNESS

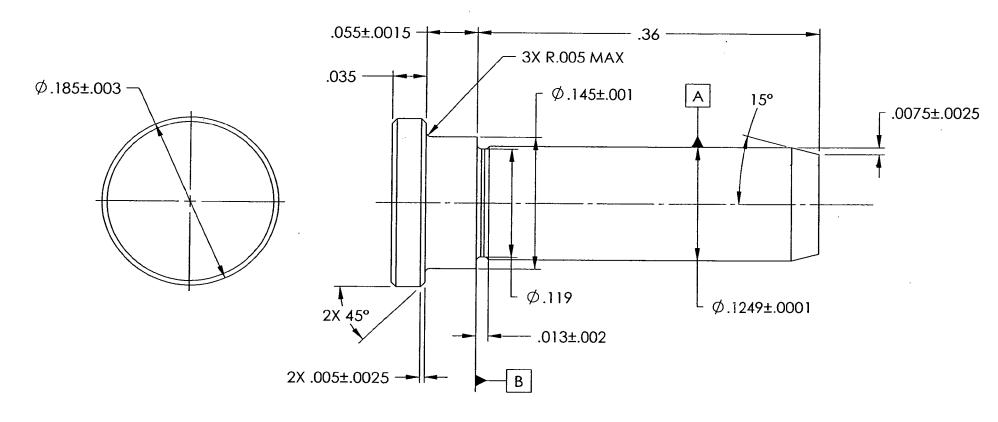
BRIGHT FINISH

THEAT TREAT AND COLOR TO BE DONE BY REMINGTON

MRJ 07-10-06







OBSOLETED 9/18/06 DCR #14542

		•					
7 \$\$	300	593	TRIGGER PIVOT PIN				
7	300	593	TRIGGER PIVOT PIN				
700SS	300	693	TRIGGER PIVOT PIN				
700	3006	593	TRIGGER PIVOT PIN				
MODEL	PART	NO.	PART USE				
DES. BY DATE JWR 4-27-01		DRN. BY DATE JJT 4-27-01		CHK. BY DATE BPH 8-20-02			
TITLE TOIC CED DIVOT DINI							

IRIGGER PIVOI PIN

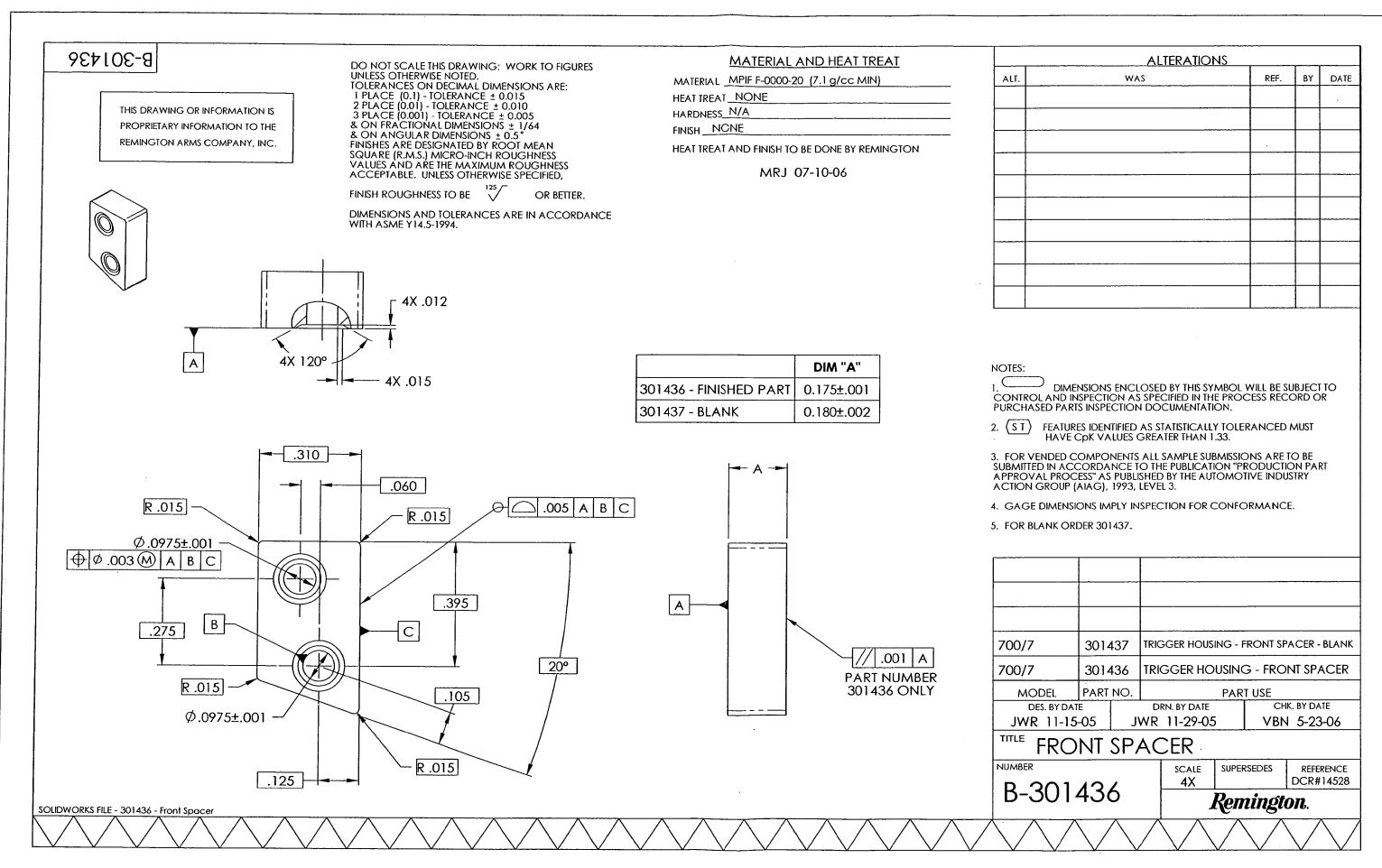
NUMBER B-300693

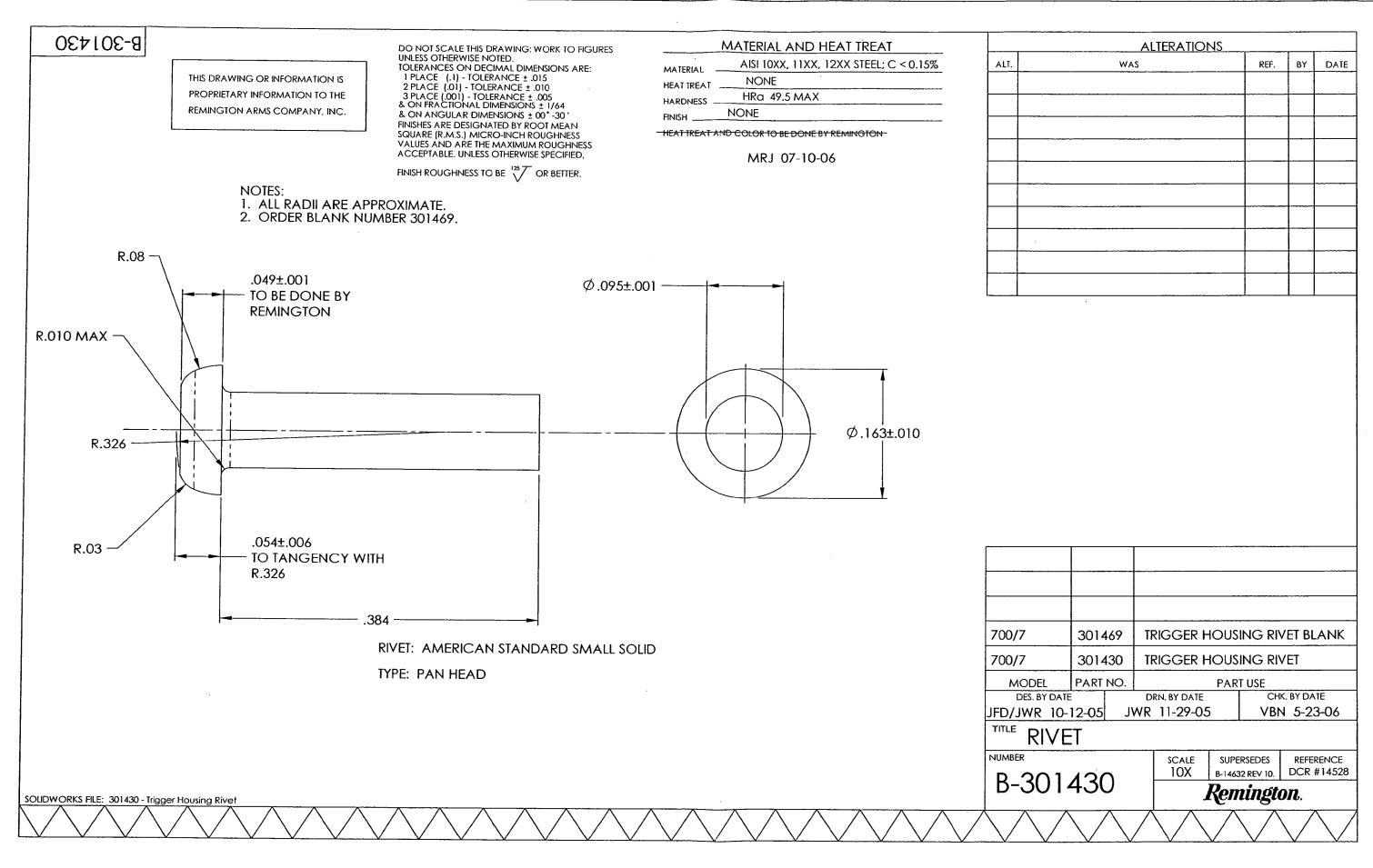
10X

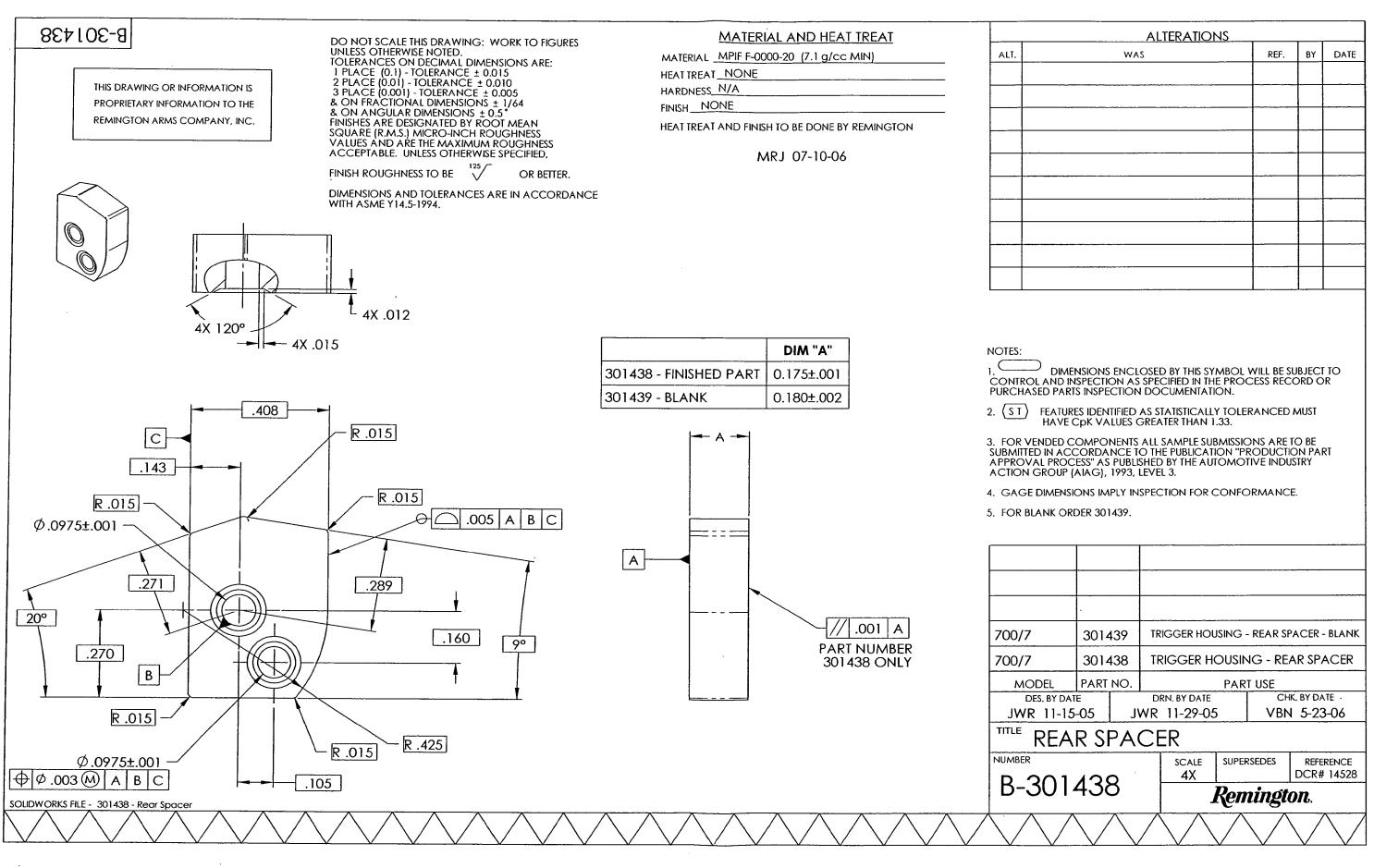
SUPERSEDES REFERENCE B-EXP7421 DCR #14528

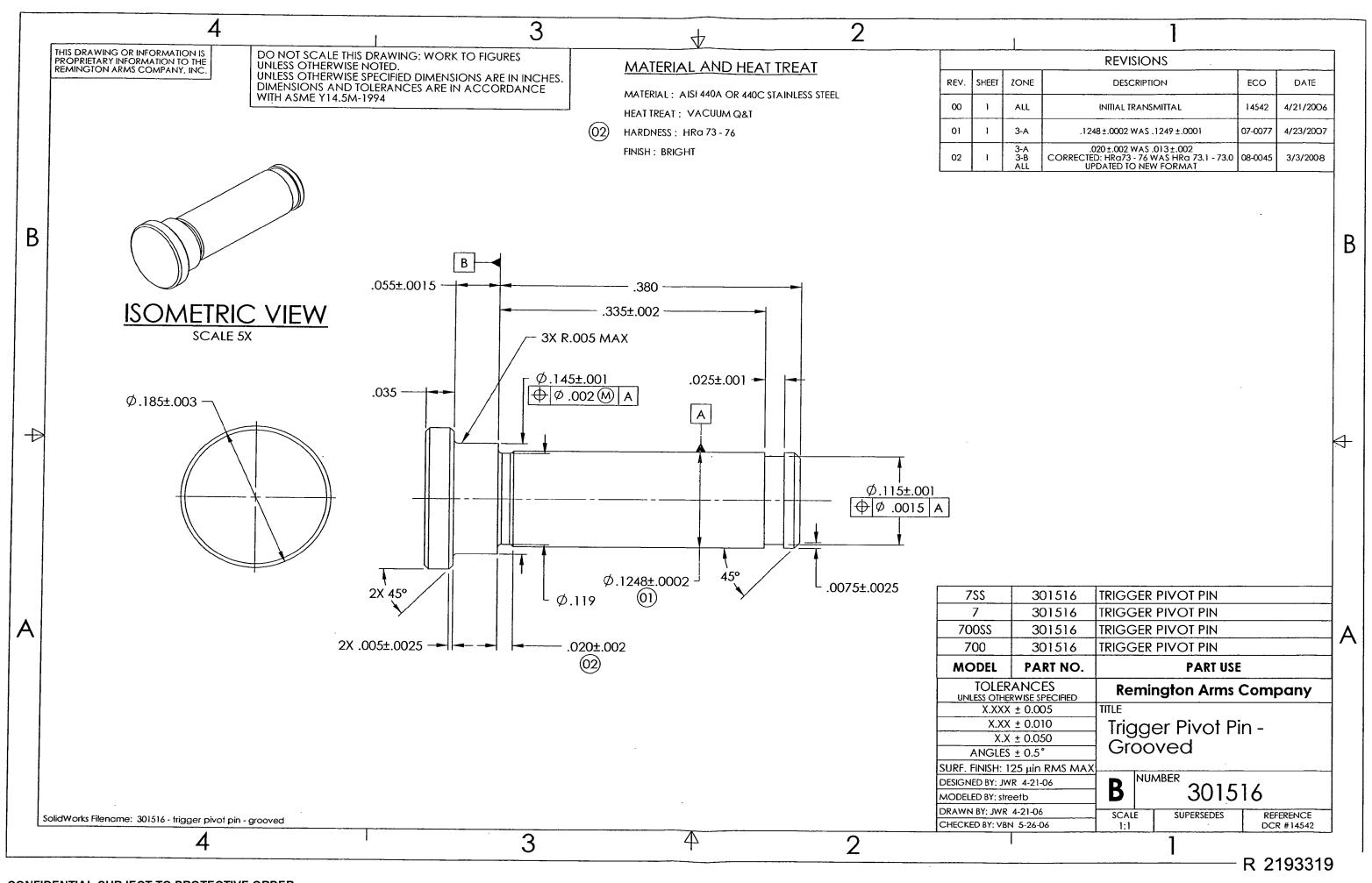
Remington.

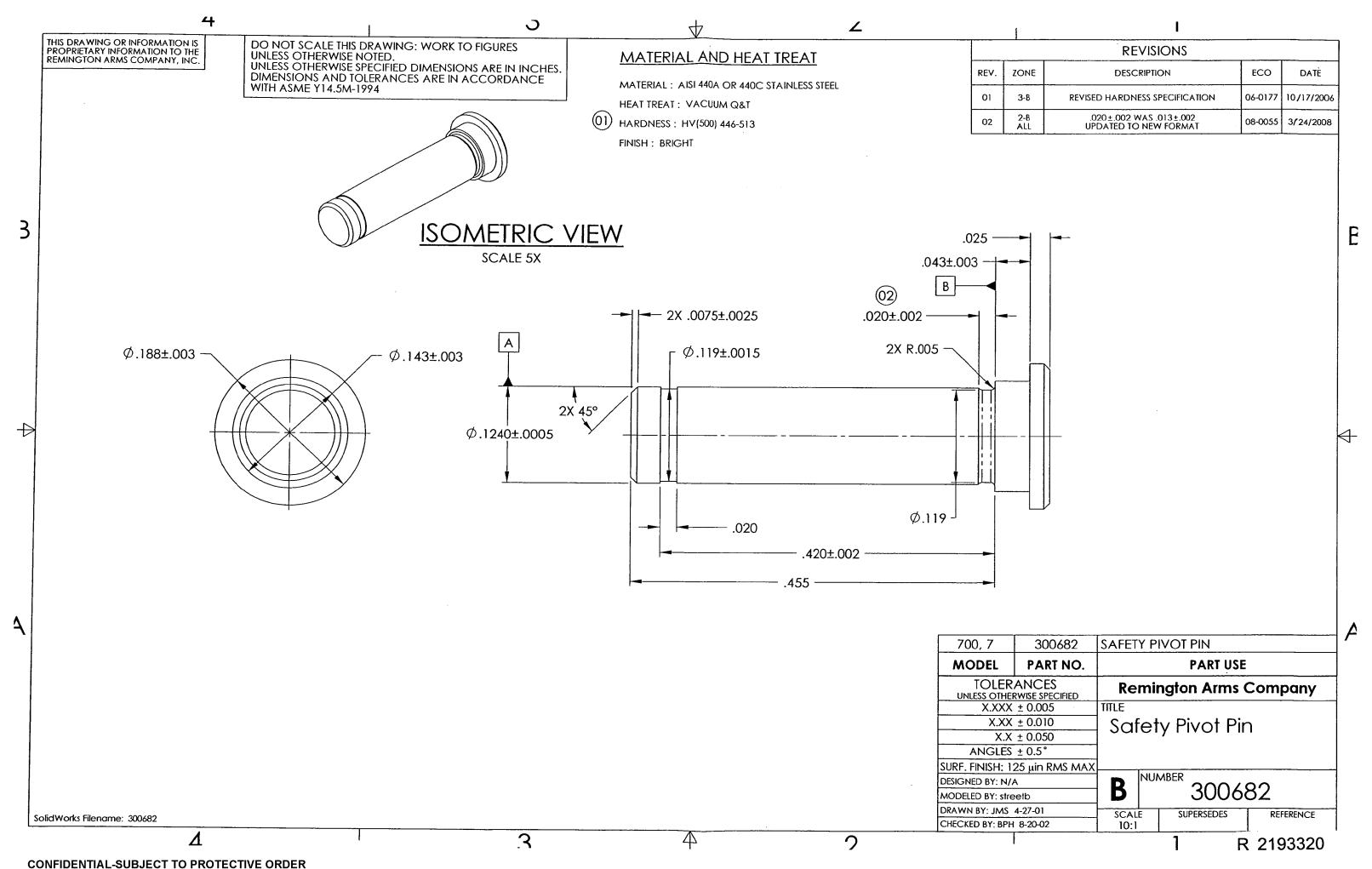
SOLIDWORKS FILE: 300693 - Trigger Pivot Pin

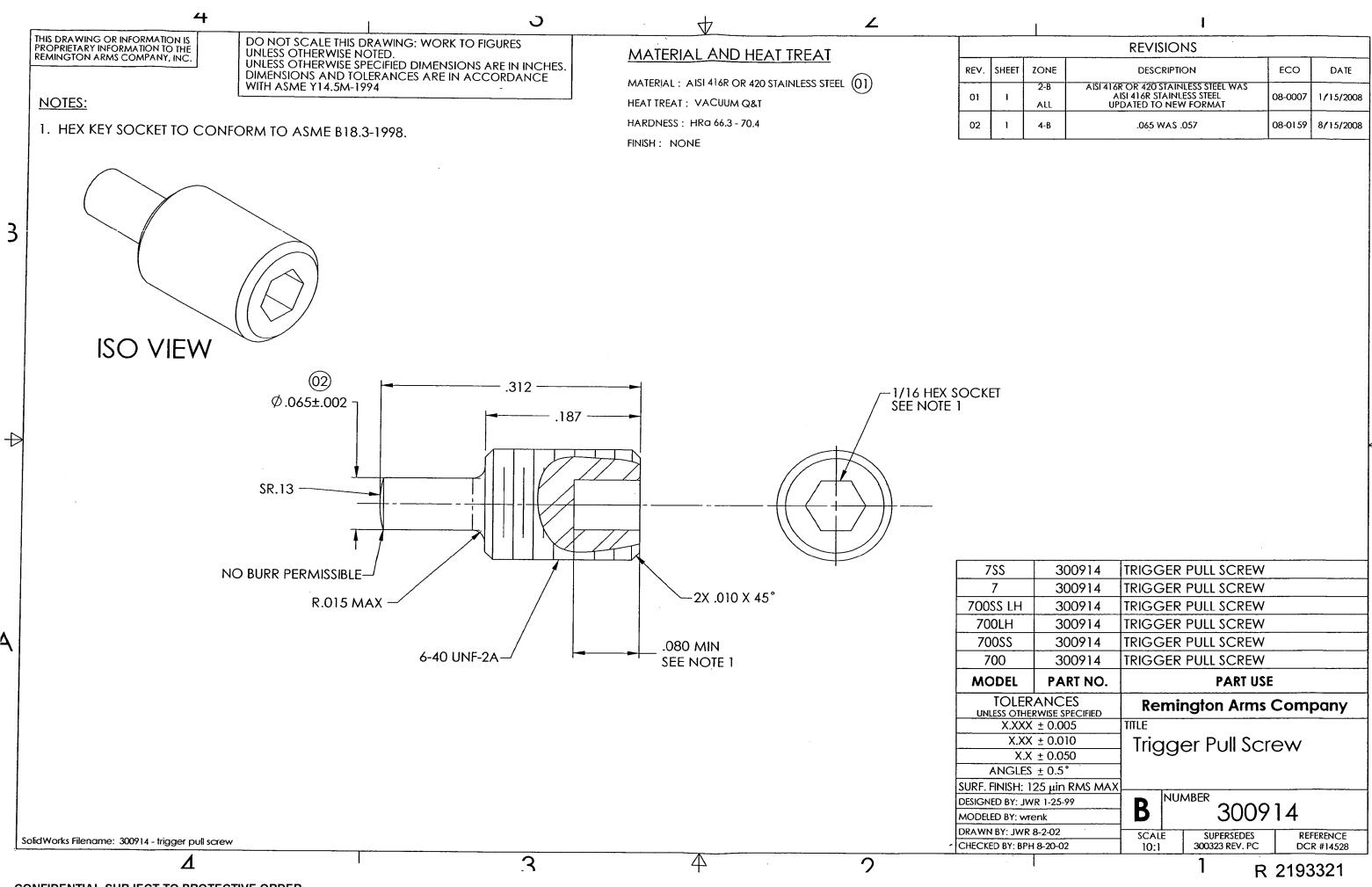


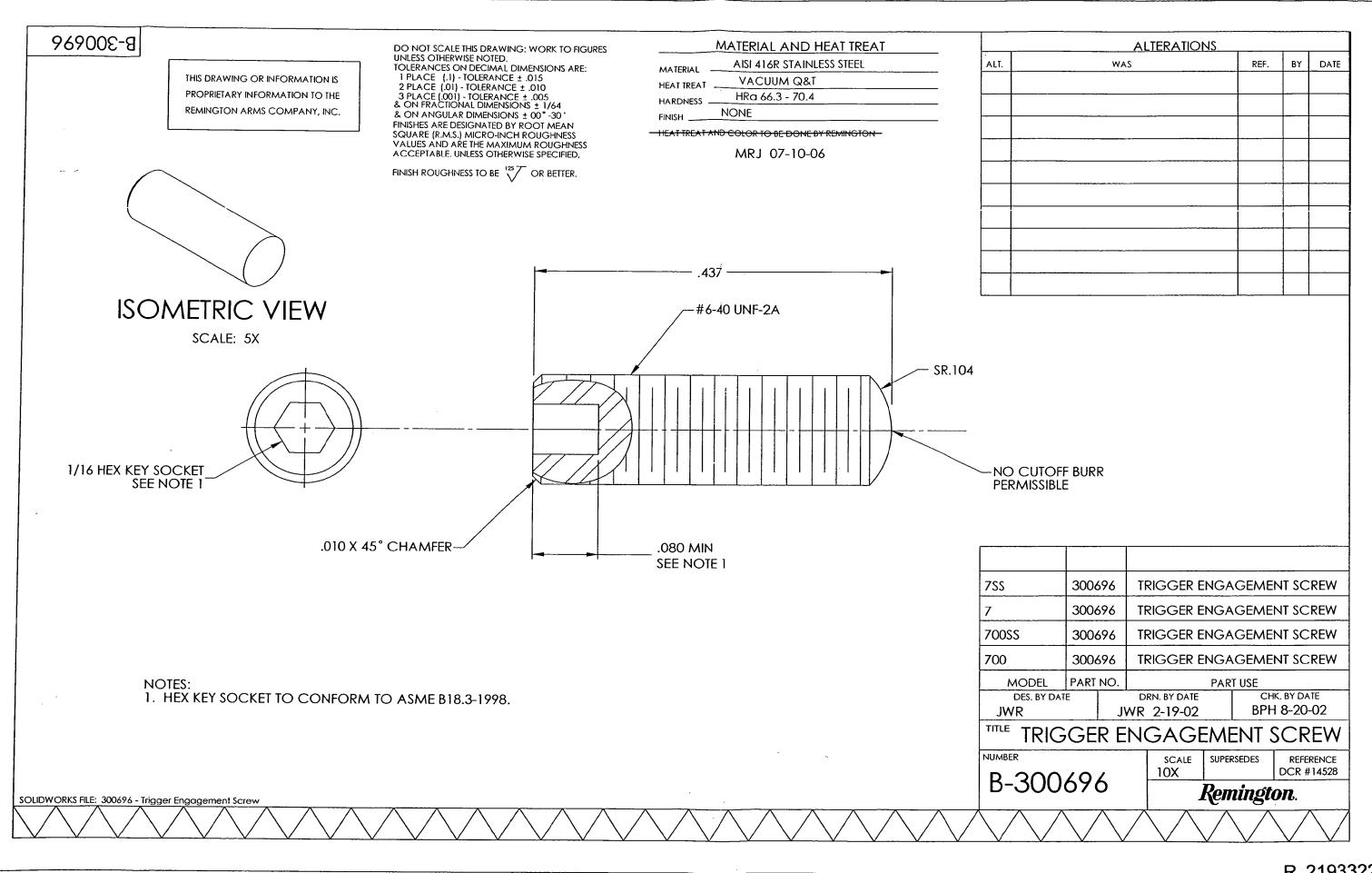


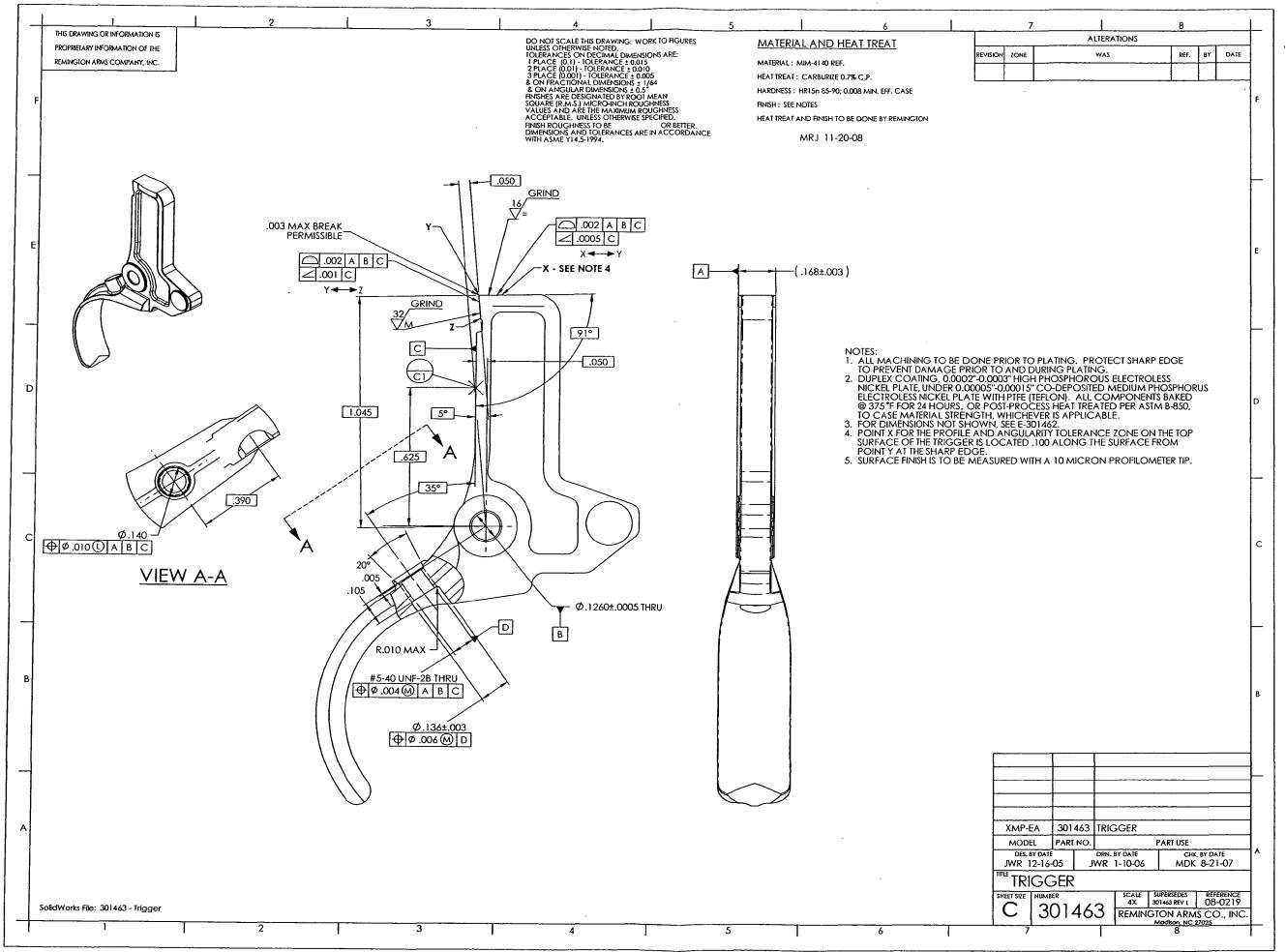


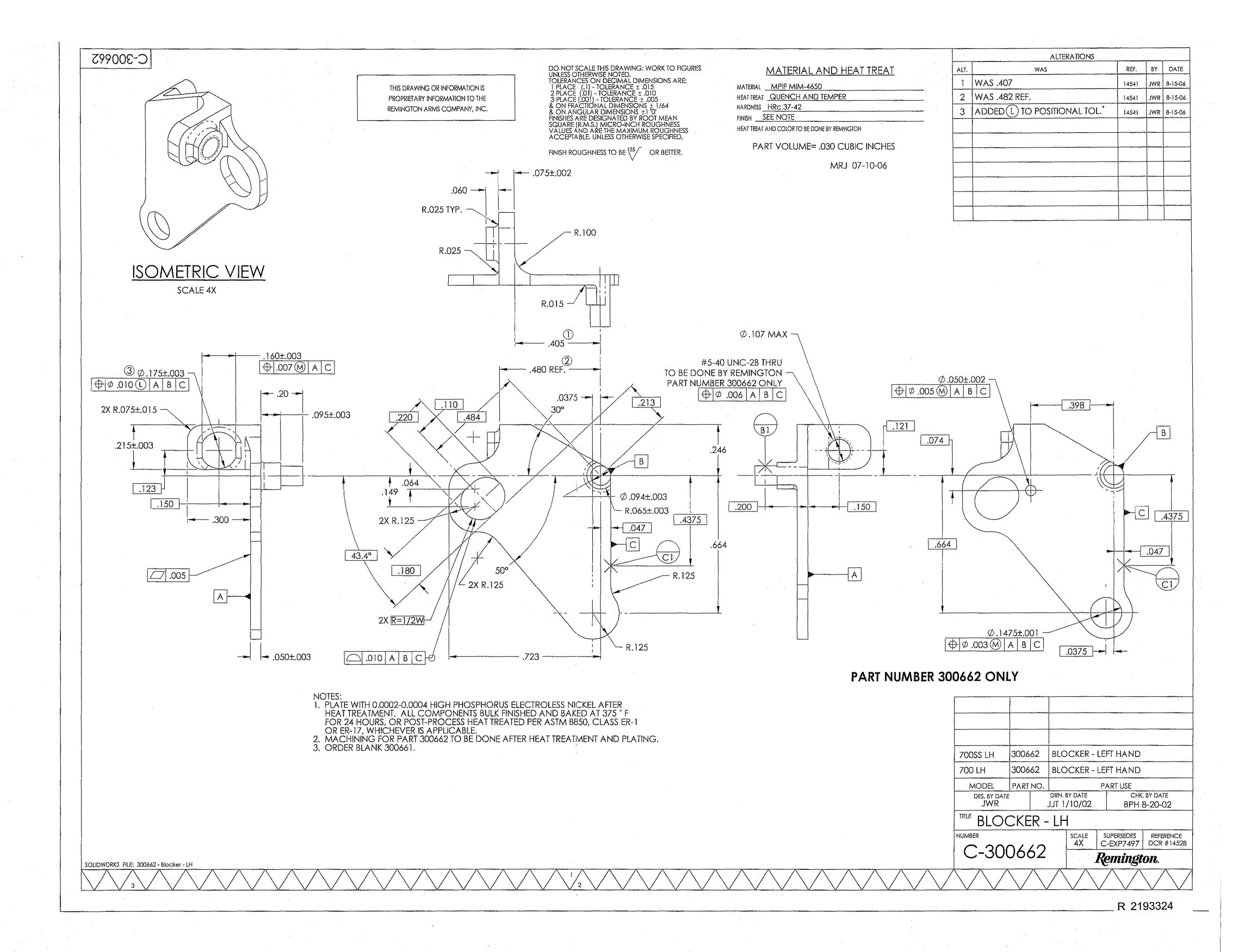


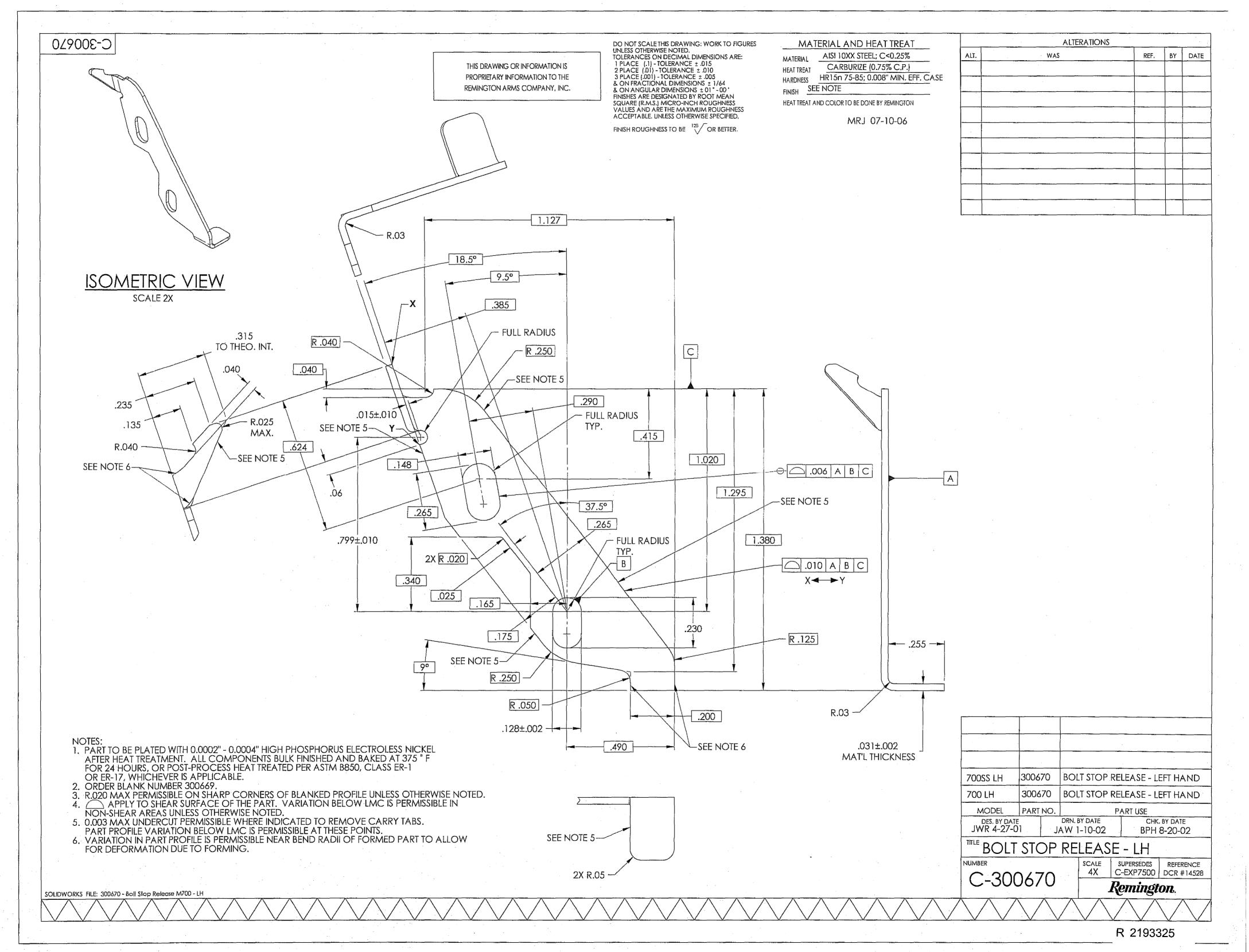


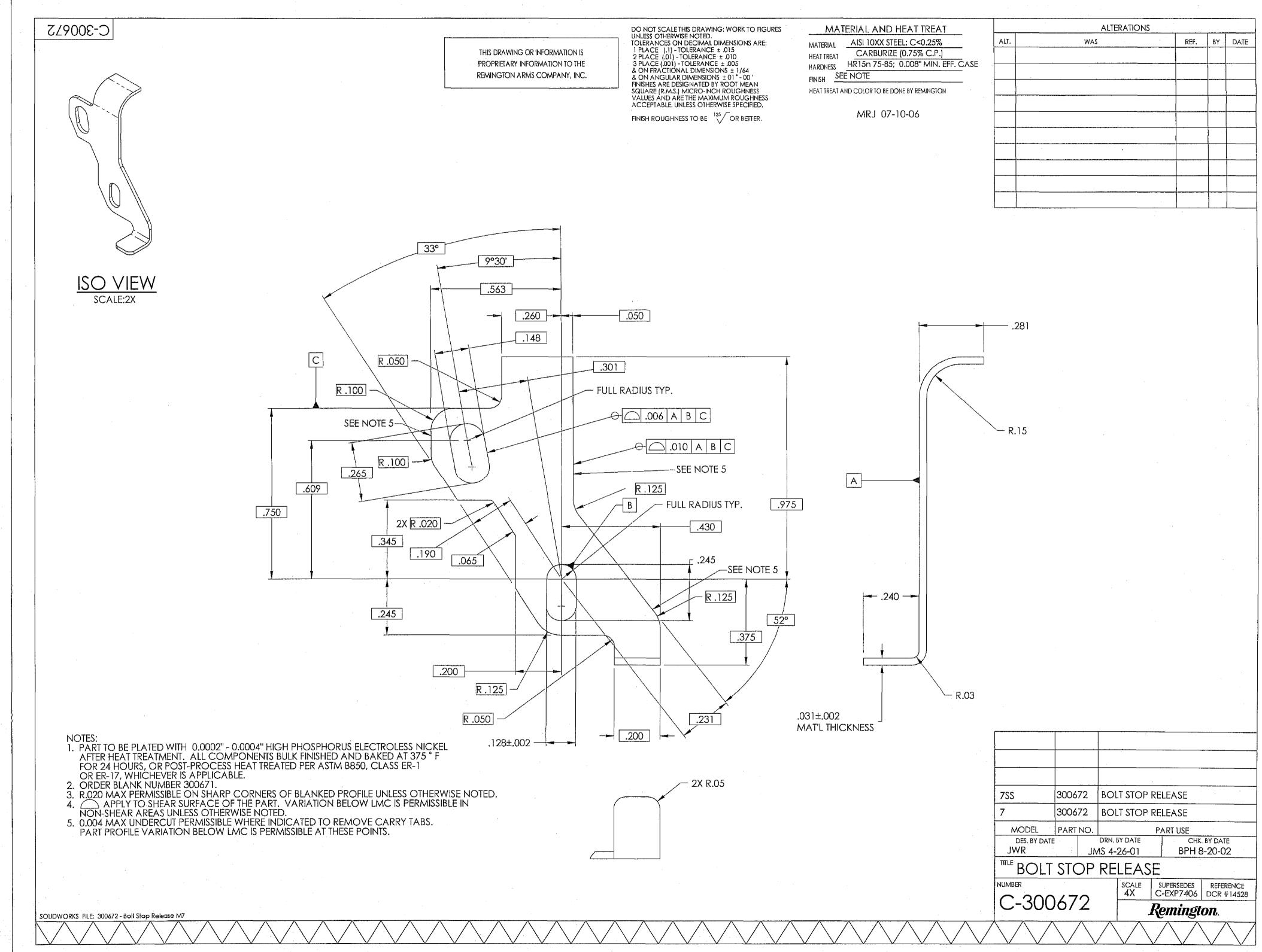


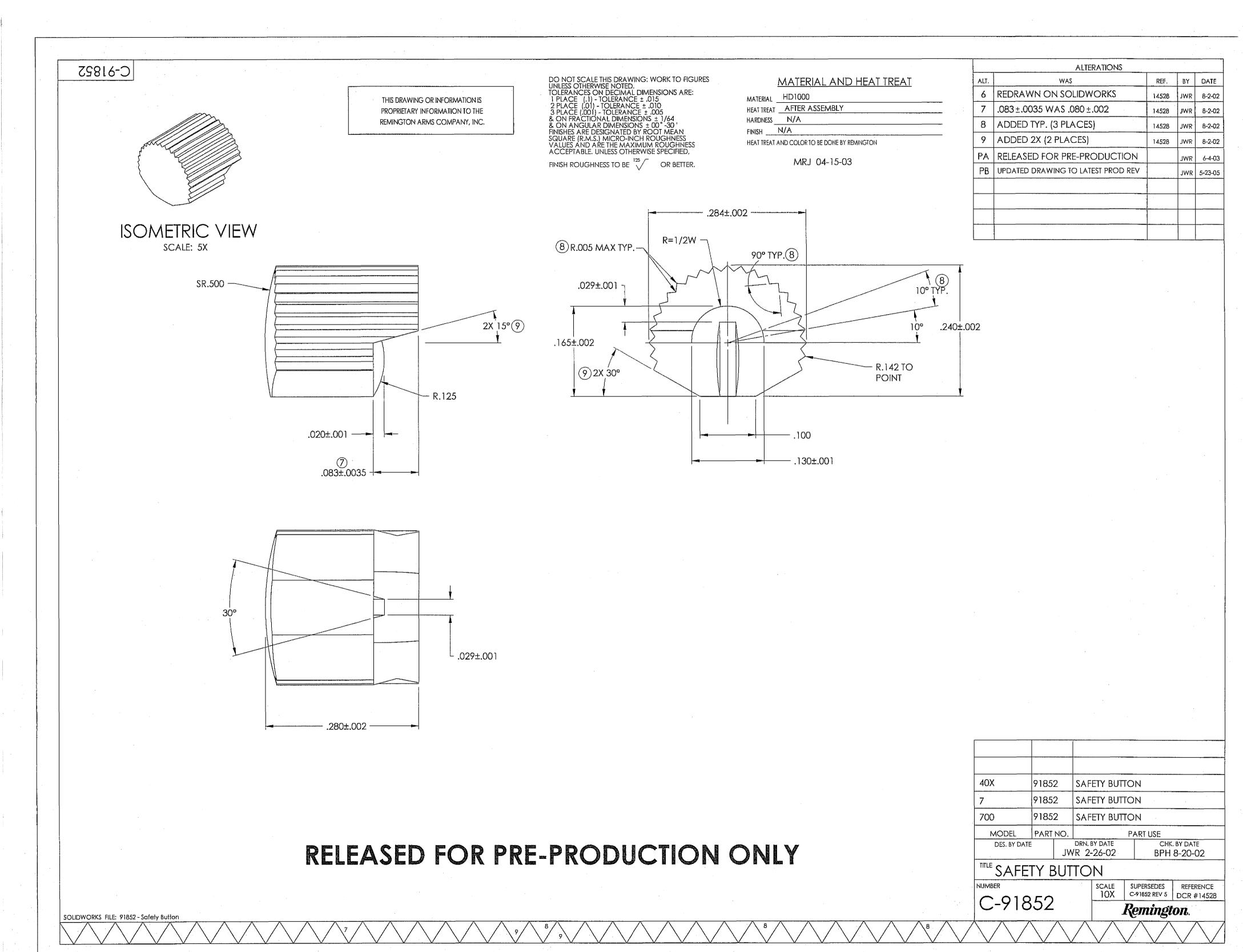


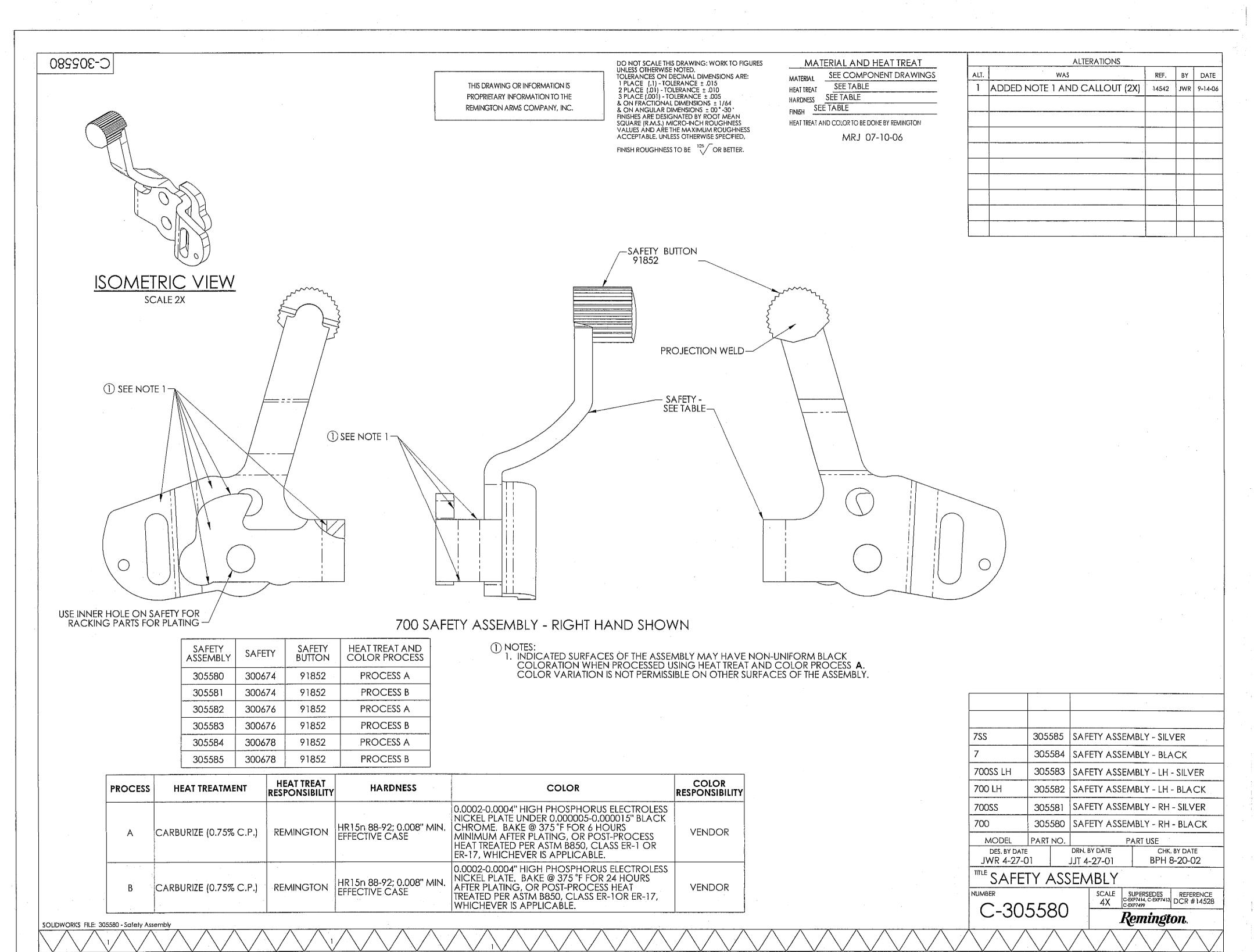


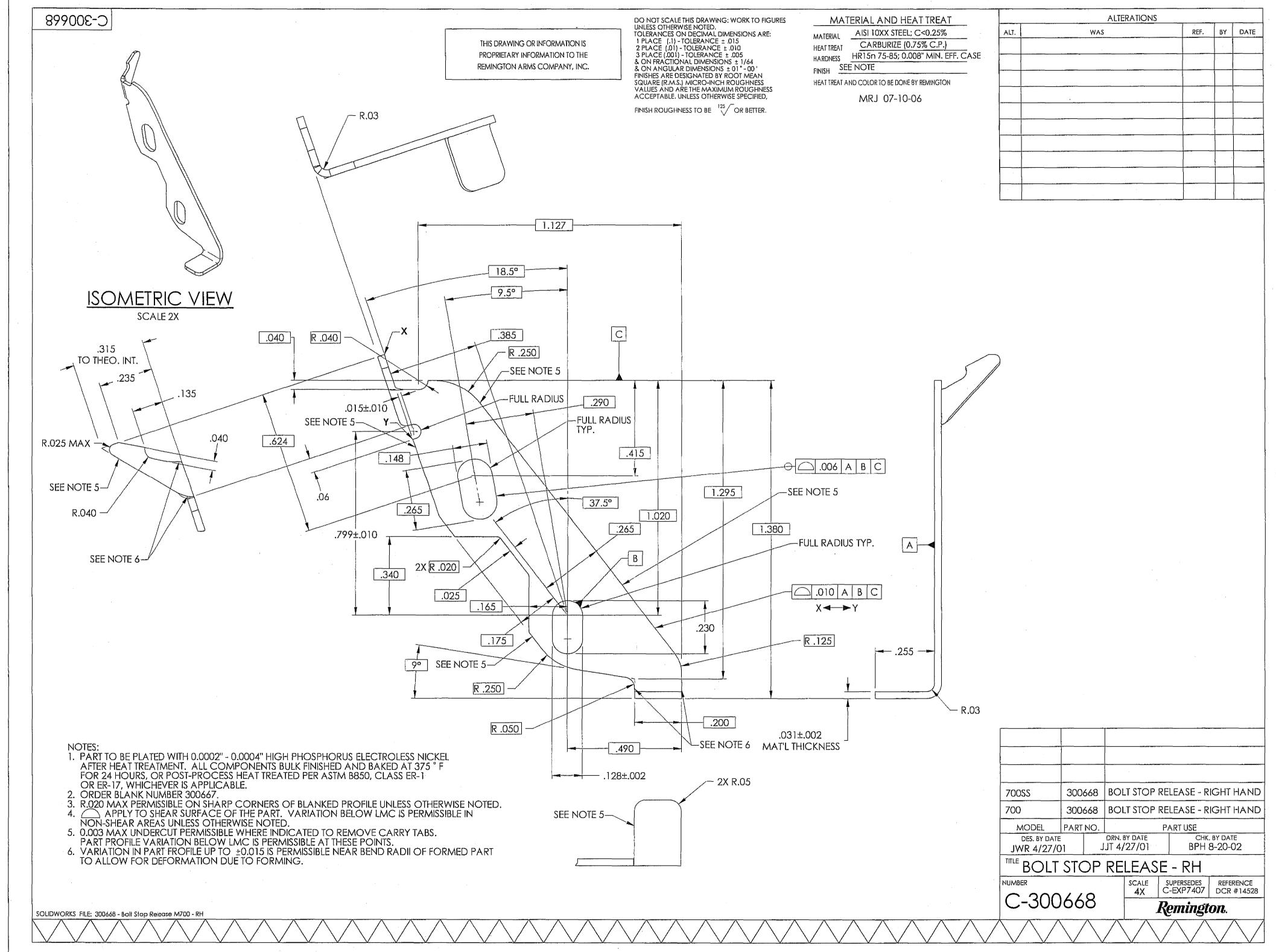


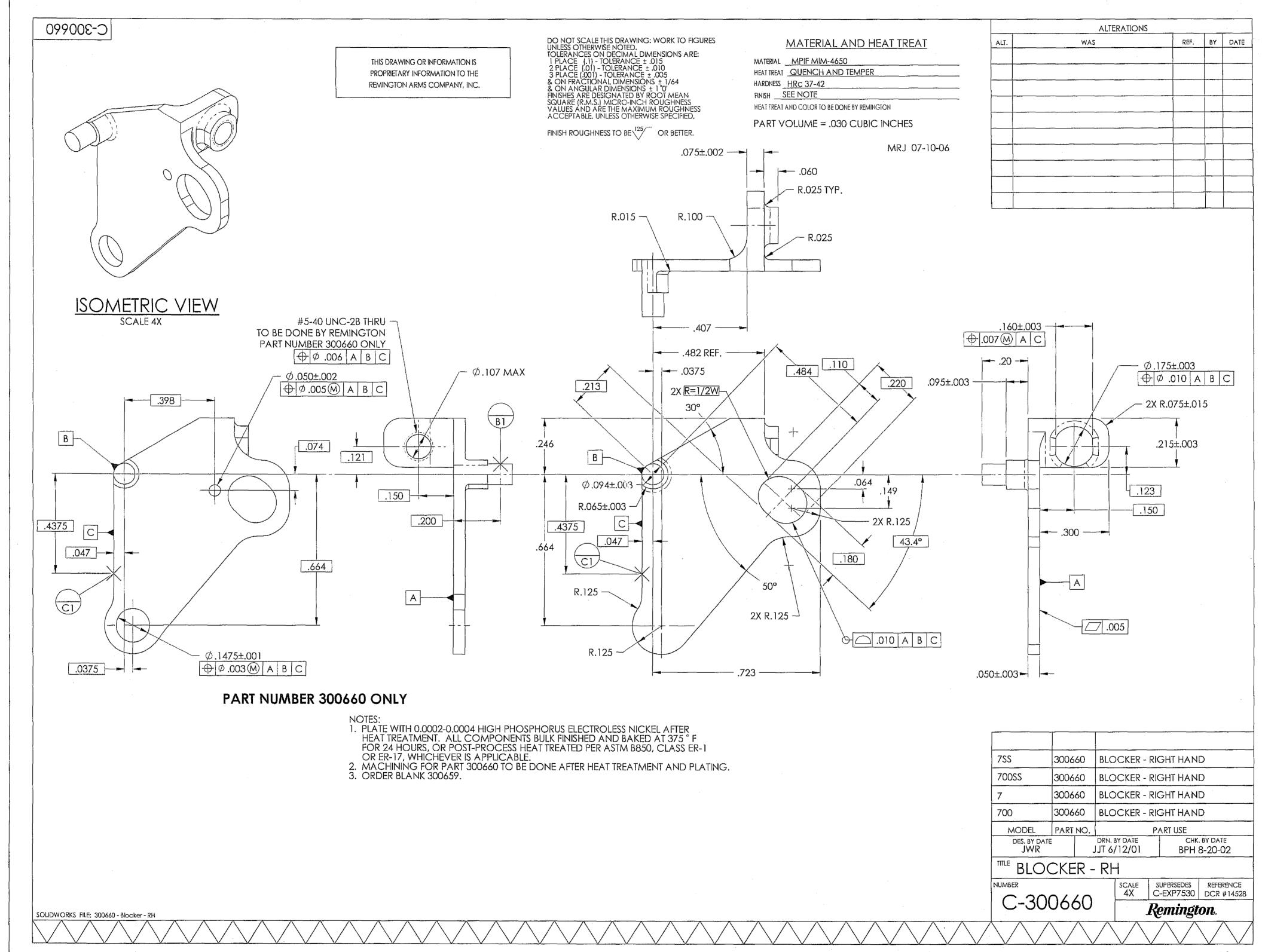


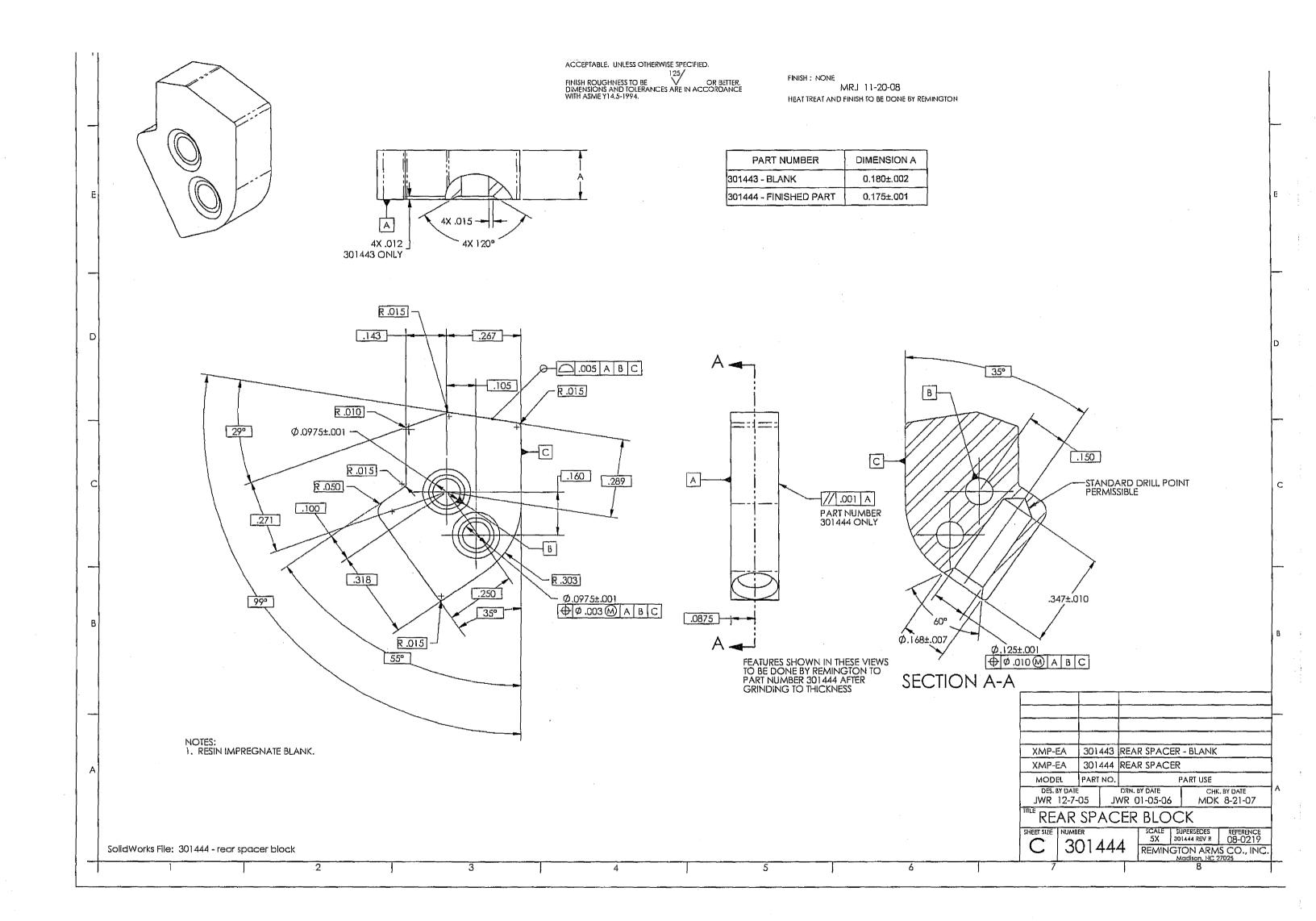


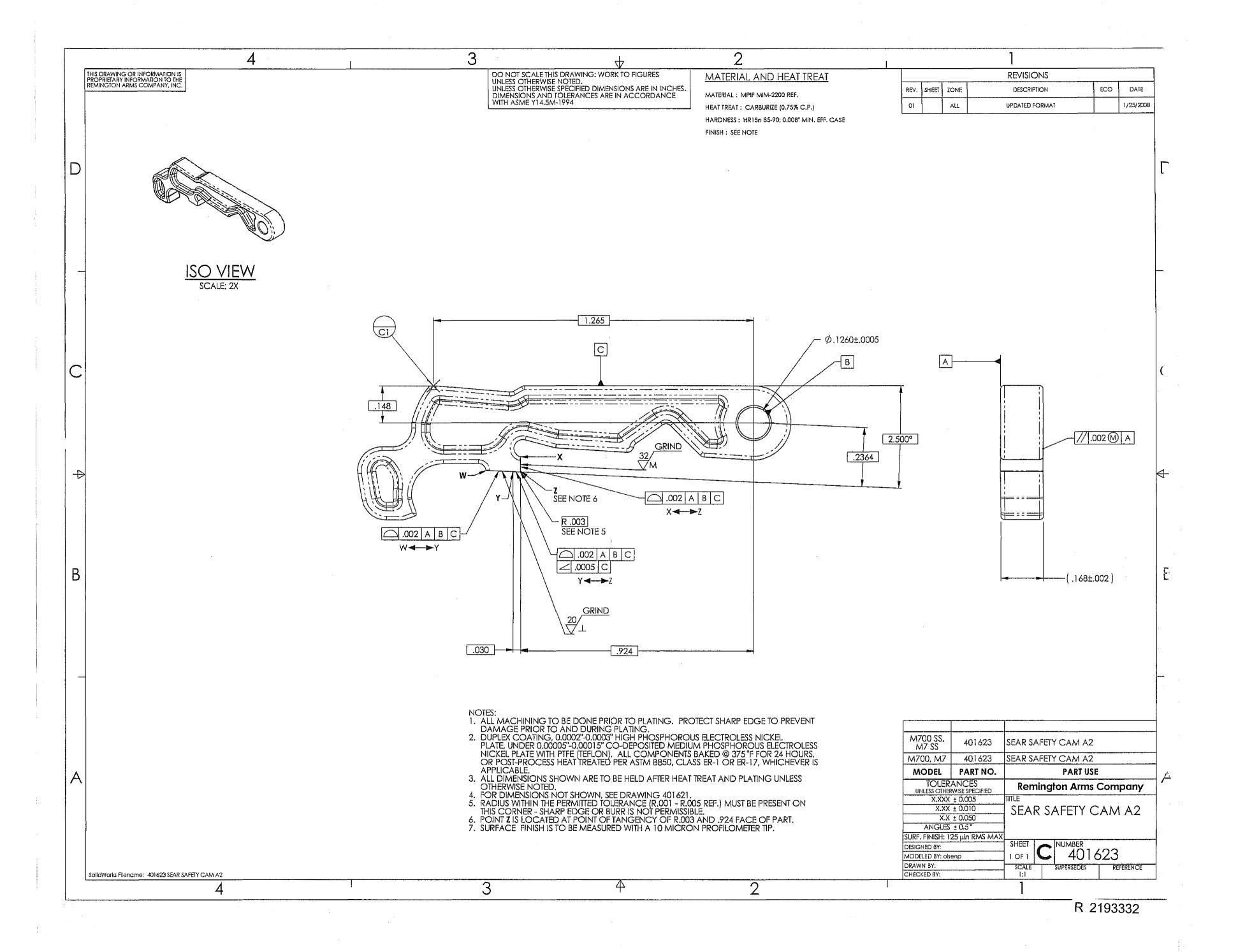


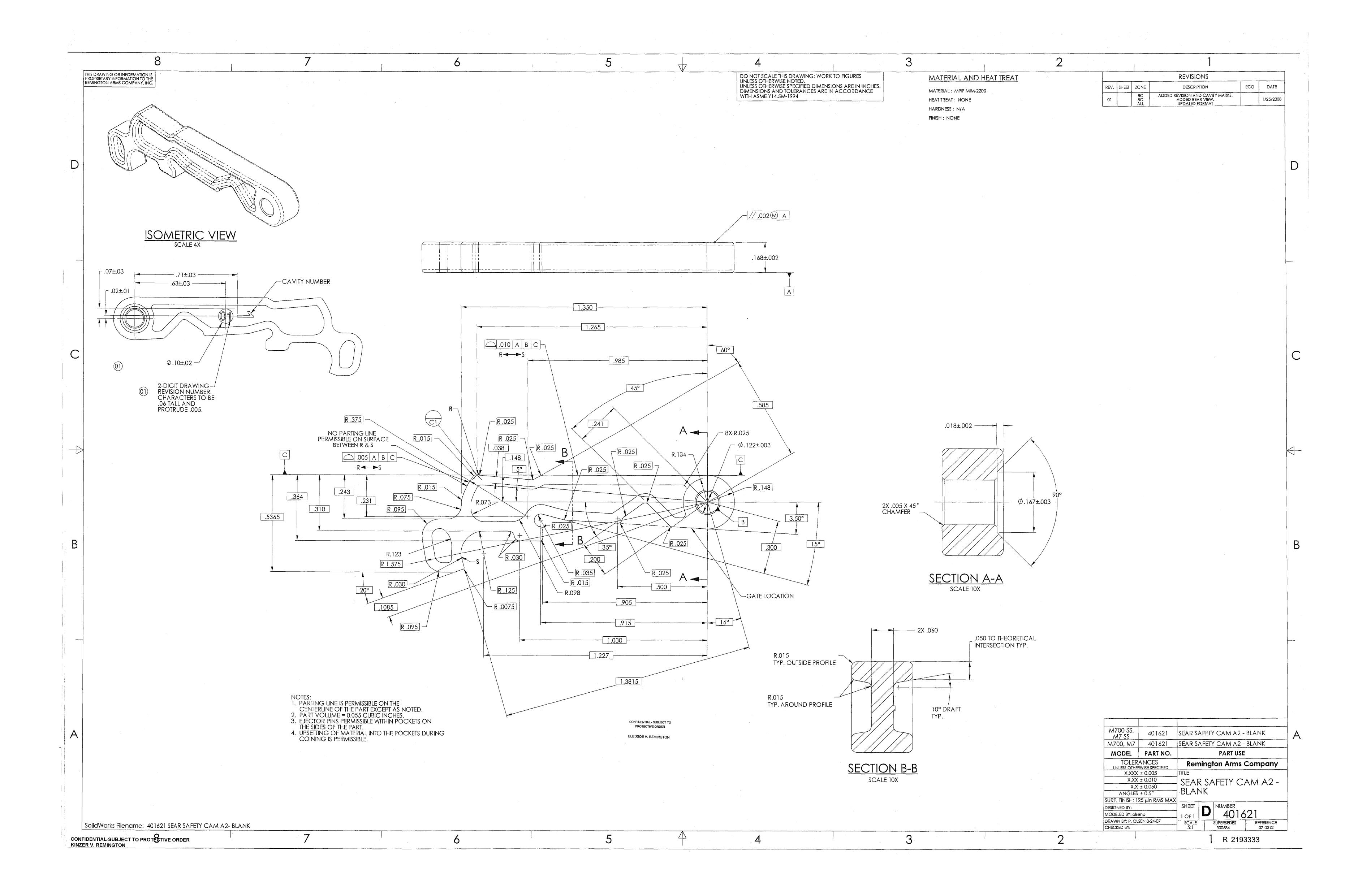


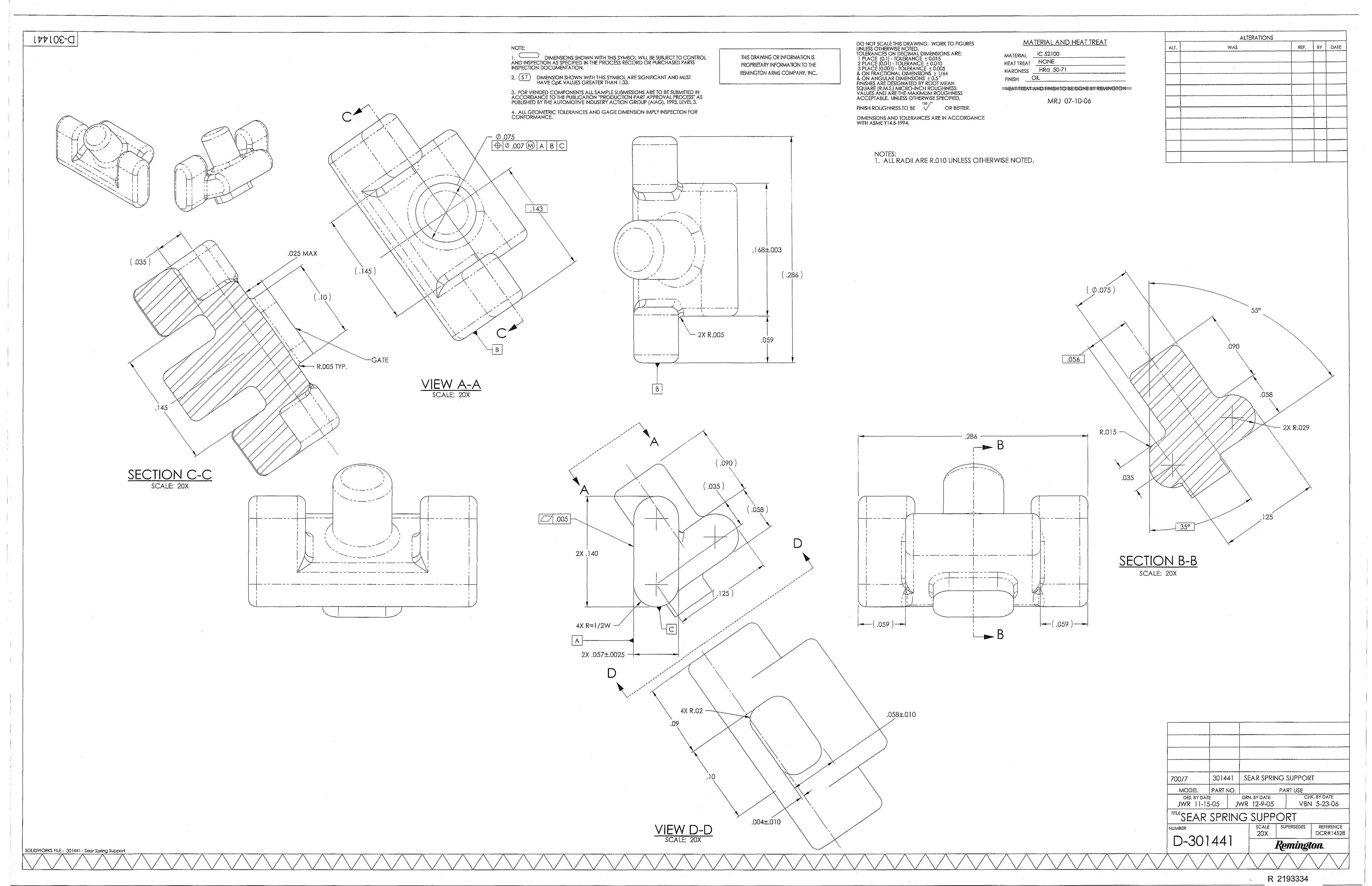


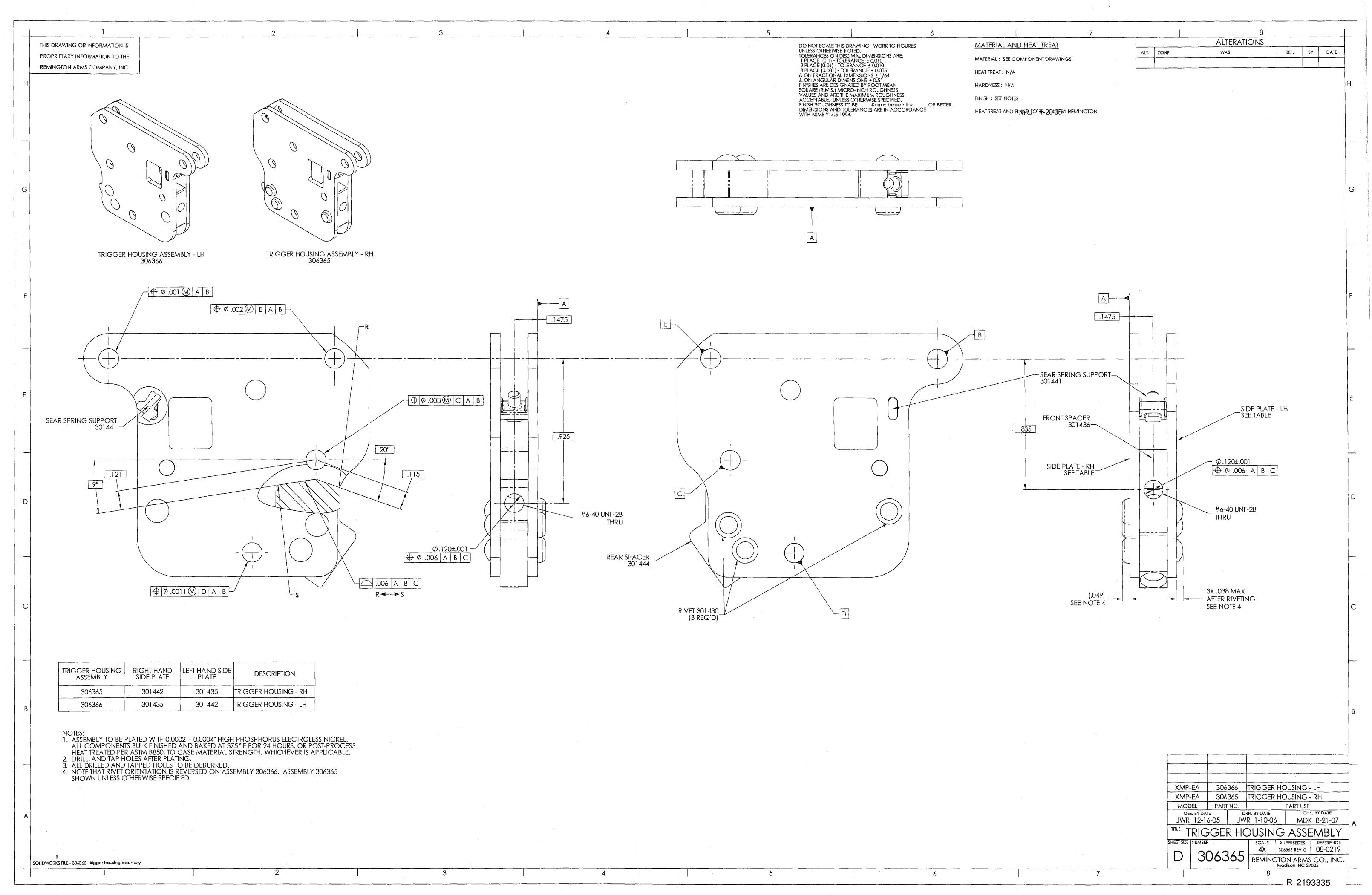


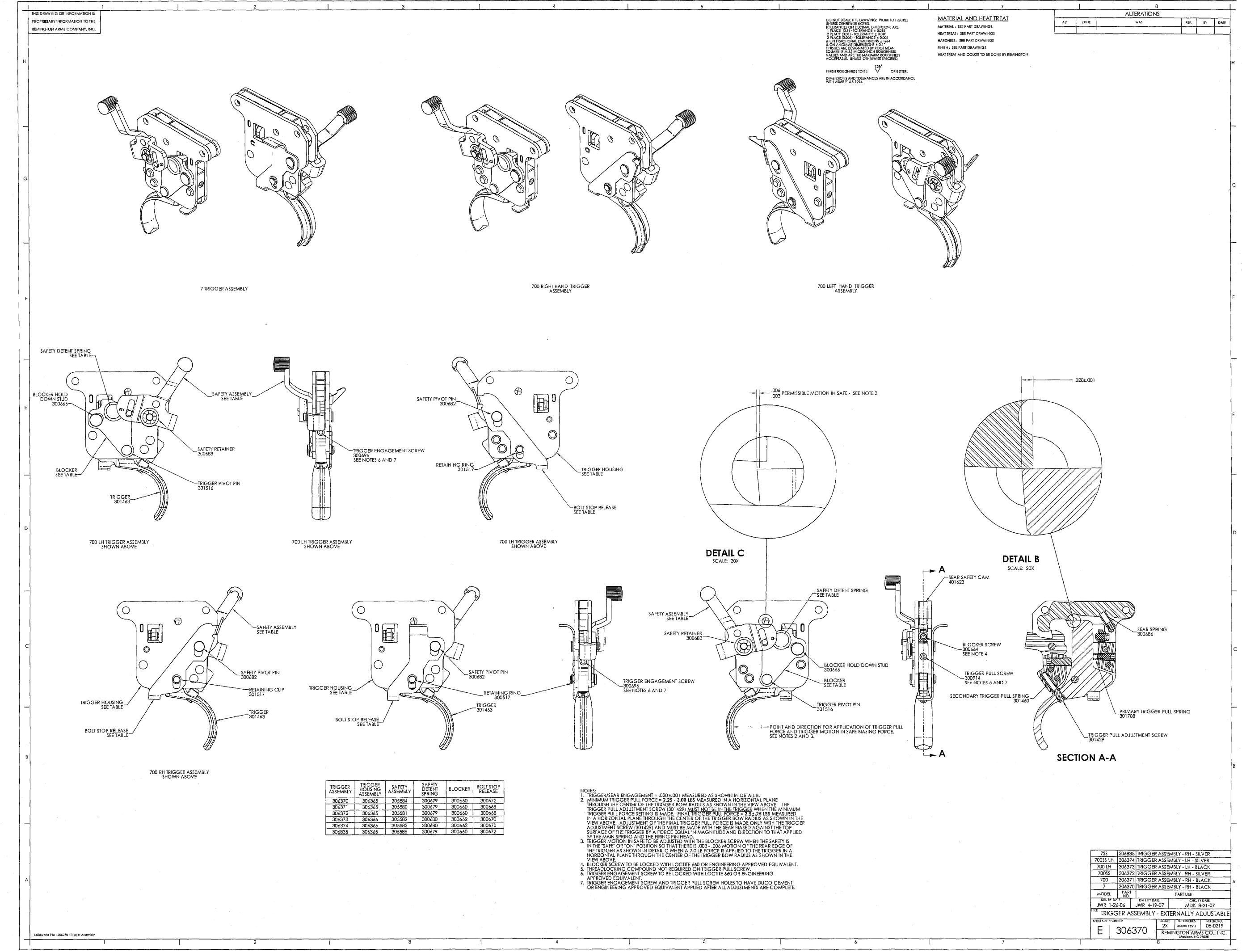


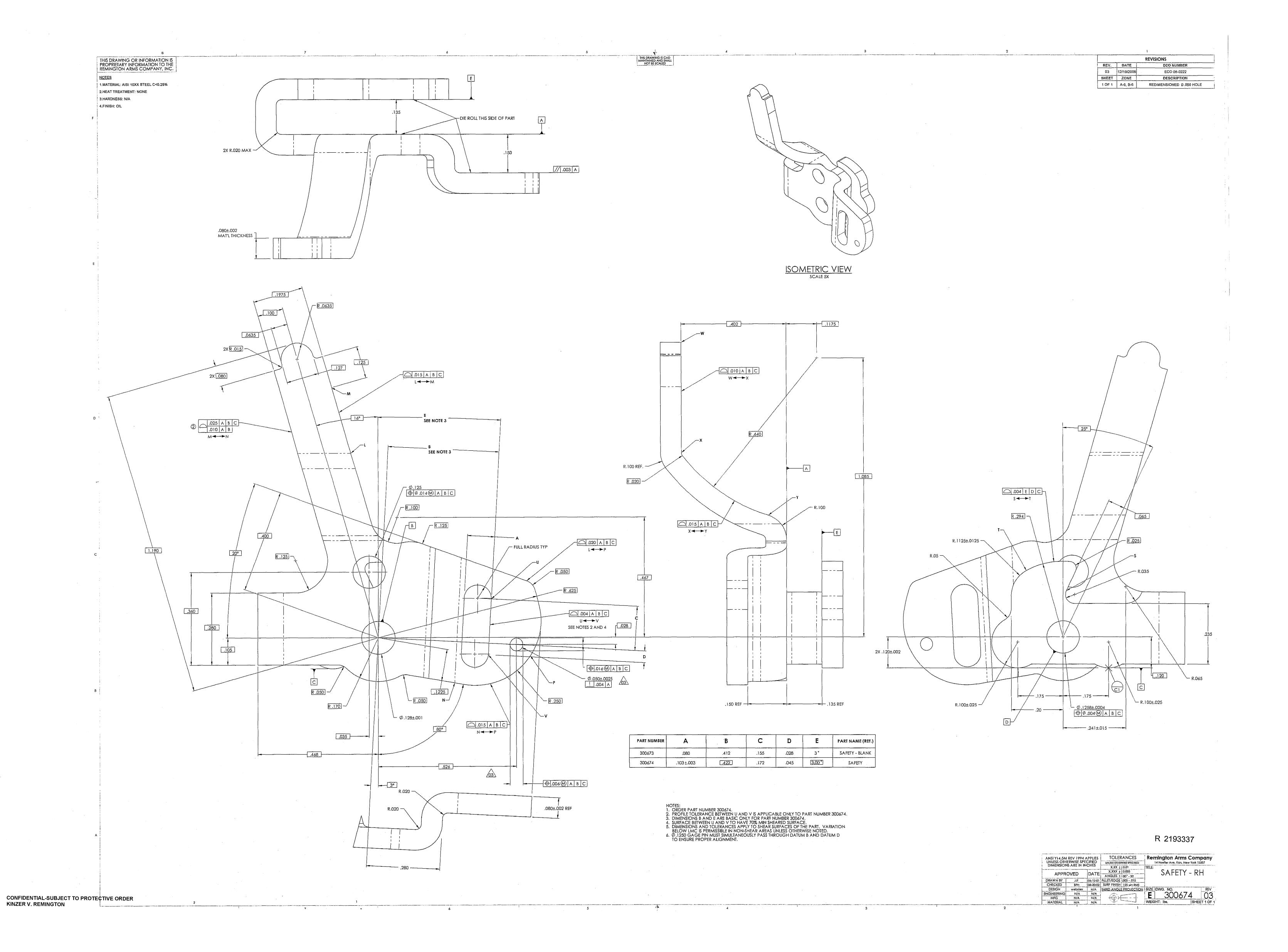


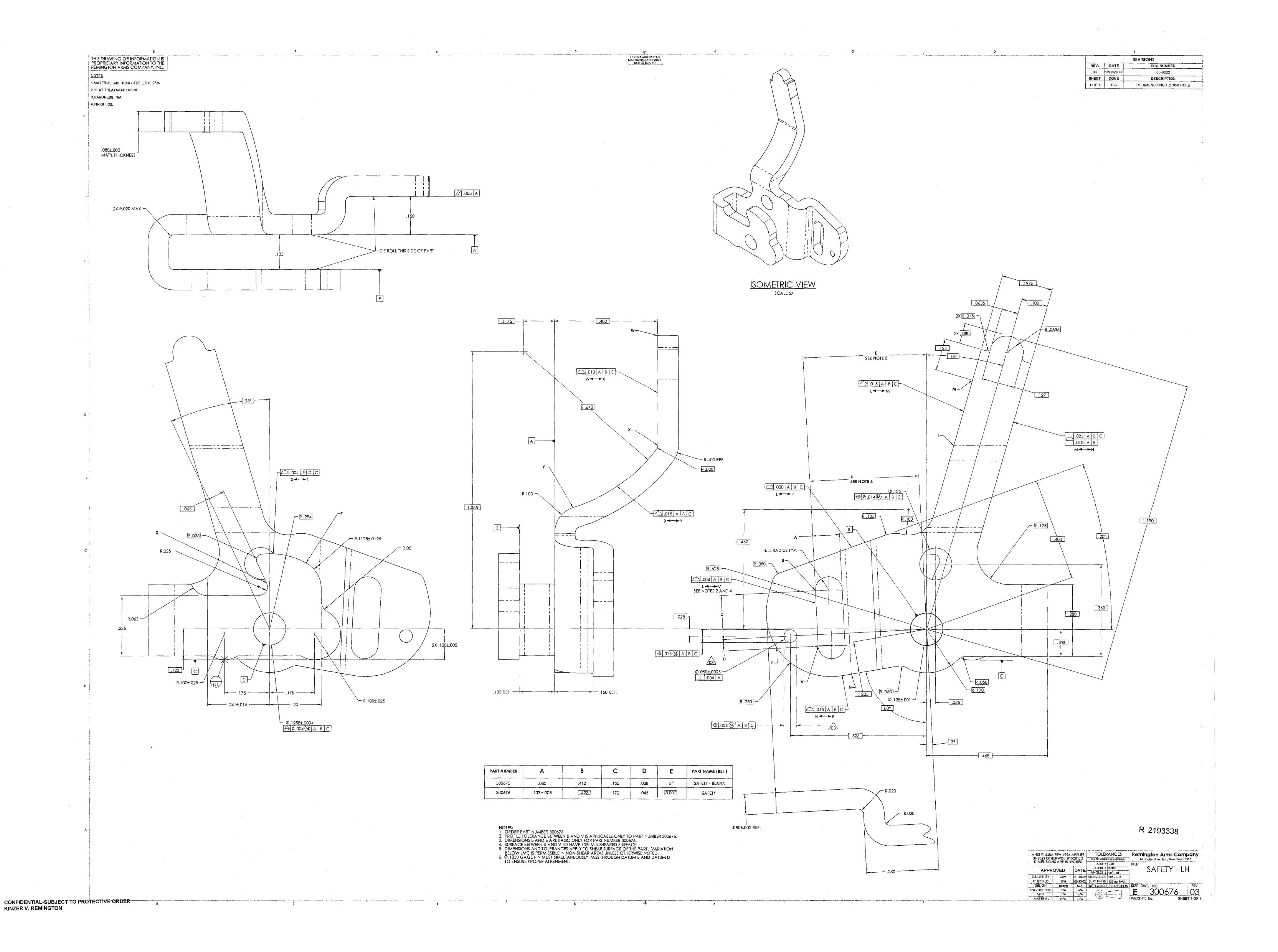


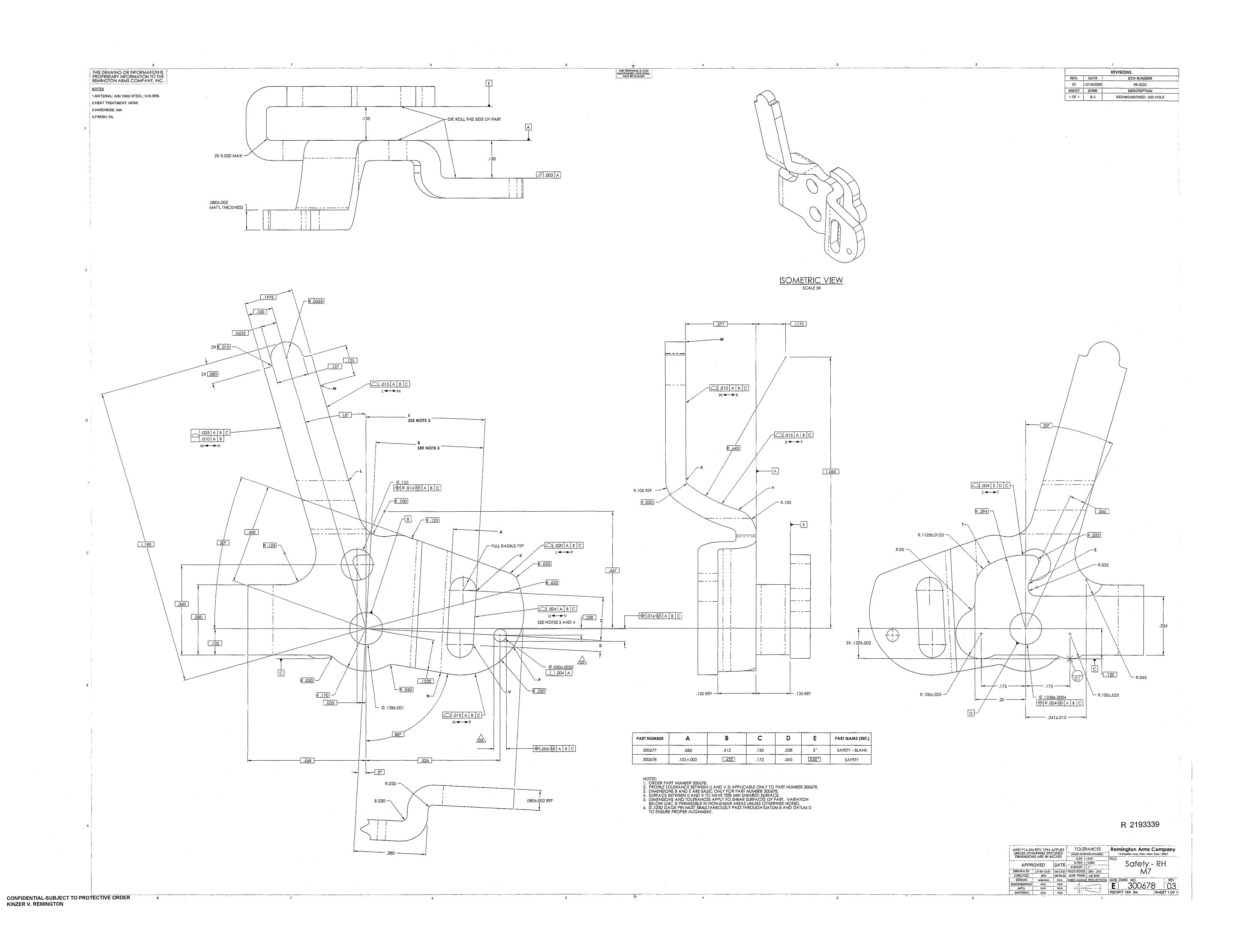






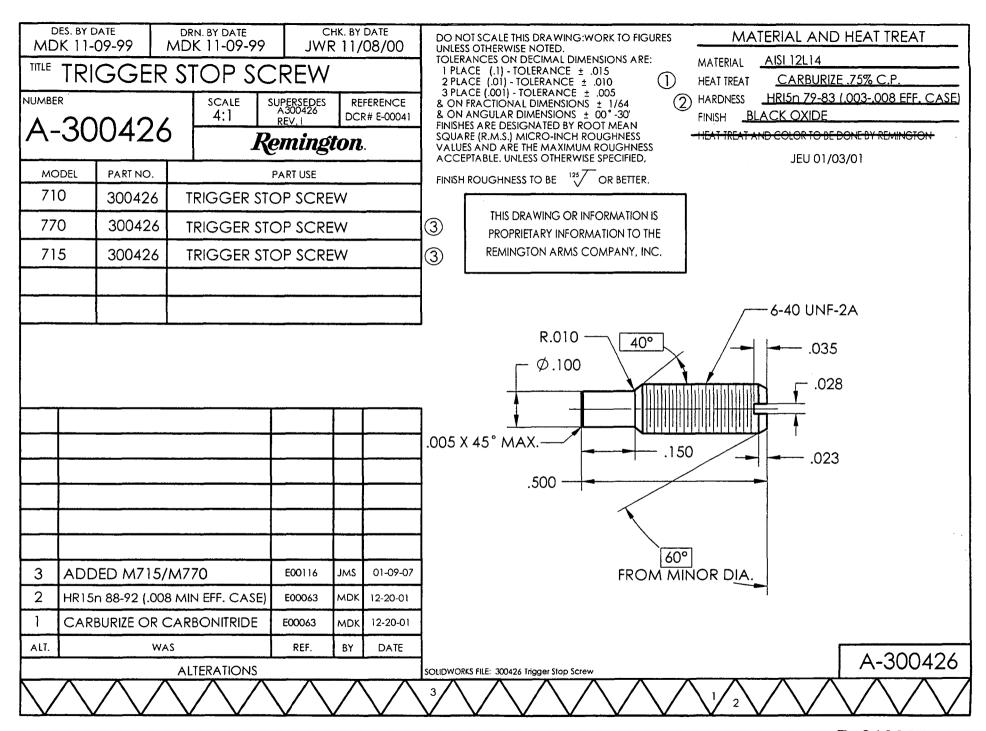






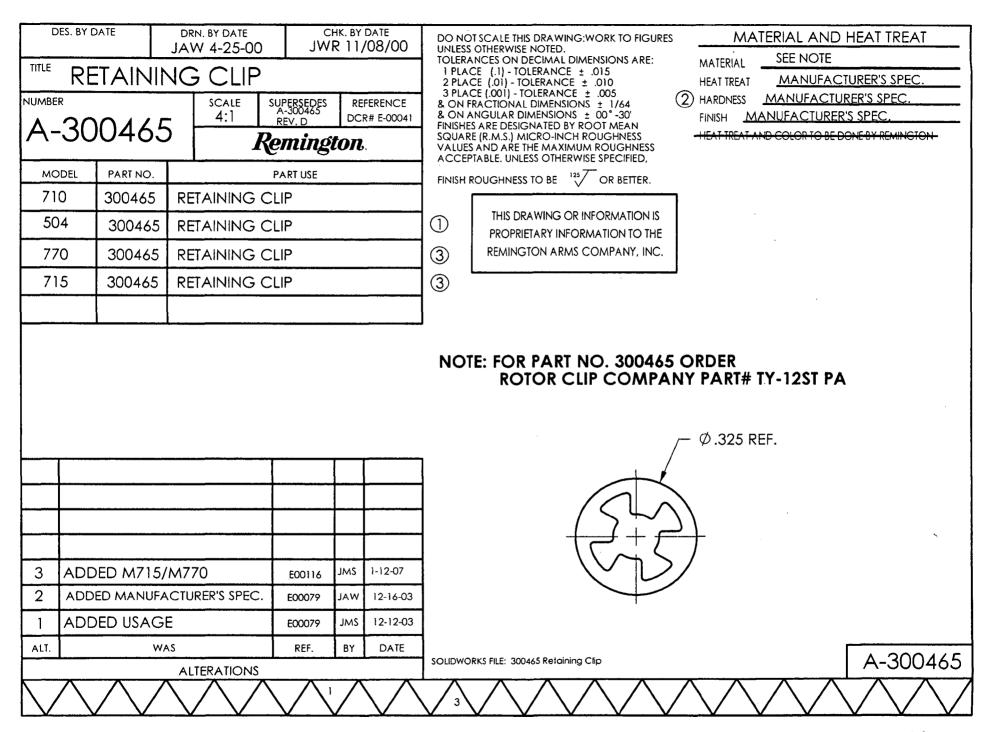
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	Remington							VALUES	S AND ARE THE MAXIMUM ROUGHNESS PTABLE. UNLESS OTHERWISE SPECIFIED,		JEU 01/03/01
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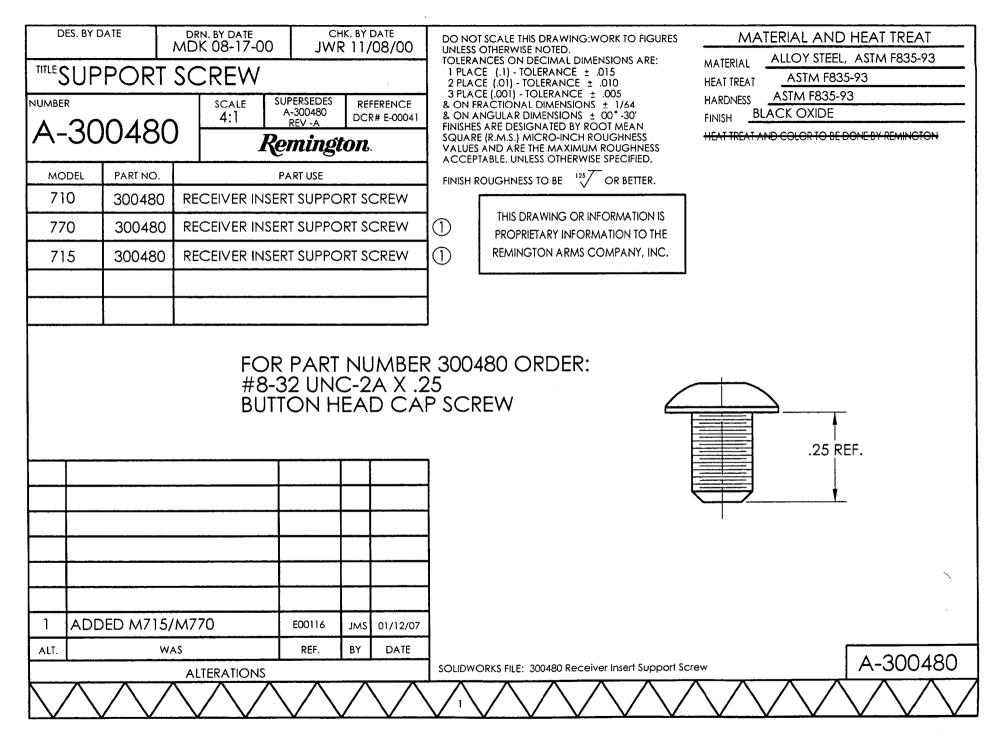
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5:1 A-300487 REV -A DCR# E-00041				REV -A	DCI	R# E-00041	HEAT TREAT STRESS RELIEVE	·	
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DE\$.	BY DATE	=		RN. BY DATE W 08/28/0	S	. BY D.		INSPECTION	
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71	5	SPRING,	TRIG	GER				6. FREE LENGTH 200 MIN. 7. ENDS OPEN 1 8. CHECK HERE FOR NON-COMMERCIAL TOLERANCES	
		.2	IL OU	ITSIDE DIA	A. NOT TO	_		MANUFACTURE 9. WIRE DIA027	5-1/2
							<u> </u>	THIS SPRING MUST MEET THE REQUIREMENTS IN THE INSPECTION SECTION	
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ı	ADD	ED M715,	/M77	<u></u>	E00116	2441	01/12/07	SPRING. THE MANUFACTURER MAY, WITH PRIOR APPROVAL, DEVIATE THESE FIGURES. FIGURES IN THE DESIGN DATA SECTION ARE BASED ON	
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A-300481			1	Remingt	on.		THIS DRAWING OR INFORMATION IS	MATERIAL AND HE	AT TREAT		
		31	SCALE SUPERSEDES REFERÊNCE NONE A-300481 DCR# E-00041			PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC.	MATERIAL MUSIC WIRE (ASTM A228) HEAT TREAT STRESS RELIEVE				
SPRING, SEAR								FINISH OIL			
DES. BY D	PATE	DI	RN. BY DATE T 8/25/00	CH	C. BY D.	_	INSPECTION	151			
MODEL			PART	USE			1. TO WORK FREELY IN A _ 2. TO WORK FREELY ON A	DIA. HOLE			
<i>7</i> 10	SPRING	, SEA	R				3. LOAD <u>5.8</u> TO	7.0 LB. AT330	(L1)		
770	SPRING	,SEAF	?				(1)4. SOLID HEIGHT .303	LB. A1 MAX.	(L2) HT HAND		
715	SPRING	,SEAF	2				1. TO WORK FREELY IN A 151 DIA. HOLE 2. TO WORK FREELY ON A DIA. PIN 3. LOAD 5.8 TO 7.0 LB. AT 330 (L1) LOAD TO LB. AT (L2) 1. SOLID HEIGHT 303 MAX. 5. WINDRIGHT HAND 2. TO MAX. 5. WINDRIGHT HAND 3. LOAD TO LB. AT				
							MANUFACTURE 9. WIRE DIA026 11. OUTSIDE DIA146 13. CHECK HERE FOR SET R	10. FREE LENGTH 12. COILS: ACTIVE _9 REMOVALTOTAL	485±.020 .6 11.6		
							19. SPRING INDEX 4.62 20. TORSIONAL MODULUS	I1.5 x 10 6 LB./SQ.IN ION FACTOR IN./S MASS HZ. TENSILE STRENGTH	(WAHL)		
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NUMBER 301760

TITLE

Remington Arms Company SCALE SUPERSEDES REFERENCE

DO NOT SCALE THIS DRAWING: WORK TO FIGURES UNLESS OTHERWISE NOTED. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5M-1994.

TOLERANCES UNLESS OTHERWISE SPECIFIED

 $X.XXX \pm 0.005 | X.XX \pm 0.010 | X.X \pm 0.050$

ANGLES ± 0.5° SURF FINISH: 125 µin RMS MAX DESIGNED BY: VBN 11-15-07

MODELED BY: VBN 11-15-07

DRAWN BY: JMS 11-19-07 CHECKED BY:

TRIGGER BLOCK SCREW

MODEL	PART NO.	PART USE
710	301760	TRIGGER BLOCK SCREW
715	301760	TRIGGER BLOCK SCREW
770	301760	TRIGGER BLOCK SCREW

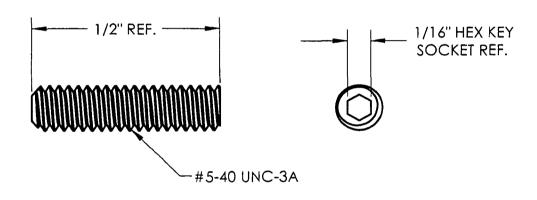
4:1

MATERIAL AND HEAT TREAT

MATERIAL: STEEL

HEAT TREAT: PER ASME B18.3 HARDNESS: PER ASME B18.3

FINISH: BLACK



ORDER STANDARD #5-40 X 1/2" SOCKET SET SCREW, CUP POINT

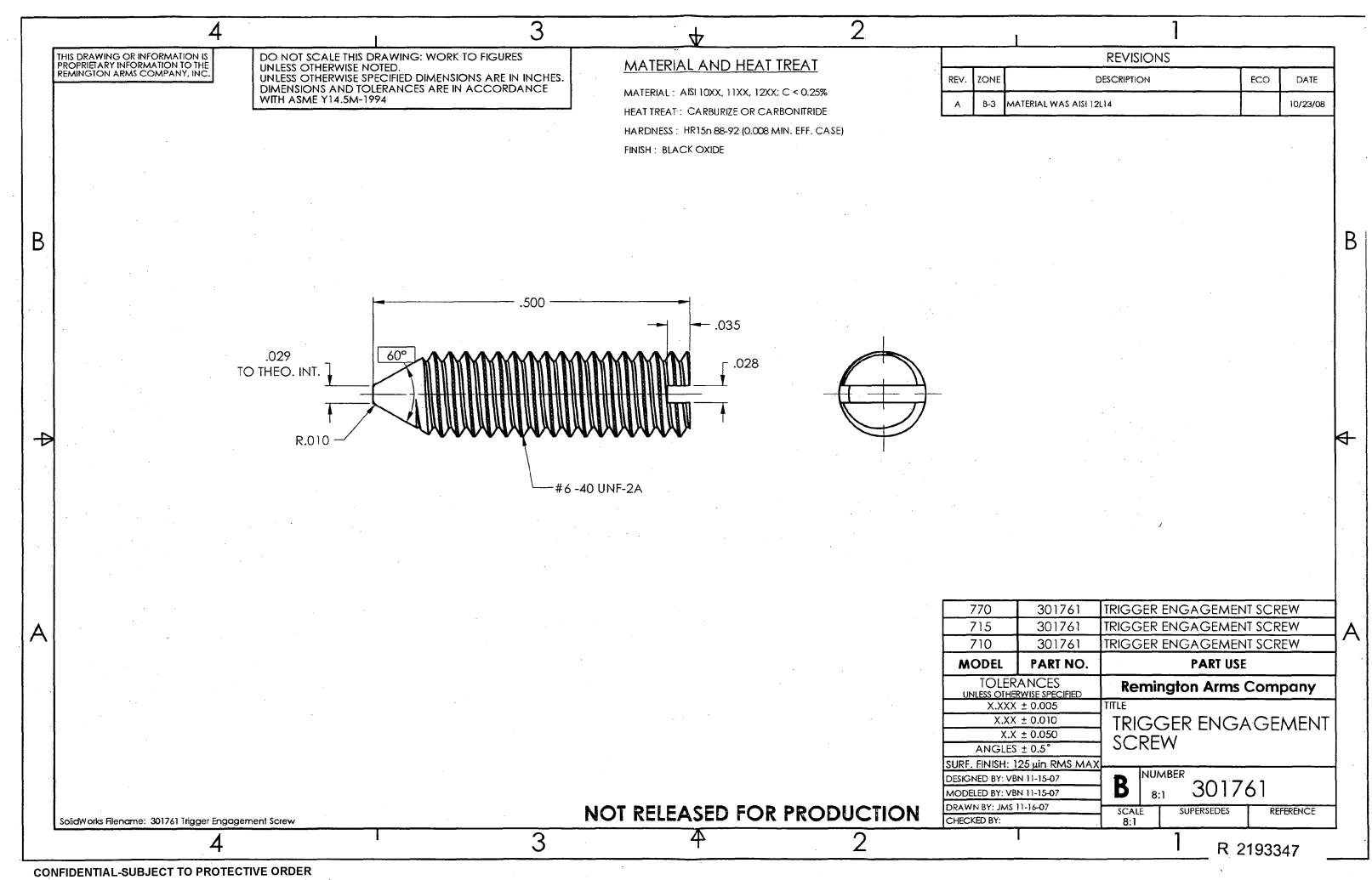
ECO REV. DESCRIPTION DATE **REVISIONS**

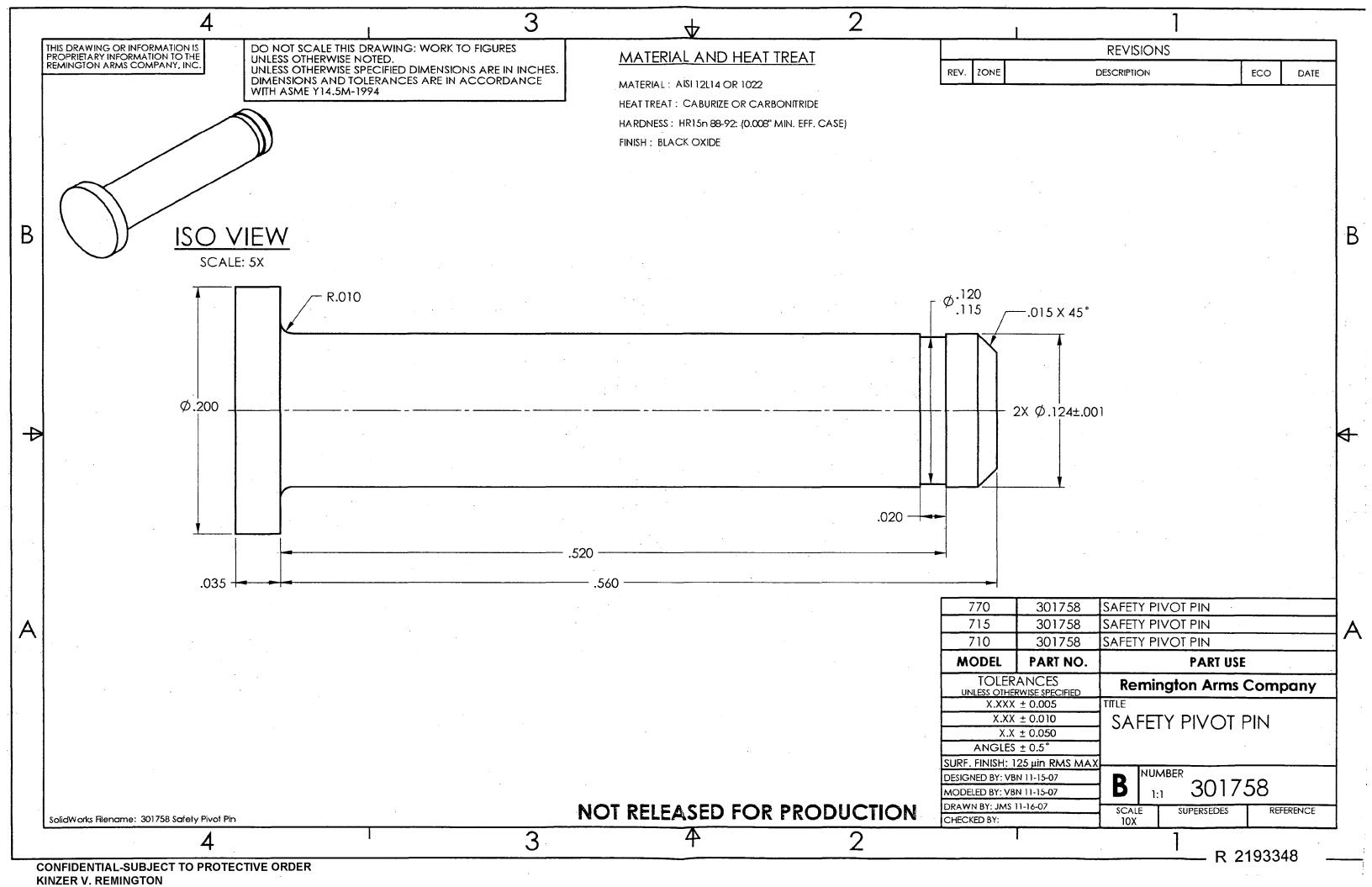
NOT RELEASED FOR PRODUCTION

SOLIDWORKS FILE - 301760 Trigger Block Screw

THIS DRAWING OR INFORMATION IS PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC.

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B-302053

THIS DRAWING OR INFORMATION IS PROPRIETARY INFORMATION TO THE REMINGTON ARMS COMPANY, INC.

DO NOT SCALE THIS DRAWING: WORK TO FIGURES UNLESS OTHERWISE NOTED. UNLESS OTHERWISE NOTED.

TOLERANCES ON DECIMAL DIMENSIONS ARE:

1 PLACE (.1) - TOLERANCE ± .015

2 PLACE (.01) - TOLERANCE ± .005

& ON FRACTIONAL DIMENSIONS ± 1/64

& ON ANGULAR DIMENSIONS ± 00° -30'

FINISHES ARE DESIGNATED BY ROOT MEAN

SOLARE (P. M. S.) MAICPOLINCH POLIGHNESS SQUARE (R.M.S.) MICRO-INCH ROUGHNESS VALUES AND ARE THE MAXIMUM ROUGHNESS ACCEPTABLE. UNLESS OTHERWISE SPECIFIED,

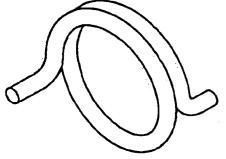
FINISH ROUGHNESS TO BE TO BETTER.

MATERIAL AND HEAT TREAT

MUSIC WIRE (ASTM A228) STRESS RELIEVE

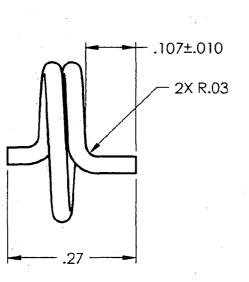
HEAT TREAT __N/A HARDNESS

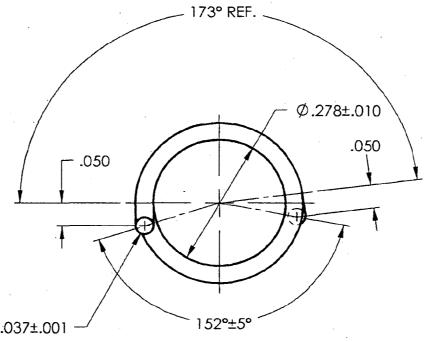
HEAT TREAT AND COLOR TO BE DONE BY REMINGTON



ISOMETRIC VIEW

SCALE 5X





Ø.278±.010 .050	
Ø.037±.001	

TORSION SPRING DATA:			•		
WIRE DIAMETER =		0.037	.ARM LENGTH 1 =		0.050
SPRING RATE =		0.031	:ARM LENGTH 2 =	-	0.050
MAX ROTATION =	i	37.5 DEG.	SPRING INDEX =	,	8.513
MAX BODY LENGTH =	:	0.110			
FREE STATE:	,				
NUMBER OF COILS =	:	1.48	BODY LENGTH =		0.092
ARM ANGLE (REF.) =	·	172.8 DEG.	IMEAN DIAMETER =		0.315
POSITION #1:		:	1		
NUMBER OF COILS =	:	1.56	STRESS (PSI) =		186K
ARM ANGLE (REF.) =	•	200 DEG.	% OF TENSILE =	:	58%

NOTE: SPRING IS SHOWN IN ITS FREE STATE.

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SAFETY DETENT SPRING

DRN. BY DATE

SCALE

5X

VBN 3/9/09

SAFETY DETENT SPRING

PART USE

SUPERSEDES

Remington

302053

PART NO.

770

MODEL

NUMBER

DES. BY DATE

B-302053

VBN 2/10/09

ALTERATIONS

REF.

BY

DATE

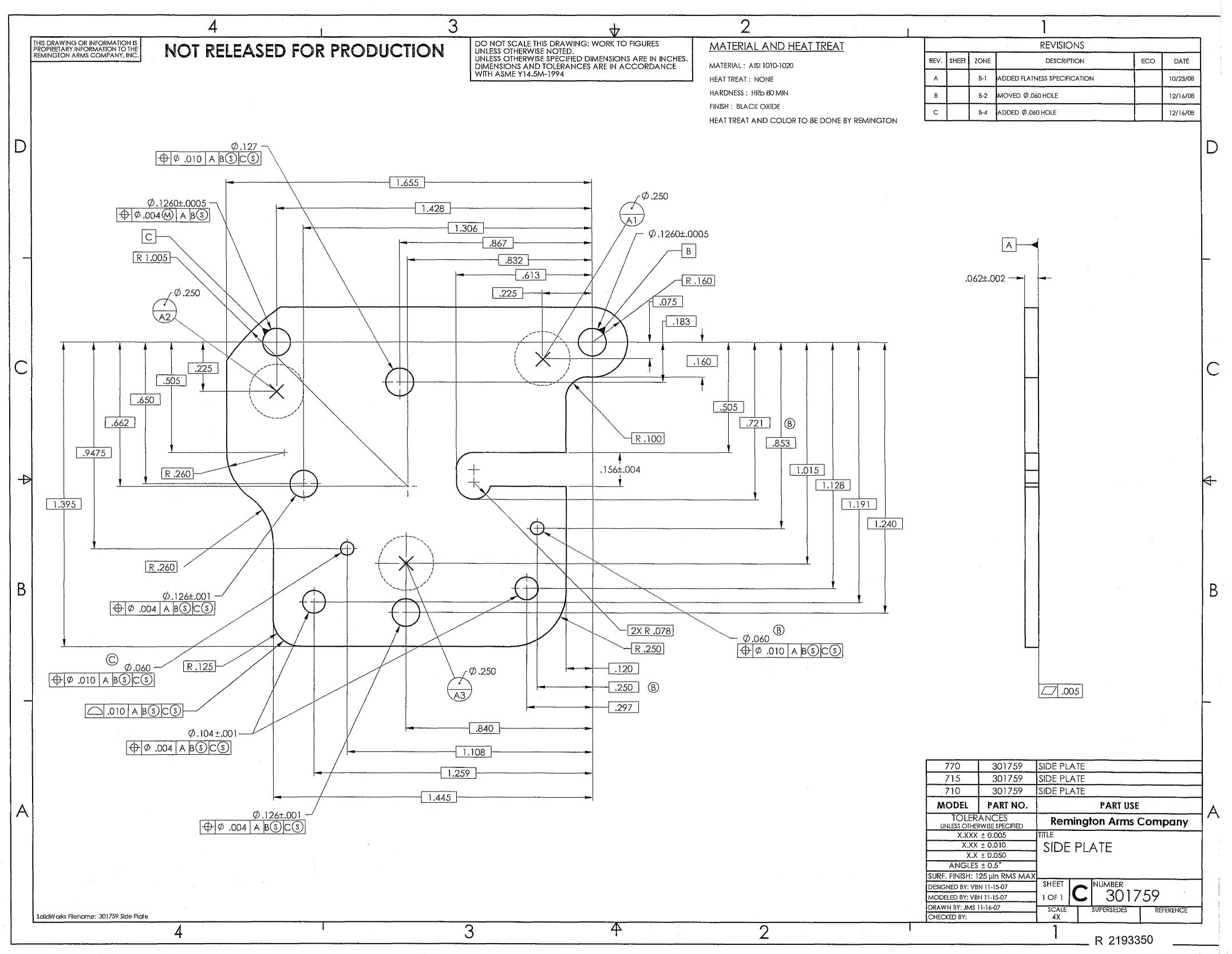
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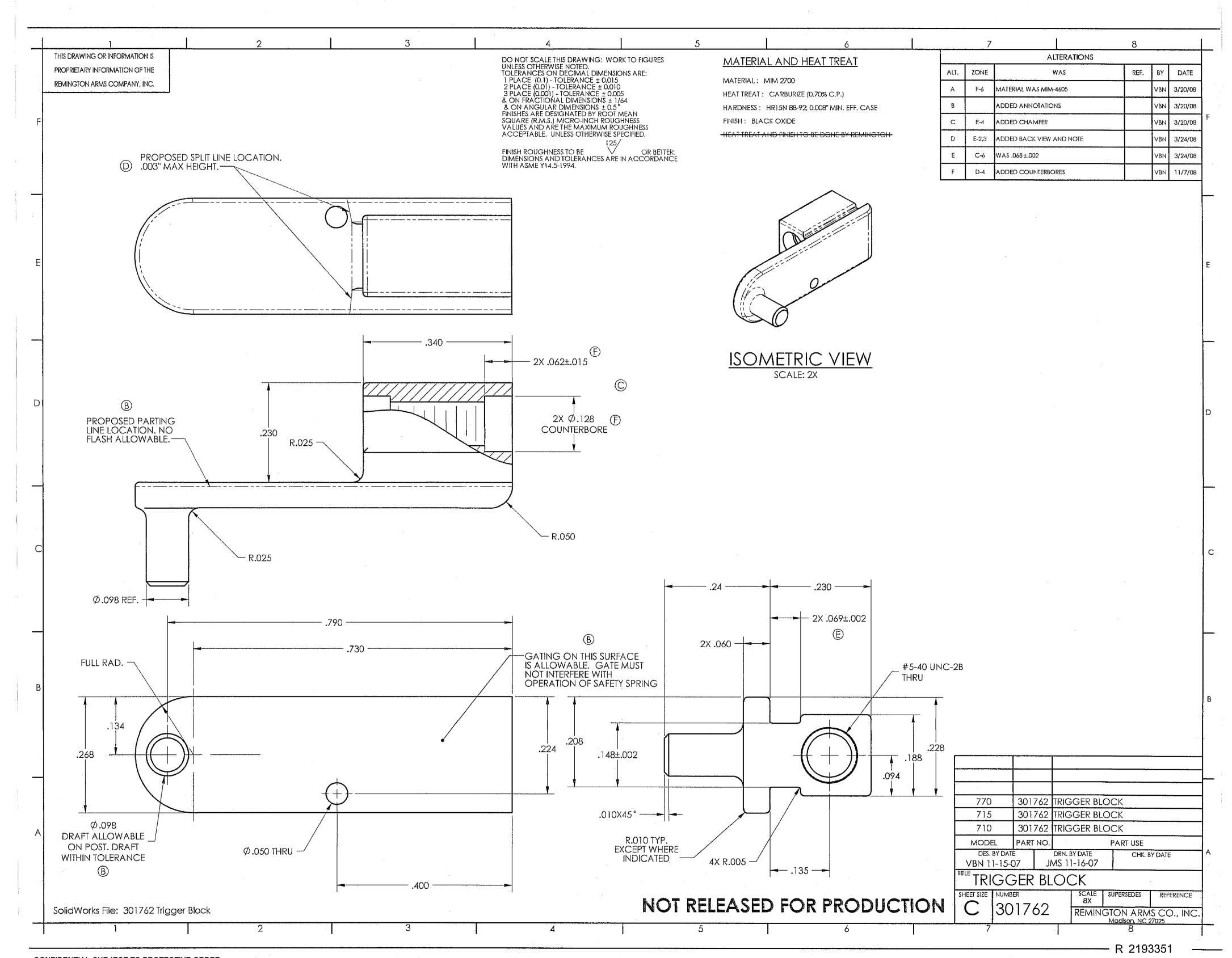
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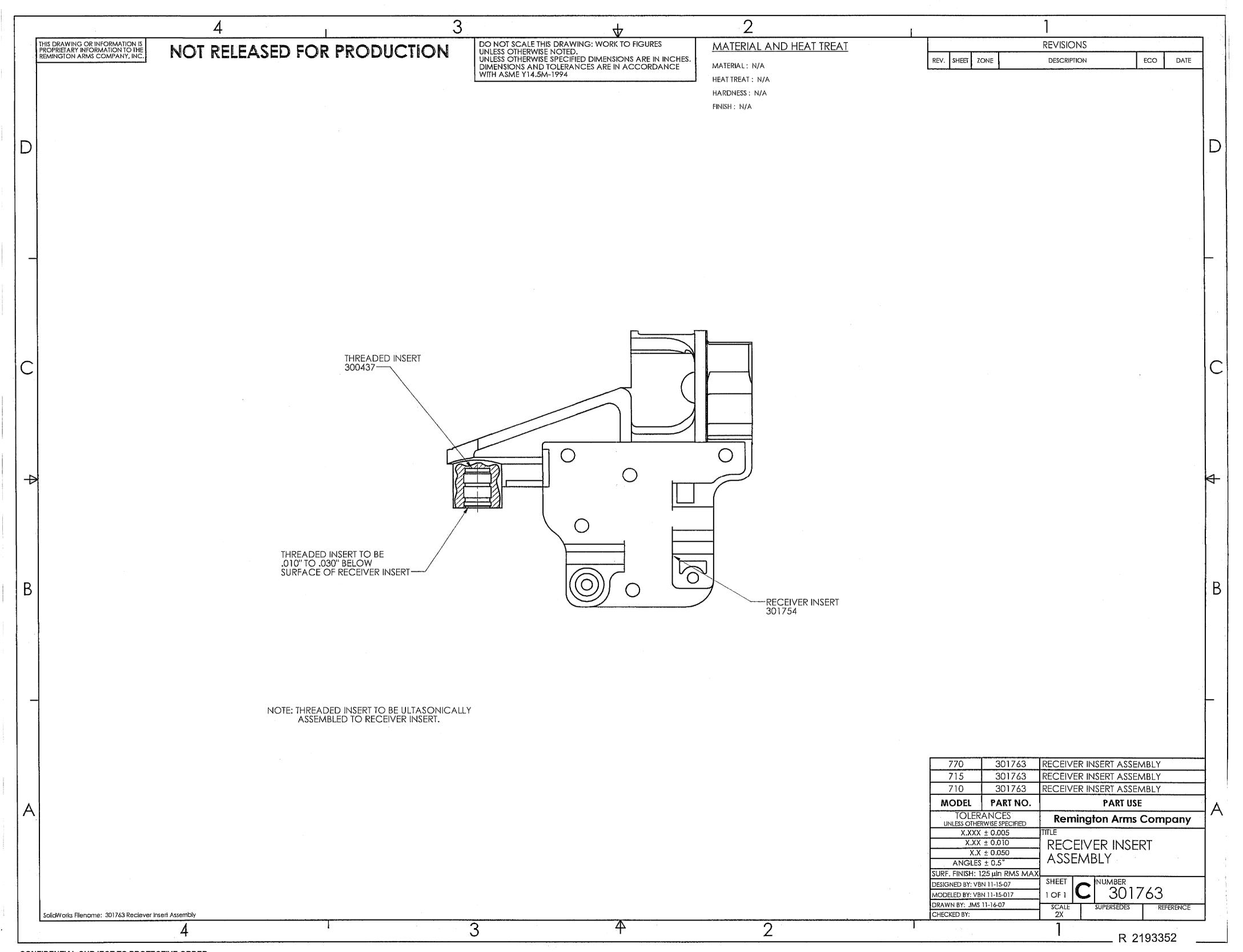
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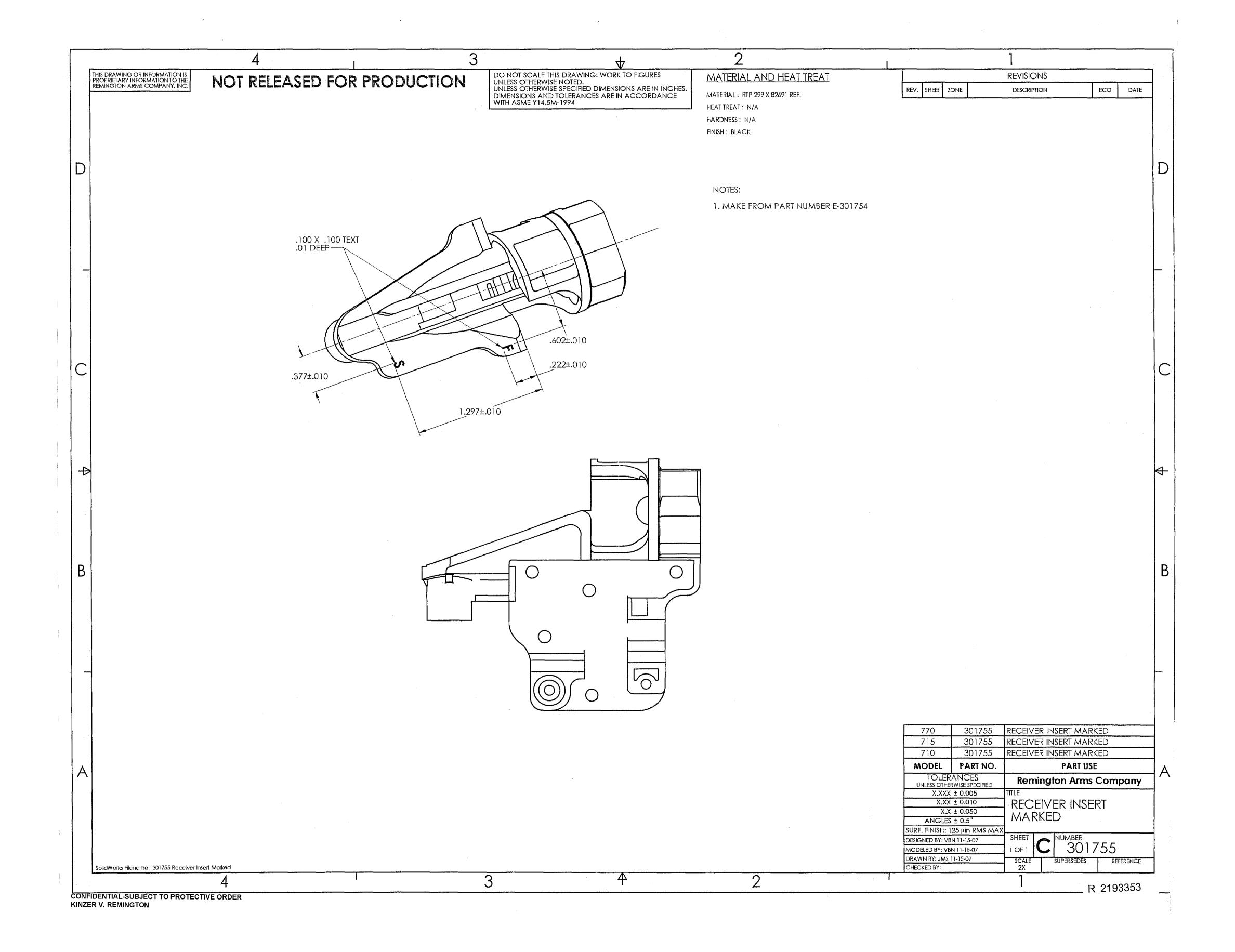
CHK. BY DATE

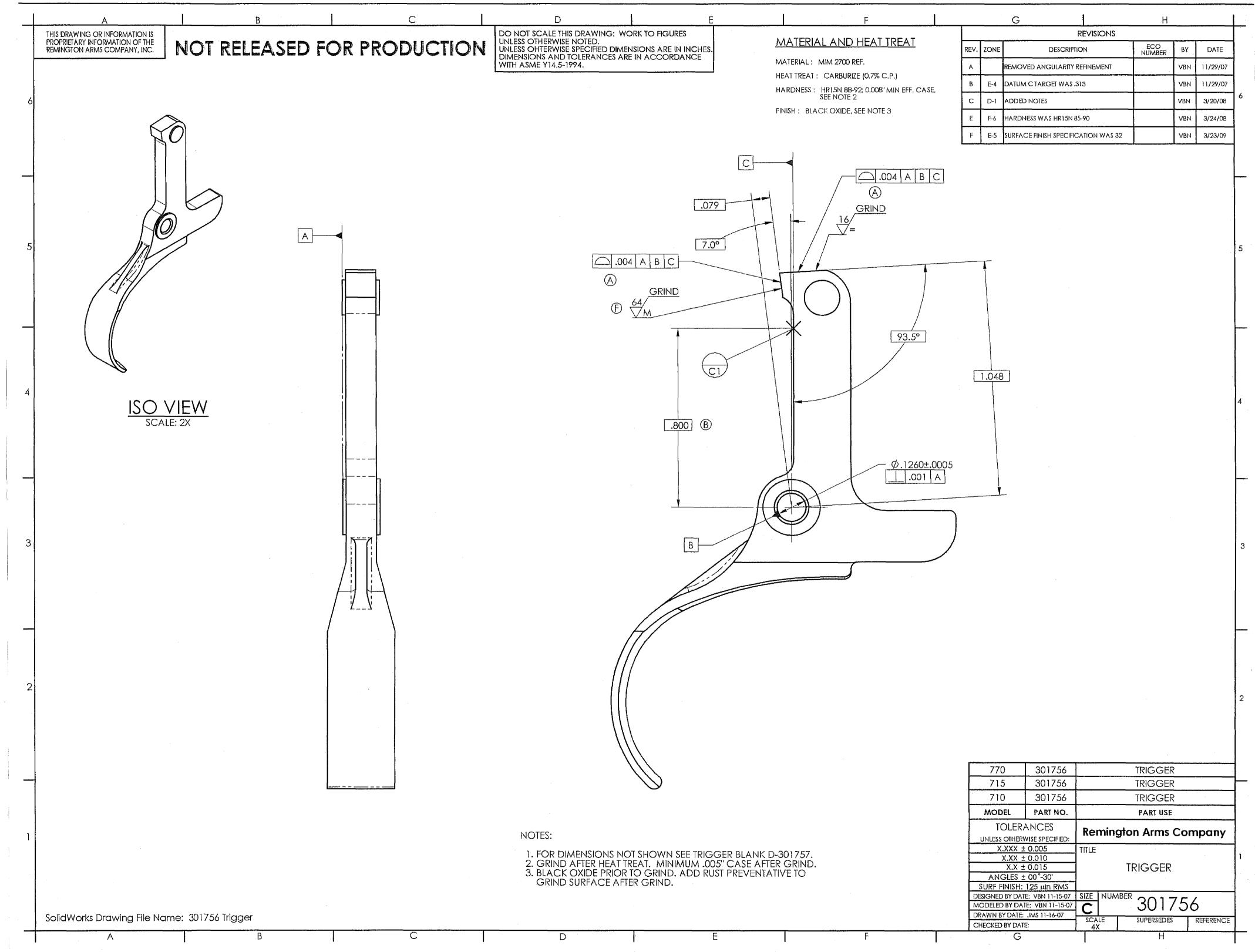
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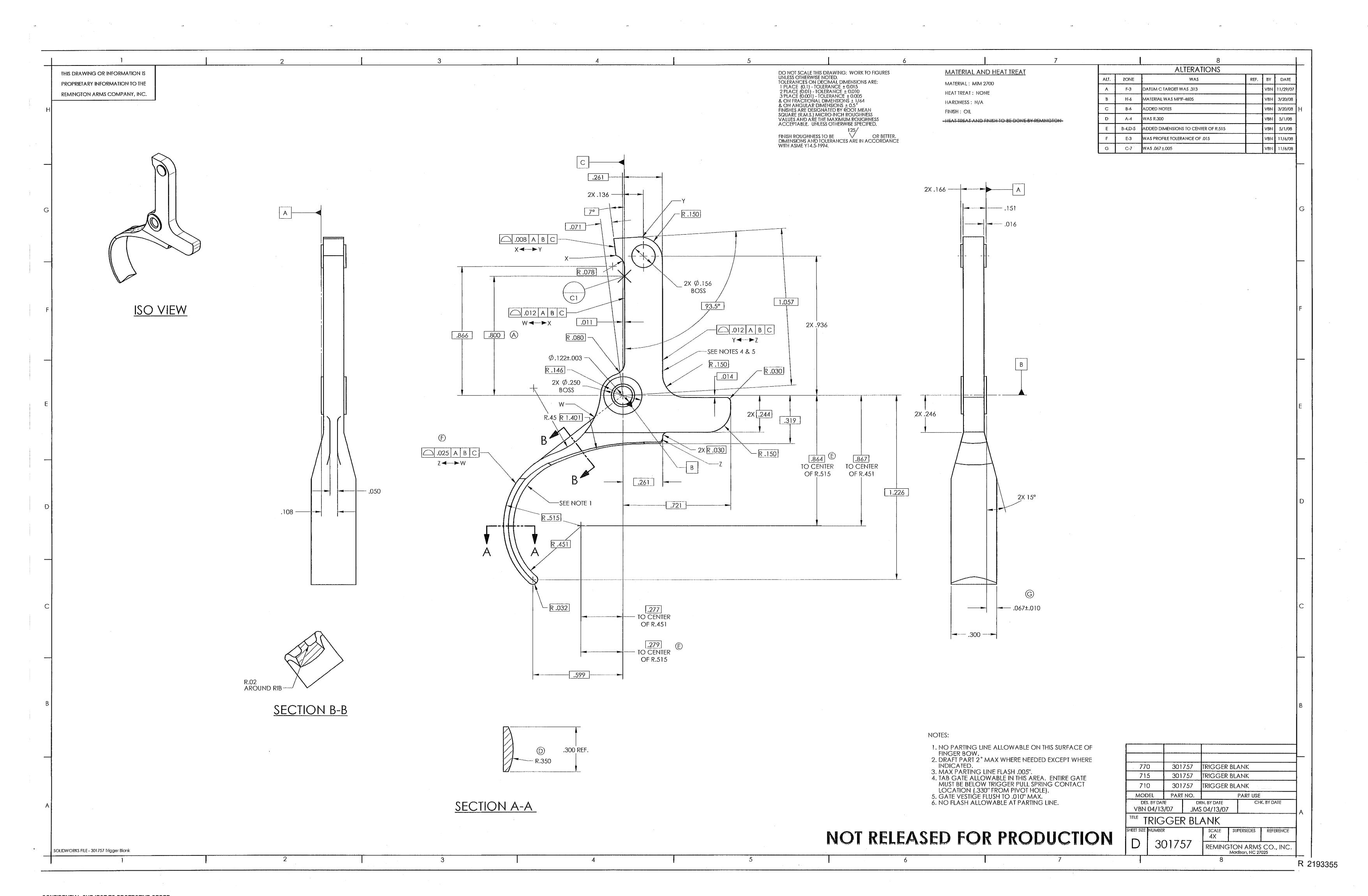












Product Team Meeting Agenda
Thursday, July 13th 2006 2:00 pm – 3:30 pm EST – Conference Call (877) 326-2337
Conference ID # 8866746

Future Meetings

August 16th – Ilion September 12th – Ilion

Future Important Dates

2007 Writer's Seminar, Primland Preserve
2007 Sales Meeting, Greensboro, NC
2007 SHOT Show, Orlando FL

Oct. 16th- 18th
Nov. 1st – 3rd
Jan. 11th – 14th

2006 New Products (Perniciaro/Mead/Kast)

750 Woodsmaster

o Currently working with vendor of magazines to "tweak" feed lips to prevent feeding issues/jamming.

6.8mm Rem SPC

- o Accuracy issues with Hornady ammo most recently tested
- o Get with Ammo and discuss accuracy concerns further

• 1100 G3

- Interceptor latch issues need to be addresses
- o Should receive guns from Linda's Argentina hunt to evaluate
- o Guns not feeding when magazine is fully loaded
- o 20 ga. 28" guns to be built in Aug.

New Pump Action Shotgun (Diaz/Murphy/Perniciaro)

- Internal/functional parts designed
- Overmold bbl due on July 26th
- Aesthetic design due from Zunda week of July 17th

Synthetic Short Stock Program (Mead)

Tooling due August 8th

New Autoloading Rifle (Diaz/Stone/Perniciaro)

Prototype model from Zunda (aesthetic) sent to E-town July 12th

SPL Conversion (Mead/Diaz)

- Phase in begun
- Will name trigger—marketing campaign for 2007
- Issues with 1lb. pull range (3.5-4.5) can we do it, feasibility?
- 40-X Externally Adjustable Version: EET complete 8-15 and DET 12-07

New Extractor Design (Mead/Kast/Perniciaro)

- Three versions: 710, 700 & SEVEN—MAGNUM AND STD.
- MIM Part, Fatigue/failure concerns
- Sample due Monday July 17th
- On track for 2007 intro

New Recoil Pad (Diaz/Franz)

- Concerns about bubbling around Remington lettering
- Solvent testing/evaluation
- Schedule visit with Vendor for evaluation

Additional information:

- 870 Common Bbl. stamping agreed upon
- Concerns about 2 ¾ only bbls, and police guns need to be addressed
- Labor process-application agreed upon for black oxide fluting on stainless varmint bbls.
- SPS Varmint stock design a go ahead with mild revision to recessed line on fore-end where beavertail flattens out in grip area. Sent back to ILN on 7-14-06.
- Titanium Line for 2007
- · Concerns over cost of Titanium doubling
- 6mm BR gun on hold because of availability of ammo
- H.S Precision stocks supply concerns

2007 New Products -Review (Trull)

- 750 Synthetic (Mead)
 - o Status
- 870 SPS & Express SYN Monitor phase in closely
 - o Status
- 700 CDL SF (Mead)
 - o Status
- New "Max-Gobbler" 870 with Knoxx Spec Ops camo stock and Hi Viz "Tri Vis" sight. (Leskovar)
 - o Status
- 700 Titanium Update to Line
 - o Status
- .17 Remington Fireball New Caliber Intro (Haskin)
 - o Models to include for '07:
 - 700 CDL SF LTD commemorative edition with fine line engraved floorplate for cartridge introduction
 - Seven CDL
 - 700 SPS
 - 700 VSF

- 700 SPS—Varmint line
 - o Status
- 700 SPS—Buckmasters line
 - Camo Stock Engraved Floorplate
- XR-100 6MM BR Caliber Addition
 - o Status
- 700 XCR RMEF LTD ED 2007 (Leskovar)
 - o Status
- Model Seven XCR Camo Fluted (Mead, Doolittle)
 - Status
- 700 XCR Additional Calibers
 - o .25-06 and 7mm-08
 - o Submit NPP's and SKU requests
- · Refinements to tactical shotgun line
 - o 1100's same but drop OD Green paint
 - 870's same but drop OD Green paint and 26431—Add 2 Folding stock models
 - o Feature on Spring program
- 7615 Tactical model w/Knoxx Spec-Ops stock
 - o Possibly add 7615 Hunter models (wood), and Full Camo
 - o Submit NPP's and SKU requests
- 870 Express 7-shot (EXT-2) 20 ga. Like the 25077
 - Submit NPP and SKU requests
- 870 XCS Series
 - 870 Marine Mag. XCS—870 XCS WF—870 XCS Standard
 - o Submit NPP and SKU requests
- SP-10 Camo Thumbhole Turkey gun
 - o 23" bbl w/Williams Fire Sights
 - o Choke Tube—Patternmaster?
 - Submit NPP and SKU requests
- 11-87 Super Mag XBL 23" FR CL
 - o Submit NPP and SKU requests

Ilion Manufacturing Topics

- 870 Commonality Barrel/Receiver (Pugliese)
 - o Common bbl stamping agreed upon

- Sendero/Varmint Stocks (Mead/Balio/Trull)
 Discuss long-term strategy with H.S. and potential to relieve some dependency
 - Identify possible alternative sources

Product Team Meeting Agenda

Wednesday August 30th, 2006 7:30 am - 12:00 pm EST - Ilion State of Business Review

Future Meetings

September 20th - Conference CALL

Future Important Dates

2007 Writer's Seminar, Primland Preserve	Oct. 16 th - 18 th
2007 Sales Meeting, Greensboro, NC	Nov. 1 st – 3 rd
2007 SHOT Show, Orlando FL	Jan. 11 th – 14 th

Discuss Importance of Samples

Distributed Sample Needs Spreadsheet to Sales and Press Relations -- will communicate those needs to Ilion Manuf. Via updated spreadsheet

Ilion Topics

105 CTi Update (Perniciaro, Orf, Morris, Diaz)

- 20,000 copies of Owner's manual printed (Go ahead with current version)
- Widen fore-end (thicker wood) at critical cracking location
- 80/day production forecast for September—100/day production rest of year
- Work on Acton Sleeve issues causing gas pressure loss
- Increase diameter of extractor pivot pin to prevent breakage
- Use heavier return spring on fire control
- Some form of Employee purchase program on test 105 guns??
- Explore additional Models/Configurations for future production 105's

New Pump Action Shotgun (Diaz/Murphy/Wilks/LeMay/Trull)

- 0.079" Overmold on barrel
- Make fore-end more streamlined—smaller with ribs lower/smaller less abrasive
- New solid model prototype within 2-3 weeks
- Stay on current timeline (although will not introduce at 2007 SHOT Show)
- Will launch on Spring Program (Sept. 2007) for a 2008 intro
- Correct issues with overmolding barrel process
- Use Rem-Choke System (0.727 bore diameter)
- Explore possible Modular Stock design

Synthetic Short Stock Program (Wilkes)

- New Samples in within 2-3 Weeks
- 1st week of October parts in house?
- Phase In timeline to be completed 9-05-2006
- Product samples by September 30th

New Autoloading Rifle (Diaz/Stone/Doolittle/LeMay)

- Basic functional design finalized (shoots multiple times)
- Use Sako Style extractor
- · Uses gas block screwed to gun, not brased
- E-town to deal with heavy wood stock (trim down to reduce weight of gun)
- .30-06 Sprg. And .300 Win Mag to be introductory calibers
- On schedule for March 2008 production?

Model 547 Rimfire

- RAMAC's and NPP issued for Sporter version.
- Status of transferring from Mayfield to Ilion
- Production strategy at Ilion
- Status of S&K stock
- Status of new bolt handle
- Confirm specifications.

XT-Pro Fire Control (aka SPL) Conversion ((Doolittle/Diaz)

- After much brainstorming: Now calling this the X-MARK Pro
- 3.5lb-5.5lb pull setting from factory (try to get to a 1lb range)
- Will not be available in new Model 770 (Mayfield) until 2008
- Include in catalog for 2007 market heavily—Better, crisp trigger, etc.
- Timeline for 40-X Adjustable version?

New Extractor Design (Kast/Perniciaro)

- Function test worked great with 6.8mm SPC 500+ rounds 2 failures
- Not yet ready for mass production—more testing needed
- Focus on developing at the extreme ends (UMag, and small .223)
- Focus on development timeline for Spring 2008 and SHOT Show 2008 intro.

New Recoil Pad (Diaz/Franz/Aiello)

- First Prototypes made—More testing needed
- Approx. \$2.50 per pad cost vs. \$5-\$9 cost for Limbsaver pads
- Similar feel and perceived recoil reduction?
- Vendor selection?

R3 Recoil Pad (Aiello)

- Pricing for 2007
- Long Term plan with vendorR3 vs. new pad Establish direction

Box Inserts/Packaging (Shumway)

- · Higher density inserts now being used across entire line
- Need to explore alternative "environmentally friendly" methods for packaging—Wal-Mart driving towards this trend

2007 Deletions - First Cut Review (Trull/Lasley)

• Preliminary list e-mailed at PTM

New Custom Shop Initiatives (Trull/Butler/Perniciaro)

 Meeting with Don C., John T., Brian L., Joe G., Steve P., and Tim B. many initiatives and new ideas discussed, work on brochure, discuss timeline, initiate follow-up meeting in future??

2007 New Products

- · Update new products brief within next week and distribute
- Go over sample needs for all 2007 new products (spreadsheet)— Wilkes, Bailo, Trull, Lasley future meeting about this

Ilion Manufacturing Topics

- 870 Commonality Barrel/Receiver (Pugliese)
 Common barrel-receiver roll decided upon @ meeting
- Fluting Capacity
 - o Discuss capacity concerns
 - o LTR Style Fluting

Mayfield Topics

504-T LS HB 17 HMR (Diaz/Lance)

• Current status with Shilen Barrels

Model 770 Modular Stock Project (Lance/Diaz/Trull)

- Review status and timing.
- Model 710 Performance Improvements (Trull/Diaz/Lance/Vicars)
 - Difficult to open/close bolt
 - Magazine latches breaking

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- Uses gas block screwed to gun, not brased
- E-town to deal with heavy wood stock (trim down to reduce weight of gun)
- .30-06 Sprg. And .300 Win Mag to be introductory calibers
- On schedule for March 2008 production?

Model 547 Rimfire

- RAMAC's and NPP issued for Sporter version.
- Status of transferring from Mayfield to Ilion
- Production strategy at Ilion
- Status of S&K stock
- Status of new bolt handle
- Confirm specifications.

X-Mark Pro Fire Control (Formally SPL) (Doolittle/Diaz)

- After much brainstorming: Now calling this the X-MARK Pro
- 3.5lb-5.5lb pull setting from factory (try to get to a 1lb range)
- Will not be available in new Model 770 (Mayfield) until 2008
- Include in catalog for 2007 market heavily—Better, crisp trigger, etc.
- Timeline for 40-X Adjustable version?

New Extractor Design (Kast/Perniciaro)

- Function test worked great with 6.8mm SPC 500+ rounds 2 failures
- Not yet ready for mass production—more testing needed
- Focus on developing at the extreme ends (UMag, and small .223)
- Focus on development timeline for Spring 2008 and SHOT Show 2008 intro.

New Recoil Pad (Diaz/Franz/Aiello)

- First Prototypes made—More testing needed
- Approx. \$2.50 per pad cost vs. \$5-\$9 cost for Limbsaver pads
- Similar feel and perceived recoil reduction?
- Vendor selection?

R3 Recoil Pad (Aiello)

- Pricing for 2007
- Long Term plan with vendorR3 vs. new pad Establish direction

Box Inserts/Packaging (Shumway)

- · Higher density inserts now being used across entire line
- Need to explore alternative "environmentally friendly" methods for packaging-Wal-Mart driving towards this trend

2007 Deletions - First Cut Review (Trull/Lasley)

Preliminary list e-mailed at PTM

New Custom Shop Initiatives (Trull/Butler/Perniciaro)

 Meeting with Don C., John T., Brian L., Joe G., Steve P., and Tim B. many initiatives and new ideas discussed, work on brochure, discuss timeline, initiate follow-up meeting in future??

2007 New Products

- Update new products brief within next week and distribute
- Go over sample needs for all 2007 new products (spreadsheet)— Wilkes, Bailo, Trull, Lasley future meeting about this

Ilion Manufacturing Topics

- 870 Commonality Barrel/Receiver (Pugliese) Common barrel-receiver roll decided upon @ meeting
- Fluting Capacity
 - o Discuss capacity concerns
 - LTR Style Fluting

Mayfield Topics

504-T LS HB 17 HMR (Diaz/Lance)

Current status with Shilen Barrels

Model 770 Modular Stock Project (Lance/Diaz/Trull)

Review status and timing.

Model 710 Performance Improvements (Trull/Diaz/Lance/Vicars)

- Difficult to open/close bolt
- Magazine latches breaking

Product Team Meeting Minutes Thursday, Nov.16th, 2006

Future Meetings

December 2006 PTM-- Wed, Dec. 13th - Ilion

Future Important Dates

2007 SHOT Show, Orlando FL Jan. 11th – 14th

Ilion Topics

New Pump Action Shotgun (Diaz/Murphy/Wilks/LeMay/Trull)

- Marketing plans to intro entire family of guns simultaneously (or as close as possible within reason)
- Two Black Guns—One 28" bbl and one 26" bbl
- One Full camo 28" bbl Waterfowl gun
- One Full camo 23" bbl Turkey gun

Current Status/Progress as follows:

- Extractor making contact with extractor cut, and locking lug making contact with receiver, working to correct
- Redesigning carrier (will be complete by months end)
- Oversized Recoil pad—6 drawings sent to Alton
- Action Bar release tab in design phase
- Mag tube alteration/design—crimp to retain magazine follower
- Parts due by February for DAT
- T&P testing by end of March—early April
- 1st production hopeful by end of May
- Marketing to work up NPP's and SKU's

New Autoloading Rifle (Diaz/Stone/Wilks)

Current Status/Progress as follows:

- Zunda design recoil pad OK
- Two EET guns (.30-06 Sprg. And .300 Win Mag)
- Have successfully had guns to cycle in testing
- Magazine box on track to be complete by year end
- · First iteration of prototype almost complete
- Need to drop test with fire control (roller sear type like on 105)
- Working on stronger fixed ejector part—either a MIM, or Investment Cast part

R 2193368

New Autoloading Shotgun (Haskin/Perniciaro)

Current Status/Progress as follows:

- Capital request not yet approved—revise and clarify how-where-money is going to be allocated and spent—timeline, etc.
- Possible contract with Zunda Design Group again for cosmetic renderings
- Waiting on working prototype from "Italians" as part of initial agreement

Synthetic Short Stock Program (Wilks)

Current Status/Progress as follows:

- Three months behind on project
- Visit scheduled for later this week—early next week to assess process repeatability with current vendor
- Assess capability of current vendor to produce a working prototype/sample
- Maybe look for alternative vendor

New Recoil Pad (Franz)

Current Status/Progress as follows:

- R4 (Jones) pads more durable and just as much recoil reduction as new Limbsaver NavCom 4 pad
- R4 pad much more cost effective

Synthetic "Turkey" Thumbhole Stocks (Trull/Lasley/Wilks)

- Marketing to work up NPP and SKU for stock only
- Assess viability of Ardessa to produce a Synthetic thumbhole stock similar to the Genesis Thumbhole stock that will fit 11-87's and 870's

Model 750 Update (Perniciaro/Kaempe)

Current Status/Progress as follows:

- Future production: 650 units—Nov. 1500 units—Dec. 900 units—Jan.
- Danny Evans and Bob Longo to put together field service plan
- Follow up with Accessories Dept. to discuss current mag boxes already at retail
- Issues: Proper feed lip geometry, Shell retention, Latch height settings (proper shell coverage)
- Plan to move release point forward in mag box
- Need—"good components, good mag boxes, and proper training of employees assembling the guns"
- Currently 5% acceptable malfunction rate

X-Mark Pro Trigger (Trull/Lasley/Doolittle)

Current Status/Progress as follows:

- On schedule to receive first proof from Brothers—11/22/06
- Currently on schedule to have with all advertised firearm SKU's for 2007
- 34 cutaway samples on the way for sales staff and SHOT Show

Real Wood Samples (Orf)

- Cut-away for sales staff (will have ASAP)
- Pull some from scrap inventory

Tri-Nyte Barrel material samples (Sietsema)

- Cut-away for sales staff (will have ASAP)
- Pull some from scrap inventory

New Model 700 VTR (Kaempe)

- NPP submitted by marketing (Matte finish OK per marketing)
- Tony to test for accuracy
- ¾ lb. weight reduction (per fluting) compensated muzzle rise with muzzle break/ounterbore

Need for New Model 700 Cutaway (Trull/Lasley)

- Current Catalog Photo is Outdated
- Need new Cutaway with X-Mark Pro Trigger
- Would like New CDL SF
- Ilion will work on project and try to have one by SHOT show (early Jan.)

Discuss return to High-Polish "Buff" Blue (Perniciaro)

Current Status/Progress as follows:

- Want to Investigate High Luster "Buff" Finish on BDL's and other high polish blued rifles and shotguns
- RE-Design Almco racks
- Produce cost/timeline, etc. by 1st week of December (could discuss at next PTM)

<u>Discuss 17 Remington Fireball Chamberings (Haskin)</u>

Current Status/Progress as follows:

- Writer's Seminar guns and DAT guns due by 2nd week of December should be available for delivery by year end
- Working on "Receiver Issues"

Other notes:

New .223 Extractor system should be ready during 1st quarter of 2007 with better design, will be working on testing prototypes

Mayfield Topics

Model 770 New Stock (Lance)

Current Status/Progress as follows:

- On track to have stocks ready for SHOT Show samples
- Working on Shorter Camming stroke—firing pin movement—indent concerns
- 11-21-06 first shot off new tool due
- Mid December second shot off new tool due and off to E-Town for testing (will not have texturing
- Final approval (with texturing) due by January 2nd

Model 597 Magnum Bolts (Lance)

Current Status/Progress as follows:

- 500 units in now
- 900 units due from vendor Thanksgiving Week

Model 597 "Race" Target Rifle (Trull)

- Sample stock sent to Trull by Boyd's
- More samples enroute—2 ea. of 6 different colors to be sent to Madison
- Shilen barrel
- Volguartsen target hammer
- Upon receipt of stocks—Marketing to create NPP's for possible new 597 introduction

Model 597 Syn Stock Redesign (Trull)

- Get project going by early 1st quarter of 2007 to be on track for a timely introduction in 2008
- Possibly consult with Zunda Design Group for stock re-design

Product Team Meeting Minutes Thursday, Nov.16th, 2006

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December 2006 PTM--

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R 2193373

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- Volquartsen target hammer
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Model 597 Syn Stock Redesign (Trull)

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- Possibly consult with Zunda Design Group for stock re-design

Product Team Meeting Minutes
<u>Wednesday, December 13th, 2006—</u>7:30 am – 12:00 pm EST – Ilion

Future Meetings

February 21st, 2007 March 22nd, 2007

Future Important Dates

2007 SHOT Show, Orlando FL

Jan. 11th – 14th

Importance of Samples:

Come up with plan to streamline sample firearm process as new resolution for 2007

Ilion Topics

New Pump Action Shotgun

- EET tests going great on bbls so far—need to do "blow up" test
- Plastic overmolding holding up well, barrel stays cooler when rapid firing
- Change bbl length on Turkey gun to 24"
- T&P testing by Late April—early May
- 1st production run hopeful by Late July—Early August
- 20,000 guns produced by end of year
- Hi-Viz working on integrated front sight system for all guns
- X-tra long recoil pads contoured for precise shoulder fit performed well

New Autoloading Rifle

- Waiting on prototype parts for Magazine box
- First iteration of prototype almost complete
- Drop test with fire control (roller sear type like on 105) set at 3.5 to 4 lbs
- Working on stronger fixed ejector part—either a MIM, or Investment Cast will test mid--December

New Autoloading Shotgun

- Possible contract with Zunda Design Group again for cosmetic renderings
- Waiting on working prototype from "Italians"
- Capital request approved

Synthetic Short Stock Program

- Fix cooling fixture issues
- 750 Synthetic stocks due by end of February
- · Recoil pad fitting correctly

New Recoil Pad

- Recoil pads testing—recoil reduction comparable to R3
- Wears better that R3 pad

Model 750 Update

- Assembly manual complete—implementation to RARC's and assembly
- All new assembly working under guidelines from assembly manual
- Coordinate with Arms service to correct magazine box issues
- Continue to work to correct—Proper feed lip geometry, Shell retention, Latch height settings (proper shell coverage)

X-Mark Pro Trigger

- Model Seven Triggers currently in T&P
- X-Mark Pro Hang Tag final copy approved for implementation
- Implementation into LE?
- Cost of implementation into 710-770 line—look for alternatives
- 400-500 Day current production

Discuss Model Seven "Whitetail"

Updated NPP—Deleted .338 Federal

Real Wood Samples Have received samples for sales staff

Tri-Nyte Barrel material samples Will have the samples done in Black PVD

 Sample guns for SHOT Show—lonBond currently working on repeatable process with regard to coverage/color consistencies

New Model 700 VTR

- Enhanced recoil reduction due to integrated muzzle break
- OD green stocks for guns with Black overmold technology
- First run green prototype looks good

Need for New Model 700 Cutaway

Will get together ASAP—Model 700 CDL SF .30-06

Discuss return to High-Polish "Buff" Blue

- Need to work up NPP with specifics (Marketing)
- RE-Design Almco racks 3-4 month process \$8-9,000 investment
- Project feasible for certain firearms

Discuss 17 Remington Fireball Chamberings

- Writer's Seminar guns and DAT guns—Due by end of December
- Warehouse position for SPS-CDL-VSF-SPS-Varmint by late February and Model Seven CDL by March

New .223 Extractor System

Current status—March-April status update

Serial # Masking process

- Need to generate Short term, Medium, and Long range plans for this issue
- Mask of area—etc.

105 status/update

- MTD—December-508 guns produced (as of 12-13-06) Shipped 1,024 (500 to Europe)
- 26" guns--T&P Started
- Gating issue with PTI gluing on barrel ribs (beginning new process currently) may be able to produce 100/bbls/day
- Current production 70/day
- First steel rib design 1/4lb weight difference
- Try steel cast receivers in current waxes
- New configurations for 2008 based on above findings

Product Team Meeting--MINUTES <u>Tuesday, February 20th, 2007—</u>7:30 am – 12:00 pm EST – Ilion

Future Meetings

Thursday--March 22nd, 2007

Future Important Dates

2007 NRA Show--St.Louis, MO

April 13th - 15th 2007

Ilion Topics

New Pump Action Shotgun—Model 887

- Bolt guidance system updated
- Need to make adjustments for rounds feeding from mag tube
- .727 bore—barrel extension design
- Rotating bolt with offset lugs
- Hi-Viz sight system being finalized with different models for Deer/Turkey
- Use X-tra long "Jones & Vining" recoil pads contoured for precise fit
- Review planned SKU's for product introduction
- Coordinate introduction with Production tooling need timeline for introduction

New Autoloading Shotgun

- Using Carlo's gas system on shotgun platform
- Working on Aluminum (cast or machined) receiver
- Tentative first production 5-30-08 to 7-24-08
- Warehouse release 9-19-08
- 2009 SHOT Show introduction

New Autoloading Rifle

Work in Progress

Synthetic Short Stock Program

- Fix cooling fixture issues—Progress update
- 750 Synthetic stocks due by end of April or early May 2007

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u>

- New NPP possibilities for 2008
- Marketing posted NPP's for use in 2008
- E-Town working on possible Ambidextrous design
- \$30-35 K tooling

New Recoil Pad—"Jones & Vining"

- "Field" test by Marketing—found pads to be comparable in "felt/perceived" recoil (as related to same recoil with current R3 pad)
- Timeline/implementation into new products
- Marketing posted NPP to begin implementation process
- Use Long "Jones & Vining" pad on New model 887 (Synthetic Pump)
- Need to work on "Wood Stock" model/design
- Savings of over \$750 K over use of current R3 recoil pad

Model 750 Update

- Vendor (Metgar) corrected magazine box issues
- Gallery reject rate improving
- Some models having ejector issues—bolt carriers cracking on some
- Coordinate with Arms service to correct magazine box issues
- Continue to work to correct—Proper feed lip geometry, Shell retention, Latch height settings (proper shell coverage)

X-Mark Pro Trigger

- Model Seven Triggers currently in T&P—Progress update
- Implementation into LE?
- Need to begin implementation of X-Mark Pro Hang Tags on applicable guns leaving factory
- Marketing has posted an NPP for the 40-X-Mark Pro trigger

Discuss return to High-Polish "Buff" Blue

- RE-Design Almco racks 3-4 month process \$8-9,000 investment
- Marketing has posted NPP's for applicable firearms
- To begin in July-2007

Discuss 17 Remington Fireball Chamberings

- Writer's Seminar guns and DAT guns—Should ship by Mid March
- Warehouse position for SPS-CDL-VSF-SPS-Varmint by late February and Model Seven CDL by March

New .223 Extractor System

Assigned to new engineer-Work in progress

Serial # Masking process

- Currently working with Camo vendors to resolve issue
- Maybe move to a M7400/M7600/M750 type serial # roll positioning

Barrel Rib Matting process

Marketing has posted NPP with specifics (See NPP 2007-105)

"Plastic" mag cap implementation on 870's

Marketing needs to see examples of available options for implementation

105 status/update

- For the time being use current Bradley style front sight with insert
- Work towards implementation of new steel rib with brass mid bead and white bead front sight
- Introduce "105 Sporting" and "105 Trap" Models
- Marketing has posted NPP's for above models

<u>Ultimate Firearms Muzzleloader</u>

- Discuss possibilities—Work in progress
- Possible break action-Switch barrel design

Product Team Meeting Agenda

Wednesday, April 25th, 2007-7:30 am - 12:00 pm EST - Ilion

State of Business Review—Don Campbell

Future Meetings

Wednesday, May 23rd, 2007 ??

Ilion Topics

New Pump Action Shotgun—Model 887 (LeMay/Diaz)

- Discuss Progress thus far/production timeline
- Currently 4 SKU's planned for product launch
- Marketing plans to launch at this years Writers' & SHOT Show

New Autoloading Shotgun (Haskin)

- Progress/Update thus far
- 2009 SHOT Show Writers' Seminar Introduction
- Marketing Reviewed Zunda design cosmetics in Madison

New Autoloading Rifle (Diaz/Wilks)

Discuss progress/update timeline

Synthetic Short Stock Program (Wilks)

- Discuss progress update timeline
- Discuss Model 750 Synthetic—Production

2008 Preliminary Line Review (Lasley/Trull)

- Review proposed products for Spring Program
- Discuss production plan for Spring products
- Review remaining proposed products for 2008

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Lasley/Wilks)

- Review progress thus far/update timeline
- Discuss NPP's posted by Marketing for 2008 lineup
- Marketing review of most current prototype

New Recoil Pad—"Jones & Vining" (Wilks)

- Discuss Progress/Timeline/Implementation into new products
- Discuss progress of "Wood Stock" model/design
- Goal is to have full line of pads available by year end 2007
- "The new R3 SuperCell"_with patented SuperCell technology

X-Mark Pro Trigger (Doolittle)

- Discuss progress of 40-X-Mark pro trigger
- Discuss progress of X-Mark pro thus far

Discuss return to High-Polish "Buff" Blue (Sietsema)

- Discuss Progress thus far
- Model 700 BDL guns, and 3 SKU's in Model 700 CDL line

New Extractor System (Perniciaro)

ON HOLD

Serial # Masking process (Pugliese)

- Discuss progress thus far
- Timeline plan for implementation

Barrel Rib Matting process & Common front bead (Pugliese/Lasley)

- Discuss progress thus far and phase in process
- Discuss which guns will have Drilled & Tapped receivers

Model 1100 "Premier" Sporting Series (Pugliese/Lasley/Trull)

- Discuss progress with Roll-Mark initial design
- Discuss cosmetics—Nickel/Teflon coating on receiver/gold inlay

"Plastic" mag cap implementation on 870's (Perniciaro/Pugliese)

• Discuss current options

- Marketing needs to see examples of available options for implementation
- Plan to have on Model 887 only

105 status/update (Perniciaro/Pugliese)

- Discuss progress-status of project
- Gallery pass/fail rate
- Barrel rib vendor issues
- Discuss other gating issues of project

<u>Ultimate Firearms Muzzleloader</u> (Trull)

- Discuss possibilities—Options
- Possible break action-Switch barrel design
- Drawing package issues—need update to cost out production

Mayfield Topics

New 597 Stock Program

- Postponed until 2008 to incorporate redesign of trigger housing tool at same time
- Youth model options

Model 770 Production Status

- Discuss current options—price structuring as relates to volume
- Discuss progress of M770 STAINLESS

Simmons Scope

- Determine if worth pursuing or not
- Discuss status of possibilities for use with M770

Product Team Meeting Minutes

Wednesday, April 25th, 2007—7:30 am - 12:00 pm EST - Ilion

State of Business Review—Don Campbell

Future Meetings

Wednesday, May 23rd, 2007 (Conference Call) Wednesday, June 13th, 2007 - Ilion

llion Topics

New Pump Action Shotgun—Model 887 (LeMay/Diaz)

- Parts procurement on track thus far (Hi-Viz a little behind schedule)
- Barrel support out of tolerance and guide ring for magazine tube out of tolerance—need to assemble and review status
- Plastic Magazine cap due end of May-1st of June—can use current Model 870 metal cap for time being
- Discuss Receiver Markings—long panel on shooters left side—short panel on ejection port side "887 Super Magnum"—Removable panels for possible customization of guns for Conservation groups, etc.
- Discuss Trigger Bow—hole opened up to increase clearance
- Notch cut in bottom of Fore-end (like on M7600)
- DAT Testing should begin around 7-03-2007
- Should begin building guns in May-June timeframe
- T&P Testing October-November—Complete by early November
- Warehouse position set for February 2008
- Review Current Cost Estimate
- Marketing plans to launch at this years Writers' & SHOT Show

New Autoloading Shotgun (Haskin)

- Progress/Update thus far
- Build guns Mid May—Complete EET Mid June
- T&P Testing to begin in June 2008
- First production by October 2008
- Drawing done for TPA—current TPA to be put in EET gun
- 3.5" and 3" orifice holes being positioned and tested in lab
- Barrel Ext., Gas Cylinder Bolt body and head and Receiver done
- 2009 SHOT Show Writers' Seminar Introduction
- Marketing Reviewed Zunda design cosmetics in Madison

New Autoloading Rifle (Diaz/Wilks)

- Discuss progress/update timeline
- Will go forth with "Spring loaded" ejector—ram rod ejector did not work
- Should be able to produce example receiver in house with existing machinery
- Ilion met with Vendors week of April 2nd to discuss parts/components—costs reduced by \$50 unit
- EET extended to Mid May to proof ejection process—Will run in paralled with DAT testing
- Need the rest of the CAR approved before project can be taken to the next step

Synthetic Short Stock Program (Wilks)

- Discuss progress update timeline
- Discuss Model 750 Synthetic—Production Monte Carlo design at OMP first parts due in next week—production schedule will be due Mid May
- Production will move to Oneida Molded Plastics (OMP)—once tooling is at OMP they should be able to have a sample done in 2 weeks
- Ambidextrous Thumbhole design to coincide with new Synthetic short stock designed fore-end—need to coordinate this with vendor for spring program needs

2008 Preliminary Line Review (Lasley/Trull)

- Reviewed the 2008 Marketing Plan with Manufacturing
- Reviewed 2008 Deletions with Manufacturing

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Lasley/Wilks)

- Review progress thus far/update timeline
- 13 weeks out--\$15K (approx) Tooling for stock
- Will match the current short stock design for fore-end standardization

New Recoil Pad—"Jones & Vining" (Wilks)

- Discuss Progress/Timeline/Implementation into new products
- Will have full line of pads available by year end 2007
- "The new R₃ SuperCell" with patented SuperCell technology
- Need to get Trademark Approval from Legal—Marketing to advise

X-Mark Pro Trigger (Doolittle)

- Discuss progress of 40-X-Mark pro trigger (on track)
- For 2008 install in all Model 700 SPS Varmint guns
- Install in all "Varmint" style production guns for 2008—possible??
- 100 Left-Hand models made an need testing
- Marketing to discuss implementation into entire M700 line for 2008 (must consult with Legal—will notify Manufacturing ASAP)

Discuss return to High-Polish "Buff" Blue (Sietsema)

- Discuss Progress thus far
- Model 700 BDL guns, and 3 SKU's in Model 700 CDL line
- Will high Polish bolt plug and bolt handle also
- 15 weeks out on project

New Extractor System (Perniciaro)

ON HOLD

Serial # Masking process (Pugliese)

- Discuss progress thus far
- Masking process samples reviewed—\$0.25 ea.
- Timeline plan for implementation

Barrel Rib Matting process & Common front bead (Pugliese/Haskin)

- Discuss progress thus far and phase in process
- NEW Sights to be delivered by end of May (June production)
- High polish will have re-milled diamond pattern
- Express-Sportsman guns will have "Fish" pattern
- Discuss which guns will have Drilled & Tapped receivers

Model 1100 "Premier" Sporting Series (Pugliese/Lasley/Trull)

- Discuss progress with Roll-Mark initial design
- Marketing to discuss plan for new roll-mark design/cosmetics
- Discuss cosmetics—Nickel/Teflon coating on receiver/gold inlay

Elast-a-Tag Project (Lasley/Trull/Perniciaro)

- Discuss Status
- OK on X-Mark Pro tag—will implement on all applicable firearms
- Implement common "Remington" tag on ALL shotguns and rifles
- Review Testing Data—passed all manufacturing tests

105 status/update (Perniciaro/Pugliese/Keeney)

- Increased bolt velocities by an average of 20-30 in./sec. with new 2 piece modified 1100 revised inner and outer seal system
- Bolt velocities need to be in the 120-130 in./sec. range for reliable cycling of the "light 8's" loads
- Gallery pass/fail rate on a sample of 26 guns went from 50% failure with "light 8's" with old seal system to a 15% failure rate with new revised "1100" seal system
- Gas Cylinder mis-alignment issues causing power failures in some instances
- Need to confirm reliability of new 2-piece action seal system (Endurance Evaluation)
- Continue to improve and evaluate barrel assembly manuf.
- Process change for lubrication (using Rem-Oil)
- 500 pieces of NEW Action Sleeve Seals will be ready in about 1 Week
- Discuss other gating issues of project: Investigate causes of lower frequency Gallery rejects such as; LO, EDS, DE, DE-AC, SM, AND AB
- Current guns being shipped out have 40 rounds put through them in the Gallery testing procedure—only guns that pass the Gallery test are currently being shipped
- 105's that are "Shaving Plastic" off of the spent rounds need to be sent back to the factory for a replacement TPA
- 2 week hiatus on shipping guns to OHL
- Stock spacer system ¼" spacers (3 of them) to be included with the standard LOP of 14 ½" adjust up to a maximum of 15 ¼" LOP—to be included with New 105 Sporting/Trap guns

<u>Ultimate Firearms Muzzleloader</u> (Trull/Perniciaro)

- Discuss possibilities—Options
- PROJECT CURRENTLY ON HOLD
- Possible break action-Switch barrel design
- Drawing package issues—need update to cost out production

Mayfield Topics

New 597 Stock Program

- Postponed until 2008 to incorporate redesign of trigger housing tool at same time
- Youth model options

Model 770 Production Status

- Discuss current options—price structuring as relates to volume
- Discuss progress of M770 STAINLESS

Simmons Scope

- Determine if worth pursuing or not
- Discuss status of possibilities for use with M770

Product Team Meeting Minutes Conference Call—

Thursday, May 24th, 2007—7:30 am - 11:00 pm EST - Ilion/Madison

Future Meetings

Wednesday, June 12th, 2007

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney)

- Working on improving bbl assembly process: ie, improve gas cylinder dimensional characteristics—centerline relative to bbl—maintaining "positional" balance
- New bolt buffer material and bolt stop toggle being tested
- Working on improving DSMO percentage of failures
- Part #'s changed on Action Sleve Inner/Outer Seals (different parts)
- Increased diameter of outer seal on action sleve
- Improving upon 1st pass yield gallery pass rate improved (95-100 guns/day)
- 70 gun/day production capacity
- · Focus on gas leakage around compensation system on gas cylinder collar

New Pump Action Shotgun—Model 887 (LeMay/Diaz)

- Overmolded bbl complete in 2 weeks for testing
- Early to mid-June will have enough parts for 20 guns
- Warehouse release early February—2009
- Receiver production tool due late July
- Testing contact points on front of receiver and (internal) barrel support to see if "real world" data corresponds with program data
- Need 4-5 writer's samples by 2nd week of August for special "Mini" Writer's Seminar

New Autoloading Shotgun (Haskin)

- Marketing to see "sample" in Mid-June
- Marketing design review Mid-July
- Currently waiting on several components—need trigger plate assemblies

New Autoloading Rifle (Stone/McGee/Snedeker)

- June 15th—Inspect DAT parts
- Barrel blanks due within a few weeks
- Working on (possibility) more simplified fire control
- 1st DAT Mid-October
- Need production decision by October for production scheduling

Synthetic Short Stock Program (Wilks)

- Molds at OMP-first shots due late May
- Modifications may need to be made for certain recoil pads?
- Marketing needs to know "phase in" Timeline
- Ilion to provide "Phase-In" timeline by next PTM (June 12th)

2008 Line Review (Lasley/Trull)

- Will send out UPDATED 2008 Marketing plan
- Sent out 2008 Sample Needs Spreadsheet

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Lasley/Wilks)

- Will be introduced on 2008 Spring Program W/SuperCell pad
- Settled on "Conventional" Injection Molding process
- Need Sample for Spring Program Catalog Photo Shoot
- Ilion getting quotes for new tooling for Camo Vendors

New Remington "SuperCell" Recoil Pad—"Jones & Vining" (Wilks)

- Ilion has tooling quote
- Production parts due by October
- Average cost \$2.76 per pad
- August production confirmation for all pads
- Pending TM approval for Model 887 pad <u>"SuperCell—EXT"</u>
- 4—different configurations
 - Standard SuperCell pad
 - "Sporting" SuperCell pad
 - SuperCell—EXT pad
 - (Accessory) SuperCell—EXT Left-hand configuration

X-Mark Pro Trigger (Doolittle)

- Marketing updated 40-X Mark Pro NPP
- For 2008 install in all Model 700 Varmint guns
- Will not be completed in time to have on 2008 Spring Program

- EET complete on Varmint riflse—DAT to be complete mid-July
- Discuss progress of 100 Left-Hand models—T&P June 15th
- Set at 3.5lbs factory-adjustable down to 2.5lbs

Discuss return to High-Polish "Buff" Blue (Sietsema)

- Approval for CAR sent to Madison (Marketing to approve)
- Model 700 BDL guns, 3 New SKU's in Model 700 CDL line, and with Model Seven 25th anniversary gun—September T&P
- Production late-September/early-October

Serial # Masking process (Pugliese)

- Will use special pens to "fill in" and better identify serial #'s on certain camo guns (all within a particular SKU should be uniform in appearance)
- Need cost estimate from TARJAC for this process
- Problem found most often on "Wal-Mart" Realtree 20-200 pattern guns

Model 1100 "Premier" Sporting Series (LeMay)

- Waiting to hear from Italy on roll-mark design
- Automated can do the gold plating over the nickel plated receiver
- Need to check on capacity at Automated

Elast-a-Tag Project (Lasley/Trull/Perniciaro/Shumway)

- X-Mark Pro tag to begin implementation mid-October
- Implement common "Remington" tag on ALL shotguns and rifles
- Shotgun/Rifle tags reviewed in Madison—Need to downsize loops

<u>Ultimate Firearms Muzzleloader</u> (Trull/Perniciaro)

- Status of 700 ML BBLS Threaded for UFA Breech Plug
- Review Breech plug cost--\$16 ea. for a 500 piece order
- Discuss Options

Mayfield Topics

Model 770 Production Status

- Discuss current options—price structuring as relates to volume
- Discuss progress of M770 STAINLESS Camo
- "Dot Peen" 770 receiver approved per Marketing

2008 NPP's submitted

- M597 Blaze camo guns (Orange—Pink)
- Model 770 Stainless Camo
- M597 TVP Stainless Heavy barrel

Simmons Scope

- Discuss possibilities
- Discuss status of possibilities for use with M770

Product Team Meeting Minutes

Tuesday, June 12th, 2007—7:30 am - UNTIL- Ilion

Future Meetings

Target Date-Wednesday, July 18th, 2007 - Ilion

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney/Golem)

- · Repair log generated by Engineering to track all gallery repairs
- Break down issues into categories: assembly issues, component issues, etc.
- DSMO Malfunctions—May be able to eliminate carrier buffer—Alter carrier stop spring—add right side carrier stop spring—alter trigger plate buffers
- As of 6-07-07 no more build
- Concentrate on assembly issues—component sub-assembly specifications/dimensions
- New "Peel-Ply" process for Carbon Fiber Shell approved for use

New Pump Action Shotgun—Model 887 (LeMay/Diaz)

- Begin production 9-2007
- 6-8 samples ready by mid August for "Mini" Writer's Seminar
- Build Writer's Seminar cutaway samples of BBL and receivers
- Build complete Cutaway sample for SHOT Show booth and Writer's Seminar for display
- Hi-Viz sight system on track
- Extended Rem-Choke tubes
- Warehouse date scheduled for 1-2008
- 2-week timeline on finalized Zunda drawings

New Autoloading Shotgun (Haskin)

- Beginning to assemble TPA's
- 90% of components done
- Sub-assembly being put together—will have shooters by end of June
- Discuss Zunda design cosmetics review—2 week timeline on revisions

New Autoloading Rifle (Diaz/Wilks)

- Ejection issues—bolt handle/carrier concept
- Working on part procurement, optimization of feeding issues, component/vendor issues
- Discuss meeting with possible parts vendors to reduce overall costs

NEW "Non-Toxic" Extended choke tube progress

- Planning on using for several new products in the 2008 line
- "optimized" for use with Wingmaster HD

Synthetic Short Stock Program (Wilks)

Begin full-line implementation for 2008

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Lasley/Wilks)

- Tooling ordered for Camo dipped parts
- Prototype parts being made/camo dipped for catalog photos
- Injection molding parts—14 week lead on tooling
- Parts availability critical to timely introduction—2008 spring program

New Remington "SuperCell" Recoil Pad—"Jones & Vining" (Wilks/Franz)

- Discuss Progress/Timeline/Implementation into new products
- 4—different configurations
 - Standard SuperCell pad—300820 for synthetic shotguns—begin phase in 2008 202491—for synthetic rifles—begin phase in 2008
 - "Sporting" SuperCell pad—Phase into line for (2009)
 - SuperCell—EXT pad-To be used exclusively on Model 887 Line
 - 300820 will be phased into new Ambi-Thumbhole stock on spring 2008 program
 - Tooling finalized by August
 - (Accessory) SuperCell—EXT Left-hand configuration

X-Mark Pro Trigger (Doolittle)

- 2009 implimentation on specified "Varmint" guns
- Discuss progress of 100 Left-Hand models—In test lab as of 1-18-07

Model 1100 "Premier" Sporting Series (LeMay)

- Review options of process with Automated
- Discuss cosmetics—Nickel/Teflon coating on receiver/gold inlay—with Marketing/costs/Options, etc.

Elast-a-Tag Project (Lasley/Trull/Perniciaro)

- NEW Loop design submitted
- Need approval on new design—llion tested

Plastic "common" Shotgun case Project (Haskin)

- Custom Pak plastic shotgun cases to be done with removable insert in Remington "Green-Gold" coloring to mimic the STS and Nitro 27 shotgun shells.
- Will also feature plastic sliding snap closures

Product Team Minutes

Wednesday, July 18th, 2007 - Ilion -7:30 am - UNTIL

Future Meetings

Wednesday, August 22nd, 2007 - Ilion

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney)

- · Status and update of progress
- Manufacturing update/timeline

Took 10 guns to function test with all of the current improvements—all guns but one passed

Field tested guns after gallery function test—5 failed at first, but attributed to mag caps being loose—tightened and guns passed

First set of 10 guns have been gallery tested and field tested

7-18-07 gallery test guns will be field tested next (set of 10)

Two more sets of 10 guns will be tested in this manner and data results will be compiled from these 4-test groups on Friday, 7-20-07 Ilion to update Marketing with results of above test.

New Pump Action Shotgun—Model 887 (LeMay/Ronkainen/Wilkes)

- Discuss project status and updated timeline
- Discuss Marketing/E-Town meeting results
- Discuss any issues/concerns
- Discuss sample availability

Six test guns to be in test by 7-27-07

Shorten bbl extension (with this process will be able to add a standard scope rail mount)—look at alternative attachment methods of butt stock

Costing to be updated/reviewed to reflect Manufacturing updates with reference to product revisions

To control fore-end movement—proposed 870 style fore-end tube assy.

Also, side walls of fore-end will be thickened to strengthen material

Bottom of barrel will have to be reduced/flattened for clearance (0.010") for foreend bridge to work with the fore-end tube assembly

On butt-stock increase wall thickness by 20%--which increases weight—also, add a guide tube for stock bolt attachment—will help with balance point Action port cover works in conjunction with rotating bolt—reliable action Receiver insert thickness has to increase by 20% (0.050" thick) to accommodate steel bolt slide guide supports (instead of the current molded plastic guide supports)

Trigger plate latch control added to TPA and latches have had stiffening ribs added (clearance cut must be made in receiver to accommodate above) Proposed bbl extension will be 1.8" shorter on new design 15 components need to be modified, and 4-5 components need to be added Need to analyze new costs with updates being proposed Upon thorough examination of above—will update introduction timeline based upon when Manufacturing can incorporate changes and have a warehouse position

New Autoloading Shotgun (Haskin/Olsen)

- · Discuss project status and timeline
- Discuss any issues/concerns

Will explore options with coatings/materials for the action spring tube/follower Marketing wants—"Corrosion control/proof/weatherproof/high-end, top of the line" Waterfowl shotgun manufacturing/design efforts to be geared towards that end EET testing currently and DAT testing to begin 9-19-07 (Three EET guns) Zunda design proposal/review needs to be finalized EET Marketing review end of Sept.

30 prototype guns to be built for test guns in E-town Barrel extension difficulties/concerns
Feed latch concerns (as a stamping) maybe a machined piece

New Autoloading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any issues/concerns

Priority list:

Optimize feeding and ejection issues

Closely follow part procurement process, inspection, and component build Continue to work with Ilion on manufacturing concerns/issues
Also working on magazine spring pressure issues and carrier issues
Scheduling concerns being worked out for DAT assembly
IonBond coating process for receivers to be reviewed
Working with trigger pull issues Vs. Energy (want a 3.5 to 4.5 lb trigger)
Sighting options (hi-vis, bateau, etc) may not have a bateau version
Planning for 30 DAT guns (need parts)

Product Quality Control Issues (Diliberto/Golem)

- Discuss recent quality control issues
 - o Warehouse rejects on the rise (various problems)
 - o Camo product (guns, stocks) issues on the rise
 - o XCR camo rifle stock issues

Audits in place to catch issues, bring to employees' attention immediately Closely monitor process (20 guns per day inspection)

Quality inspections to be traced through to final and sub-assembly, suppliers, etc.

Camo issues being addressed directly with vendors as are overmold stock issues

Synthetic Short Stock Program (Wilks)

- Discuss expected implementation for 2008
- Which products specifically
- Coordinate with SuperCell Pads
- Phase in similar to X-Mark Pro??

Changed core on 12 & 20 Ga. stocks

16 week tool time for completion on straight (non-MC) stocks

All phase 1 (MC/750 stocks and Std. LOP straight) stocks approved by 9-01-07 llion will provide Marketing with a timeline for introduction to be coordinated with the SuperCell recoil pads also

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Lasley/Wilks)

- Discuss progress thus far
- Discuss product sample availability
- Production schedule still on track

On track for Spring 2008 product/production

New Remington "SuperCell" Recoil Pad—"Jones & Vining" (Wilks/Franz)

- Discuss Progress/Timeline/Implementation into new products
- Phase in process

Production to begin October 1st, with limited models and molds First priority items will be done first, then on down the line in order of priority

X-Mark Pro Trigger (Perniciaro/Doolittle)

- Discuss "acceptable" pull weight adjustment range/process
- Current pull weight unacceptable to Marketing
- 2009 implementation of 40X-Mark Pro update

Looking to lower acceptable ranges from 3.5lbs to 4.5lbs

Will do drop testing at 3lbs range ASAP

Exploring options of testing guns semi-assembled (minus stock)—two-fold benefit, removes chances of marring stocks at assembly, and gives a "true" trigger pull weight

40-XMP trigger—conduct DAT testing in 700 SPS Varmint 7-27-07

Elast-a-Tag Project (Lasley/Trull/Perniciaro/Shumway)

- NEW Loop design submitted
- Need approval on new design
- Timeline for implementation

Will proceed with common "small" loop design 5.75" tag

Production will implement into packaging when current supply is depleted

Plastic "common" Shotgun case Project (Haskin)

- Discuss progress
- Timeline for implementation

Waiting on final dimensions for MPAS guns Spring Program 2009 implementation for 1100 Competition, 1100 sporting series, 1100 G3 also

NOTE: Revise NPP for Sporting guns to include "Sporting xx" on shooter's right laser between TPA pins
Also revise Model Seven NPP to include black bolt plug and floorplate Update descriptions also
Update Model 887 NPP's with nomenclature on Intranet
Update Model 11-87 Sportsman NPP's on Intranet
Communicate with Mayfield on Elasti-tags

Product Team Meeting Minutes

Wednesday, August 23rd, 2007 - Ilion --7:30 am - UNTIL

Future Meetings

Wednesday, September 26th, 2007 - Ilion

State of the Business Review (Campbell)

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney)

- Status and update of progress
- Manufacturing update/timeline

20 guns built for current testing

Guns not originally for "Mangum" style turkey loads

Not focused on lubrication as a cure for malfunctions for this round of tests Opened up gas ports 0.125" up from 0.116"

5.1% overall malfunction rate Federal and Winchester Turkey loads aside, had overall 1.6% malfunction rate

Problems with Interceptor-Latches—IL loosening up (loctite not curing)—with proper loctite procedure, confident that these malfunctions will go to 0% Action Sleeve outer seal expanding—causes DLO failure

Lubrication of bolt stop plunger helps with DTBS failures (Design change—change plunger angle) Bolt stop toggle button change also

Set of 100 test guns to be ready within 2 weeks will incorporate above changes in groups of 20 to see if malfunctions are reduced

On Gas Cylinder barrel seat "groove" reduced by 0.004" and it seemed to help Issues with keeping front gas seal area concentric to help with escaping gases After the gas cylinder is braised onto bbl, the Excello operation may be affecting concentricity of gas cylinder in relation to the barrel—this may be causing power issues with the 105 CTi

Continuity of supply of component parts from vendors being monitored for a goahead with full production when deemed possible (capacity currently exists for 70-guns per day)

Progress update meeting scheduled for October 1st

Go forth with all plans for "Writer" samples, articles, promotions, etc

New Pump Action Shotgun—Model 887 (LeMay/Diaz/Wilkes)

- Discuss project status and Revised/Updated timeline
- Discuss product introduction options
- Review manufacturing issues/concerns
- Discuss sample availability

E town changes with feel, function, performance—drawings done, proceeding forth with 3 "non-shooter" marketing prototypes for a gauge of feel, function, etc. Schedule meeting for third week of September (Marketing—E-town) Drawing packages are 95 % complete—will get a few prints finalized (for the remaining 5% and send up to Ilion to be sent out to Component Vendors) 5 guns to go through EET testing by first week of September Ilion in process of quoting changes in new tooling Re-design complete 8-03-07 prototype 9-14-07 DAT 2-20-08 T&P 8-2008 Increased wall thickness for fore-end (radius) and strengthened supports on FE These fore-end changes mad a 50% difference in fore-end strength Use fore-end insert—collar braised to tube insert, action bars attached to collar Action Port Cover-Will use an injection molded part that is 0.040" thick (glass filled nylon part instead of a stamped steel piece which must be heat treated) Complete design drawings by 9-17-07 Make initial parts beginning 9-24-07 Re-design on receiver design (4 months) from release on design—this process can't be started until we agree on design that works—if we go through current timeline and wait on January-February guns from test, it will be 4 months from then, which means October 2008 production (\$70K cost consideration option saves 3 months on schedule) will discuss this option after next E-town meeting

Model 700 VTR (Perniciaro/Haskin)

- Project update
- Accuracy concerns
- Manufacturing on track for Spring

Fixturing and equipment ordered for bbl contour process

Design vs manufacturability issues with counter-bored muzzle break design Need good crown on bbl (want piloted reamer to cut crown without damaging rifling—reamers ready to try out 8-23-07

Bbls to be shot with new counter-bore process to check accuracy Manufacturing concerns with process, machinery needed, and long term production needs, capacities, vs uniqueness of design

Build guns for spring prog forecast and gauge market for future production needs Stocks ready in September with complete overmold and recoil pads

New Auto loading Shotgun (Haskin/Olsen)

- · Discuss project status and timeline
- Discuss any issues/concerns
- Progress of first prototype guns (shooters)

1st prototype shooting model made, will be shot in jack this week
3 test bbls made up—within a week will have some test data on 1st samples
Zunda design group finishing up cosmetic designs (new revised models—rapid
SLA prototypes needed for approval—not holding up EET testing)
Design marketing review mid-October for go-ahead with production tooling
First production on November 2008 with warehouse release Jan—09'

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns

In process of ordering parts for Design Acceptance Testing (DAT)
Dual path on "simpler" fire control design no longer considered
10% overall malfunction rate on preliminary 100 rd. functionality test .30-06
Some failures (systemic)—Trapped shell, fail to extract, fail to close
Known failures—Mag spacer interference, fire control malfunction
Hi-Viz working on sight height consderations (suggestions sent from E-town)
Magazine spring design decided upon "M" type of 0.015" thickness with heavier action spring

Heavier sear spring on order

3 possible finish options available from lonBond for approval by marketing Final costing to be determined once design is finalized October design will be ready for Marketing review and approval

Synthetic Short Stock Program (Wilks)

- Discuss expected implementation for 2008
 - Specific product list for Marketing
- Coordinate phase in with SuperCell Pads

Short stocks production scheduled for October—cores being rebuilt for new dimensions—begin production in October

Begin phase in conjunction with SuperCell pads on NEW products first for advertising/catalog purposes

Marketing does not want the new Short-stocks to be introduced without the new SuperCell pads on them

Roll in similar to last year's X-mark pro catalog introduction (November) List to be e-mailed to Marketing on phase in with pads

Discuss Synthetic Thumbhole Short Stock Program—870/11-87 (Diaz/Wilks)

- Discuss progress thus far
- Manufacturing Production schedule on track for Spring

Due 2nd week of September 1st article

Samples will be ready for Writer's seminar and Sales MTG

New Remington "SuperCell" Recoil Pad—"Jones & Vining" (Wilks/Franz)

- Discuss Progress/Timeline/Implementation into new products
 - Specific product list for Marketing
- Phase in process (into current products)

Prototype backer mold ready

1st samples due week of Aug. 27th for syn. stk (will be used on Shur-shot stocks) Production to begin October 1st on limited models/molds highest priority Marketing statistical information (charts-graphs with competitive comparison for 2008 Catalog introduction, presentations, and Website) to be discussed with E-Town at future Go-To Meeting

Camo Process/Vendors (Diliberto)

- Update on current status with camo vendors
 - o Quality issues
 - Implementation of a "Standard" for accept/reject
 - Discuss Overmold Grip Project (removable snap-in inserts)

Tarjac camo covering acceptance standards solidified

Parts not matching on 7615 camo guns-problem being fixed

June-July more quality issues noticed at Tarjac—they are really working on correcting all issues

XCR stocks will go through the camo dipping process then back to OMP and they will be overmolded to see if this will be a reliable process—samples due last week of August

X-Mark Pro Trigger (Perniciaro/Doolittle)

- Update "acceptable" pull weight adjustment range/process
- 2009 implementation (on Varmint rifles) of 40X-Mark Pro update

269 guns over 3 SKU's trigger pull measured (range 3.5-5.5) one gun fell out at 2.5 lbs—47% of the guns fell within the 3.5-4.5lbs range of trigger pull Manufacturing proposal is to shoot and set trigger with the barreled action out of

stock in order to set triggers at an acceptable level Trigger pull now set at build (not at sub-assembly any more)

Manufacturing to update Marketing on progress of this process when completed

Marketing and Manufacturing to coordinate with E-town/OHL product to test random sample of trigger pull weights

40-X Mark pro trigger design ready to be sent to Ilion 8-15-07
Minimum trigger pull to be set at 2.5 lbs
Manufacturing to develop better trigger pull setting/adjustment process TBD

Elasti-a-Tag Project (Perniciaro/Shumway)

Project Update

Latest sample done standard loop design 3rd week of September for X-mark pro tag 4-6 week lead time on common Remington tag once ordered

Plastic "common" Shotgun case Project (Haskin)

- Project Update
- Possible Spring 2009 implementation

 ADDAS files and a line was far ADDAS.

Vendor sent MPAS files—vendor in que for MPAS update Within 2 weeks or so should be ready

Fall Sample Firearms (Shumway/Farrington)

Sample status update for "Fall" Samples
 Concerns—ShurShot guns—1100 Premier Sporting Series

Product Team Meeting Minutes

Wednesday, September 26th, 2007 - Ilion -7:30 am - UNTIL

Future Meetings

October 30th—Conference Call with Ilion December 12th—Ilion

State of the Business Review (Trull)

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney)

- Status and update of progress
- Manufacturing update/timeline

Will Discuss in an October 1st Conference Call

New Pump Action Shotgun—Model 887 (LeMay/Diaz/Wilkes)

- Discuss project status and Revised/Updated timeline
- Review manufacturing issues/concerns

Ejection port cover—.040" thick-metal-cover entire ejection port-no heat treat required—must add guide cut to receiver and add boss to bolt slide-port length 3.35"—downsize by .20" over current port opening—Mid October Phase 1 EET—100 rds. Proof loads (2 ¾")

Corrected some feeding issues by adding material (steel safe)

Stiffen shell latch—re design with new shape (no split)

Bolt would occasionally not lock up—redesigned

Tighten tolerances and reduce clearances to help with fore-end slop

Re-Design complete—9-30-2007—with port cover adjustments—10-15-07 DAT 2-20-2008

T & P 8-2008 (hinges on correct "prototype" receiver cages being made)—3-month advantage in time savings if this is successful

If design changes are made AFTER T & P testing, it will have to be made to production tooling

If all of the above goes as planned—we will have shippable product by late July-August of 2008?

Need font styles from Marketing for wording on receiver

Model 700 VTR (Perniciaro/Haskin)

- Project update
- Production capacities for future orders
- Accuracy concerns
- · Manufacturing on track for Spring order volume

Ilion production capacity—60 units per shift (two shifts) or 8-10 per hour New laser for manufacturing for VTR and other products in the future which will require laser etching—improve throughput and increase laser capacity Ilion will send CAR to Marketing for new laser purchase Accuracy—shot as standard 700's—shot with counterbore (same results)—then shot with muzzle break design, and had minimal effect on accuracy 10 more of each caliber to be made next week (Oct. 1) on production equipment

New Auto loading Shotgun (Haskin/Olsen)

- Discuss project status and timeline
- Discuss any issues/concerns
- Progress of first prototype guns (shooters)

First prototype guns shot from shoulder 9-25-07—functioned well with different ammo types—gas piston design with multiple port openings which are available for excess gas pressure to cycle the pistons depending upon what length of ammo is used (2 ¾", 3", and 3 ½")

Threaded magazine tube design—not braised

Gas block will be braised on to bottom of bbl in chamber area where the gas dump holes are

Shims included for drop, cast, and LOP adjustment

Currently no mag tube cut-off option

Ejector broke on proof rounds-gun still ejected spent round

Design Marketing Review (second week of November)

2009 SHOT Show intro

LE Implications??

Warehouse release in February 2009?

Needs Model number and name--Marketing

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns

European market the major volume driver for this gun

If this is a 2009 product introduction also, will make 3 major product introductions for 2009—MPAS—887—and this gun

Needs Model number and name—Marketing

Manufacturing resources to devote to project and alternative options to be discussed

Synthetic Short Stock Program (Wilks)

- Discuss expected implementation for 2008
 - Specific product list for Marketing
- Coordinate phase in with SuperCell Pads

11-87 and 870 stocks on schedule—cut in for product line will begin in November, and youth will begin by end of November Writer's samples and Sales meeting samples will not have production butt stocks Can get recoil pad but may have to have an SLA butt-stock on them Marketing statement—"All new production synthetic short stock…

<u>Discuss Synthetic Thumbhole Short Stock Program—870/11-87</u> (Diaz/Wilks)

- Discuss progress thus far
- Sample availability

Should have the production samples done next week and sent out for Marketing samples for the Writer's seminar by second week of October

New Remington "SuperCell" Recoil Pad—"Jones & Vining" (Wilks/Franz)

- Discuss Progress/Timeline/Implementation into new products
 - Specific product list for Marketing
- Phase in process (into current products)

Need to discuss with manufacturing from a product implementation standpoint—specifically—what can we tell the Writers

Overmold stock Process/Vendors (Diliberto)

- Discuss overmold process options on camo stocks
- Discuss future products with overmold grips (synthetic short stocks, etc.)

Tarjac has the prototype stocks done, and will be reviewed by Ilion 1st week of October

"Phase 3" will be implemented when results of the sample are reviewed—this will include possibility of overmolding the new synthetic short stocks

X-Mark Pro Trigger (Perniciaro/Doolittle)

 Update "acceptable" pull weight adjustment range/process of setting trigger pull weight/range

Currently we have above a 2 lb weight range of acceptable adjustment Need to implement a better adjustment process with a lower acceptable range Currently being set at assembly at 4.5 lbs (with Chatilon ga. had a 3-6 lb range) Discussion about shooting the guns out of the stock, then adjusting the trigger and assembling them to the stock before pack—involves a minor bottleneck of product flow through the factory, and of course more resources Marketing "goal" is to have triggers factory set at 3.5 lbs

"Steel Guard" Process

- Discuss process on our Black Oxide guns (particularly the Express and SPS guns)
- Discuss other options (customers/consumers view it as rust)
 Manufacturing currently testing new options for this process
 Will follow up on this process at next PTM

Fall Sample Firearms (Shumway/Farrington)

 Sample status update for "Fall" Samples Separate discussion

<u>Product Team Meeting Minutes—Conference Call</u>

Tuesday, October 30th, 2007 - Madison/Ilion -8:00 am - UNTIL

Future Meetings

October 30th—Conference Call with Ilion December 12th—Ilion

Ilion Topics

105 status/update (Perniciaro/Pugliese/Keeney)

- Upper-Level Mgt to meet and discuss options going forward
- Develop Action items for further testing/development

X-Mark Pro Trigger (Perniciaro/Doolittle)

- Discussed current competition & new "Industry Standards" advertising a 3-4lb range
- Ilion/E-Town to develop process for "Externally Adjustable" version
- Meeting set 11/5 @ 9:30 to form team to develop process
- Fink to update NPP with Marketing requirements

New Pump Action Shotgun—Model 887 (LeMay/Diaz/Wilkes)

- 25 prototype receiver cages to be finished by end of November
- On track with timeline
- Need to schedule another Marketing/Evaluation meeting

Model 700 VTR (Perniciaro/Haskin)

- Project update-Structuring NPP 2008-64 204 Ruger and 22-250 Remington
- Production capacities for future orders-Capacity non-issue 100 per shift
- Accuracy concerns-223 Remington production yielded 1.3" avg-within varmint gun specs
- Manufacturing on track for Spring order volume-223 Remington November with 308 Win in December. 22-250 to be released to production 11/9 and 204 Ruger on 11/15.
- CAR Status for new laser-To be completed by Andy Haskin
- Chambering Options-Ultra Mags-30 Cal considered upper limit with current barrel profile
- Stainless Steel?-Fink to submit NPP and product plan
- Any special make request to be previewed by Steve Perniciaro prior to acceptance

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- 1st round function test results due week of Nov. 9th
- Ejector re-designed and being tested
- Marketing-Ilion-E-Town to meet on progress

Shotgun front sight program (Pugliese/Perniciaro)

- Ilion to review options and send several examples to Marketing for approval
- Review at next PTM

870 Express Drilled and tapped receivers (Pugliese)

- · Pugliese sent approximate costs associated with this
- Looking at possible incremental business

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- S&K currently quoting wood
- Fink to update NPP regarding sights, acceptable trigger pull, accuracy, and define malfunction rate.
- Stone to submit ammo listing to Ammo R&D and Marketing for review.

Short Stock Program (Wilks)

- 870 Fore-end approved (11-87 approved this week)
- ShurShot stocks approved (600 per day production quantity)
- Phase I done, Phase II (Monte Carlo Short stocks, Youth, & Junior stocks up next)

New Remington "SuperCell" Recoil Pad (Wilks)

- Both Shotgun (wood & synthetic) and Rifle (wood & synthetic) pads passed and going into production
- Tood Cook (E-Town) working with vendor/Purchasing to come up with "Durometer" testing method for consistency of pad "Softness"

Overmold stock Process/Vendors (Diliberto)

- Samples done (5 samples in Ilion)
- At least 1 sample to be sent for Marketing Review

"Steel Guard" Process (Sietsema)

- Additional "Drying" process added to line
- Increased temp of application to provide more "uniform color"

- Sample Firearms (Shumway/Farrington)
 Samples on track and in pipeline for Sales, Press, then SHOT Show in order of priority
 November 26th target completion date

Product Team Meeting Minutes—

Wednesday December 12, 2007-Ilion, NY 7:30 am

Future Meetings

February 13, 2008-Ilion March 12, 2008-Ilion

Business Review (Trull)

Ilion Topics

<u>Update/Overview of New Union Contract</u> (J. Gross)

New Manufacturing Operations Strategy (C. Shoemaker/ J. Pugliese)

Excellent and in-depth presentations given by Pugliese (Shotguns) and Shoemaker (Rifles)—Very Informative CF Update

Lead time 14 to 5.75 days rcvr 120 part numbers current to 15 common blanks **Bbl 4 days reduction** Increased capx 2-4MM Target 5 guns per man hr 95% first pass yield target is 98% Lead time bar stock to barrel form10-14 to 2 days 135 rcvr part numbers to 15 part numbers Feed lip and feed ramp biggest issue Will reduce inv and provide better quality Reduce mars and bolt bind Reduce bbl lay left issue Design change flexibility Reduce changeover 80% Improve output 10% SS sent offsite 4 days, \$500K to bring in 09 project M7 proposal to 2 1/8" shorter from 2 3/8" Capx plan \$3,685,000 Min plan in place june/july implementation

X-Mark Pro Trigger (Perniciaro/Doolittle)

Real benefits realized going into 2009

• Competition & new "Industry Standards" advertising a 3-4lb range

- Ilion/E-Town to develop process for "Externally Adjustable" version
- NPP updated with Marketing requirements
- Review Capital/Ops Requirements and Timeline for Implementation

Current 2 lb range at assembly

Looking at externally adjustable-\$750cap \$150 op and 6 months More components-more expensive FC

Need quote on std-J Doolittle will have estimate NLT 12.21 Capital not in 2008 budget for Ilion

R&D has ordered and received comp guns to check test NPP to reflect 3-5 lb range for recommended adjustability

Primary spring must allow adjustment to 3 lb

Min amount FC can be adj to

What is realistic range of adj

Diaz to test initial samples-Ilion to complete testing

Will go through complete test

J Doolittle to test current FC with min spring to check for 3 lb adj

UPDATED NPP Posted-JF

Go to Meeting on 12-20

Model 700 VTR (Perniciaro/Haskin)

- Manufacturing on track for Spring order volume
 - o 223 Remington released
 - o 308 Win released
 - o 204 Ruger released by 12.21
 - o 22-250 Remington released
- Current Accuracy data 1.5" or better accuracy spec
- Findings of G6697197 sample gun marring
 - o Still waiting on gun
- CAR Status for new laser
 - o 2008 capital plan
- Fink to submit NPP along with product plan
 - o Post npp for hunting line by 12.21

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Status of Wood Quotes
- Ammo listing submitted to Ammo R&D and Marketing for review

Awating marketing/r&d ammo input-update to NPP Get hi speed of gun firing 30 TPA assembled 30 mag boxes 30 stk assem

30 bbl assem 30 rcvr assem

Extractin/ejection is good

Mag box and feeding-shooting clean at this point with full mag Receiver finish on both samples cosmetically good-test durability Exit DAT 2.25.08

Project review risk analysis 2.26.08 from design/production/costs Parts being quoted based on where we are today

Lead Time on Scopes (Fitzsimmons)

Plan to reduce lead time based on historical need
 Regal and Hunan working on logistics and legality of warehousing scopes. Mayfield also has need for scopes. Approximately 50% of scopes being flown in at \$5.00 upcharge. No upcharge from Regal.

Remington scopes proprietary to Remington. Forecast is 14,000 scopes. Will establish safety stock levels.

What other purchased items should we be looking at???
Sling straps
Hard cases

Define menu of scopes currently used

105 status/update (Perniciaro/Keeney/Jeff Rooks)

- Makers and Carl Hildebrandt—outside consulting groups evaluating guns
- 16 test guns being evaluated/tested with 7 main factors a top priority
- After more comprehensive testing and cross-tabs to evaluate correlations between 7 main factors is complete, bbl issues will be thrown into the mix

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes)

- DAT parts and production tooling ordered
- Outer shell "wall" of receiver at rear of receiver thickened by .012" per side
- Serial # process submitted to ATF for review—longer TPA for serial # viewing on actual steel frame of receiver
- Weekly Marketing meeting scheduled for Dec. 17th
- Receiver text boxes finalized
- First production scheduled for 8-04-08
- Costing needs to be adjusted more towards original proposal
- Look at cost reduction measures such as bbl extension, chokes, recoil pad, etc
- Cost MUST not exceed \$140 in order to compete in this market—
 "Standard Black Synthetic gun" must not retail for more than \$299
- Competition in this arena stiff:
 - o Mossberg 835--\$300-350
 - o Stoeger P350-\$290-350

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Marketing reviewed initial "hands on" prototype with favorable results
- Two "shooters" currently assembled and being tested with all ammo types
- MPAS exhibits excellent initial/terminal bolt velocities with all ammo types
- EET testing with 650 rounds—26 ammo types with 6 Super Mag ammo types—Make sure we are testing with Wingmaster HD, Steel, and Lead
- Mid January scheduled to build 30 guns for DAT
- T&P scheduled for November 2008
- Production scheduled for December 2008

Shotgun front sight program (Pugliese/Perniciaro/Skinner)

- Marketing approved sample
- Will purchase from Marble Arms for same price as current bead
- Decision made to phase in immediately as soon as parts are available (March 2008)

Short Stock Program (Wilks)

- 20 Gauge fore-ends, Youth, and Jr. versions—samples due by year end
- 20 Ga version ShurShot stock—9 week tooling turnaround--\$26K investment
- Marketing NPP's in place

New Remington "SuperCell" Recoil Pad (Wilks)

- Issues with the wood shotgun pads fitting the wood shotgun stocks—are the vendors sanding to the Norbide disks??
- All molds needed have been ordered
- Durometer testing process in place at vendor and in Ilion to make sure all pads meet "softness" specs

Overmold stock Process/Vendors (Diliberto)

- First samples from OMP a failure—overmold peels off
- OMP to mask off area so it won't be camouflaged—new samples due in about a week
- Send sample to Marketing for review

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

Progress to date

200 parts in route to assemble into test guns by 12/21/07 Mayfield to send sample gun to fink to review

Model 770 Varmint Offerings (Lance/Vicars)

• NPP for 22-250 Remington offering

68 Barrels started for completion by 12/14/07
Sample guns were built with 1:14" twist due to button lead times
Correct twist of 1:12" buttons on order for production

Model 798 Synthetic Stock Tool (Lance)

Path forward

Decision made to order 1500 stocks from Ardesa. Tool will be shipped to USA to be placed online at Par 4. Stocks and tool will ship together in 20' container.

Product Team Meeting Minutes—Ilion

Wednesday February 13, 2008-Ilion, NY 7:30 am

Future Meetings

March 11, 2008-Conference Call April 16, 2008 Ilion May 21, 2008 Ilion June 18, 2008 Ilion August 6, 2008 Ilion September 17, 2008 Ilion November 12, 2008 Ilion December 10, 2008 Ilion

Upcoming Events

2008 NWTF Show February 21-24 Atlanta, GA 2008 NRA Show May 16-18, 2008 Louisville, KY 2008 Grand American Aug 6-16, 2008 Sparta, IL 2009 New Products Seminar October 12th-14th

Business Review (Trull)

Ilion Topics

2008 SHOT Show New Product Review-(Fink/Lasley)

Presented on Rifle/Shotgun New 2008 Products (PowerPoint Presentations)

105 status/update (Keeney)

- Discuss project status and timeline for production
- Review latest field test results with improvements

DOE variables—Long nosed Action Sleeve

Nickel-Teflon plated Action Bars nickel Plated 105 lubricating oil

Thorough field testing has resulted in the findings that the bolt head size increase/new extraction system causes BV's to drop when bolt slide contacts carrier at rear of receiver

Have gallery tested (on the latest 15 gun sample) the "Modified" bolt slides with 0.0995 diameter gas orifice holes, 2 guns exhibited DSMO malf. on Nitro Mag rounds, and no low power malf. were recorded with "light 8's" or Winchester AA ammo—the next step will be to field test these guns and

determine from that test when the 60 gun build will take place for the large scale testing

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- Discuss project status and timeline
- Review costing—Do we have close estimate pinned down
- Purchasing overview of cost reductions
- ATF approval on markings
- Re-Schedule on-site review (E-Town)

Scheduled to test guns 3-05-08 and conclude by early April E-Town to look at 2-piece bbl design and determine strength of design proposal

Further pursue target cost of \$136.88/unit on the all black guns Need to schedule a meeting in E-Town once initial DAT testing has been completed

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Discuss project status and timeline
- MPAS prototype (sent to SHOT) feedback
- Discuss any Manufacturing issues/concerns
- Re-Schedule on-site review (E-Town)

Priority one—Part procurement

Priority two—assemble DAT guns and get to E-Town for testing Priority three—Marketing sign off on issues with first prototype Priority four—develop processes/obtain vendor quotes for CAR (Phase II) Ilion will build 10 DAT guns and ship to E-Town for Testing—goal by March 1st to have guns built

Will submit phase II CAR upon completion of DAT in April

Shotgun Common Bbl matting program (Pugliese)

- Marketing approved sample (of high polish blued barrel)—need to see Express/Sportsman sample
- Discuss phase in options

Marketing agreed upon common pattern (Modified Scalloped pattern) for use on ALL shotguns

Will begin implementation ASAP

Shotgun Common 870 Exp D&T Receiver program (Pugliese)

- Discuss feasibility with new shotgun receiver flow through assembly
- Minimal cost—Consumer added value

Not deemed feasible at this time!

Short Stock Program (Wilks)

- Discuss project status and phase in timeline
- 20 Ga version ShurShot stock—2 weeks for 1st article
- Marketing NPP's in place

"SuperCell" Recoil Pad (Perniciaro/Wilks)

- Discuss S & K Sanding to Norbide disks on wood stocks
- Discuss options for phase in of wood pads

Todd Cook working on spacer design similar in size/shape to Norbide disk llion working on problem with S & K

Marketing to review any proposed remedy to this current situation

Overmold stock Process/Vendors camo (Diliberto)

- Overmold stocks with camo
- MPAS shotgun will use "no seam" process with camo
- Discuss process of camo pattern identification with vendors

Process for XCR stocks w/camo agreed upon—Stocks will cost more from OMP—cost savings from TARJAC for camo

Outdoor Color masking process on receivers—use TPA for locater holes to mask off serial #--no basecoat, but will have the camo over masked area

X-Mark Pro Trigger (Perniciaro/Doolittle)

- NPP updated with Marketing requirements-NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
 - O Capital currently in the \$360 range
 - Cover costs in pricing on products that where applicable; 700 HTR, XCR, Varmint, etc. –Fink/Trull

Model 700 VTR (Perniciaro/Haskin)

- CAR Status for new laser
 - o Pursuing quotes for new lasers
 - o 80 per day current-Not believed to be a current issue
 - o 12 week lead time
- Fink to review 2009 NPP along with product plan
 - o Clearly identify lifecycles and replacement volume-JF
 - o Franz to evaluate Ultra Mag feasibility

Model 700 SPS Stainless Metal Finish (Fink)

- Have received complaints of rough finish and staining (possible oxidation)
- Metal finish on Model 770 Stainless barrel is much better than 700 SPS Stainless
- Need to compare Mayfield process to Ilion Process
 Sietsema to explore different blast media
 New gun to be shipped to JF prior to next PTM 3.11.08

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
 - o DAT testing-100 round proof complete on A-1-A-10 guns
 - o .002" max headspace growth
 - Tweaks to be made to TPA
 - o To build second 20 guns
 - Review with Stone 2.28 in Ilion to complete quoting
 - o Cosmetic gun to be complete end of March
 - o CAR to be generated March 20
 - FINK-need to nail down name/model number
- Discuss any Manufacturing issues/concerns
- Status of Wood Quotes
- NPP Updated regarding sights, acceptable trigger pull, accuracy, and malfunction rate.

Lead Time on Scopes (Fitzsimmons)

- Plan to reduce lead time based on historical need
- 3% reduction from Manuf, 3% increase by warehouse, avoids air freight charges. Will keep 4 month supply for Ilion and Mayfield

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

- Progress to date
 - o Radius added. 6 weeks will have 200 pieces. Etown will test, end of May phase in approved.

<u>Model 770 Varmint Offerings (Lance/Vicars)</u>

- NPP for 22-250 Remington offering
 - Correct button end of February
 - DSG declined. Fall intro product. Fink to complete NPP

Model 798 Synthetic Stock Tool (Lance)

- Path forward
 - Tool and 1500 stocks landed last week
 - Bass Pro to put in Scoped Combo, most likely 798 Laminate repeat of 2007

Model 798 Walnut Stock (Lance)

- RealWood not holding together with 458 Win Mag
- Added second recoil lug

• Reinforcement required for magnum walnut guns

Model 770 Fire Control (Lance/Vicars)

- New design price same as current design price with current quote
- Production anticipated September 2008

597 New Synthetic Stock (Lance/Fink/Trull)

- Money budgeted for 2008-\$250-\$260 budgeted
- To implement in 2009 catalog/line
- Etown has CAD model, not process ready
- Modularity? HB barrel channel necessity? Fink to review.

Product Team Meeting MINUTES—Ilion

Wednesday April 16, 2008-Ilion, NY 7:30 am

Future Meetings

May 21, 2008 Ilion June 18, 2008 Ilion August 6, 2008 Ilion September 17, 2008 Ilion November 12, 2008 Ilion December 10, 2008 Ilion

Upcoming Events

2008 NRA Show May 16-18, 2008 Louisville, KY 2008 Grand American Aug 6-16, 2008 Sparta, IL 2009 New Products Seminar October 12th-14th 2009 Worldwide Sales Meeting November 10th-14th

Business Review (Trull)

Ilion Topics

X-Mark Pro Trigger (Ronkainen/Doolittle/Becker)

- NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
- Build test drill press 8.21
- T&P 9.18 500 Pieces
- Test 10.9
- Production 10.30
- Samples for 2009 new product-Need 100 trigger assemblies
- All 2009 New Product to be fitted with XMP Adj
- Develop wrench for trigger adjustment
- OM-Supplemental insert regarding adjustment
- Schedule for XMP phase in and requirements-Fink

Model 700 VTR/HTR (Perniciaro/Sampson)

- Current Orders Update-Fink
- Barrel Sample Discussion
- Barrel Capacity for 2009
- Laser Marking Capacity
- Heavier than mag contour

- 2.88 v 3 lb
- Get samples build by 4.25
- Laser being quoted-\$140-\$150-budgeted
- Shoemaker to review barrel capacity

New Auto loading Rifle (Diaz/Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Status of Wood Quotes
- Marketing to Develop Model Number/Name
- Remove ejc port angle and increase material for added strength
- Triggers 4.15-5.5 lb pull
- Steel inserts added to the barrel extension to control action bars
- Ordered 20 pairs to add to other guns to prove out
- To complete DAT, have to prove out rcvr fix
- · Cosmetic sample in Ilion
- Sample to Madison
- JF-Develop checkering patterns

105 status/update (Keeney)

- Discuss project status and timeline for production
- Review latest field test results with improvements
- Discuss distinguishing "New" guns from older versions
- Discuss Synthetic stock options
 - Latest field testing concluded with
 - o Long-Nose (Nickel Tef coated) action sleeve
 - Nickel-Tef Action bars
 - o New Ring seal design
 - o 105 lubricating oil
 - o "screened" barrel assy/with 0.110" gas ports
 - o High-Pivot extractor design (0.200" thicker bolt head)
 - Altered carrier (moved forward by 0.200")
- 18 guns tested with 9 bbls—with no Tky mags—OMR 1.76%
- With the "Barrel screening" process 3 gas cylinder diameters are being evaluated
- Path forward---
 - Team to assess gas cylinder machining for dimensional consistency
 - o Possibly eliminate "Excello" operation
 - o Machine to final dimensions—then braise to bbl
 - New tools and release for build needed—8-10 weeks out
 - Need 3 new tools (for extractor, bolt stop toggle, and bolt stop)
 - Need to get vendors back online (specifically the carbon fiber rib vendor—5 weeks out for 50/day production ramp up

- Will need to include some sort of "Flyer" with "NEW" design guns to let consumers know parts are NOT interchangeable
- Need New name/designation for NEW guns—Marketing
- Decision made to keep current two SKU's in line for 2008-09 and perfect these before proceeding with line extensions

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- · Discuss project status and timeline
- Review costing—Changes
- ATF approval on markings
- Review Sample gun sent in by E-Town
- 14 prototype (receiver) "cages" overmolded on April 1st—only 6 useable
 - Oneida working on refining process to keep this from happening
- Some issues with current design shell latches "bending" under the strain of a 3.5" shell with shells in magazine tube
 - Testing possibilities of a "Re-enforced" latch with stiffening ribs, or a 0.050" thick design
- Some of the ejector material is being displaced with current design
 - o Will move ejector 3/2" rearward and add "solid pin" to assy
- Excessive play/take-up on trigger—hammer release
 - o Reducing clearance between hammer/sear pivot holes & pins
 - Move connector pivot hole forward by (0.010")
- Working on Hi-Viz 2-piece sight system
 - o Extras to be included in "Remington" logo'd Zip Loc
- DAT #1---10 guns initially will begin 4-16-08 in E-town
- DAT #2—15 guns (NOTE: these guns will be true to Manufacturing production) to begin 5-06-08 in E-Town
 - DAT on these guns—with all improvements to the design scheduled to be completed by 6-01-08
- T & P to begin in July—Warehouse date in September
- Parts need to be sent to Camo vendors for set up
 - Need to check clearances on Camo guns for wear issues
- Fore-end cooling fixtures need to be revised to address clearance issues with receiver
- MARKETING to receiver "SHOOTING" sample ASAP

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- SAMMI—CIP approval on Chamber length
- Working on obtaining SAMMI/CIP approval on current chamber length in bbls
- 10 DAT guns with 20 bbl assy will ship to E-Town for testing 4-18-08
- Receiver coating issues—Anodizing??

"SuperCell" Recoil Pad (Perniciaro/Wilks)

- Discuss options for wood stock pads
- S & K no better than 0.015 to 0.020" proud of wood on stock
- Must have a "Spacer" to address this issue
- Will use Sims pads until the new Stepped Spacer design is in place with samples to be reviewed ASAP by Marketing

Model 770 2008 Schedule(Lance/Fink)

- New Wal*Mart Forecast
 - o 14,365 Stainless Guns with 4,200 Fcst for June
 - o Increase of 4,400 Blue Guns
 - o Need planning/forecasting meeting immediately
 - Review with Sales W*M commitment-JT/JF

Model 770 Improved Camming Action (Lance/Vicars)

- · Progress to date
- Tool modification 4.16
- 200 pieces FAS 4.30
- Bolt body in house 100 pieced
- 5.9 assemble and eval
- 5.9 etown to test
- 5.30 move to production
- Month of June to deplete inventories of current bolt
- Send an extra gun to Etown for Marketing eval week of 5.14
- Diaz-Reduce bolt camming force
- Trade off spring force for mass
- Trying three different masses and spring forces
- Remove bolt chatter by creating "control lug"
- Proto-.6.6
- FP 4.14
- FP body/spr-4.14
- Rec-design complete 4.1
- Proto rec-6.1
- Rec insert 6.1
- Bolt head 6.1

Mag Latch

Cost of repair has not exceeded cost of MIM tool

Rings in Chamber

JF to contact Arms Service regarding rough chamber guns to Mayfield

Model 770 22.250 Remington Offerings (Lance/Vicars)

- Design Changes to Introduce and Costs Involved
- Button received 3.31
- 21 barrels comp 4.7 with 1.1" avg
- Marketing to review guns in etown

798 second recoil lug-tested and approved with guns in warehouse 798 Walnut and Synthetic stocks both approved and passed testing moving into production

Model 770 Fire Control (Lance/Vicars)

Complete 10.30.08

597 New Synthetic Stock (Lance/Franz/Fink/Trull)

- Complete E'town Modeling
- CAR Needed
- Cosmetic Sample Status
- Etown has rough cad model
- Prototype to be delivered to marketing
- Need to finalize design approval, get tool quoted, and CAR
- \$280 budgeted in 2008
- J. DeSantis to work with JT and JMD to review process

Product Team Meeting MINUTES—Ilion

Wednesday May 21, 2008-Ilion, NY 7:30 am

Future Meetings

June 18, 2008 Ilion August 6, 2008 Ilion September 17, 2008 Ilion November 12, 2008 Ilion December 10, 2008 Ilion

Upcoming Events

2008 Grand American Aug 6-16, 2008 Sparta, IL 2009 New Products Seminar October 12th-14th 2009 Worldwide Sales Meeting November 10th-14th

Business Review (Trull)

Ilion Topics

105 status/update (Keeney/Streeter)

- Discuss project status and timeline for production
- Review latest field test results with improvements
- Discuss distinguishing "New" guns from older versions w/new laser markings
 - o Establish Serial # ranges
- Discuss plan to "Update" existing 105's within the marketplace

Improvements made in the process of brazing the gas cylinder collar to barrel "NON-Excello" operation—Gas cylinders fully machined—cuts bbl cost by \$3-4 Improved braze fixture alignment for uniform braze thickness consistency 50 bbl assy---due 6-06-08

By 10-07-08 should have a 50/day production 75/day by 5 weeks later --we need 6,000 production by year end 2008

Need to ramp up supplier of ribs (major gating issue for production) to 100+/barrels day

Approximately 4,000 105's currently in marketplace—need update kits Proposed Identification of new Improved 105's will consist of a new Laser engraving on the receiver to include some form of a (II) designation—Marketing currently working through options

Marketing to work up new SKU's for the New Improved 105's

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- Discuss project status and timeline
- Review options for recoil pad/stock design
- Review costing—Changes?—What are our current costs?
- Status of 1-piece barrel design
- Shell latch issues—will the new pad/stock/mag-tube design fix this
- New ejector material to correct issues with material displacement
- Fore-end issues with cooling fixtures causing clearance at receiver
- Camo vendors on-line with fixtures
- Discuss trigger play/take up issues—TPA Holes moved?

Proposed "fixes" to current issues—

Use a larger backer on current SuperCell EXT pad to minimize compression

Move Center of gravity rearward

Duck plug to be made of some alternative material

Magazine tube to be lengthened

1/2 lb of weight added to butt stock—material to include 30% more glass

Gun now weighs 7.3 lbs

E-town to proceed with some POI testing

To correct Feeding Issues, material added to TPA in front of latches

To correct ejector issues, shortened retaining pin, and reduced spring length by 0.040"

Added stiffening ribs to shell latches—thickness 0.050"

Need to perform a "DAT II" with all of the above listed improvements—this testing

will take place by 7-15-08—T & P testing to follow in August 2008—with

Warehouse build by October 2008

"Puginator" SuperSlug Shotgun (Pugliese/Haskin/Wessner)

NPP in place for fluting and porting (with counter bore)

llion to test and target

Report back to Marketing

Slated for 2009 product introduction

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- SAMMI—CIP approval on Chamber length

E-town testing—260 rounds on 5 guns with 10 barrels (rotated)

Test guns sent to E-town with proof loads only to preserve integrity of test

Had a few issues with—Doesn't Extract—Doesn't Eject—Jumps latch

Used a modified 105 chamber reamer—created a "rough" chamber which caused extraction issues (particularly with the 3.5" shells)

Projected Warehouse release—May 2009

"SuperCell" Recoil Pad (Perniciaro/Wilks)

- Discuss phase in options for wood stock pads w/spacers
 - o Shotgun versions
 - o Rifle versions

Design finalized by Marketing for spacer(s) for Shotgun and Rifle
Tooling quotes due 5-27-08
CAR request in the works
Spacer will be needed for all aftermarket sales of the SuperCell wood pads—
Marketing to communicate to Accessories group

X-Mark Pro Trigger (Ronkainen/Doolittle/Becker)

- NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
- T&P complete 9.18
- Production 10.30
- Screw can back out. Spring stays in place
- Adjustment tool shipped with each gun
- \$0.13 each adjustment tool.
- Guideline needed for rotation with effect on pull

Model 700 Triangular Barrel-Hunting Version (Perniciaro/Sampson)

- Barrel Sample Discussion
- Laser Marking Capacity
- Fink to update NPP. Overmold panels-color, get Treestand camo stock
- Fink to discuss with McCanna regarding round muzzle on Cabela's special
 - o Updated NPP 5.28.08
 - Images of Cabela's special discussed with sales and forwarded on 5.27.08

New Auto loading Rifle (Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Trigger Pull
- Status of Wood Quotes
- Loading Magazine Box
- 5.19 begin parallel paths toward drop, endurance, shoulder evaluation
- Trigger pull 4.9-6.3 lbs
 - o Trigger pull needs to be 4.5 lbs. Resources need to be assigned
 - o Options for adjustability
- DAT complete end of June
- Mag Box-Need ridge to bias round to right
- Mag Box-Need tabs to pull follower down

- Add clearance for magazine box insertion
- Finalize checkering-to Gayle Wilks by next Wednesday 5.28.08
- Make certain timelines with original date and revised date with end date is addressed in all future projects

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

- Progress to date
- 100 pieces of new firing pin head. Started assembly. Etown in 5.22 Will James, Rusty McGee, and Vince Norton. Will have a gun to ship out this week. 6 weeks out from production parts once approved. Ship on SNT transfer.
- Trull and Fink reviewed gun 5.23.08. Noticeable improvement in bolt opening force.

Model 770 Fire Control (Lance/Vicars)

- Waiting on MIM part, September in house for assembly
- Weekly calls with supplier. All on schedule
- 1st article samples starting to arrive
- Schedule being coordinated for phase in so old style inventory is minimized. Gary Williams monitoring inventories, ramp up, etc.

597 New Synthetic Stock (Lance/Franz/Fink/Trull)

- Complete E'town Modeling
- CAR Needed
- Cosmetic Sample Status
- Sample is in Madison Gun room.
- Will get out for quote as soon as cosmetic sample approved
 - Trull and Fink reviewed sample 5.23.08. Requested Todd Cook add SPS style grip panel texturing to one area of stock on 5.27.08.
- 2009 project due to capital re-directed

Nordic Conversion Kit for R-22 (Fink/Trull)

- Fink to Confirm NDA in place
- Etown to work with Nordic regarding drawings

Product Team Meeting Minutes—Ilion

Wednesday June 18, 2008-llion, NY 7:30 am

Future Meetings

August 6, 2008 Ilion September 17, 2008 Ilion November 12, 2008 Ilion December 10, 2008 Ilion

Upcoming Events

2008 Grand American Aug 6-16, 2008 Sparta, IL 2009 New Products Seminar October 12th-14th 2009 Worldwide Sales Meeting November 10th-14th

Business Review (Trull)

Ilion Topics

105 status/update (Keeney/Streeter)

- Discuss project status and timeline for production
- · Review latest field test results with improvements
- Discuss distinguishing "New" guns from older versions w/newest laser markings of the "105 CTi II" oval logo
- Discuss plan to "Update" existing 105's within the marketplace—New Kit Allocation, International guns, OHL inventory
- Latest 8 gun field test 1.1% overall malf rate—NOTE: one gun accounted for 8 (approx. half) of all malfunctions.
- 105 CTi II logo finalized and approved by Marketing
- Non-Excello process proven on above mentioned 8 test guns—working on refining the process—looking for radial position consistency of operation
- Production goal of 6,000 units by year end 2008—15% of kits to go to ARM Service for the upgrade of guns—also allocate approximately 650 for Intnl.
- Gallery testing criteria must be set up
- 2 part #'s exist for kits—one for 28" bbl—one for 26" bbl
- Need to have "105 CTi II" labeling on all new barrels so the 105 and 105 II barrels won't ever be mistaken
- LOP spacer kit (3—¼" spacers, longer screws, and assy. Flyer) to be included in each new 105 CTi II box

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- · Discuss project status and timeline
- Review options for recoil pad/stock design—adding 1" to current design.
- Review costing—Changes?—What are our current costs?
- Shell latch issues—Timing issues—corrected?
- New ejector material to correct issues with material displacement
- Fore-end issues with cooling fixtures causing clearance at receiver
- Discuss new stepped rib design for POI adjustment
- Camo vendors on-line with fixtures
- Discuss trigger play/take up issues—TPA Holes moved?
- 2" thick SuperCell recoil pad deemed unusable
- Must add 1" LOP to current short stock design—and will use standard SuperCell recoil pad for synthetic stocks
- POI tested and found to be 7" low—will add stepped rib (increased by 0.145") to compensate for low POI
- TPA tooling change required for "round control" while chambering additional round after a round is fired
- Put "shoulders" on carrier (similar to 870 carrier) to better stabilize round when chambering—stiffen flexi-tab—re-shape port side tab
- Currently evaluating two different synthetics for overmold—more durable in hot/cold test
- Extend mag tube by ¾" and lengthen mag cap to eliminate rounds in magazine tube deformations
- Will be able to use standard 3" duck plug
- FET II—6-27-08
- DAT(15 guns with modifications)—7-24-08
- DAT—8-21-08
- T + P—9-26-08 (200 guns)
- NOTE: Marketing/Press will need approximately 10 guns ASAP for the early Writer's Event. These will be needed by early-Mid August in order to ship to Writer's for the hunt in Canada (customs)

"Puginator" SuperSlug Shotgun (Pugliese/Haskin/Wessner)

- Discuss project status
- Accuracy testing—ammo types
- Laser marking of Model name on bbl
- Ilion working on testing different bore diameter's, bbl lengths, Twist Rates, etc—to optimize accuracy
- NPP updated with accuracy specs to "Shoot for"—will try for <u>a 2" avg @ 100 yds—with no individual gun to shoot over 3"</u>
- Porting to be evaluated for effects on accuracy
- 7-18-08 R + D completed 7-25-08 design/configuration to be finalized

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- · Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Barrel-gas cylinder collar
- Working on barrel assy process to refine bbl braze to gas block
- DAT #1 review—5 guns—260 rds ea—2 bbls/gun—Overall 19% malf rate
- Mainly –doesn't extract—Doesn't eject—Jumps latch
- All above issues being addressed—doesn't extract attributed mainly to "rough" chambers and 3.5" shells fire-forming—tough to extract at that point
- Jim R. re-working TPA design to receive blessing from Legal—still need a formal sign off from legal on this one

"SuperCell" Compensation spacers and LOP kits (Perniciaro/Wilks)

- M105 CTi II
- Synthetic guns
- Wood Shotguns/Rifles
- Design of compensation spacers and LOP kits finalized
- 105 II spacers/compensator for the SuperCell pad will be ½" thick—3 to be included with each new production gun along with longer screws and a flyer insert with descriptions on how to install (consumer's responsibility)
- LOP kits for Wood stocked guns will include the compensator and the ¼" LOP spacers (on both wood stocked shotguns/rifles)—specifics for inclusion with specific products will be included on NPP's as needed

XCS (Black) Shotgun coating (Sietsema)

- Discuss customer return with PVD coating coming off bbl
- Possible issue with other PVD guns
- Review photos
- Two sample barrels that have been returned from a Consumer will be forwarded to Mr. Sietsema for review
- Initially thought to be "blemishes from the fixture"
- TBD after reviewing sample barrels

2009 Rifle NPP Submissions

- 2009-07 Model 700 VTR Ext
- 2009-08 Model 700 XHR
- 2009-22 Model 700 Tactical Target
- 2009-23 Model 700 VTR Desert Recon
- 2009-24 Model 700 SPS LH
- 2009-25 Model 700 XCR RMEF
- 2009-26 Model 700 CDL SF LTD 257 Roberts
- Questions, Issues, Concerns

No questions identified in this meeting. Will continue to review in NPP review meetings.

X-Mark Pro Trigger (Ronkainen/Doolittle/Becker)

- NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
- Adjustable Trigger Display Rep/Customer Samples Options?

Reviewed project timeline. Timing is tight, but should yield sample fire controls in T&P run for writers/sales samples.

Confirmed implementation will be for new 2009 products in terms of catalog launch.

Will phase in across line thoughout 2009

Model 700 Triangular Barrel-Hunting Version (Perniciaro/Sampson)

- Timeline & Status
- Laser Marking Capacity
- NPP Updated with Round Muzzle & 3 Rings

NPP not yet approved. Reviewing capacity concerns. Laser on order

New Auto loading Rifle (Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Trigger Pull
- Status of Wood Quotes
- Loading Magazine Box
- Fink to Finalize Checkering Design

Program returned to EET status

Addressing strength issues with receiver as discovered in jar-off testing Marketing reviewed and approved mag box design with finger openings on feed lips

Project will most likely be pushed to a 2011 program

Custom Shop "CAR" Project Update

Latest update on delivery of equipment is that it is slated for late August, early September.

Overview of Custom Shop Activities

Review Logo Search & Ad Campaign
Reviewed feedback with Brothers on 6/2708 and awaiting final versions of
artwork

New Warranty for Custom Shop In process to be completed week of 7/7/08

Process Improvement for Int. Customers

Custom shop is now assigning guns directly to international orders. Back log list is being cleaned up and has shown improvement.

 Search for "C" grade stock vendor Initial samples from vendor are due to us in mid-August

New NPP's for Custom Shop

- 547T Completed
- 547 "C" grade Completed and ramac's assigned
- 700 Ti In Progress to compete by 7/08/2008

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

Status & Timeline

Sample received in Madison approved by Marketing

Sample showed marked improvement over previous versions and was confirmed to be representative of what production parts will yield.

Will re-validate once production parts are received

Balio working with Lance/Vicars on Arms Service and warranty repair issues from a parts compatibility standpoint

New parts on order and planned as a phase in sometime in Q3

Model 770 Fire Control (Lance/Vicars)

- Status & Timeline
- Phase In Date

Reviewed project timeline.

Will implement as a running change

Marketing confirmed that phase in timing not critical to catalog or new product announcements as it should be transparent to the customer

597 New Synthetic Stock (Lance/Franz/Fink/Trull)

• Complete E'town Modeling

- CAR Needed
- Cosmetic Sample Status
- Sample is in Madison Gun room.
- Will get out for quote as soon as cosmetic sample approved
 - o Trull and Fink reviewed sample 5.23.08. Requested Todd Cook add SPS style grip panel texturing to one area of stock on 5.27.08.
- 2009 project due to capital re-directed

Marketing has approved design.

Mayfield and E-Town to coordinate getting drawings out for quote CAR not yet submitted, but will be upon completion of quoting process

Nordic Conversion Kit for R-22 (Fink/Trull)

- Signed NDA Completed on 6.13.08
- E'town to work with Nordic regarding drawings

Franz to coordinate with Fink to get 3-D models to Nordic.

Product Team Meeting MINUTES—Ilion

Wednesday August 8, 2008-Ilion, NY 7:30 am

Future Meetings

September 17, 2008 Ilion November 18, 2008 Conference Call December 17, 2008 Ilion

Upcoming Events

2008 Grand American Aug 6-16, 2008 Sparta, IL 2009 New Products Seminar October 12th-14th 2009 Worldwide Sales Meeting November 10th-14th 2009 SHOT Show-Jan. 15-18, 2009 Orlando, FL

Business Review (Trull)

Ilion Topics

105 Cti II status/update (Keeney/Streeter)

- Discuss project status and timeline for production
- Discuss Production SKU mix for initial production run—fall 2008
- Discuss plan to "Update" existing 105's within the marketplace—New Kit Allocation, International guns, OHL inventory
- Will test 25-30 new actions with new process (non-excello) barrels
 - Will gallery test and field test (from shoulder)
 - Record how the 1st guns through manufacturing yield VS guns in DOE test
- 125 bbl assy due in 8-11-08
- New receivers due by 8-15-08 (for shooting with new barrels)
- PTI (vent rib vendor) ramping up for production in Sept.
- Cost roll up needs to be reviewed/updated
- 4000 guns to be built/warehoused in 2008 with 600 update kits

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- Discuss project status and timeline
- Review costing
- Review longest lead time items/gating issues
- Discuss Production SKU mix for initial production run—fall 2008
- Writer's Samples on track for late August

- Photo sample guns for 2009 catalog
- Modified carrier "fence" to control feeding rounds from magazine tube into receiver—before chambering
- TPA being modified to have a downward angle in the area where the feeding round first comes into contact with TPA—better control of round
- Ejector and extractor undergoing slight modifications for improved performance
- 8-17-08 to 9-17-08 DAT
- 10-06-08 to 10-31-08 T & P (200 guns)
- DAT Concerns
 - Wear surface where bolt rotates on inside of receiver
 - Non heat treat magazine supports
 - o POI—Raised rib design—high enough?
 - Thermal testing (temperature extremes)
 - o Testing two different materials for outer shell of gun
 - o 30% glass filled nylon on stock and fore-end
 - Receivers drilled and tapped—scope testing for mount hole strength?
 - o Drop testing
 - Production ramped up for 20 guns/day by November 2nd 3,500 for 2008 build schedule—1 SKU—12/28" black gun for 2008

"Puginator" SuperSlug Shotgun (Pugliese/Haskin/Wessner)

- Discuss project status
- Accuracy testing—ammo types
- Laser marking of Model name on bbl and receiver
- Barrel porting?
- Overmolded grip stocks tooling ordered
- Currently testing varying twist rates and barrel lengths
- Ilion to decide which bbl length and twist rate are optimal for the accuracy of the gun
- Barrel porting to be tested at that point

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Barrel-gas cylinder design progress
- Ejection issues
- Currently working on issues with ejector
 - Ejector location moved—new spring loaded design—more robust
- New bbls will be brazed ASAP with new gas orifice hole design
- Inventory position slated for August 2009

"SuperCell" Compensation spacers and LOP kits (Perniciaro/Wilks)

- M105 CTi II
- Synthetic guns
- Wood Shotguns/Rifles
- Timeline for introduction—photo samples for 2009 catalog
- 105 CTi II spacers due in 2nd or 3rd week of September
- Synthetic LOP spacer kit to come online shortly thereafter
- Wood LOP kits last on priority list
- Photo samples available—will ship with relevant photo sample guns

2009 Rifle NPP Submissions

- Status of Samples
- 2009-07 Model 700 VTR Ext
- 2009-08 Model 700 XHR
- 2009-22 Model 700 Tactical Target
- 2009-23 Model 700 VTR Desert Recon
- 2009-24 Model 700 SPS LH
- 2009-25 Model 700 XCR RMEF
- 2009-26 Model 700 CDL SF LTD 257 Roberts
- No concerns or issues at this time

X-Mark Pro Trigger (Ronkainen/Doolittle/Becker)

- NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
- Adjustable Trigger Display Rep/Customer Samples Options?

JF-Develop list of phase in on Spring products

Model 700 XHR (Perniciaro/Sampson)

- Timeline, Status, & NPP Approval
- Laser Marking Capacity
- Barrel Making Capacity
- Camo Change to Realtree AP HD
- 1000 rifles to be built in December
- CAR for new fixturing and tooling
- · Some risk involved polishing
- Some issues with fluting magnum barrel contour, up to .100" difference per side
- JF-Upon approval of sample gun, update NPP to ¼" counterbore pending checking. Would not effect timeline.

New Auto loading Rifle (Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Trigger Pull
- Redesign phase, addressing issues found in original DAT
- Shooting 150 to 220 grain
- Develop plan for focus groups/getting in front some customers
- Shooting 10 modified guns, based on testing, build two rifles with new parts.
- Review roll out by chambering for 2011 launch with production late 2010

R-15/R-25 ShurShot Stock(Franz)

- ShurShot Concept Status
- Work w. DPMS
- Marketing to review fit, feel, ergonomics and supply feed back to Franz

Custom Shop "CAR" Project Update

Scheduled for late August early September

Overview of Custom Shop Activities

- Review Logo Search & Ad Campaign
- New Warranty for Custom Shop
- Process Improvement for Int. Customers
- Search for "C" grade stock vendor
- Awaiting C grade samples from new vendors

New NPP's for Custom Shop

- 547T
- 547 "C" grade
- 700 Ti

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

- Status & Timeline
 - Start building first of next week
 - o Transmittal in process, must be complete for production next week
 - John Balio needs transmittal regarding interchangeable for RARC and Arms Service
 - o Will help Mayfield on efficiency side

Model 770 Fire Control (Lance/Vicars)

- Status & Timeline
- Phase In Date
 - o 1st article samples coming in
 - o \$2.00 savings on safety arm for Ilion
 - o Assembly cell set up in Sept w. production in Oct.
 - 1st week in November for T&P in E'town-Franz to develop list of needs

597 New Synthetic Stock (Lance/Franz/Fink/Trull)

- Status of Quotes
- CAR Needed
- 2009 project due to capital re-directed
 - o RFQ out to six different houses
 - No formal quotes back yet
 - Steve P expressed concern regarding overloading any one vendor
 - o Preliminary CAR written
 - o Trigger housing and mag box will not change
 - Will not spend any money until January

Scopes

- Switching to Chinese scope represents \$400K savings
- Ask Bushnell to re-quote due to \$6.00 difference
- Eye relief and parallax key performance differences
- Bushnell sent letter to Ilion stating price increase for 2009. Mayfield did not receive same letter.
- Testing needs to document key differences.
- Need to supply technical and cost data to Ted Torbeck

Model 770 in 22-250 Remington

- Chambering was explored as a special make item in early 2008
- Etown testing indicated some issues with feed and function that might require a new magazine box and/or additional modifications
- Based on Etown testing and 2008 forecasted volumes-Marketing tabled the 22-250 Rem
- At this time, there are no plans to expand into this more specialized chambering, particularly at the expense of cannibalizing M770 capacity
- J Fink to go ahead and complete NPP for Mayfield and E'town to test and evaluate as resources permit allowing Marketing/Sales to launch when timing/market conditions are favorable

R-22 Project (Fink/Franz)

- Nordic Signed NDA 6.13.08
- E'town Currently Looking at 597 Modifications
- 60 day Timeline to Access Feasibility



Product Team Meeting MINUTES—Ilion

Wednesday September 17, 2008-llion, NY 7:30 am

Future Meetings

November 18, 2008 Conference Call December 17, 2008 Ilion

Upcoming Events

2009 New Products Seminar October 12th-14th 2009 Worldwide Sales Meeting November 10th-14th 2009 SHOT Show-Jan. 15-18, 2009 Orlando, FL

Business Review (Fink)

Ilion Topics

105 Cti Il status/update (Keeney/Streeter)

- Discuss status of Manufacturing timeline/progress
- Discuss plan to "Update" existing 105's within the marketplace—New Kit Allocation, International guns
- ARM Service update of Consumer guns already in marketplace
- Costing for 2009
- Looking at shims coming loose inside receiver where pocket is too deep
- Gas cylinder collars need to be peened to better seat the seals on collar—loss of gas pressure causes light load malfunctions
- Need to do a cost roll-up
- Working with rib vendors to reduce rejection rates
- Need to verify that gallery performance criteria and field test criteria are similar and provide similar results

Model 887 New Pump Action Shotgun (LeMay/Diaz/Wilkes/Fitzsimmons)

- Discuss project status and timeline for Manufacturing
- Review costing
- Review longest lead time items/gating issues
- Photo sample guns for 2009 catalog—one black gun, and 3 camo guns
- Timeline for Catalog decision
- Working on maintaining main-slot dimentions throughout manufacturing process
- · Corrected POI issues with mid-bead sight

- Will produce only T & P guns in 2008 (200 guns to be produced)
- No drilled and tapped receivers required on black guns
- 28" only guns for introduction—black gun and Waterfowl gun
- Working on round control inside of receiver
- Opening/closing forces and camming action of bolt to be improved
- Costing needs continuous review—are we going with one piece barrel???

"Puginator" SuperSlug Shotgun (Pugliese/Haskin)

- Discuss project status
- · Accuracy testing—bbl lengths, twist rates, # of lands-grooves
- Barrel porting—go or no go?
- No barrel porting—negatively affects accuracy
- Ultragon rifling with 6 lands/grooves
- 25.5" barrel with flutes
- Manufacturing equipment due by late 2008 for early 2009 production

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- · Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Barrel-gas cylinder design progress
- Ejection issues
- Schedule time for comprehensive program review through new NPP process
- Working on a Total Project review with Omer Kurtuldu
- Responsibilities delegated—all business units to provide input

"SuperCell" Compensation spacers and LOP kits (Perniciaro/Wilks)

- M105 CTi II
- Synthetic guns
- Wood Shotguns/Rifles
- Timeline for introduction—photo samples for 2009 catalog
- 1st article of 105 spacers not correct dimentially
- Wood spacers received late September
- Adjustable LOP spacers for synthetic stocks due Mid-October

X-Mark Pro Adjustable Trigger (Ronkainen/Doolittle/Becker)

- NPP 2008-83
- Review Capital/Ops Requirements and Timeline for Implementation
- Adjustable Trigger Display Rep/Customer Samples Options?
- T&P delayed one week
- 600 RH housings at plate
- 50 LH

- End of next week, triggers to test lab, 38 guns
- Exit test lab 10.16
- 40 housings for writers guns
- Adjustment wrench not in original CAR \$.29 each
- Should be able to reduce current cost estimate piece price
- Early 2009 for Arms Service triggers
- Current XMP still possible for special makes-C Becker to make sample

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Model 700 XHR (Perniciaro/Sampson)

- Timeline, Status, & NPP Approval
- Laser Marking Capacity
- Barrel Making Capacity
- Ultra Mag Status
- Barrel contour finalized
- Samples made
- 300 RUM samples at Etown
 - o Samples to 2000 rounds complete this week
 - o 120 ksi test passed
- January product date
- January 12th run off on barrels
- 100 to 150 a day, 1000 available in January
- · Laser ordered and will be avail in October

New Auto loading Rifle (Stone/Wilks)

- Discuss project status and timeline
- Discuss any Manufacturing issues/concerns
- Develop plan for focus groups/getting in front some customers
- Review roll out by chambering for 2011 launch with production late 2010
- Exploring opp for steel receiver, target weight has to be 7.5lbs or less
- Opportunity to re-visit process with this project

R-15/R-25 ShurShot Stock(Franz)

- ShurShot Concept Status
- Shipped to Madison for evaluation.

New corrugate packaging

- Will reduce to 3 boxes
- Significant cost savings
- 100% recyclable material
- Need to update verbiage on box
- Opportunity to five pack in Ilion and will increase up to 3000 guns per truck

Custom Shop "CAR" Project Update

Current Status

Mayfield Topics

Model 770 Improved Camming Action (Lance/Vicars)

- Status & Timeline
- Status of Transmittal to Arms Service to RARC
- Implemented August 17th ship date, everything since then has new camming.
- · Remove from future agenda

Model 770 Fire Control (Lance/Vicars/Franz)

- Status & Timeline
- Phase In Date
- Test Plan in E'town
- Side plate due 9.19.08
- RH safety in process-Opp for 700 and Seven for significant savings
- Receiver insert blank-tool needs additional modification
- Trigger block fire control production scheduled 10.30.08
- Budgeting cost neutral

597 New Synthetic Stock (Lance/Franz/Fink)

- Status of Quotes
- CAR Needed
- Ongoing meetings with suppliers
- 3-d models and 2-d drawings

- Received 4 quotes
- Received 3 no-quotes
- · Awaiting quote from Ardesa
- Opportunity to start process in 08 to have tool...8-9 month project

Model 770 in 22-250 Remington (Lance/Franz)

- NPP 2009-40 Submitted for E'town to conduct test
- Test Status
- Will ship 10 rifles to Etown to size up function, feed, and accuracy
- Etown will fit in as time permits

R-22 Project (Fink/Franz/Vicars)

- Review E'town developed concept
- New casting tool at \$80 k for current casting, AR casting more complicated.

770 4th Qtr Capacity

Possibility of doing more rifles this year if Sales can support JF to get with JT and DC to discuss balance of year.

Product Team Meeting MINUTES

Tuesday December 16, 2008-7:30 am

Future Meetings

February 18th Wednesday, Ilion (Tentative) (On-site) March 25thth Wednesday, Ilion April 22nd Wednesday, (Go-To-Meeting) May 27th Wednesday, Ilion

Upcoming Events

2009 Dallas Safari Show - Jan. 8-11, 2009 Dallas, TX.

2009 SHOT Show-Jan. 15-18, 2009 Orlando, FL

2009 SCI Show - Jan. 21-24, 2009, Reno, NV

2009 NRA Convention - May 14-17, 2009 Phoenix, AZ

State of the Business Review (Trull)

Ilion Topics

105 Cti II status/update (Keeney/Streeter)

- NOTE—E-town (Keeney) to provide ammo range Specifics—with Max-Min loads
- o E-Town to provide recommended Break in period procedure
- o Going forward with "Free-Ammo" rebate plan
- o Established STS12LH as light load minimum in gallery testing
- 3 dram 1 1/8 ounce min with break in guns shooting 2 ¾ dram 1 1/8 ounce guns reliably
- Tested rubber mag tube seal—no difference between current metal dual seal system
- Need further testing/evaluation of the following:
 - Rate control variation
 - Break in performance
 - Action sleeve
 - Lubrication—mag tube deformation—surface finishes—as relates to the cycling of the gun
- Exploring options of Carbon Fiber rib attachment/manufacture

- Discussed Steel rib as a viable option in the future
- o Beginning in "Mid-January" will build 18-20/day
- o ARM Service schedule on receiving re-build kits
 - How many kits allocated
 - International re-build kits allocation (Gaston)
- o MCD to develop advertising plan going forward
 - Ammo rebate information
 - Ammo specifics—range of ammo—break in period to be included with each gun in a flyer to insert into Owner's Manual
 - Formulate plan to advertise free ammo rebate

Model 887 New Pump Action Shotgun (LeMay/Franz/Fitzsimmons)

o T & P build put on hold pending further development

"Puginator" SuperSlug Shotgun (Pugliese/Haskin)

- 19 early sample guns being built to cover sample needs for early hunts-SHOT—Wholesale and Distributor shows
- Barrels are hammer forged—showing super accuracy
- T & P for accuracy scheduled for 1-28-09

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Re-designed bbl guide ring/gas cylinder for braze
- 4 rd mag capacity reduced to 3 and a duck plug/Mag spring retainer design to be determined
 - o This is a proposed fix to the shell deformation in mag tube
- DAT currently scheduled to be completed by end of March 2009
 - Manufacturing exploring stock/overmold vendor options

"SuperCell" Compensation spacers and LOP kits (Perniciaro/Wilks)

- 1800 initial kits without texturing approved for first run of guns
- Textured kits due in 12-18-08
- 105 CTi II spacer kits due in by mid January (1st production)
- Wood compensation spacers will be complete by 12-31-08
 - Manufacturing to provide SPECIFIC update to Marketing

Stainless Shotgun bbl (Pugliese)

- Various options proposed at PTM
- o Samples to be sent to Marketing for review

Short stock program w/Overmolded grips (Wilks)

- OMP currently working on a "Non-Masking" alternative for Camo stocks
 - Manufacturing to provide Marketing with samples for review
- Settled upon 12 Gauge ONLY overmolded "Short Stocks" for the 2009 program

- Will include—12 Ga standard configuration synthetic stocks and fore-ends and 12 Ga. ShurShot stocks and fore-ends for 2009
 - Both 870 and 11-87
 - No 20 Ga. Stocks/fore-ends with overmold for 2009
- First article (early samples) testing mid-December T & P

Rifles

X-Mark Pro Adjustable Trigger (Shoemaker/Becker)

- · Discuss current product development cycle
 - o Status of wrench
- Discuss Manufacturing position
- Discuss implementation timelines for all products
- Status of end labels calling out externally adjustable trigger

Model 700 XHR (Perniciaro/Sampson/Sietsema/Fink)

- Discuss current product development cycle
- Discuss Manufacturing position
- Discuss implementation timelines for all products
- Options for Powder Coat finish
- 2010 Stainless Steel Introductions

Overmolded Stocks (Wilks)

- Status of masking grip panels
- Dates for samples

HS Precision Stock Replacement (Skinner/Fitzsimmons/Fink)

- Background on what happened
- Phase in plan to switch to Bell & Carlson on VSSF II and Sendero for 2009

204 Ruger Accuracy Test (Perniciaro)

- Issues stabilizing 40 gr bullets in 1 in 12"
- Review test plan
- Review data generated to date

Model 700 XCR Front Scope Base Hole (Rabbia)

- Forward front base screw hole found to be too shallow
- Reported to Ilion QC
- Discuss Findings and Corrective Action

Custom Shop Update

- Machinery install update
- "C" Grade sourcing update
- Marlin Custom Shop Update

Mayfield Topics

Model 770 Fire Control (Lance/Vicars/Franz)

Status & Timeline

R-22 Project (Vicars)

Update from Gerald Vicars

Model 597 Youth Offering

Options

Product Team Meeting Minutes

Wednesday February 18, 2009- 7:30 am—12:00pm

Future Meetings

March 25thth Wednesday, Ilion April 22nd Wednesday, (Go-To-Meeting) May 27th Wednesday, Ilion

Upcoming Events

2009 Annual NRA Convention - May 14-17, 2009 Phoenix, AZ

State of the Business Review (Trull)

Consumer Quality Review (Joy)

- Measure of consumer satisfaction
- 2008-18000 warranty returns-10000 at Arms Service
- 75% warranty work
- Some issues not detectable at Ilion
 - Example-870 bolt face impacting barrel causing burr
- Delay between production date and receiving product back runs over 300 days, on avg close to a year.
- Joy analyzing consumer data monthly
- Use Sharepoint to communicate issues solved
- Review committee to be established to review all info going out.
- Repair work continuing to decline due to programs/projects put in place.

llion Topics

105 Cti II status/update

- Currently 17/day capacity
- 28" guns and 26" guns shipping
- Skewed towards 28" guns so far
- In-house rib application by mid-March
- 57 early test guns in E-Town—Keeney working on possible improvements/revisions
- ARM Service will update consumer guns to CTi II status per case by case basis—via consumer request

Model 887 New Pump Action Shotgun (LeMay/Franz/Fitzsimmons)

- o T & P Scheduled for 3-18-09-250 gun build
 - Will pull sales samples from T & P build
- First Production scheduled for 2nd week of April
 - Black guns produced until Mid-May
 - Camo guns will be in production in Mid-May
- o Current cost on black gun @ \$151

"Puginator" SuperSlug Shotgun (Pugliese/Haskin)

- o T & P Scheduled for late February
- o First Production scheduled for May

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- Working on bringing current cost/unit down to meet \$499/unit target
 - 10 guns and 5 bbls to E-town 2-27-09 for testing
 - 1st marketing samples due October 2009

"SuperCell" Compensation spacers and LOP kits (Perniciaro/Wilks)

- Discuss current product development cycle
 - o Implemented on Shotguns/Rifles—wood stocks
 - o SG stocks built up for fit and function on wood
 - o Rifle samples submitted to S&K
 - o New parts in house May 2009 for shotguns.
 - o SAP cut in plan with planning and purchasing.

Blasted Black Oxide finish for firearms

- Discuss options VS current process
 - o Shotguns
 - o Rifles
 - o Review options for finish and different rust preventatives for next meeting.

Powder Coat for firearms

- Discuss current product development cycle
 - o Powder Coat process
 - Shotguns
 - Rifles
 - Volume dependent. Originally set up for aluminum.
 - Will need new wash tanks/pre-treat, heating tanks
 - Marketing to provide list of products

Short stock program w/Overmolded grips (Wilks)

• Discuss current product development cycle

- o Flouraseal process
 - Shotguns (Short stocks)
 - Rifles
- o Camo options with overmold grips
- Flouraseal 25 piece run on rifle and passed. Now 200 piece run taking place. Thumbhole stock next in line. Samples with Tarjac, OC will also receive.
- o Flouraseal requires another vendor and 24 hr. cure time.
- Tarjac to submit Soft Touch samples by 3.2.09

Rifles

X-Mark Pro Adjustable Trigger (Shoemaker/Becker)

- Discuss current product development cycle
 - Status of wrench
- Discuss Manufacturing position
- Discuss implementation timelines for all products
- Status of end labels calling out externally adjustable trigger
- \$17,000 Capital request needed for adjustment wrench
 - Decided to stay with current wrench and not spend money
- Building 500 a day. No issue keeping up with current demand.
- New products all have labels calling out new trigger.

<u>Model 700 XHR</u> (Perniciaro/Sampson/Sietsema/Fink)

- Discuss current product development cycle
- Discuss Manufacturing position
- Options for Powder Coat finish
- 2010 Stainless Steel Introductions NPP-2010-1
- 20 an hour capacity on barrels. No issues keeping up
- Stainless processing being worked on. Need to get good machining.
- Need response from engineering on Powder Coat finish. Will require CAR.

HS Precision Stock Replacement (Skinner/Fitzsimmons)

- Background on what happened
- Phase in plan to switch to Bell & Carlson on VSSF II and Sendero for 2009
- Samples for quotes sent to B&C
- Todd Cook working on process to build mold tools and define requirements. Working on Remington design.

204 Ruger Accuracy Test (Perniciaro)

- Issues stabilizing 40 gr bullets in 1 in 12"
- · Review data generated to date
- Recommended path forward
- Engineering to prepare samples of 1 in 9" in M700

Model 700 XCR Front Scope Base Hole (Rabbia)

- Forward front base screw hole found to be too shallow
- Reported to Ilion QC
- Discuss Findings and Corrective Action
- 40 XCR Tacticals Returned from Horton
- Changed process and gauging. Scope hole depth correct but not tapped to depth. 100% checking rilfes. 40 guns have been corrected and ready to return to customer.

LL Bean Special Make Rifle (Perniciaro)

- Status
- Cost Estimate
- Sample Date Availability
- STD est. \$423.40
- Project currently tabled due to resources

2-D Barcode

 Marketing to develop website page to explain different markings

Product Team Meeting Agenda

Wednesday March 25th- 7:30 am—12:00pm

Future Meetings

April 22nd Wednesday, (Go-To-Meeting) May 27th Wednesday, Ilion

Upcoming Events

2009 Annual NRA Convention - May 14-17, 2009 Phoenix, AZ

State of the Business Review (Trull)

Consumer Quality Review (Joy)

Ilion Topics

105 Cti II status/update

- Current Manufacturing update
- Guns shipped/warehoused to date
- Other issues?
- Currently running at 23-24/day manufacturing
- Encountering some Gallery failures—Keeney taking a look
- Barrel rib attachment—moved "in-house"
- Update CTi II kits to ARM service mid April
- Ilion will run "Field-Test" now that significant amount of guns have made in through production

Model 887 New Pump Action Shotgun (LeMay/Franz/Fitzsimmons)

- Discuss current product development cycle
 - o Review and update timeline if needed
- Discuss updated costing
- Any/all approvals, issues, and agreed upon resolutions documented
 - o Review Path Forward
- Discuss Manufacturing position
- T & P scheduled for 1st week of April
- 1st production scheduled for week of April 13th
- Initial capacity 80/day—this figure being improved upon with discussions with vendors of critical components

- · Receiver frames, bolt heads, barrels possible gating issues
- 2-piece bbl VS 1-piece bbl—looking at manufacturing options

(MPAS) New Auto loading Shotgun (Haskin/Olsen)

- · Discuss current product development cycle
 - o Review and update timeline if needed
- Discuss updated costing
- Discuss any/all product changes
- Any/all approvals, issues, and agreed upon resolutions documented
 - o Review Path Forward
- Discuss plan for getting sample guns (early) Press guns for hunts
- EET 3-25-09
- Plan to order DAT parts while EET is in progress
- DAT Scheduled—May 19th—July 10th
- Some issues:
 - o Safety button breaking—going to 4140 steel
 - o Need to increase wall thickness of carrier pivot tube
 - o Firing pins breaking
 - o Feed latch pivot pins breaking
 - o Bolt head lug failures
- Working on correctining these EET issues before DAT starts
- One-piece bbl design saves approx. \$11 gun—need to test in DAT

Short stock program w/Overmolded grips (Wilks)

- Discuss current product development cycle
 - Marketing approved change to black grip cap, black swivel studs, and new Flouraseal process on rifles.
 - Represents cost savings and provides much cleaner look.
- •
- 1st article due 7-01-09 for short stocks (DSG specials)
- Camo a few weeks later
- Need these ASAP to make the 11-87 DSG special make 11-87's!!!!!!

Extra Barrel Clam Pack Project (Rabbia/Smith)

- Discuss current Options to current packaging
- Needs to be updated for 2010 xtra bbl line
- will set up meeting to discuss as soon as SKU rationalization is done

Rifles

Blasted Black Oxide finish for firearms

• Discuss options VS current process

- o Shotguns
- o Rifles
- o Same material going from 50 grit to 80 grit
- Improved rust resistance considerably tested in salt chamber for 14 hours at 113 degrees F.
- o Express \$175 cost increase. Rifles will not see cost increase.
- Change process on rifles.

Powder Coat for firearms

- Discuss current product development cycle
 - o Powder Coat process
 - Shotguns
 - Rifles
- \$225,000 capx and \$115,000 operating expense to add necessary equipment for volume
- Adds cost to finish, requires black oxide prior to powder coat plus additional processing time.

Model 700 XHR (Perniciaro/Sampson/Sietsema/Fink)

- Options for Powder Coat finish
- 2010 Stainless Steel Introductions NPP-2010-1
- Run SS samples prior to next meeting.

HS Precision Stock Replacement (Skinner/Fitzsimmons)

- Background on what happened
- Phase in plan to switch to Bell & Carlson on VSSF II and Sendero for 2009
- B&C quoted price yields savings of \$122,000 for all stocks except SWS
- NO tooling costs
- 180 stocks per month

- JT to evaluate LE and Commercial change impact
- Priority 4 or 5 on doing in-house
- May 1st timeline to start if implemented

204 Ruger Accuracy Test (Perniciaro)

- Status of 1 in 9" ROT Barrels
- Review data generated to date
- Start test plan to evaluate 1 in 9" in M700
- Also seeing accuracy issues in H&R rifles

Custom Shop Update

- Machinery install update
- "C" Grade stock sourcing update
- Sales plan and Web Site update

<u>1911 R1</u>

• Status Update (Perniciaro/Olson)

Mayfield

597 VTR (Vicars/Lance)

- Current Status/Timeline
- Finlize volume forecast
- Estimated warehouse 5.26.09
- 240 per day capacity

Model 770 Firecontrol (Vicarts/Lance)

- Current Status/Timeline
- _

Scopes-option for ~\$1.50 savings switching from Bushnell to non-branded scope. Need to evaluate customer/consumer perception.

Product Team Meeting Minutes

Wednesday April 22nd

Future Meetings

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June 4. Wedresolay, Mor
July 15. Wedresday, Mor
August 19. Wedresday, Go-ko-Marting
September 16. Wedresday, Mor
Oxioter 21<sup>st</sup> Wedresday, Go-ko-Marting
December 16. Wedresday, Go-ko-Marting
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Upcoming Events

2009 Annual NRA Convention - May 14-17, 2009 Phoenix, AZ

Ilion Topics

105 Cti II status/update

- Current Manufacturing Status/Update
 - o Status of upgrade kits for original 105 CTi's
 - o 1st pass yield through gallery going well
 - Rib bonding process fully in house now
 - o ARM Service being sent 5-update kits/day
 - 1100+ units warehoused to date

0

Model 887 New Pump Action Shotgun (LeMay)

- Discuss T & P build
 - Status of test guns to be used for:
 - Sales Team samples
 - Industry samples—Outdoor Writer's
- Discuss current Manufacturing status
 - o OHL inventory position—specific date
 - Black guns—RAMAC 82500
 - Camo guns—RAMAC 82502
- Estimated production capacity 2009 by SKU
- T & P build complete (200) guns
- Once production begins 4-6 week ramp up process from 80/day to possibly 200/day—by June
- Working on a parallel path for 1-piece barrel design

- Monitoring receiver/barrel flow with suppliers to ensure steady supply of parts once we begin building guns
- Camo guns in July—Tarjac has 300/day capacity
- 2009 total production estimate—25,000 units

(MPAS) New Auto loading Shotgun (Haskin)

- Discuss current product development cycle
 - o Review and update timeline if needed
- Discuss updated costing
- Discuss any/all product changes
- Discuss plan for getting sample guns (early) Press guns for hunts— IMPORTANT
- EEC testing complete 4-29-09
- 10 DAC guns complete 5-18-09
- Updated costing complete in May 2009
- 5 sample guns to be built for hunts/press/marketing by October—2009
- Design acceptance 7-30-09
- 1st production February/March 2010
 - O Need to decide which SKU's

Rifles

X-Mark Pro Adjustable Trigger (Rabbia)

- Findings of Lee Hoots Rifle and Actions Taken
- Moly coat had been removed from trigger
- Re-lubed and tuned
- Was able to adjust both up and down
- Trigger was set at 3 pounds
- Hoots received rifle back and again complained of high trigger pulls and range of adjustment limited/non-existent
- Based on conference call on 4.29.09 w. Perniciaro, Rabbia, Sietsema, and Fink, a 90 gun audit will be performed to access trigger setting and adjustability

Model 700 XCR II (Perniciaro/Fink)

- 2010 Stainless Steel Introductions NPP-2010-1
- Change from triangular fluted barrel to standard and magnum contour barrel with black PVD finish
- Will replace current XCR line in 2010
- Stainless triangular samples shipping to J Fink for review
- Will still need this option for customer specials and possible VTR SS

• J Fink to update NPP

204 Ruger Accuracy Test (Perniciaro)

- Status of 1 in 9" ROT Barrels
- · Review data generated to date
- Start test plan to evaluate 1 in 9" in M700
- Also seeing accuracy issues in H&R rifles
- S. Perniciaro to conduct testing on faster ROT barrels

Mayfield

597 VTR (Vicars/Lance)

- Current Status/Timeline
- 40 test guns available week of May 4th
- 10 guns to Etown for test
- S. Franz anticipates testing going quickly with high degree of confidence for success
- K. Lance to confirm delivery dates of components
- 597 build rate at 200 per day in April
- 597 rate ramping up to total of 240-250 per day

Product Team Meeting Minutes

Wednesday July 8th 2009 7:30am-11:00am (Ilion)

Future Meetings

August 19th Wednesday, Go-to-Meeting September 16th Wednesday, Ilion October 21st Wednesday, Go-to-Meeting December 16th Wednesday, Ilion

Upcoming Events

2010 Grand American Aug. 5th-15th
2010 New Products Seminar – October 12th- 19th
BPL and JF to get sample spreadsheet finalized

Business Review

Remington Review-John Trull H&R Review-Bill Schirmacher

Ilion Topics

105 Cti II status/update

- Current Manufacturing Status/Update
- Currently building 17/day—5 rebuild kits/day
- Older "Revival" stocks beginning to work out of inventory
- Manufacturing to re-allocate resources from 105 Production to other more needed areas—EX. 887 and 870

Model 887 New Pump Action Shotgun

- Current Manufacturing Status/Update
- Discuss current Plan for integration of Camo guns
 - T&P
 - Manufacturing NEED SPECIFIC DATES
- Discuss Updated COSTING of 887
 - Specific cost of RAMAC 82500—SPECIFICALLY WHERE ARE WE CURRENTLY AT WITH COST
 - o Specific cost of RAMAC 82502

- Feasibility of 1-piece barrel design and other possible cost reduction efforts—discuss development efforts
- Manufacturing 100/day June-Scheduled for 170/day in July
- Camo guns T&P in late July—Full Production in August—1,000 guns planned in August
- Front swivel stud retainer added to secure in mag cap
- Cost initiatives should shave \$26.31 off current \$185.19 cost
 - 1-piece bbl design currently being tested—will save at lease \$8.00 in costs once implemented
- Current cost of Camo 887 at \$209—will come down when above costing initiatives take place
- Mag tube extensions for 887 Tactical currently being tested in E-Town
- Front sight and Duck plug initiatives under way to correct minor issues in Production
- DLU issues being explored by E-Town—will report findings back to Ilion

(VERSAMax) New Auto loading Shotgun (Haskin)

- Discuss current product development cycle
 - o Review and update timeline if needed
- · Discuss any updated costing
- Discuss any/all product changes
- Discuss plan for getting sample guns (early) Press guns for hunts— IMPORTANT
- EEC testing complete
- DAC-8-16-09
- Plan to have product available in Warehouse when we have the "official" launch—EXTREMELY important part of the launch process
 - o Benelli Vinci set the benchmark in 2009
- DAT guns into test in October—hope to pull Writer's Sample guns from this build
- 1 piece bbl design being tested to reduce cost/labor efforts

New "80-Grit" blast finish (Rabbia)

- Discuss Updated blasted black oxide finish
 - o Shotguns—switch over scheduled for August 1st
 - o Rifles-Switch over this week. Much better corrosion resistance. Should not add any cost but will be monitored.

Powder Coat finish (Rabbia)

- Discuss findings of instances of Powder coat finish coming off on certain shotguns
 - o Specifically—RAMAC—81202, 81420 & 81421
 - o Adhesion issues traced back to cleaning process
 - Need additional cleaning equipment to standardize powder coat line

New 2010 NPP's Sample requirements

- 2010 NPP's posted with Sample Requirements listed on each NPP
 - o Spring Program Sample Requirements
 - Standard Catalog item sample Requirements
 - Versa-Max sample requirements
 - Sales, Press, SHOT, Writer's Seminar Sample Requirement spreadsheet will be updated for 2010 and submitted

BPL and JF to get sample spreadsheet finalized

Discuss Overmold process on Shotguns and Rifles(Wilks)

- Discuss Overmold process
 - Shotguns—standard black synthetic stocks
 - o Shotguns—Camo shotgun stocks
 - o Flouraseal or standard process???
 - o 1st article samples due July 24th
 - Floraseal process not working for camo guns-will need to mask the stocks short term—and explore other options for long term

<u>Rifles</u>

Packaging Review-Rifles and Shotguns (Skinner)

- Review packaging; competitors, what options do we have, etc.
- . Look at options from where we are today to mid-point and high end

New Autoloading Rifle (Franz)

- Status Update
- Working with SignaCast to develop a steel receiver
- Working with Marketing and graphics designer to develop new stock concept. Handlaid up vs injection molded? Talk to Cook
- Fire control improvements underway
- Will be integrating into RPDS
- Need to start establishing Ilion POC on this project
- Explore opportunity to co-develop a pump?

X-Mark Pro Adjustable Trigger (Rabbia)

Current Status

- Assemblers understand spec and the need to build to spec
- Shipping at 3 lbs
- Spec is 3.25 lb +/- 4 oz

Model 700 Accuracy (Rabbia)

- Conduct audit based on complaints from IWA
- Seems more problematic in stainless
- Seitsema has developed test plan.
- · Has started shooting with a concentration on stainless
- Will collect data to discuss by next PTM
- Discuss process with Balio regarding consumer guns

Model 700 XCR II (Perniciaro/Fink)

- 2010 Stainless Steel Introductions NPP-2010-1
- Will replace current XCR line in 2010
- Will still need this option for customer specials and possible VTR SS
- Review Stainless Triangular barrels
- Samples being built. Part numbers structured
- · Stainless barrels to ship next week as well as understanding of capacity

204 Ruger Accuracy Test (Perniciaro)

- Status of 1 in 9" ROT Barrels
- Review data generated to date
- Start test plan to evaluate 1 in 9" in M700
- Also seeing accuracy issues in H&R rifles
- S. Perniciaro to conduct testing on faster ROT barrels
- Barrels to be delivered in July and shot in H&R gun for evaluation.

Mayfield

- 597 VTR-10 samples sent to Etown
- Passed drop test
- Will James to complete test report
- VTR add on package did not influence accuracy
- Warehouse position 7.26 with 1000-1200 rifles this month
- 2009 production of 13.5k

Safety arrm

Production parts to ship 7.27

Trigger

Samples due in 7.30 Should have samples to Etown 8.15 Best case scenario-Due to inventory-4th qtr production

H&R Meeting Agenda

Meeting Manager: Jim Doolittle/ Steve Perniciero

Discussion Topics

- 1. Synthetic Thumbhole Stocks
 - A. Project/Mold Status- Jim D., Gayle Wilks
 - B. Photo Sample Status- Jim D.
 - C. BOM Update- Jim D.
 - D. Spring Program Models/Schedule- Bill S., Tim L.
- 2. OMP Synthetic Pardner Stock
 - A. Mold Status/Changes- Jim D., Gale W.
 - B. T&E Progress- Jim D.
 - C. Gander Mountain SMU Build Schedule- Gina C., Jim D.
 - D. OMP Pricing- Jane C.
 - E. E-Town Analysis/Improvement- Gayle W.
- 3. Intrex Interchangeable Barrel rifle
 - A. Zunda Group Survey Discussion- Bill S.
 - B. E-Town Design Update- Mike Keeney
- 4. 35 Whelen Chambering
 - A. Testing/Process Development- Jim D.
 - B. Manufacturing Timeline- Gina C.
 - C. Sales Discussion-Bill S.
- 5. Cosmetic Changes to Product Line
 - A. Update/Timeline- Bill S., Tim L.

Updates: H&R Meeting July 8, 2009

Synthetic Thumbhole Stocks

- •Do to forearm issues, we will approach this project in two phases: 1st phase rifles, second phase slug guns.
- •3D stock was reviewed and approved pending additional testing on some thin areas on the stock
- •Jim D. on track for current project timeline. May be able to take some days out of some segments. Project is at design and refinement stage for mold. Jim D. is on track for 11/1/09 production.
- •Product will be offered in a 2010 spring program beginning 08/01/09

- •Possible August samples for photograph, First mold samples will occur late August/Early Sept. and if acceptable will be used for new products seminar in October. Tim has initiated orders for 223,243. 20 ga. and 12 ga. samples.
- •Tim/Bill to request samples for June photo for flier for Spring 2010 program, Cost of \$500-700. Actual Sample cost approx. 3K. Sample has been shipped to Dean Digital
- •Pad samples are in, Project remains on time

Synthetic Pardner Shotgun Stock

- •OMP mold was designed to produce adult and compact shotgun and adult rifle stocks.
- •All T&P to be completed by end of 2nd qtr. 2009
- Inventories of Choate stocks are running low. Purchasing will order an additional 12 week supply to carry production until OMP is fully on board.
- •Bill/Tim to review costing on SB1-11C to possibly bring model out as a lower price point in synthetic
- •Some issues with initial samples due to sidewall thickness. Jim, Bill, Gayle, and Tim in discussion on alternative corrective actions, costs and acceptable testing plan. Mold being corrected for issues as noted by Jim and Gayle.
- New samples due in June 16, if T&E is acceptable then production will begin end of July, early August
- •E-town is examining and will be providing feedback on modifications to correct stock issues

Intrex/Interchangeable Barrel Rifle

- Brand management completed Market Analysis presentation
- ·Mike Keeney assigned as R&D project engineer
- •Trophy Research project completed and critical to quality concepts have been communicated to R&D
- •Mike Keeney has presented design concept and received preliminary approval to proceed
- •Marketing and R&D have agreed to pursue a trigger block trigger housing design concept
- •Zunda presented concepts. Staff at Ilion, E-town and Madison surveyed on concepts and results compiled. Zunda to produce new concepts from results. Meeting to determine path forward on July 15, 2009 in Madison.
- ·1st prototype of barrel locking mechanism completed, strain gage testing completed with favorable results
- •Extractor/Ejector/Barrel latch mechanism samples working
- Safety requirements to include barrel interlock, Mike K. working on several design concepts

Intrex/Interchangeable Barrel Rifle (cont.)

- ·Mike updated progress on Intrex
- -Designed modular trigger assembly
- -Moved release lever to front of trigger guard
- -Ejector will act in dual role with barrel latching
- -Mike reviewing transfer bar vs. modified ½ cock style safety
- -Mike attempting to send CAD files to ZUNDA group
- •Sean D. noted that some design concepts may carry over into production savings for standard H&R product at Ilion. Sean D. suggested that project may be considered at conceptual stage depending on changed required by new cosmetic design

35 Whelen

- -200 firearms built and in the box
- -10 rifles in extended trial and pilot
- -No misfires experienced in the 200 built
- -Accuracy on Marlin barrels noted as very good
- -As this would be substitutional, it was determined not to attempt a larger run this year. If trial and pilot is acceptable, 200 pieces will be given to Shari for sale to wholesale
- -Possible show special offering for 2010 and build to order
- -Jim D. to provide feedback on final testing
- -Gina C. to notify Marlin on barrel requirements

Cosmetic Changes to the Product Line

- •Directive has been passed to Marketing to modernize the cosmetic looks of the H&R product line
- ·Better wood to metal fit
- Buttstock/Forend profiles
- ·Metal/Polish/Finishing
- •Recoil pad review
- •Marketing to have preliminary discussion with ZUNDA Group
- •Waiting to have meeting with Zunda on Intrex to review ideas on possible single shot directions on cosmetic issues
- •John T. advises that Intrex should be completed first and then use concepts to drive change on H&R line.
- •Bill S. asked for input on solutions to H&R rib supply
- •Jim D. advised that Remington rib process will be tested on H&R barrel this week

Product Team Meeting Agenda

Wednesday August 19th 2009 8:00-10:00am Minutes

Future Meetings

September 16th-Wednesday, Ilion Date TBD May combine with October meeting. October 21st Wednesday, Go-to-Meeting December 16th Wednesday, Ilion

Upcoming Events

2010 New Products Seminar - October 12th- 19th

Rifles

Packaging Review-Rifles and Shotguns (Skinner)

- Review packaging; competitors, what options do we have, etc.
- Look at options from where we are today to mid-point and high end
- Bob to provide update at next PTM

New Autoloading Rifle (Keeney)

- Status Update
- Ilion POC on this project
- Finalizing trigger design.
- Adjustability of trigger good
- Endurance test underway on trigger
- Program is a top priority

Model 700 Accuracy (Seitsema)

- Status Update
- SS baseline accuracy test
- A good shooter will out shoot jack nearly 100%
- Test with AcuTip and CoreLokt
- Marketing would like to see 3 shot groups
- Ammo stated as single biggest variable
- Review with Arms Service
- Consumer research regarding accuracy expectations needed
- Ilion to conduct competitive audit
- Compare I

<u>Model 700 VTR Stainless</u> (Perniciaro/Shoemaker)

• Is this an option?

204 Ruger Accuracy Test (Perniciaro)

Status of 1 in 9" ROT Barrels

Mayfield

Model 597 VTR (Lance/Vicars)

- 2009 production of 13.5k
- Current Status

New Firecontrol (Lance/Vicars)

Status Update

105 Cti II status/update

- Current Manufacturing Status/Update
- DISCUSS RESULTS OF RECENT ILION "FIELD" TEST

Model 887 New Pump Action Shotgun

- Current Manufacturing Status/Update
- Discuss current Plan for integration of Camo guns
 - T&P
 - Manufacturing NEED SPECIFIC DATES
- Discuss Updated COSTING of 887
 - Specific cost of RAMAC 82500—SPECIFICALLY WHERE ARE WE CURRENTLY AT WITH COST
 - Specific cost of RAMAC 82502—SPECIFICALLY WHERE ARE WE CURRENTLY AT WITH COST
 - WHAT IS THE REST OF THE YEAR BUILD SCHEDULE FOR CAMO 887 SHOTGUNS
 - NEED TO PHASE IN MASKING OF BBL EXTENSION
- Feasibility of 1-piece barrel design and other possible cost reduction efforts—discuss development efforts—WHERE ARE WE AT WITH THIS?
- Front sight and Duck plug initiatives under way to correct minor issues in Production—WHERE DO WE STAND WITH THIS?
- DLU issues being explored by E-Town—will report findings back to Ilion— WHERE DO WE STAND WITH THIS—SERIOUS ISSUES FROM THE FIELD BEING REPORTED!

(VERSAMax) New Auto loading Shotgun (Haskin)

- Discuss current product development cycle
 - o Review and update timeline if needed
- · Discuss any updated costing
- Discuss any/all product changes

 Discuss plan for getting sample guns (early) Press guns for hunts— IMPORTANT—ARE WE STILL ON TRACK FOR THIS??

New "80-Grit" blast finish

- Discuss Updated blasted black oxide finish
- · Shotguns—Have we implemented this yet?

Powder Coat finish

- Discuss findings of instances of Powder coat finish coming off on certain shotguns
 - o Specifically-RAMAC-81202, 81420 & 81421
 - o NOTE—This is a CONTINUING ISSUE FROM THE FIELD

Meeting Agenda

Meeting Title: H&R PTM

Date: August 19, 2009

Location: Ilion Technical Conference Room

Meeting Manager: Jim Doolittle/ Steve Perniciero

Attendees: Bill Schirmacher, John Trull, Sean Dwyer, Jim Doolittle, Steve Murphy

Discussion Topics

- 1. Synthetic Thumbhole Stocks
 - A. Project/Mold Status- Jim D., Gayle Wilks
 - B. Changes to Varmint model barrels
 - C. BOM Update- Jim D.
 - D. Spring Program Models/Schedule- Bill S., Tim L.
 - E. Camo Sample Schedule
- 2. OMP Synthetic Pardner Stock
 - A. Mold Status/Changes- Jim D., Gale W.
 - B. T&E Progress- Jim D.
 - C. Cost Implications of Modifications
 - D. E-Town Analysis/Improvement- Gayle W.
- 3. Intrex Interchangeable Barrel rifle
 - A. Zunda Group Survey Discussion-Bill S.
 - B. E-Town Design Update- Mike Keeney
- 4. Cosmetic Changes to Product Line

A. Update/Timeline- Bill S., Tim L.