

REMINGTON ARMS COMPANY, INC.

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Product Team Meeting Minutes

Wednesday, August 23<sup>rd</sup>, 2007 – Ilion —7:30 am – UNTIL

Future Meetings

Wednesday, September 26<sup>th</sup>, 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 Excellor 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 go-ahead with full production when deemed possible (capacity currently exists for 70-guns per day)

Progress update meeting scheduled for October 1<sup>st</sup>

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 made 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)

1<sup>st</sup> 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 1<sup>st</sup> 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 considerations (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 IonBond 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 2<sup>nd</sup> week of September 1<sup>st</sup> 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

1<sup>st</sup> samples due week of Aug. 27<sup>th</sup> for syn. stk (will be used on Shur-shot stocks)

Production to begin October 1<sup>st</sup> 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
  - 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  
3<sup>rd</sup> 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

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