# **ENGINEERING STAFF MEETING**

Minutes from 12-20-05 Meeting

#### MODEL 7

#### **MODEL 700**

- ▶ J.Mead Design and evaluate using a plastic follower for both M700 and M7 rifles.

  Design complete 9-15-05. (T.Powers) Initial quotes received 10-4-05. Quotes received on all versions 11-15-05. Quotes on hold. Redesigned prototypes to test by 1-15-06.
- G.Sietsema Feasibility of using IHS process for rifle barrels. Feasibility study complete by 1-30-06.
- J.Mead Design new side pivoting claw extractor for the 6.8mm SPC. Complete by 12-30-05. J.Kast Modeling is done on the first design MIM F.Ogrodnik is reviewing. 1<sup>st</sup> prototypes will be made in tool room in 4140 by 1-15-05.
- S. Perniciaro Hand buffing of sear for XR-100 is not user friendly. If 40-X version of new fire control does not come on line in spring of 2006 then we may have to reengineer the process to make it more ergonomic. On Hold. Production has 2,000 sears ready. Next production of XR-100 s is December 2006.
- ➤ <u>J.Mead</u> change M700 youth pad to match M700 not shotgun youth. Coordinate with J.Smith. TRT to make prototypes to check by 12-30-05.
- J.Mead Change primary cam angle on M700 bolt handles to reduce impact dings. Status of PMI quotes?
- ➤ J.Mead Redesign plastic plugs for scope holes. They need to be more rigid and have a raised ring or thread to lock into threaded receiver holes better. Samples by 1-30-06.

#### **MODEL 7600**

**MODEL 750** 

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#### **MODEL 7400**

➤ J.Mead – Redesign bolts to prevent ejectors sticking back during proof. – J.Kast. One design to Production to tested 12-13-05. Test with moved ejector hole by 12-21-05. Second design (set screw to retain ejector) to tool room by?

#### **MODELS 572 AND 552**

#### **METAL FINISH & COLOR**

➤ <u>G.Sietsema</u> – Test powder coating plastic trigger guards D. Sampson has samples at PPG to test and evaluate by 10-30-05. Info received from PPG 10-24-05. PPG was on site to process parts 11-9-05. Must preheat parts to be consistent. **Tested pre-heaters 12-22-05**. Feasibility study by 1-10-05.

#### **MODEL 870**

- J.Mead Add detent to 20 gauge similar to 12 gauge for cost savings. Design complete 6-30-05. Cost analysis complete and favorable. Tooling, T&P, etc required. Production release by December 2005. Tooling details quoted. Need mag cap with detents out for quotes. By?
- ➤ <u>J.Mead</u> —Testing 12 gauge synthetic magazine cap. Prototypes in the Test Lab. Results by 10-15-05. Getting samples of new "super-tough" material, ST100 to test by 10-15-05. Need 30 more (Delrin 570) samples made by CTM to test lab to test by 12-15-05. (T.Powers) Test lab to finish testing by 1-30-06.

#### **BARRELS**

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#### ROUND RECEIVERS

- S.Perniciaro Coordinate 1<sup>st</sup> article approval from Kerner. Samples failed for incorrect heat treat and out of position fire control mounting hole. New samples at Remington heat treat to check for hole movement by 10-12-05. Complete. E. Aiello getting Kerner to requite with Remington doing the heat treating. Status 30 heat treated samples by 12-15-05.
- **G.Sietsema** Poor broach finish on SST receivers. Change heat treat and make receivers harder. Tested 4-26-05. Results inconclusive. Running parts through all operations to verify the rest of machining. Plan by 5-31-05 for outside bar stock supplier. Test re-heat treated bars by 6-30-05. New Date 7/22/05. 3,826 # (64 bars) H. F. 'd at Remington. Will run on engineering order 8-12-05. Need to confirm no issues with Operation 10 and improved broaching by 9-15-05. Complete and good. Need to order 40,000# to new specs. Steel mill to advise on availability by 10-14-05. Order is in and material due 2-10-06.
- ➤ G.Sietsema Review process to deburr receivers.
  - EH Will try electro-chemical deburr (electro-polish) proposal received 9-15-05.
     Estimated 95 parts/hour and \$400,000 capital. Next step for project by 10-21-05.
     Need \$7,500 for more tooling to test. On hold.
  - High Energy samples not feasible.
  - Almco is looking at a heavy porous media to test by 11-29-05. 1st test failed. 2nd test 12-15-05 tooks favorable. Will test with longer cycle time by 1-16-06.
  - Developing brush deburr process reviewed 12-7-05. Samples sent to Weiler 12-15-05 to receive back 1-10-06.

## **STOCKS**

- ➤ <u>J.Mead</u> -Coordinate upgrading all stock drawings and PPI with E-Town. Wood stocks by 10-31-05. Working on standardizing inletting by 12-30-05 Tom Powers.
- S.Perniciaro Need to establish plan to work with HS to get in good stocks in a timely manner. Project turned over to Ed Owens to complete. Bob Orf will review a new gage design with log Diliberto to send to HS. By 12-29-05.

#### OTHER

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- <u>R.Jov</u> Status of easy to use system to access Process records. Started Beta testing in October 2005. Outside vendor quoted 9-15-05. \$30,000 to do a study. S.Perniciaro reviewed with P.Cahan. We will wait until next year and analysis the pros and cons of the Bob Joy process. R.Joy work complete by 12-15-03. Beta test on the Boor starting 1-15-06.
- ▶ G.Sietsema Salts bleeding out of barrel sets. Tested in production with "No-Bleed". Problem with too much oil dripping from components
  - Testing cleaner from WinTech. Initials results good. Large test completed 9-30-05.
  - o Install No-Bleed and cleaner in color line by 12-10-05. ON HOLD
- ➤ J.Mead Design new grip cap with the ability to have different inserts used; e.g., Ducks Unlimited, RMEF, etc. By 12-20-05.

### **CUSTOM SHOP**

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