

PROJECT: DIE CAST TOOLING FOR W/700 BEL LONG AND SHORT TRIGGER GUNDS AND FLOOR PLATES.

ENGINEER: M&O

DESCRIPTION: DESIGN AND BUILD ALUMINUM DIE CAST TOOLING TO BE USED BY TOOL PRODUCTS INC. TO CAST THE W/700 BEL LONG AND SHORT TRIGGER GUNDS AND FLOOR PLATES. 3 YR. I.R.R. IN EXCESS OF 50%.

CAP:

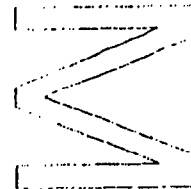
UPRIDE: 08/06/90

KEY EVENTS	SCHEDULED	ACTUAL	STATUS
QUOTE VENDOR	03/12/89	05/25/89	05/10/89
DEVELOP DYNAMICS	06/01/89	06/10/89	05/15/89
WRITE DRAFT	06/20/89	06/15/89	06/10/89
RELEASE PURCHASE ORDER	07/12/89	07/13/89	07/10/89
MODIFY IN-HOUSE TOOLING	07/12/89	10/20/89	06/20/90
WRITE PROCESS	10/20/89	12/15/89	05/20/90
RUN FIRST ARTICLE	11/27/89	12/15/89	05/23/90
RELEASE DIE FOR PRODUCTION	12/22/89	12/22/89	05/23/90
RUN TLP	01/05/90	01/05/90	
RELEASE TO PRODUCTION	01/05/90	01/15/90	
CLOSE PROJECT	01/25/90	01/30/90	

INSTALLING ON VARIANTS. WILL RELEASE BY 9/01/90

REWORK TLP WITH NEW ASSEMBLY TECHNIQUES.  
FLOOR PLATES RELEASED TO PRODUCTION ON 04/05/90.

COMMENTS: DIE CAST TOOLING FOR W/700 BEL LONG FLOOR PLATE AND TRIGGER GUNDS, AND SHORT FLOOR PLATES HAVE BEEN APPROVED FOR PRODUCTION. A NEW TLP FOR RESEARCH TEST IS BEING RUN THAT EMPLOYS THE NEW ASSEMBLY TECHNIQUE THAT ELIMINATES SELECT ASSEMBLY. TESTS WILL BE COMPLETED AND THE PROCESS WILL BE IMPLEMENTED BY 08/20/90 TO COINCIDE WITH DELIVERY OF NEW WOOD FROM S&K.



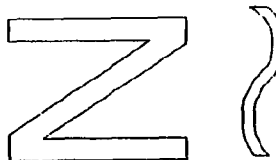
TEMPORARY PROCESS TO RUN OLD DOEHLER JARVIS M/700 BDL LONG TRIGGER GUARDS: HEAD

To date we have processed in excess of 19,000 parts off the old tool. On 07/27/90 to old tool finally wore to a point where it had to be taken out of service. The new Doehler Jarvis die is undergoing final alterations so that it can be put into production. We currently have enough parts in the plant to last until 08/23/90. The new tool is being fully expedited so that a new supply arrives before that date.

We have a total of 3,850 of the new design Tool Products M/700 BDL Long action Trigger Guards on hold in Purchase Parts Inspection. They cannot be used with the current wood inletting due to excessive metal margin. The inlet has been modified to fit the old Doehler Jarvis parts currently being run in production. An alteration process has been developed to modify the Tool Products Trigger Guards to fit existing wood. This will be used as a last resort if the need arises:

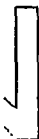
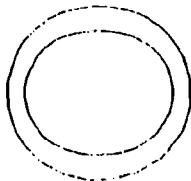
PROCESS DEVELOPMENT FOR POLISH ON M/700 BOLT ASSEMBLIES: HEAD/CROOK/L/KINNEY

A number of process variations have been tried in an effort to remove the current bottleneck at hand polish in the M/700 bolt process. One process utilizing the strapping machine in building 84-1 and a subsequent buff seems to hold the most promise. New abrasive belts and variations in operator technique will be tried to eliminate initial cosmetic variations. All of the actual polish will be done to the bolt handle before it is brazed to the bolt body.



MODEL DRAWING CHANGES TO M/700 BDL WOOD INLET: HEAD

A great deal of work has been done with S&K to insure that we have the proper wood to metal fit on the new Tool Products Trigger Guards. The model drawings have been altered and transmitted. S&K has modified programs and tooling and is currently running new inlet stocks. The stocks are being identified so that they can be phased into production.



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PROCESS DEVELOPMENT FOR M700 BEL TRIGGER GUARD ASSEMBLIES: HEAD/CODING

An entirely new process has been developed for the Tool Products Trigger Guards and Floor Plates. It eliminates the following current production problems:

1. Excessive hand polish
2. Belt sanding and filing to remove die flash on Trigger Guard.
3. Anulize and Microbond paint.
4. Fictured Seco.
5. Hand filing to a select assembly.
6. Excessive trucking and handling.
7. Assembly of components and file to fit by Final Assemblers.
8. Using washers at Final Assembly to obtain proper metal and wood margins.
9. Inability to repair cosmetic defects to finished assemblies due to select fit.



The elimination of the above problems will be accomplished as follows:

1. New castings with parting line on the side that minimizes hand polish and eliminates belt sanding, filing, and the use of washers at Final Assembly.
2. New latch form on Floor Plates that eliminates file to fit [at Final Assembly].
3. Powder coating operation at the component level that requires no masking or matching of parts.
3. New sub-assembly operation that qualifies Trigger Guards to Floor Plates, and assemblies the latch, latch spring, latch pin, and Floor Plate hinge pin.
4. New dimensioning on stocks to eliminate interferences and enhance process control.

