

## METHODS AND STANDARDS PROGRESS REPORT - JANUARY 1975

1250 0-1  
*W. M. L.*Suggestion Plan

Suggestion Plan data for the month of January 1975 are as follows:

	<u>Current Month</u>	<u>Total Year to Date</u>	<u>Total Last Year to Date</u>
Suggestions received	34	34	15
" in effect	7	7	7
" withdrawn	19	19	14
" pending	150	150	102
Cash awards	\$ 293	\$ 293	\$ 439
Estimated gross savings	\$ 2,628	\$ 2,628	\$ 8,160
Average award per suggestion	\$ 42	\$ 42	\$ 63

Methods Studies

1. Economics were completed on the proposal to change the finish on M/552 & M/572 "A" Grade Stocks and Fore Ends from lacquer to R. K. W. This would increase the cost by \$ 19,850 per year.
2. An economic evaluation has been completed on M/3200 Stocks and Fore Ends, M/870 "AA" Stocks and Fore Ends, and M/541-S Long Stocks comparing the cost of our present checking process on (5) Single Spindle N/C machines to the proposed process on (1) Multi-Head machine. A gross annual savings of \$78,320 is anticipated with the Multi-Head machine.
3. A methods review has been completed on the sanding operation for M/700 left hand Stocks, resulting in a substantial labor savings.
4. Three evaluations were made on M/552-572 Stocks and Fore Ends for each year of the 5-Year Forecast comparing the cost of Birch and Walnut wood: First, by processing all from Birch; Second, by processing all from Walnut; Third, by processing the ADL's from Birch and the BDL's from Walnut. All Birch is the most economical and Walnut the most costly.

The following layouts were completed this month:

1. Revised the 3200 Final Assembly Area in Bldg. #50-4-N to provide additional space for Assembly benches.
2. Relocated the Wonder, Expert & Bluerock Trap Job from Bldg. 48-2-N to 50-3 adjacent to the Electric Club Trap Job.
3. Provided a layout for the 8th GFM, (2) Lathes and Cutoff Machines in Bldg. 60.
4. Provided space in Bldg. 51-3 for 3200 inventory control clerk.
5. Re-arranged the office areas in 46-1-S to provide for the Credit Union Office expansion.
6. Relocated the XP-100 Assembly from 50-4-N to 84-3 to provide additional space in 50-4 for the Polystyrene Packaging Program.

METHODS & STANDARDS PROGRESS REPORT - JANUARY 1975Methods Studies (cont'd.)

A comparison of 1974 Shotgun Barrel Forging mandrel costs indicated an \$11,650 improvement over the 1973 level of performance.

Standards were completed for the M/3200 Frame Assembly complete changing from polish and buff to Almco finish. This change resulted in an annual savings of \$17,190.

Cost Improvement Program

	<u>Current Month</u>	<u>Year to Date</u>
New items added	22	22
Anticipated savings	\$ 186,300	\$ 186,300
Items closed out	16	16
Anticipated savings	\$ 178,000	\$ 178,000
Actual reported savings	\$ 32,700	\$ 32,700
Active items being followed	204	
Total anticipated savings (All items on Agenda)	\$ 2,772,500	
Last year's total	\$ 2,249,900	

Cost Improvement Items Anticipated

(This is a partial listing of items being worked on and scheduled for completion).

<u>Code No.</u>		<u>Est. Gross Savings</u>	<u>Estimated Completion Date</u>	<u>% Return or Investor</u>
PB-294	Chemical etch matting on Vent Rib Barrels.	\$ 14,300	Mar.'75	39%
PB-251	Adhesive Bonded Vent Rib Shotgun Barrel Ass'y.	74,300	Mar.'76	24
WE-61	Provide additional plant well water. (Bal.)	5,900	Feb.'75	21
HD-7	Purchase new Multipress for powder metal parts.	6,600	Feb.'75	C
PBB-116	M/3200 Frame-build special machine, Oper. #83 & 87.	4,900	Feb.'75	16
PBB-121	M/3200 Frame-build special machine, Oper. #290 & #300, & Oper. #30 - Frame Sear Block Assembly.	3,800	May'75	11
PL-22	Warehouse re-arrangement in Bldg. 52.	5,200	Apr.'75	**
PA-125	New Center Fire, Rim Fire Rifle carton with molded inserts.	105,500	Feb.'75	Inf.
PBM-90	M/742-760 Firing Pin - purchase va. manufacture	7,300	Mar.'75	**
PBM-109	Install auxiliary filter at Barnes Drills. Reclaim additional oil.	4,200	Feb.'75	C
PBB-146	M/3200-make (7) components from formed bar stock.	19,400	June'75	71
PBB-178	M/3200 Ejector-proposed cold headed construction.	10,500	Mar.'75	**
PL-21	Use of storage racks and stock pickers in Warehouse.	16,100	Apr.'75	67
WE-105	Install new windows in Bldg. 50, 82, 84 and 86. Reduce fuel oil usage.	25,500	Mar.'75	M
PBM-127	M/600-700 Bolt Body - replace special machine.	22,000	Mar.'75	99
PW-260	M/3200 Fore End - Combine Oper. #40 & #50 on N/C Router.	4,900	Mar.'75	**
PBB-181	New type coolant to improve tool life. (Bal.)	5,700	Mar.'75	**
PBB-124	M/3200 Firing Pin Housing-purchase N/C drilling machine for Oper. #80, 90 & 100 and Tang Connecting Block, Oper. #105.	6,700	Feb.'75	15

METHODS & STANDARDS PROGRESS REPORT - JANUARY 1975Cost Improvement Items-Anticipated (cont'd.)

Code No.		Est. Gross Savings	Estimated Completion Date	% Return on Investment
PL-21	M/1100 design improvements - reduce custom repair costs.	\$ 52,200	Dec.'75	**%
WE-103	Change from ammonia to nitrogen gas - Bldg. 76 & 80.	5,600	Feb.'75	21
PBB-355	Shotgun Vent Rib Barrels - improve type grinding wheels.	7,600	May'75	**
FE-36	In-plant forging - family Trigger Plates, M/700 Trigger Guard & Floor Plates.	138,200	May '75	32
HD-10	Powder metal - Purchase grinder vs. vendor grind, Part #12819.	62,800	Mar.'75	62
PBM-110	Center Fire Front Sight Ramp -Replace (2) Special machines with (1) Kingsbury machine.	6,600	Dec.'75	12
GA-12	System to separate water from soluble oil before burning. Reduced fuel oil usage. (Bal.)	8,500	Nov.'75	23
*PBM-134	M/870 Slide Assembly - Build special machine, Oper. #15 & #20.	20,500	Sept.'75	102
*PBM-129	M/1100 Action Bar Sleeve - Build special machine, Oper. #25.	2,800	Aug.'75	12
Total		\$ 647,700		

\* - New items added this month.

\*\* - No Capital investment.

R - Machine Replacement.

C - Increased plant capacity.

M - Plant modernization.

Incentive Wage Plan

"Off Standard" time under the Measured Performance Plan averages 5.2% for the month of January as compared to 7.0% for the month of December and 7.5% for the month of November.

The Measured Performance Plan variance averaged 3.0% for the month of January, as compared to 3.6% for the month of December and 3.5% for the month of November.

### Operating Cost Improvements

		Gross Annual Savings
Operating Cost Improvements - January		\$ 102,300
Special purchase M/870 Stock Blanks. One-time savings.	\$ 17,500	
M/3200 Frame Assembly complete. Improved finish process.	17,200	
Methods improvements by M&S during the month.	16,000	
Vent Rib Shotgun barrels - Improved sight assembly.	13,700	
M/1100 Receiver - Redesign Tool B-38655 and manufacture on plant.	10,200	
Operating Cost Increases - January		(\$ 1,093,500)
General Plant Wage Adjustment effective December 30, 1974.	(\$ 1,070,000)	
Temporary or extra operations to improve quality.	(\$ 12,400)	
Increased Social Security tax base.	(\$ 11,100)	
	Net Effect - January	(\$ 991,200)
Summary - Year to Date		
Cost Improvement - 12 Cost Improvement items.		\$ 102,300
Cost Increases		(\$ 1,093,500)
Increased Cost - Extra Operations	(\$ 12,400)	
Increased Cost - Higher Social Security tax base.	{ 11,100	
Increased Cost - General Plant Wage Adjustment - 12/30.	{ 1,070,000	
	Net Effect	(\$ 991,200)

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Operating Cost Improvements

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Gross Annual  
Savings

## Operating Cost Improvements - October.

Improved Labor assignments in Receiver Manufacturing.	\$ 64,900
Installed new Bldg. 51 Freight elevator; Improves operating costs.	17,000
M/742-760 Receiver; Oper. #72, Tool #A-64100. Change H. S. Steel; to Carbide; Change geometry; Manufacture on plant.	15,600
Methods Improvements by M&S this month.	14,200
Third Quarter Suggestion System savings.	11,500
Purchase 4th Form Mill Grinder for Cutter Grind; Reduced overtime.	9,900
Insulate #6 Fuel Oil Storage Tanks; Reduced usage of fuel pre-heating.	9,800
M/3200 Machining - Improved trucking assignments.	8,800
M/3200 Frame, Oper. #227; Manufacture Carbide tool #A-41011 on plant.	4,500
Computer program for Daily Warehouse Inventory Report; Reduced Manual Record keeping.	3,900
Air Condition N/C Checkering Machine cabinets; Reduced electrical maintenance.	3,400
Miscellaneous smaller process improvements.	3,300
M/3200 Fore End, Oper. #40; Altered fixture; Improved yield.	2,600
Computer Program for Customer Gun Repair Report; Reduced Manual Record keeping.	2,100
Replace top rather than entire unit of worn Homo-Carb boxes.	1,000

\$ 172,500

## Operating Cost Increases - October.

Additional Rate Increases - Electricity & Natural Gas.	(\$ 261,000)
Temporary or extra operations to improve quality.	(\$ 12,200)

(\$ 273,200)

## Net Effect - October

(\$ 100,700)

## Summary - Year-to-Date.

## Cost Improvements - 121 Cost Improvement Items.

\$ 1,419,300

## Cost Increases.

Increased Cost - Extra Operations.	(\$ 118,300)
Increased Cost - Improved Quality.	( 31,400)
Increased Cost - Wood for Stocks and Fore Ends.	( 1,034,000)
Increased Cost - Purchased Pre-formed Components.	( 91,200)
Increased Cost - Fuel Oil.	( 269,800)
Increased Cost - Paper Packaging material.	( 102,500)
Increased Cost - Anhydrous Ammonia.	( 18,700)
Increased Cost - Powder Metal.	( 15,600)
Increased Cost - BlueCross/Blue Shield Rates - 2/1.	( 136,900)
Increased Cost - Higher Social Security Tax Rates.	( 32,800)
Increased Cost - Improved Pension Plan - 4/11.	( 551,300)
Increased Cost - Steel.	( 655,500)
Increased Cost - Natural Gas and Electricity.	( 359,000)
Increased Cost - Depreciation Plant Capacity Projects.	( 16,700)
Increased Cost - General Plant Wage Adjustment - 7/1.	( 1,514,000)
Increased Cost - Additional (10th) Paid Holiday.	( 69,500)

(\$ 5,017,200)

## Net Effect

(\$ 3,597,900)