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Bridgeport, Conn.  
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REC-11  
MAY 15 1952  
AD-1  
DEVELOPMENT DIVISION

SUBJECT: CONSTRUCTIVE USE OF COMPLAINTS FOR IMPROVEMENT OF ARMS QUALITY

Attached is a Cumulative Complaint Report for the 1st Quarter of 1952. It will be noted that a simplified method of reporting complaints on the older models is shown on the first two sheets attached. This change in presentation was approved by Management with the understanding that newer models would be shown as previously with more detailed information with respect to the operational complaints.

The Model 121 shows a low monthly rate for rifles produced during the preceding 12 months and the rate for total complaints is considerably less than recorded in 1949 and 1950. First quarter complaints are generally higher than subsequent quarters so the rate is a little higher than shown for the full year - 1951.

The Model 141 was not in production.

The Model 510 has an excellent record with total complaints shown at a new low rate.

The Model 511 complaints show an abnormal rise due to a large number of complaints on metal finishes. This situation should be immediately investigated to overcome deficiencies reported.

The Model 512 also shows an abnormal number of complaints for metal finish and action should be taken as recommended for the Model 511.

The Model 513 has an excellent record and shows a new low rate of complaints.

The Model 550-1 shows a high rate of operational complaints which should be investigated. The rate on rifles produced during the preceding 12 months is also high but should recede in subsequent quarters.

The Model 37 is a high grade rifle and shows a new low rate for total complaints.

The Model 514 complaints are quite low on rifles produced during the preceding 12 months and the rate for total complaints is in line with those of preceding years. Separation of bolts and handles still needs attention while barrel defects including poor accuracy should be corrected.

The Model 721 shows a lower rate on rifles produced during the preceding 12 months but total complaints were quite high as they reflect the results of the hunting season. Bolt troubles prevailed to a greater extent than usual while extraction defects and failures to feed were also higher than heretofore. Misfires, poor accuracy and stock defects also increased.

The Model 722 shows a low rate of complaints on rifles produced during the preceding 12 months but total complaints were higher although they should drop during subsequent quarters. Extraction defects and poor accuracy predominated.

The Model 870 - 12 gauge - showed excellent results on guns produced during the preceding 12 months and total complaints are not out of line for the 1st quarter. This new gun is maintaining a fine record.

The Model 870 - 16 and 20 gauge - both show good results for the 1st quarter. Feeding and stock defects prevail on the 16 gauge while ejection, extraction and stock defects were in evidence on the 20 gauge. The rates of individual complaints in each instance were small.

The Model 11-'48 and Sportsman-'48 - 12 gauge - The rate of total complaints is high but reflects the results of the hunting season. This rate should recede in subsequent quarters. Barrell, ejection, extraction, failures to lock back, feeding and fore-end defects are the most numerous. Some of the old defects such as magazine cap and operating handle types still cause complaints. Stocks are not improving. On the other hand, guns of recent manufacture (last 12 months) which have most of the improvements incorporated, show a rate well under the totals for 1950 and 1951.

The Model 11-'48 and Sportsman-'48 - 16 gauge - Here, again, the total rate is high after the hunting season. Barrell, ejection, extraction, feeding, fore-end, magazine cap, operating handle and stock defects are most numerous.

The Model 11-'48 and Sportsman-'48 - 20 gauge - The rate of total complaints reflects the results of the hunting season and should taper off in subsequent quarters. Barrel, ejection, extraction, feeding, misfires and stocks contribute the bulk of complaints. The rate on the preceding 12 months' product is well in line.

Model 450 Stud Driver. This item is shown for the first time. It will be noted that the record for 1951 is for four months only. Broken action bars and trigger defects show the highest rates but only in small numbers.

In summation, it is believed that the lower complaint rates on rifles and guns produced during the preceding 12 months is directly attributable to the quality drives at the Ilion Plant.

Repetitive defects on some models and wood faults on center fire rifles and shotguns are in need of continuous attention to improve performance and lower expenses to the Company for repairing returned arms.

*W. L. Clay*  
W. L. Clay

WLC: jkp

## MODEL 721 COMPLAINTS

TYPE OF COMPLAINT	AVERAGE PER MONTH OF COMPLAINTS ON PRECEDING 12 MONTHS' PRODUCT RECEIVED IN 1952 THROUGH				AVERAGE PER MONTH TOTAL COMPLAINTS 1952 THROUGH				AVERAGE PER MONTH TOTAL COMPLAINTS		
	MARCH	JUNE	SEPTEMBER	DECEMBER	MARCH	JUNE	SEPTEMBER	DECEMBER	1951	1950	1949
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Totals	20.0				54.3				28.8	31.7	36.4
Barrel Defects	2.0				4.7				2.7	4.0	3.1
Bolt Slides on Trigger Guard Screw	0				0				.1	0	.2
Bolt Catches on Follower	0				0				0	.1	0
Bolt Catches on Receiver	0				0				0	.1	0
Bolt Closes Hard Over Cartridge	1.3				3.3				.2	.7	1.9
Bolt Warred/Defective/Cracked	2.0				5.0				2.0	2.2	4.6
Bolt Pulls Out	0				0				0	0	.3
Bolt Overrides Lost Cartridge	0				0				.1	0	0
Bolt and Handle Separate	0				1.0				1.5	1.6	1.0
Bolt and Handle Loose	0				0				0	0	.1
Bolt and Handle Cracked/Broken	0				0				0	.4	.3
Bolt Head and Body Separate	0				0				0	0	.1
Bolt Release Bent/Broken	0				.3				0	0	.3
Bolt Stop out of adjustment/Loose	0				0				.3	.4	.2
Nut Stop Screw Loose	0				0				0	0	0
Cartridges expand after firing	0				.3				.1	0	.3
Extraction Defects	.7				9.0				5.2	5.0	4.9
Ejection Defects	1.3				3.3				2.0	3.3	4.3
Fails to Cock	0				0				0	0	.1
Fails to Feed	1.7				4.0				.6	.2	.2
Misfires	1.3				3.3				.4	.3	0
Firing Pin Defects	0				0				.7	.4	.1
Jams	0				0				0	0	.3
Jars Off	0				.3				0	1.0	.4
Magazine Defects	0				.7				.2	.4	.1
Not Accurate	1.0				3.3				1.8	.8	1.1
Poor Feeding	0				0				0	0	.3
Safe Works Hard	0				0				0	0	.4
Safety Defects	.3				1.0				.9	1.3	.5
Sear Defects	0				0				0	0	0
Sight Defects	.7				1.1				.9	1.2	2.0
Slide Chamber	.3				.7				.5	1.1	1.8
Slide Defects	3.3				3.7				3.0	2.0	1.4
Slide Split/Cracked/Warped	2.7				3.3				2.0	3.0	5.9
Trigger Defects	.3				.3				.1	.1	.3
Trigger End Sharp	0				3.0				.2	.9	.9
Magazine Defects	.7				.7				1.1	.7	.3

## MODEL 722 COMPLAINTS

TYPE OF COMPLAINT	AVERAGE PER MONTH OF COMPLAINTS ON PRECEDING 12 MONTHS' PRODUCT RECEIVED IN 1952 THROUGH				AVERAGE PER MONTH OF TOTAL COMPLAINTS 1952 THROUGH				AVERAGE PER MONTH TOTAL COMPLAINTS		
	MARCH	JUNE	SEPTEMBER	DECEMBER	MARCH	JUNE	SEPTEMBER	DECEMBER	1951	1950	1949
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Totals	10.3				20.3				17.2	10.7	5.4
Barrel Defects	.7				.7				3.8	2.5	.8
Bolt Binds on Trigger Guard Screw	0				0				0	.1	0
Bolt Catches on Follower	0				0				0	0	0
Bolt Catches on Receiver	0				0				0	0	0
Bolt Closes Hard over Cartridge	0				.3				.2	0	.1
Bolt Overrides last Cartridge	0				.3				.2	.2	0
Bolt Harred/Defective/Damaged	0				1.3				1.4	.7	.2
Bolt Handle Broken/Binds/Cracked	0				0				0	0	.2
Bolt Stop out of Adjustment/Loose/Missing	0				0				.2	.3	0
Bolt Plate Screw Loose	0				0				0	0	0
Extraction Defects	1.7				4.0				2.2	1.0	.9
Ejection Defects	.3				.7				.7	1.2	.9
Feeding Defects	1.0				1.3				.3	.2	.1
Firing Pin Hole Defects	0				0				.2	0	.1
Muzzling Defects	0				0				.2	.1	.1
Malfires	0				.3				0	0	0
Not Accurate	2.7				5.7				2.7	1.2	.1
Poor Redding	0				0				0	0	0
Safe Works Hard	0				0				0	0	0
Safety Defects	.7				.7				.4	.2	.3
Sear Defects	0				0				0	0	0
Sight Defects	.7				.7				.4	.5	.3
Stove Chamber	.3				.3				.3	.1	.2
Stock Defects	.7				1.3				.6	.2	.4
Stock Split/Cracked	.7				1.3				1.2	1.4	.6
Trigger Defects	0				0				.1	.1	0
Trigger-and Shorn	0				0				.1	0	0
Miscellaneous	.7				1.3				1.7	1.0	.3

\* One decimal unit only used for ease in reading. Therefore, additions of individual quantities will not exactly equal totals shown at base of columns.