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May 25, 1950

TO: S. M. Alvis

FROM: W. E. Leek

SUBJECT: PLANT ACCURACY DEVICE

The first phase of testing to be conducted on the Accuracy Device has been completed, the objective being to determine the difference, if any, in the accuracy of a gun when fired in the Accuracy Device using various clamping forces on the Stock.

Results of the test show:

1. That a variation in the clamping force reflects upon the group size in proportion to the recoil force.
2. That the variation is not of sufficient magnitude to warrant alarm, but a design change should be made to improve this condition.
3. That the original 3/8" clamping adjustment is correct for a clamping force.

Recommendations:

It is recommended that funds be made available to initiate a design change to eliminate the clamping variable in the Accuracy Device.

Experimental Details: 300 Magnum

	<u>Target</u>	<u>E.S.</u>	<u>V.S.</u>	<u>H.S.</u>	<u>Mean Radius</u>
Max. Clamp 3/8"	1	1.15	.3	1.1	.46
	2	1.2	1.1	.3	.64
	3	.9	.55	.6	.4
	4	3.55	2.9	1.75	1.32
	5	3.15	1.9	2.4	.95
	6	3.5	3.35	1.0	1.21
Ave.		2.59	-1.68	-1.19	.83
Med. Clamp 1/4"	1	3.35	3.0	2.35	1.35
	2	3.75	3.7	1.55	1.3
	3	1.85	1.85	.2	.63
	4	3.65	.85	3.55	1.18
	5	2.95	2.3	2.2	.97
	6	3.4	2.3	3.15	1.51
Ave.		3.16	-2.33	2.16	1.15

S. M. Alvis

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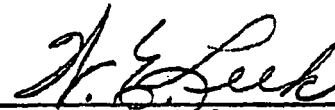
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300 Magnum - Cont'd

	<u>Target</u>	<u>E.S.</u>	<u>V.S.</u>	<u>H.S.</u>	<u>Mean Radius</u>
Min. Clamp 3/16"	1	4.85	3.45	3.2	1.41
	2	3.3	3.1	1.15	1.17
	3	3.8	3.75	1.85	1.52
	4	5.1	4.95	1.6	1.48
	5	5.35	4.15	5.25	2.19
	6	2.0	1.4	1.6	.9
Ave.		4.06	-3.46	2.44	1.44

222 Rem. Cal.

Max. Clamp 3/8"	1	1.9	1.05	1.9	.82
	2	1.45	1.35	.4	.47
	3	1.2	1.05	.95	.57
	4	1.2	1.05	1.0	.62
	5	1.8	.6	1.7	.71
	6	1.7	1.65	.9	.71
Ave.		1.54	1.12	1.14	.65
Med. Clamp 1/4"	1	1.05	1.05	.5	.49
	2	1.75	.4	1.7	.56
	3	1.7	1.1	1.3	.7
	4	1.15	.85	.75	.38
	5	1.0	.35	.95	.51
	6	1.2	1.15	.65	.51
Ave.		1.31	.81	.97	.52
Min. Clamp 3/16"	1	1.2	1.05	.9	.59
	2	2.1	1.05	1.85	.73
	3	1.0	.8	.7	.5
	4	1.65	1.3	1.6	.66
	5	1.25	.9	.8	.51
	6	2.25	1.6	1.45	.85
Ave.		1.57	1.11	1.21	.64



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