A. Purpose:

1. To test the amount of force used to release the sear by the motion of the trigger. One of the routine examinations conducted in casework is determining the amount of trigger pull, or force, used to set the firing process in motion by pulling the trigger. Trigger pull is defined as the amount of force which must be applied to the trigger of a firearm to cause the sear to release. The trigger pull can be measured with a spring force gage, by placing it on the trigger where the finger would naturally rest, and recording the total weight necessary to cause the sear to release.

B. Responsibility:

1. It is the examiner's responsibility to conduct this examination on all firearms where there is physical injury reported in the request for examination of the firearm.

C. Safety:

1. It is at the discretion of the examiner to use personal protective devices while conducting this examination.

D. Procedure:

1. Check to ensure that the firearm to be tested is unloaded.
2. Cock the action of the firearm.
3. Hold the firearm by use of a vise on a flat surface with the muzzle parallel to the spring gage.
4. Insure that the spring gage indicator is "zeroed".
5. Rest the trigger hook of the spring gage on the trigger where the average finger would normally rest, making sure that it is not touching any other part of the firearm, with the spring gage parallel to the bore of the firearm.
6. Apply a steady rearward pressure to the spring gage until the sear releases.
7. Repeat steps 1 through 6 three times, resetting the sear connection and zeroing the indicator after each attempt.
8. If the firearm is capable of firing single and double action, measure the trigger pull of both actions according to this procedure.

9. It should be noted that measuring the trigger pull of a rimfire firearm must not be performed on an empty chamber. A "dummy" cartridge must be used. It is at the discretion of the examiner if he or she chooses to use a "dummy" cartridge in a centerfire firearm if he or she believes this testing could damage the firearm.

E. Interpretation of Results:

1. An average of the three figures will be recorded as the amount of force used to release the sear. Record the number of pounds of force to a plus or minus one half pound (+/- 8oz.) .
2. The amount of force to release the sear is an approximate measurement.
3. Record the trigger pull of the firearm in the notes of the examination. Only include the trigger pull in the final report if specifically requested by the submitting agency.

F. Equipment:

1. Table or bench mounted vise
2. Ametek spring force gage with trigger hook

G. References:

1. Laboratory safety manual
2. AFTE procedures manual
3. Uncertainty of measurement papers / calculations.

H. Appropriate Appendices:

1. Appendix 1 – Worksheets
2. Appendix 2 – Calibration Standards