

August 15, 1996

Summary of Progress of Proposed Use of the  
True Lock™ System on the M1 Abrams Track

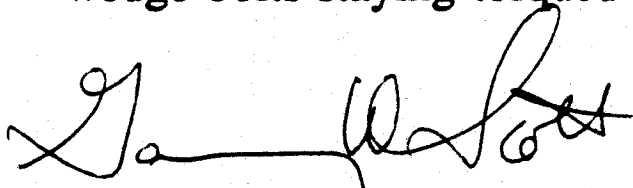
I have been a consultant for True Lock™ since the beginning of 1994. My background is in engineering and I am a Naval Reserve Officer and pilot. I have attended some of the meetings that were held with Army, Army National Guard, and Marine Corps personnel, and I also accompanied Mr. Weinstein to the 1995 Armor Conference in Ft. Knox, Kentucky.

The responses that we have received on the True Lock™ system for the wedge bolts on the M1 Abrams track have ranged all the way from "It's not needed because we don't have a problem" to "Why isn't it already being used?" A lot of this difference of opinion has to do with a person's perception of what is meant by "a problem" and how far removed they are from "the field."

Initially our presentations focused on the True Lock™ system's ability to positively lock the wedge bolts and prevent end connectors from coming off and track being damaged. We were told numerous times that "That doesn't happen, at least not that they were aware of." We have found that indeed, it does happen, but that there is not sufficient data being kept to determine to what extent.

When we talked to maintenance personnel who work on track, we found out what "the problem" is for them. The bottom line is that wedge bolts do loosen with use, and nothing the military has now can prevent that from happening. The only workable solution has always been to retighten each bolt when it becomes loose, and this requires a continuous inspection of the track. Unfortunately the only way to determine if a wedge bolt is loose, (other than if it is already missing) is to check it with a torque wrench. This means that each bolt must be retightened in order to see if it has become loose. The maintenance personnel and tank operators, therefore, are always inspecting the track and are constantly retightening the bolts. "The problem" to them is not so much a matter of how often a track breaks down, but the tremendous number of man-hours required to prevent a breakdown due to loose wedge bolts.

This is the main area of disagreement with some of the people who have been evaluating the system, specifically at TACOM, General Dynamics, and FMC. They don't see this as a problem, or view the retightening of the track as an acceptable way of doing business. Our view is that although this is the way it has always been with track vehicles, our True Lock™ system will finally, once and for all, solve this long lasting problem. The inspection process is simplified to visually sight that each system is still in place which means that each wedge bolt is just as tight as when first installed. Maintenance man-hours are greatly reduced, the mission capability is greatly enhanced, and the safety of the crew in combat is improved. Another benefit that may also be realized is reduced wear of the components of the track due to the wedge bolts staying torqued resulting in an overall longer track service life.



Gary W. Scott