Philip L. Bolté
Brigadier General, U.S. Army, Retired
175 Warrior Creek Drive
West Union, SC 29696
Tel/Fax: (864) 638-0102
e-mail: boltephl@carol.net

COPY

9 January 1998

Colonel Christopher V. Cardine
PM, Abrams Tank System
ATTN: SFAE-GCSS-W-AB
Warren, MI 48397-5000

Dear Chris,

I have never been one to beat on a dead horse, but, as you know, you and I have had a difference of opinion concerning whether or not an end connector problem exists. You have concluded that the fix applied to the T158 track has solved the earlier problem. My discussions with users have led me to the conclusion that tank crews are still spending time checking and tightening wedge bolts and that they are still loosening.

In order to pin down the facts, I approached the 1st Armor Training Brigade. The result of my initial query was a meeting at brigade headquarters in early December. I have enclosed a copy of an MFR I prepared after the meeting. The 1st Brigade made no changes in the draft I sent there. LTC Smith also expressed a willingness to have 1st Brigade representatives discuss the matter with you.

I thought after the meeting that MSG Hooks was convinced that the problem still exists enough to get the TSM to sponsor an evaluation with tanks of the 1st Brigade. However, apparently you convinced the TSM that there is no problem and, therefore, no reason for any testing. I was disappointed to learn that as I am interested in putting the issue to rest. If tank crews are still having to waste valuable time checking and tightening wedge bolts when there is a way to save all that time at a reasonable cost, I think that the Armor community at the senior level is not being true to its Armor soldiers. On the other hand, if the time-consuming end connector checking has gone away, I would like to be convinced. I am certainly not yet.

I think it would be worth your while to talk to the maintenance warrants of the 1st Training Brigade that I talked to. They certainly seemed to support the theory that tankers are spending a lot of time checking wedge bolts. As a former, albeit historical, Armor tactical unit commander, I certainly would have liked to have saved that time.

I would appreciate your views on the above.

Best regards,

/s/

enclosure

copy furnished: Dr. R. McClelland

MEMORANDUM FOR THE RECORD

Subject: True Lock End Connector Locking System

A meeting was held at HQ, 1st Armor Training Brigade at 1330 hours, 5 December 1997. Attendees were as follows:

BG Philip L. Bolté	USA, Ret	(864) 638-0102
LTC Paul D. Smith	Exec Ofcr, 1st ATB	(502) 624-4066
CPT Michael Julian	Maint Ofcr, 1st ATB	(502) 624-4625
CW3 John J. Lowe	Maint Ofcr, 1/81 Armor	(502) 624-1825
CW3 John D. Medlin	Maint Ofcr, 2/81 Armor	(502) 624-6817
MSG D. Hooks	TSM, Abrams Tank	(502) 624-5397
Mr. Dan Semour	Dep Exec Ofcr, 1st ATB	(502) 624-5715
Mr. David Thomas	DOL Maint, USAARMC	(502) 624-3837
Mr. David Royalty	TACOM LAR, USAARMC	(502) 624-1293

The purpose of the meeting was to discuss whether there might be a need for a device such as the True Lock locking system to preclude the loss of end connectors and the need to periodically check and/or tighten them. Further, the possibility of the 1st ATB doing such testing was to be discussed.

General Bolté provided several background points:

- Mr. Leslie Weinstein had shown the True Lock system at the Armor Conference two years ago. It appeared at the time to be of interest to the Abrams Tank PM. Subsequently, Colonel Cardine, PM, determined to his satisfaction that a fix already applied to the T158 track was adequate. General Bolté stated that his field contacts disagreed.

- National Guard elements at Gowan Field have evaluated the True Lock system on Abrams tanks with T158 track and have concluded the system solves the existing problem of end connectors loosening.

- MSG Hooks had shown interest in the True Lock system and was considering the initiation of a test at Fort Knox. Subsequently, though, Colonel Cowan, TSM, after talking to Colonel Cardine, directed that no test be conducted as there was no need for the True Lock system.

- If there is a problem with loosening end connectors, it is one that crews have always solved by checking and tightening. This is a matter of saving crew time; not necessarily a problem that TACOM and the PM would be expected to address as an equipment problem.

CW3 Lowe and CW3 Medlin stated that end connectors do loosen and often fall off; that crews must tighten them as a part of routine crew maintenance, and that the current modification aimed

at precluding such events does not do so. They expressed interest in, and a willingness to test, the True Lock system.

The potential cost effectiveness of the True Lock system was discussed. CPT Julian stated that the 1st ATB spends a considerable amount of money buying replacement end connectors. CW3 Lowe and others mentioned that there have been a number of accidents traceable to lost end connectors and that losing them can result in damage to the tank. He told of at least one such occasion on the Autobahn in Germany.

The cost of testing concerned MSG Hooks. From discussion, it appeared that the 1st ATB could test the system by simply applying it as appropriate to one or more tanks. The major cost would be in purchasing systems for test, which True Lock had offered at cost, something less than $800. Existing end connector wedge bolts can be modified (machined cuts) and used.

LTC Smith stated that it seemed to him that the 1st ATB could test the True Lock system if requested to do so, but a final decision would be up to the commander.

The following actions were agreed:

- MSG Hooks to inform the TSM, Colonel Cowan, of the results of the discussion and that it appears as if the current modification to T158 track is not effective and that there appears to be sufficient reason to test the True Lock system.

- Captain Julian to determine the amount of end connectors the 1st ATB buys as replacements for lost end connectors. Mr. Royalty to attempt to determine total buy of replacement end connectors.

Prepared by:

Philip L. Bolté
BG, USA, Ret.