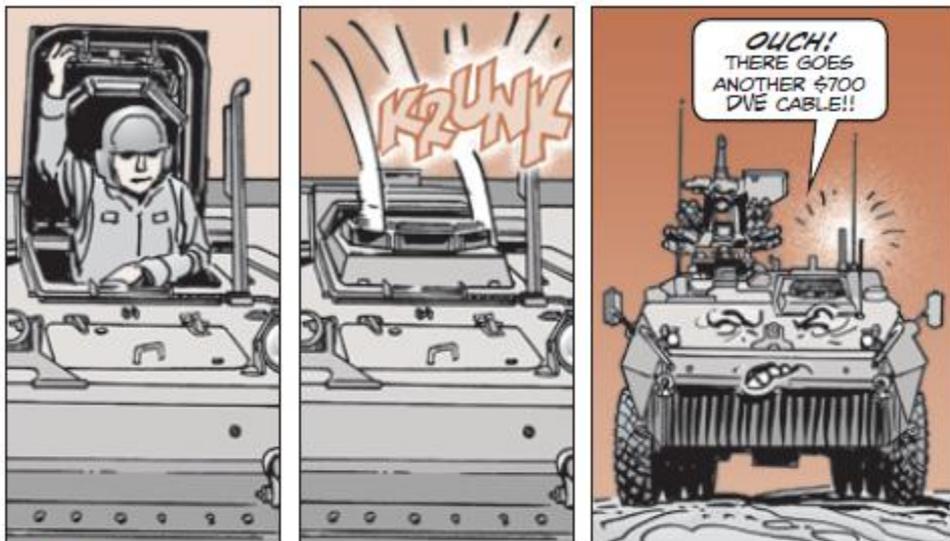


NOT SEEING IS BELIEVING



Believe it, crewmen. Just a few missing cable ties can leave your driver's vision enhancer (DVE) totally in the dark.

Those cable ties are used to hold the DVE cable inside a channel guide that runs from the DVE camera to the screen. The channel guide runs between the engine access and driver's hatches and then below the driver's hatch.

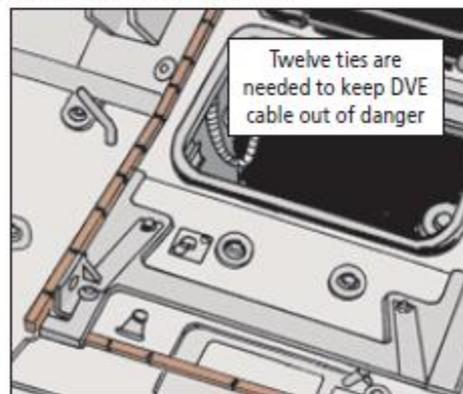
Broken or missing ties let the cable escape from the channel guide. It won't be long before the cable gets caught in one or both of the two hatches.

CRUNCH!!

Your unit's pocketbook also feels the crunch. A replacement DVE cable, NSN 6150-01-566-9322, will cost more than \$700.

Crewmen, take a quick look at the cable ties as part of your before-operation PMCS. There should be a total of 12 ties, each spaced approximately four inches apart. Replace any that are broken or missing with NSN 5975-00-899-4606. That NSN brings 100 new cable ties.

Mechanics, if you have to replace a damaged DVE cable, don't forget to secure the new one with cable ties. Otherwise, you'll soon be replacing the cable again.



MAINTAIN WITH EXTREME CARE



WHAT THE HECK'S GOING ON IN JONES' STRYKER?

SOMEBODY MUST'VE REMOVED THE FIRE BOTTLE WITHOUT USING THE ANTI-RECOIL PLUG!

BLANG BANG
KLANG

OW!



Pulling maintenance on your combat or tactical vehicle's automatic fire extinguisher system (AFES)? That's a good time to be alert and put on the kid gloves. AFES maintenance requires **EXTREME CAUTION!** You shouldn't be afraid of the equipment, but you should respect it!

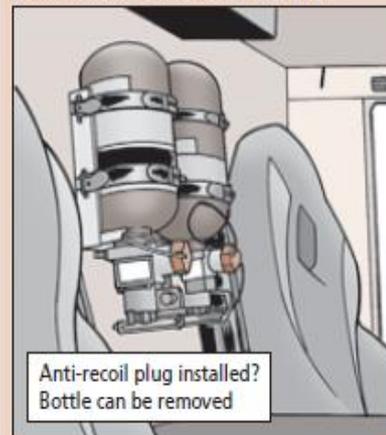
You can be seriously injured—even killed—if procedures aren't followed and an extinguisher bottle discharges unexpectedly during maintenance.



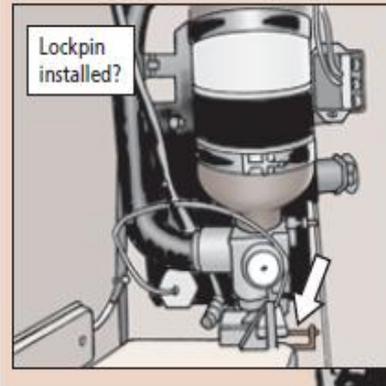
TO KEEP THE OPERATION AS SAFE AS POSSIBLE, STICK TO THE GOOD WORDS IN YOUR VEHICLE'S TM WHEN PULLING FIRE EXTINGUISHER MAINTENANCE.

THEN MAKE SURE YOU FOLLOW THESE TIPS...

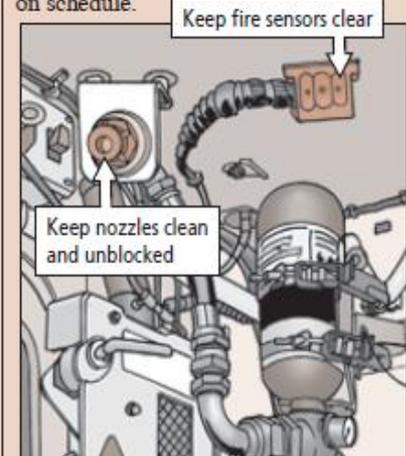
- Never remove the fire bottle assembly from its mount until you've installed the anti-recoil plug. Without the plug, an accidental discharge can turn an unsecured bottle into a dangerous rocket bouncing around the insides of your vehicle. The anti-recoil plug controls the discharge by safely directing the suppression agent through very small ports instead of the AFES nozzle.



The anti-recoil plug is attached to each fire bottle by a short lanyard. Don't remove the bottle if the plug's missing or if the lock pin isn't installed on the manual discharge lever. Report it.



- Keep extinguishers and fire sensors clean.
- Perform all fire extinguisher PMCS on schedule.



- Never stack gear or equipment against fire extinguisher nozzles or sensors.

THINK WE'RE DONE? THINK AGAIN! THERE'S MORE ON THE NEXT PAGE!



PS MORE

What to Do During a Discharge

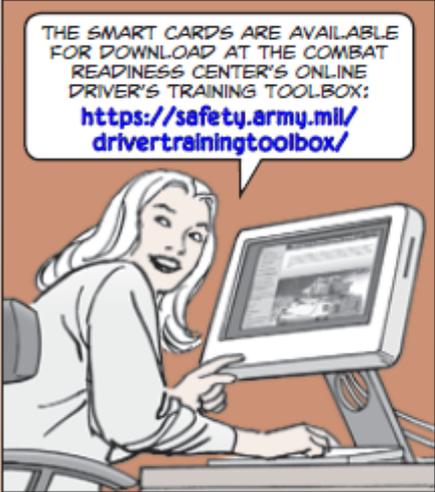
If you have a discharge, stay calm. If the discharge was accidental, simply exit the vehicle. Then report the discharge so your maintainers can refill the extinguisher and try to determine the cause of the discharge.

If it's a fire-related discharge and you're in a combat situation, stay in the vehicle until the tactical threat clears. The discharge can be uncomfortable, but you'll be fine.

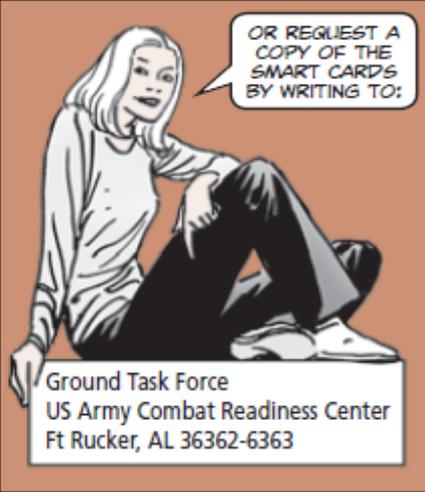
Smart Cards Available

AFES smart cards are available that cover several different vehicle systems. The smart cards address AFES safety, provide an overview of the system and fire suppression controls, cover PMCS and explain how to manually discharge the system.

Three cards are available. The first covers the M1114, M1151, M1152, M1165, and ECV2 HMMWVs as well as the Husky IVMMD (interim vehicle mounted mine detector). The second deals with the M2/M3-series Bradley, Stryker, Buffalo A2 mine clearing vehicle, Light Armored Vehicle (LAV), and Armored Amphibious Vehicle (AAV). The third covers the MaxxPro and Cougar JERRV (joint EOD rapid response vehicle) MRAPs, the Buffalo mine clearing vehicle, and the RG-31 series mine protected armored personnel carrier.



THE SMART CARDS ARE AVAILABLE FOR DOWNLOAD AT THE COMBAT READINESS CENTER'S ONLINE DRIVER'S TRAINING TOOLBOX:
<https://safety.army.mil/drivertrainingtoolbox/>



OR REQUEST A COPY OF THE SMART CARDS BY WRITING TO:

Ground Task Force
US Army Combat Readiness Center
Ft Rucker, AL 36362-6363



YOU CAN ALSO REQUEST A COPY BY SENDING AN EMAIL TO HALF-MAST:
half.mast@us.army.mil

AFES Safety Wire Maintenance



You probably know by now that the manual release switch on your up-armored HMMWV's automatic fire extinguishing system (AFES) has a safety wire. But you might not know there are no procedures to replace the switch guard safety wire or to inspect it for accountability. And the safety wire isn't shown in TM 9-2320-387-10 or TM 9-2320-387-24P!

TACOM LCMC wants to **fix** that by making the safety wire a PMCS item. Then you'll know what to do if the safety wire is broken or removed.

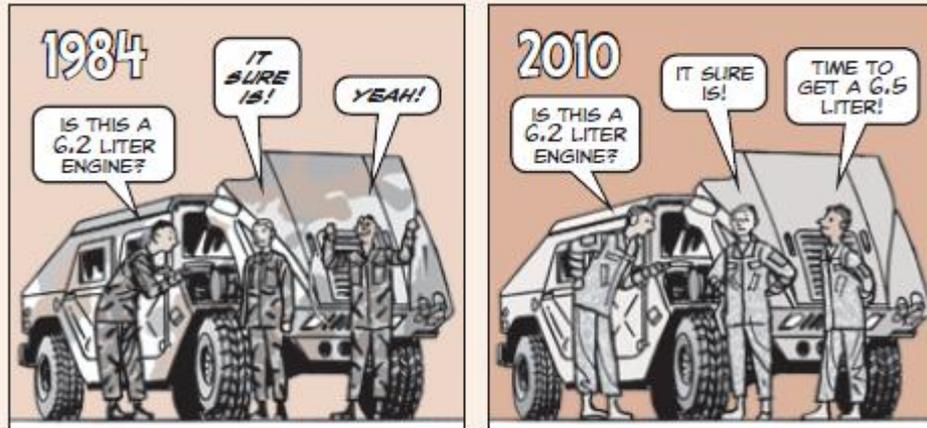
TM 9-2320-387-10 and TM 9-2320-2320-387-24P will be updated to include safety wire PMCS information. But until that happens, safety-wire the manual release switch guard in the down or guarded position on the AFES, if it isn't already. Just get the anti-pilferage seal (safety wire kit), NSN 5340-00-835-9815, which includes the wire and seal, and follow these instructions:

1. Ensure the switch guard is in the down or guarded position.
2. Insert the safety wire through the hole in the switch guard and into the lower tab below the switch.
3. Insert both ends of the wire into the safety seal. Pull the wire tightly to ensure the switch guard is secured in the down or guarded position.
4. Use a crimping tool to compress the seal.
5. Cut any excess wire from the seal.



In case you were wondering, broken or missing safety wire does not deadline your HMMWV.

6.5L Engine Replaces 6.2L



You old-timers may remember that the original HMMWV's 6.2L engine came out back in 1984. But you may not know that it's history now—at least in part!

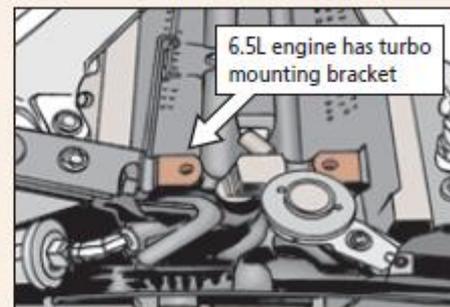
In 2000, the 6.5L detuned engine, NSN 2815-01-439-6664, was introduced as a follow-up and drop-in replacement for the 6.2L engine. And now the 6.5L detuned engine, calibrated to closely match the power output of the 6.2L engine, is the only engine you can get for your HMMWV.

The newer engine was designed for improved performance. And it helped correct the problem of rear main seal leakage. This is because the two-piece seal was replaced with a one-piece seal.

TACOM LCMC will no longer repair or issue 6.2L engines! This decision is part of modernizing the HMMWV fleet and addressing the diminishing spare parts for the 6.2L engine. Discontinuing 6.2L engines reduces the logistics burden and footprint for stocking the engine and its parts. It also supports the efforts of the RECAP and RESET repair programs, and ensures that no 6.2L engines are put back into HMMWVs.

Although the 6.2L engine is obsolete, you should keep using it as long as it works. Just be sure to send it to DRMO when it's deemed unserviceable. And make sure all fluids are removed from the unserviceable 6.2L engine **before** sending it to DRMO, like the TM says.

Note that some repair sites are receiving 6.2L engines turned in to the 6.5L engine repair programs, but they shouldn't. Avoid extra transportation costs and wasted time by making sure you send the right engine to the right place. The 6.5L engine block has a turbo mounting bracket, but the 6.2L engine block does not.



HMMWV...

DON'T HALF STEP ON HALFSHAFT CHECK

ALL IT TAKES TO LOOSEN SCREWS AND BOLTS ON YOUR HMMWV'S HALFSHAFT IS A LITTLE **VIBRATION** OVER A PERIOD OF TIME.

YOU **DON'T** WANT A HALFSHAFT FLYING LOOSE!

THAT'S WHY YOU SHOULD CHECK ALL HARDWARE HOLDING THE HALFSHAFTS IN PLACE, ESPECIALLY THE RETAINING CAPSCREW INSIDE EACH GEARED HUB.



If a halfshaft flies loose, it can take out the brake lines and coolant tube, and cause engine failure. So don't half step when checking halfshaft bolts for tightness.

Once you've cleaned away dirt and mud, it's easy to see if the bolts that hold the halfshaft to the rotor are loose. Just look for shiny spots under the bolt heads.

If you find a loose bolt, replace both the lock washer, NSN 5310-01-457-3292, and the bolt, NSN 5306-01-185-7048. Dip the bolt in sealing compound, NSN 8030-01-171-7628, before installing it to help keep it tight. Then torque the bolt to 51 lb-ft.

Clean away dirt, then look for shiny spots under bolt heads



It's not so easy to check the cap screw in the hub. You must first remove an access plug to get to the screw, then use a torque wrench to tell if the screw is loose.

If the screw moves before you reach 37 lb-ft of torque, it's loose. Replace it with a new lock washer, NSN 5310-00-011-5093, and cap screw, NSN 5305-00-068-0511. Dip the new screw in the sealing compound and torque it to 37 lb-ft.

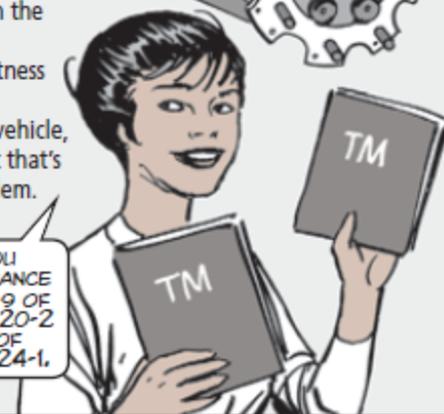
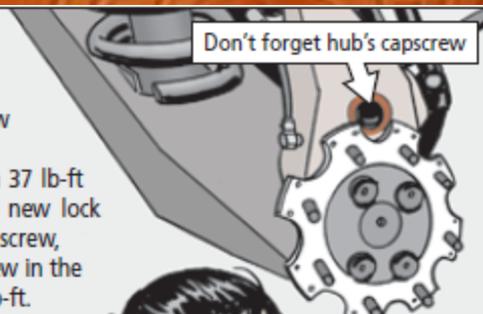
Check both ends of the halfshaft for tightness at every 6-month service.

By the way, when the halfshaft is on the vehicle, there shouldn't be any play in it. A halfshaft that's been tightened up shouldn't have this problem.

MECHANICS, INSPECT HMMWV HALFSHAFTS WHEN THEY'RE REMOVED FROM THE VEHICLE.

MAKE SURE YOU FOLLOW THE GUIDANCE FOUND IN PARA 6-9 OF TM 9-2320-280-20-2 AND PARA 6-7 OF TM 9-2320-387-24-1.

Don't forget hub's capscrew

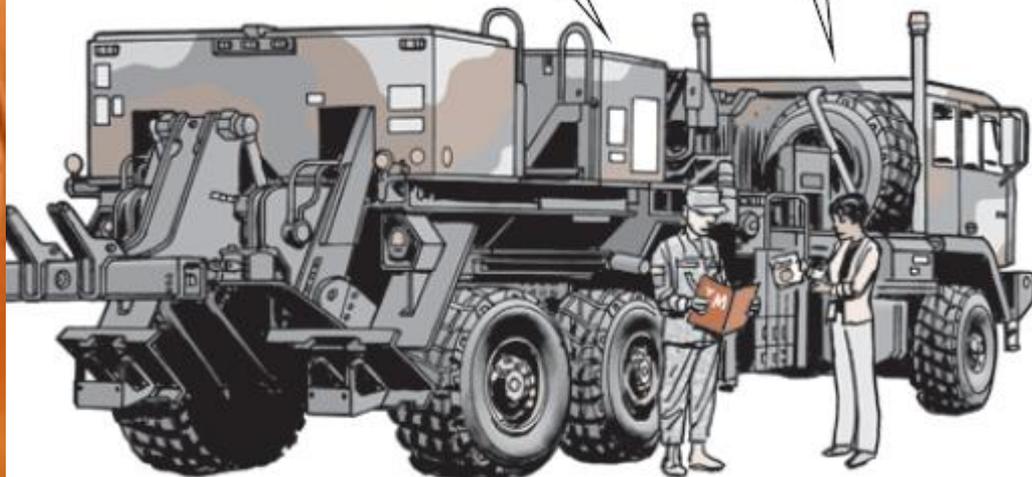


FMTV...

TM Art Can *Damage* Wrecker's Boom Winch

THIS TM TELLS ME TO HAVE THIS HYDRAULIC SHUTOFF VALVE IN THE OPEN POSITION, BUT THE PICTURE DOESN'T LOOK RIGHT.

YOU'RE RIGHT! HERE'S THE WORD.



MOST OF THE TIME, YOUR TM DOES A GOOD JOB OF SHOWING YOU WHAT "RIGHT" LOOKS LIKE.

BUT THERE **ARE** EXCEPTIONS.

YOUR MICROAI FMTV'S UNDERLIFT ASSEMBLY OPERATION IN TM 9-2320-392-10-1 IS AN EXAMPLE.



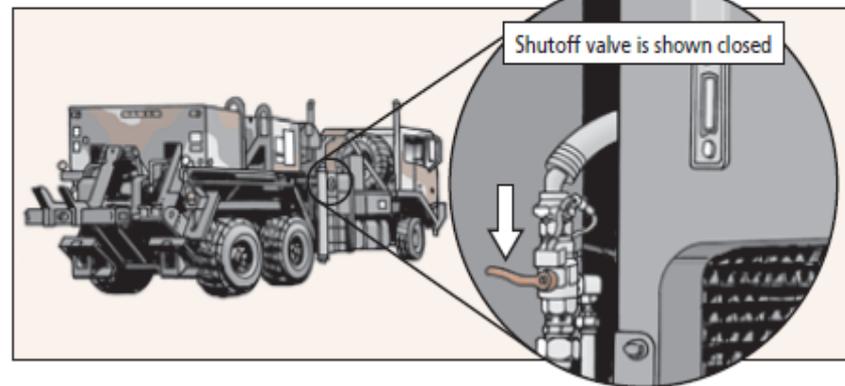
BOO HOO HOOE IT'S NOT MY FAULT!

The artwork for the Underlift Assembly Operation in WP 0037 00-01 of TM 9-2320-392-10-1 (Mar 09) and IETM 9-2320-391-10-1/2 (Mar 09) is incorrect. The shutoff valve is shown in the closed position but the callout says the valve is in the open position.

The written instructions for this task correctly state that the valve must be in the open position. However, because the artwork is wrong, some users have mistakenly placed the valve in the closed position, damaging the boom winch.

PS MORE

So disregard the artwork showing the position of the shutoff valve for this procedure. The valve is open when the handle is straight down *in line* with the valve, *not* at a right angle. Make sure the valve is in the open position when performing this task. And make a note in your paper TM.



The valve should only be closed for maintenance purposes. Secure the valve in the open position using a zip tie, such as NSN 5975-01-034-5871. Any zip tie will do, and you should be able to find them in your motor pool.

There is also a kit, PN 57K2035, which disengages the PTO when the valve is in the wrong position. This kit has already been installed on wreckers with serial numbers greater than 113414. If you need this kit, get it through BAE's Veronica Mallard at (281) 616-6354 or email: veronica.mallard@baesystems.com

How does the PTO—or power takeoff—relate to the shutoff valve? The PTO drives a hydraulic pump that pressurizes the hydraulic system to make it work. If the shutoff valve *isn't* open, too much pressure builds on the hydraulic system when operating. That can lead to blown seals and even blown hydraulic lines, which can render the whole system NMC.



FMTVs...

PDU Circuit Board Info



Dear Half-Mast,

My unit is deployed to Southwest Asia. One of our M10BBA1s short-circuited and cooked the green PDU circuit panel on the passenger side of the dashboard.

When ordering the part from TM 9-2320-366-24P, I ended up with the wrong part—a black, plastic board that doesn't even fit on the truck!

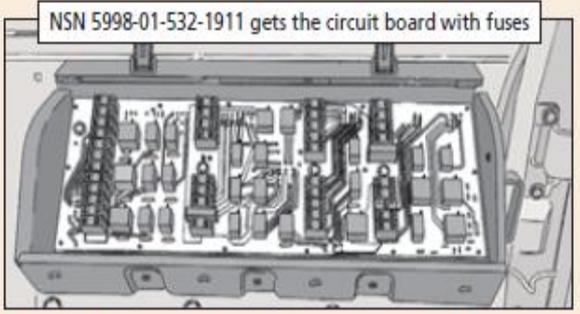
I have searched LIW and LOGSA for an updated TM with no luck. Do you have an IETM or an NSN that helps? This truck is NMC and is a crucial piece of equipment for our unit's mission.

Any help you can offer would be appreciated.

SGT R.R.

Dear Sergeant R.R.,

You bet. Order the next higher assembly, the power distribution panel's printed circuit board (with fuses), NSN 5998-01-532-1911, if your A1 truck's serial number is within the 11,438 – 99,999 range.



TM 9-2320-365-24&P and TM 9-2320-366-24P are used only for FMTV AO trucks with a serial range of 00001 – 11,437. Use IETM 9-2320-391-24&P (EM 0195) dated March 2008, for PMCS, maintenance and ordering repair parts for 2½- and 5-ton A1 trucks. The IETM is a four compact-disk set and each CD needs to be loaded onto a laptop computer or MSD prior to viewing.

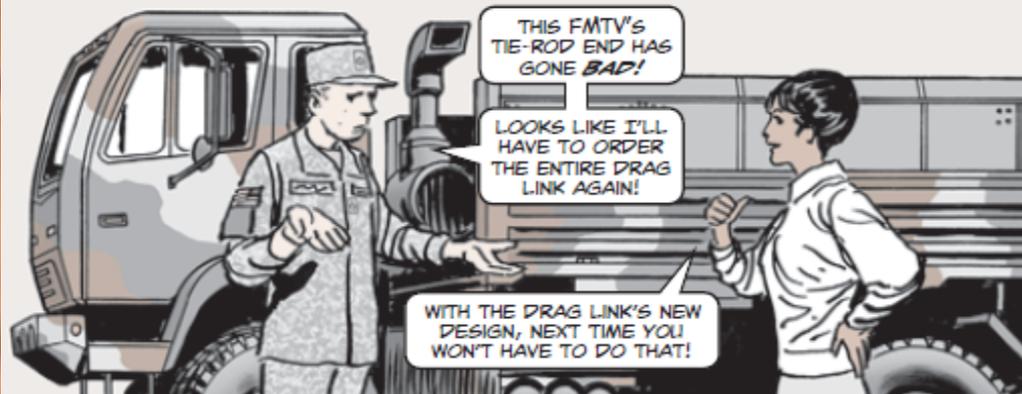
FMTV A1 trucks use two serial number ranges based on the configuration of the truck. Earlier A1 trucks equipped with the 3126 CAT engine have a serial range of 11,438 – 99,999. Newer A1 trucks with the C7 CAT engine use a serial number range of 100,001 and above. You'll find these serial numbers on the data plate found on the left side of the steering column.

These IETMs are sent through normal pin-point distribution. All TACOM LARs and BAE FSRs should have copies of this IETM and be able to load the manuals onto your MSD. If you can't contact your LAR or FSR and need a copy of the FMTV's IETM, email the vehicle's equipment specialist:

@conus.army.mil

Half-Mast

DRAG LINK DESIGN CHANGE

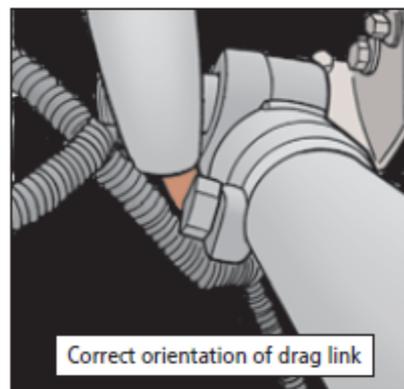


Change is good, if something positive comes out of it. And the engineers at TACOM decided that a design change was good for the drag link in your 2½- and 5-ton FMTV trucks. The new design stops you from having to order the entire drag link when a tie-rod end goes bad.

The next time you order the drag link, NSN 2530-01-377-3127, PN 12418103-002, you'll see that it looks different. But the only difference is that there is an adjustable tie-rod end with a clamp on both ends now.

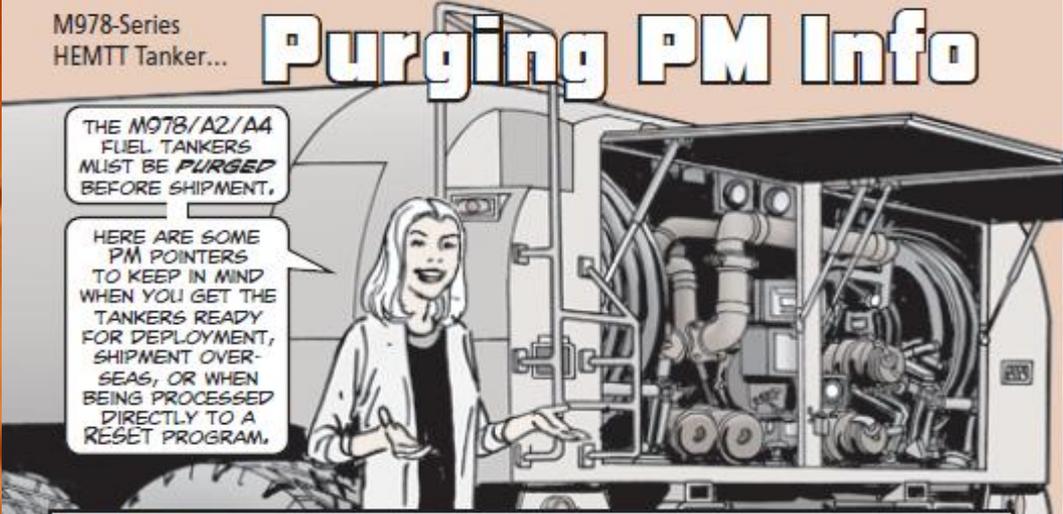
Your maintenance TMs need to be changed to give you the proper instructions for the new design. And the artwork in the parts manuals need to be changed to match the new design.

When you get the drag link with the new design, go ahead and adjust the tie-rod ends to match the same length of the drag link being replaced. Turn the steering wheel fully to the left, too. The drag link must be installed with the bend turning to the left to fit correctly. The clamp on the pitman arm side must have the bolt adjusted to the bottom side of the drag link with the bolt entering from left to right and the clamp 1 centimeter to the rear of the pitman arm. Then you won't have interference while turning the wheel.



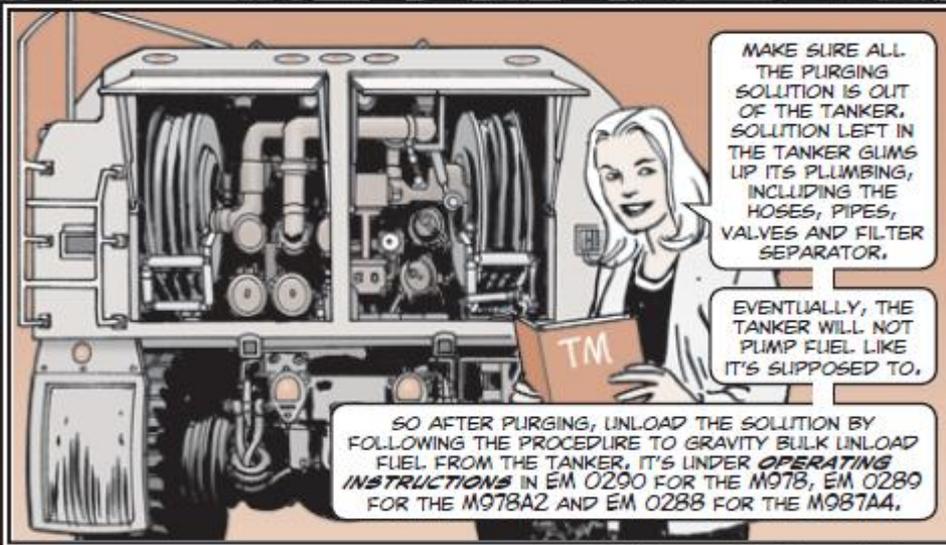
There's a CAUTION in the work package that tells you the tie-rod end must be installed toward the rear of the vehicle. Ignore that because now both ends have a tie-rod end. This caution will be deleted in a future TM change.

Purging PM Info



THE M978/A2/A4 FUEL TANKERS MUST BE **PURGED** BEFORE SHIPMENT.

HERE ARE SOME PM POINTERS TO KEEP IN MIND WHEN YOU GET THE TANKERS READY FOR DEPLOYMENT, SHIPMENT OVER-SEAS, OR WHEN BEING PROCESSED DIRECTLY TO A RESET PROGRAM.



YOU'LL ALSO NEED TO FOLLOW THE IETM'S OPERATING INSTRUCTIONS TO DRAIN THE TANK. IT'S IN THE "CHANGING TO A DIFFERENT FUEL OR FUEL GRADE" TRACK. THEN PERFORM THE FIELD-LEVEL MAINTENANCE PROCEDURE FOR THE 2,500 GALLON TANK DRAIN.

THOSE TRACKS HAVE THE LOWDOWN ON DRAINING SOLUTION FROM THE TANKER'S PLUMBING.