

Issue 481

PS

December
1992

TB 43-PS-481

THE PREVENTIVE MAINTENANCE MONTHLY

'TIS THE SEASON
TO BE JOLLY,
HERE'S THE INDEX
TO STOP THE FOLLY!

1992
ANNUAL
INDEX ...
SEE PAGE 27

Approved For Public Release;
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Maintain Your Maintainers

Knowledge is the key to maintaining and the knowledge is training.



LET'S SEE WHY YOU'RE GETTING THAT BUM METER READING.

YOU NCOs HAVE TOO MUCH TO DO TO BE FULL-TIME TRAINERS, BUT HERE ARE SOME SIMPLE THINGS YOU CAN DO TO BOOST KNOW-HOW.

Check out your new mechanics.

Never assume new mechanics know how to do the job. Advanced Individual Training only gives them the basics. It's your job to finish their training.



Use training aids.

Copy and hand out material from TMs and other pubs to help mechanics. Little reminders bring big results.



Use PS. Copy special interest articles to hand out at your next weekly meeting.



HERE'S A GOOD STORY IN PS ABOUT THAT ALTERNATOR PROBLEM WE HAD THIS MORNING.

REMEMBER, WITHOUT KNOWLEDGE AND TRAINING, MECHANICS AND EQUIPMENT WILL FAIL. TRAIN TO WIN!

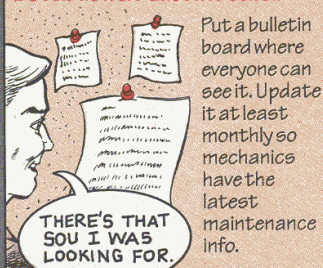


Teach TMs.



Teach them to use the TM's troubleshooting step-by-step procedures. Show 'em where to find the needed parts in the parts manual.

Establish a bulletin board.



Put a bulletin board where everyone can see it. Update it at least monthly so mechanics have the latest maintenance info.

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-481, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user.

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You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems, questions or comments on material published in PS. Just write to:

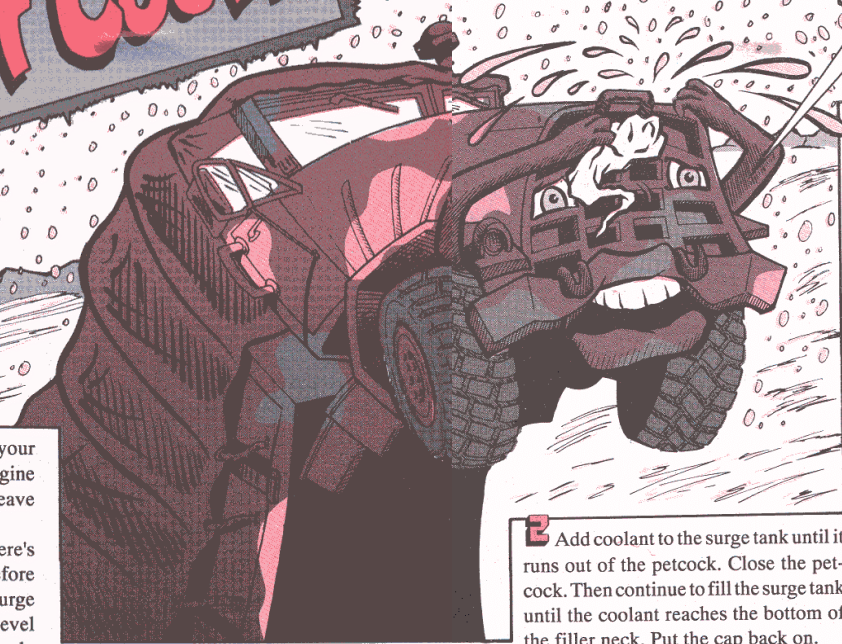
MSG Half-Mast
The Preventive Maintenance Monthly
Lexington, KY 40511-5101

By Order of the Secretary of the Army:
GORDON R. SULLIVAN
General, United States Army Chief of Staff

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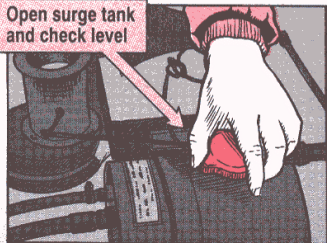
Keep It Cool!



When the coolant gets low in your M939A2-series 5-tonners, the engine overheats. It could seize—and leave you walking.

To stay on the road, make sure there's enough coolant in the system. Before you leave the motor pool, open the surge tank and peek inside. The coolant level should be at the bottom of the filler neck.

Open surge tank and check level

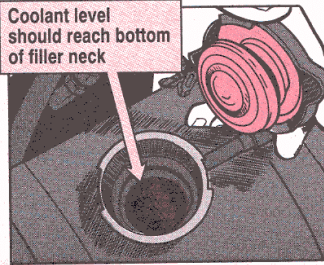


Coolant low? You need to refill. Do it this way:

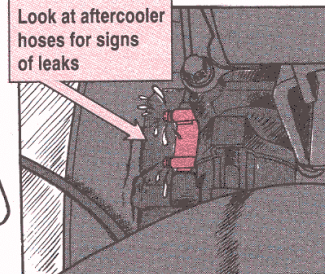
1 Open the petcock on the aftercooler



Coolant level should reach bottom of filler neck



Look at aftercooler hoses for signs of leaks



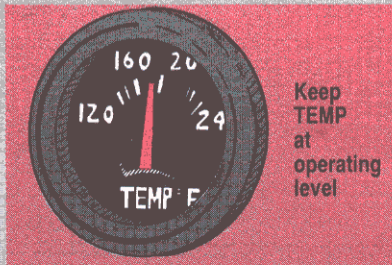
Feel the hoses near the worm-screw clamps. Any wetness means you should tighten the clamps.

2 Start the engine and let it warm to 185°F. Open the filler cap slowly until the pressure is gone. Eyeball the coolant level in the surge tank again. If coolant's low, add coolant until it reaches the bottom of the filler neck—about 1 1/2 inches down. If you fill it too full, there won't be room for expansion.

Every time you have to add coolant, eyeball those aftercooler hoses mounted on the back of the engine cylinder head. Use a flashlight for both hot and cold inspection. Look for rust or odd-colored dribbles where coolant has leaked. Then later, when you've got your engine running at operating temperature and pressure, check those places again for wetness.

Heat Clobbers Slobber

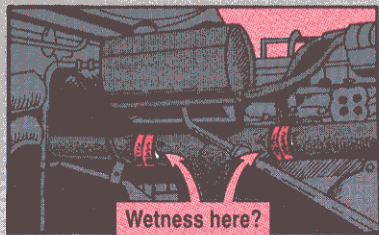
KeeP operating temperatures up when you drive your diesel or multifuel rig. If you don't, engine "slobber" will clobber you.



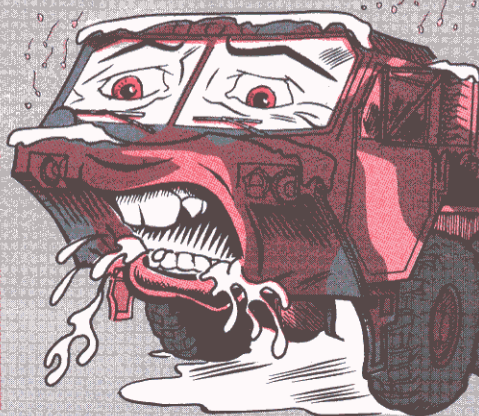
You can't drive one of these rigs like a gas-powered POV — short trips here and there with a slow idle or shutdown in between.

It takes a hot engine to use up all the fuel that goes into the combustion chambers.

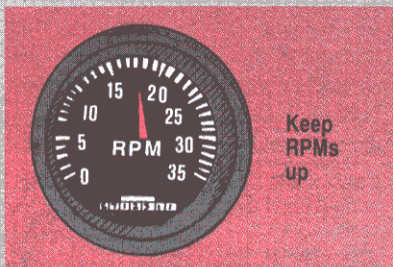
Cold engines send unburned fuel — slobber — out the exhaust. Slobber soaks the exhaust manifold joints and gaskets. It looks just like a Class III leak.



Before you send that vehicle in for a new gasket, or even a new engine, check that leak. It may be slobber.



Give your truck a good run. That can either be a short trip — up to 5 miles — at highway speed, or 5–10 minutes at high idle to get the temp gauge into the normal range.



If slobber's your problem, wetness around the gasket will clear up. If it doesn't, report it as a leak.

Head off slobber by eliminating short trips on a cold engine. If you have to idle, keep RPMs at operating temp. Idle no more than 10 minutes in any case.

A Second Safety Latch Prevents Tipping!



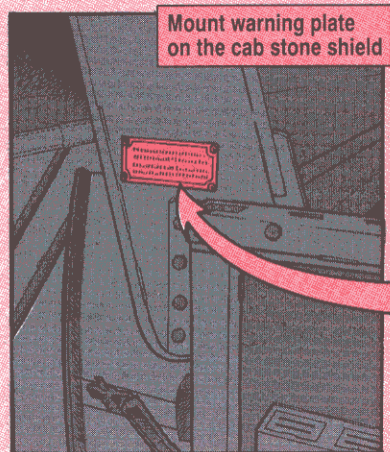
The dump body on older 5-ton dump trucks has a bad habit of unlocking and tipping up when there's a heavy load toward the tailgate, or when the tailgate is extended.

It makes no difference if you're hauling dirt, extra cargo or carrying troops. A dump body that tips up unexpectedly is an accident waiting to happen.

Take care of the problem with a retention safety latch kit, NSN 2590-01-130-5768, that mounts onto the dump body. Instructions come with the kit. Make sure

you get your commander's OK before ordering the kit.

You'll also need a "loading/unloading" warning plate, NSN 9905-01-140-8219, that mounts on the cab stone shield. Four screws, NSN 530-00-993-2738, and nuts, NSN 5310-00-061-7325, hold the plate in place.



WARNING

DO NOT STAND ON CAB PROTECTOR AT ANY TIME. STAY CLEAR OF DUMP BODY AND CAB PROTECTOR DURING LOADING OR UNLOADING OPERATIONS.

Give It a Workout

Some M978 emergency fuel shutoff systems are getting “rusty” from lack of exercise. If they don’t work when you need them, you can end up in deep . . . diesel fuel.

Put your emergency system on a regular program of exercise. It’s an easy routine.

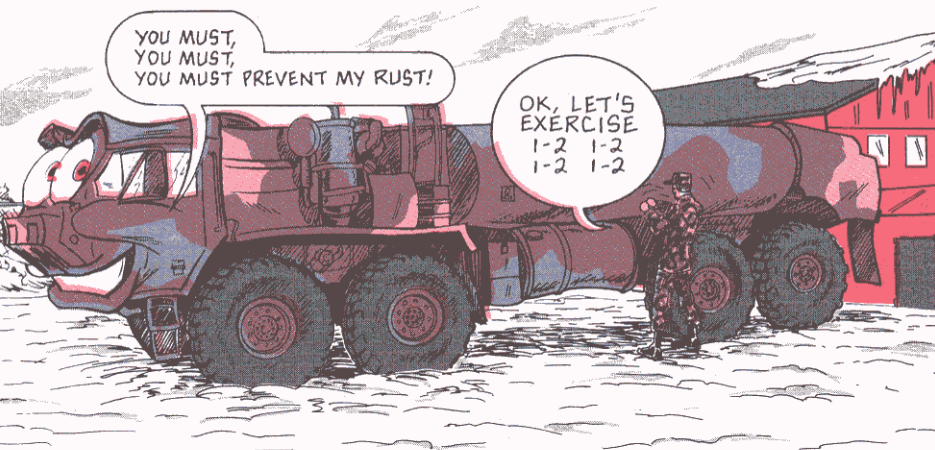
1. Pull back on the MC MANUAL CONTROL EM VALVE lever. That opens the V1 emergency valve, letting you dispense fuel.

2. Pull out the EMERGENCY SHUTOFF control.

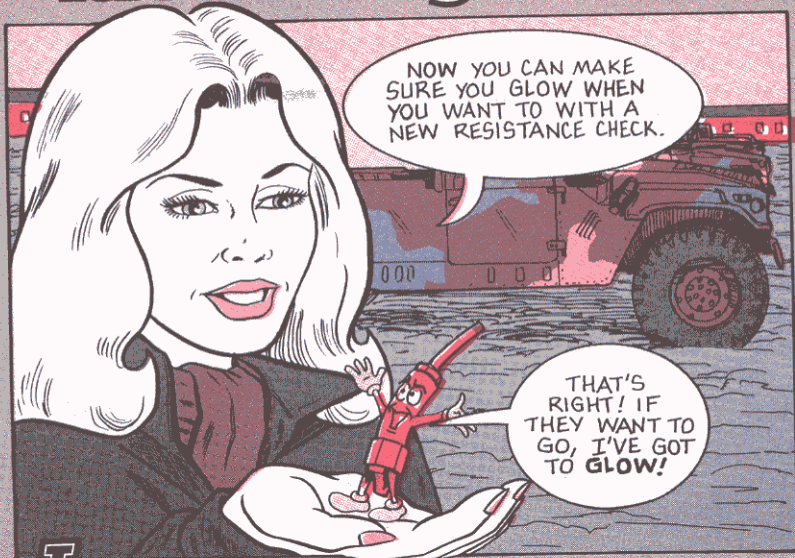
The MC MANUAL CONTROL EM VALVE lever should now be forward, closing the V1 valve. That stops fuel flow during a spill or fire.

If the lever closed, your system is in good shape. If it didn’t, tell your unit mechanic. It needs adjustment, lube or replacement.

For details, see TB 43-0001-39-2 (Sep 92), page 3-56.



Test Glow Plug Resistance

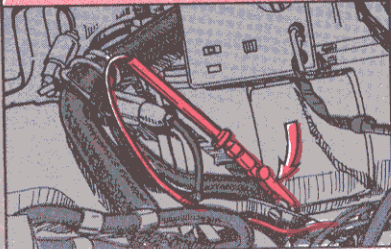


The headshed wants unit maintenance to pull this check as part of the semiannual PMCS. Until Para 2-11, Item 17 on Page 2-6 of TM 9-2320-280-20-1 is changed, here's how to "scope out" your glow plugs:

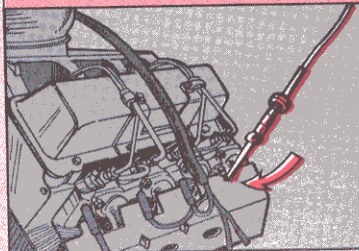
Disconnect the leads from each glow plug.

Using the multimeter from your No. 1 Common shop set—

put one lead on the ground ...



... and the other lead to the glow plug.



The frame is the best ground.

You should get a reading between 1 and 2 ohms. Anything else, replace the plug. Then check each plug for looseness or damage. Tighten each plug to between 8 and 12 lb-ft.

Match Pressure to Payload



Air.

Your tire can't live with (too much of) it, or without (enough of) it.

To head off tire damage, follow this chart when inflating your tires.

Don't overinflate, either. Max tire pressure for all trucks but the M1009 is 80 psi. For the M1009, it's 35 psi.

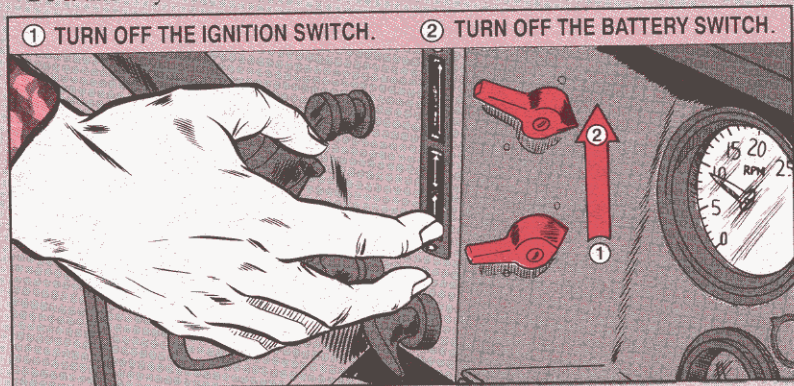
Always count the driver and passengers when figuring payload. If you can't determine cargo loads, use the fully loaded tire pressure.

Use this info until the chart on Page 2-20 of TM 9-2320-289-10 is updated.

Truck model	Front	Rear and spare
M1008, M1008A1, M1028, M1028A1: With S250 shelter or with loads of 1,000 lbs or more	45 psi	65 psi
Without S250 shelter or with loads of less than 1,000 lbs	45 psi	45 psi
M1009: With load of 500 lbs or more	35 psi	35 psi
With loads less than 500 lbs	30 psi	30 psi
M1010:	45 psi	80 psi
M1028A2, M1028A3:	45 psi	45 psi
M1031:	45 psi	65 psi

Shutdown Sequence

The shutdown procedure for your M939-series truck goes bottom up, not top down. Get it backwards and your alternator takes a damaging jolt of electricity. Do it this way:



CUCV ...

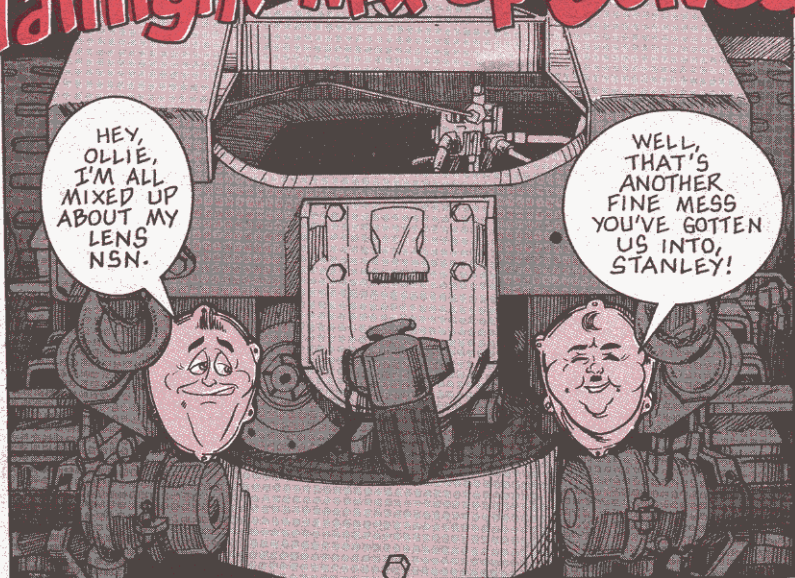
Crankcase Needs Relief

WHEN ICE CLOGS YOUR CUCV'S CRANKCASE VENTILATION TUBE, OIL PRESSURE CAN BLOW SEALS AND RUIN ENGINES... UNLESS YOU HAVE THE NEW OIL FILLER CAP WITH A PRESSURE RELIEF VALVE!

The old-style cap, which resembles a radiator cap, does not have a pressure valve.

The new cap is NSN 2940-01-217-8089.

Taillight Mix-up Solved



When you order the taillight lens used on most tactical trucks and trailers, you have a choice of two lenses.

If you have a plastic and aluminum lens assembly, order NSN 6220-00-179-4324. If the one you have is all plastic, use NSN 6220-01-359-2870.

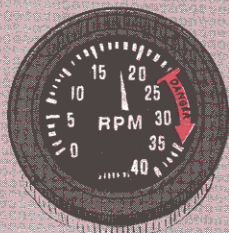
Tachometers ...



Decal NSN

Drivers, quick glances to keep RPM under control are easier if your truck's tachometer has a DANGER decal. If the decal's missing, get your mechanic to order one with NSN 7690-00-924-4318.

The decal is for tachometers on all trucks with multifuel or diesel engines in 2¹/₂-tons and M39- and M809-series 5-ton trucks.



New, Improved GAA Available

THE NEW GAA IS GOOD FOR ALL VEHICLES EXCEPT THE M1-SERIES TANK!

It may look, smell and feel similar, but the new GAA (Grease, Automotive and Artillery) is different.

A few years back, vehicle LOs were changed to substitute WTR (Wide Temperature Range) aircraft grease for GAA, especially for use in wheel bearings, road wheels, and the like. WTR kept going strong in temperatures that the "old" GAA just couldn't handle.

The new GAA is even better for ground equipment than WTR, though. It withstands high temperatures just as well and offers better corrosion protection.

Vehicle LOs will soon reflect this change, so if you're still using WTR, TACOM says the time to switch back is now. The one exception is the M1-series tank, which is still undergoing testing with GAA.

GET THE NEW GAA WITH THESE NSNs...

NSN 9150-01-197-	Size
7688	2.25-oz tube
7689	6.5-lb can
7690	1.75-lb can
7691	120-lb drum
7692	35-lb can
7693	14-oz can (cartridge for grease gun)

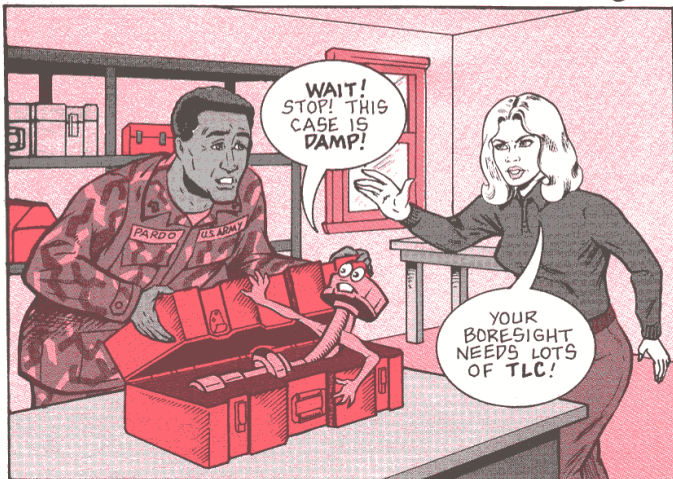
M113-Series FOV . . .

"Warning" Marker for Radiator Cap

To help avoid burns and scalds, mechanics, order and install a warning marker on all carrier radiator caps during the next scheduled service.

Radiator parts kit, NSN 2590-01-259-4410, comes with enough warning markers and adhesive to modify 30 radiator caps. If you need a new cap with the marker, order NSN 2910-01-259-4432.

Give Boresight Lots of TLC!



All the tools for your M1-series tank deserve special attention and care to make sure they'll be able to deliver when needed. But none need more TLC than the M26A1/M27A1 muzzle boresight device (MBD).

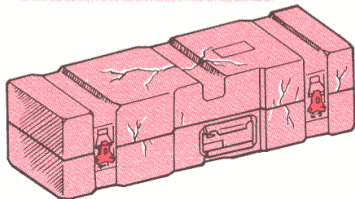
The MBD is a precision device that's used to align the gun tube to the optical sighting system. Care for it, and it'll take good care of you. Otherwise, your fire control's out of calibration and you'll start missing targets.

Moisture is the MBD's biggest enemy. That makes the carrying case your first line of defense. Since you can only get a new case by buying a new MBD (at over \$1,000), it's important to take good care of it.

Never use the case as a step ladder while boresighting. That'll crack it and ruin its ability to seal out moisture.

Eyeball the case for cracks or broken or missing latches. If you find any, the case is no longer waterproof.

Any cracks or broken latches? Report it!

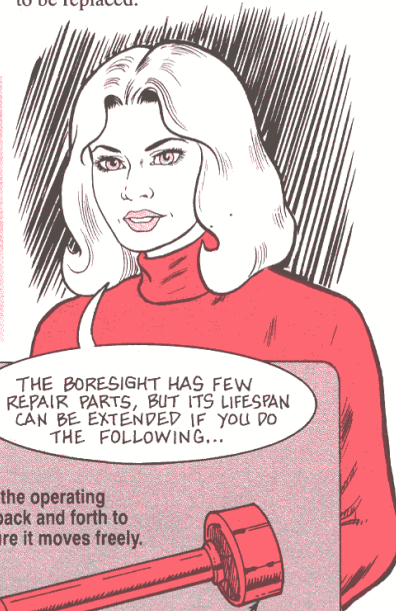
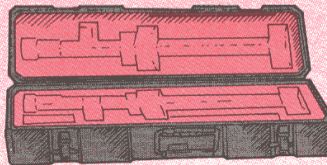


Now take a look at the gasket seal. If it's loose, reattach it with adhesive, NSN 8040-00-262-9028.

Air-dry a wet case thoroughly. Corrosion sets in when the MBD is stored

before the case is completely dry. When that happens, the entire unit usually has to be replaced.

Let wet case air-dry before storing MBD.



THE BORESIGHT HAS FEW REPAIR PARTS, BUT ITS LIFESPAN CAN BE EXTENDED IF YOU DO THE FOLLOWING...

👁️ Eyeball the purge valve to make sure the valve core and cap are there.

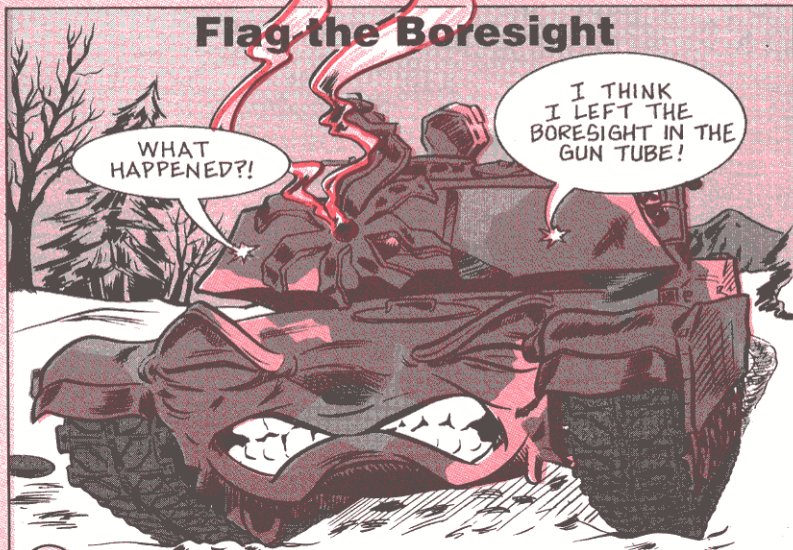
👁️ Work the operating handle back and forth to make sure it moves freely.

👁️ Look at the eyepiece lens and optical unit for scratches, cracks and condensation.

👁️ Look at the expanding adapter collet and tapered muzzle cone for nicks, gouges or burrs.

If your MBD shows any of these problems, let your support unit take a look. They may be able to save it.

Flag the Boresight



Okay, so you've just finished boresighting your cannon with the M26/M27 or M26A1/M27A1 muzzle boresight device (MBD). Now you're ready to load a round and do some practice firing.

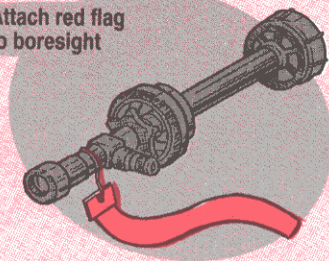
Wait a minute! Did you remember to remove the MBD?

Lots of bad things can happen if you fire the gun with the MBD still in the tube. You can damage the MBD, the gun or other equipment. If the blast is strong enough to damage the breech, it can even injure or kill you or your fellow tankers!

Prevent this accident by keeping a red flag tied to the optical unit of the MBD. A red flag swinging in the breeze will alert range personnel outside the vehicle that the gun isn't ready to load, much less fire.

Each MBD comes with its own flag that's clearly marked "REMOVE AFTER BORESIGHTING." If your flag is missing or damaged, get a replacement

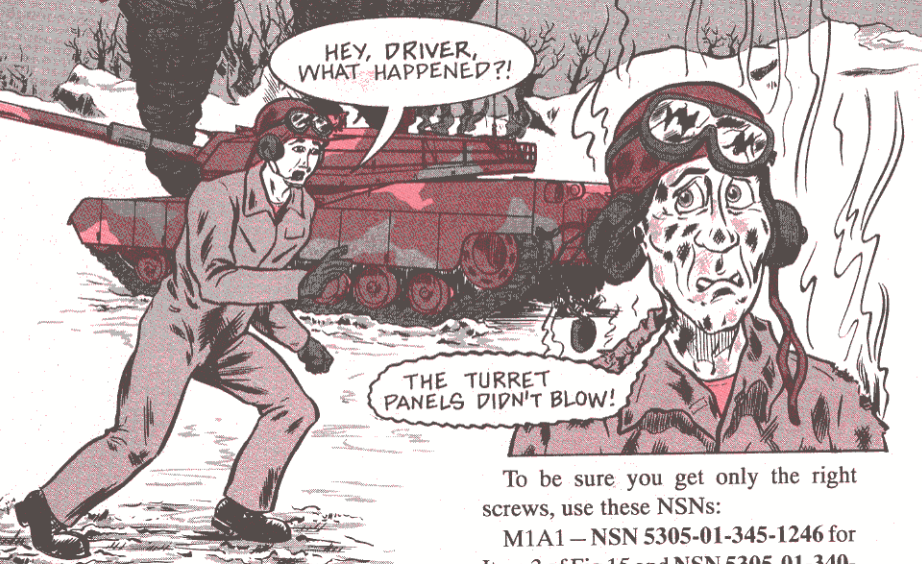
Attach red flag to boresight



with NSN 8345-01-332-5791. The NSN isn't on the AMDF, so order the flag on a DD Form 1348-6. In the Remarks block put, "NSN not on the AMDF."

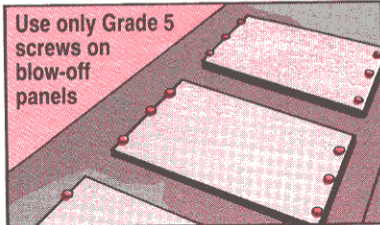
A word to the wise — always look through the breech before loading the first round of ammo.

Grade 5 Screw Problem Solved



At long last, there's a way to make absolutely certain you get only Grade 5 screws when you order them for your M1's blow-off panels.

Grade 5 screws are used so the panels can blow off if the ammo in the turret bustle explodes. Any higher grade screw used as a substitute may not allow the panels to blow. That means the force of the blast goes into the turret.



To be sure you get only the right screws, use these NSNs:

M1A1 — NSN 5305-01-345-1246 for Item 3 of Fig 15 and NSN 5305-01-340-5652 for Item 1 of Fig 100 in TM 9-2350-264-24P-2.

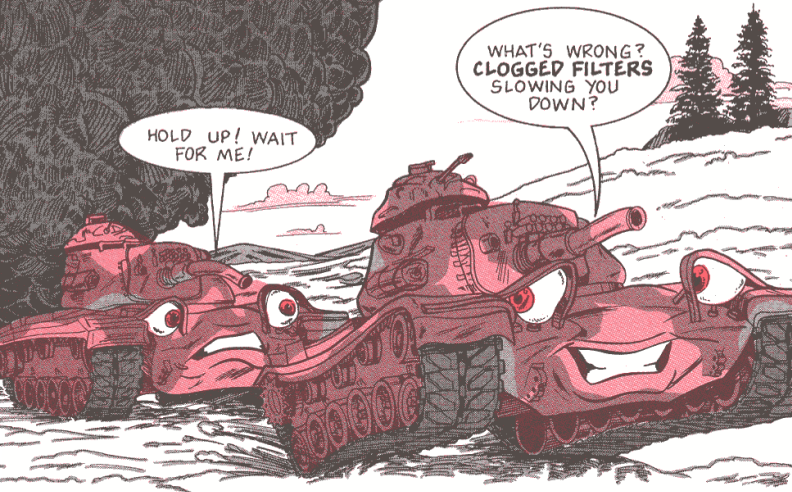
M1 and IPM1 — NSN 5305-01-340-5652 for Item 3 of Fig 15 and NSN 5305-01-342-4943 for Item 3 of Fig 92 in TM 9-2350-255-24P-2.

Even with the new numbers, it's better to be safe than sorry. Take a good, close look at the head on each screw before tightening down the blowoff panel. If the head has three or fewer dashes, you're set to go. **NEVER USE A SCREW WITH MORE THAN THREE DASHES!!**



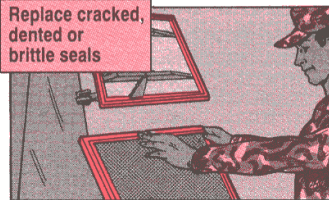
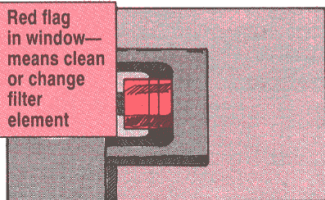
Grade 5 screws have 3 dashes

Clean Air Filters Win Every Time



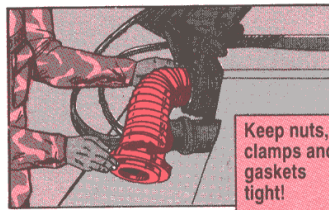
Keeping air filters in prime condition is a job for mechanics. Watch for a number of “choking” signs when pulling maintenance on the air filter.

Are the air filter door and element seals in good shape? If there are cracks, dents or signs of brittleness, replace the seals.



Eyeball the intake and outlet hoses. Make sure the nuts, clamps and gaskets are tight and holding. Look over the hoses for cracks and weak spots. Check inside the outlet hose for dust.

If the element is just dusty, shake it, being careful to keep dust out of the filter’s insides. Never hit the element against something to remove dirt. That ruins it.



Use compressed air to blow away the dirt from inside the filter. NSN 2540-01-194-3218 gets the V-pack cleaner. When you use it, always wear goggles and gloves for protection.

Blow out dusty filters

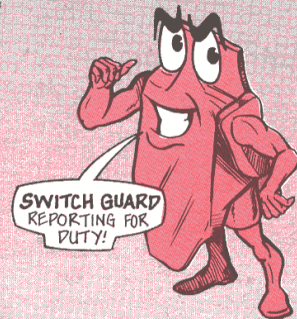


For more stubborn problems like heavy dirt, carbon or oil deposits, wash the filter element and use it again. Just dip it several times in a barrel of water mixed with liquid detergent, NSN 7390-00-990-7391. Then rinse with a hose and let the elements dry thoroughly.

If the filter element is torn, worn or too dirty to clean, replace it with filter, NSN 2940-01-142-8260.

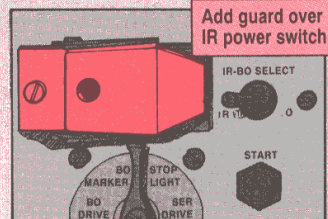
M113-Series...

Guard That IR Switch



Prevent the IR from powering up when you’re not ready. Get a switch guard, NSN 5930-00-776-6916 for your carrier.

An accidental flick of the hand is all it takes to turn on the IR power switch. If it goes unnoticed long enough, the switch’s power supply will short out to the cable storage plug. That means more than \$400 for a new power supply.



Installing the switch guard is easy. Just use the two screws on both sides of the switch.

A Load of Good Advice

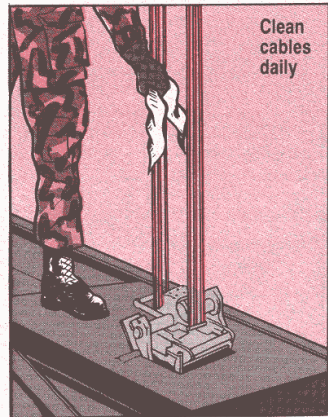
TO PREVENT
DAMAGE AND
DOWNTIME

YOU MUST USE
CARE WHEN YOU'RE
LOADING AS WELL
AS OPERATING
YOUR MLRS.

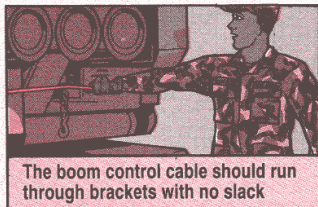
If you mess up loading the MLRS, you can make a mess of things—like the boom control or the hook and pulley.

Load up on this loading info to keep problems at bay:

Never lube the lifting cables. Lube acts like a magnet to sand and dirt. Grit wears cables out fast.

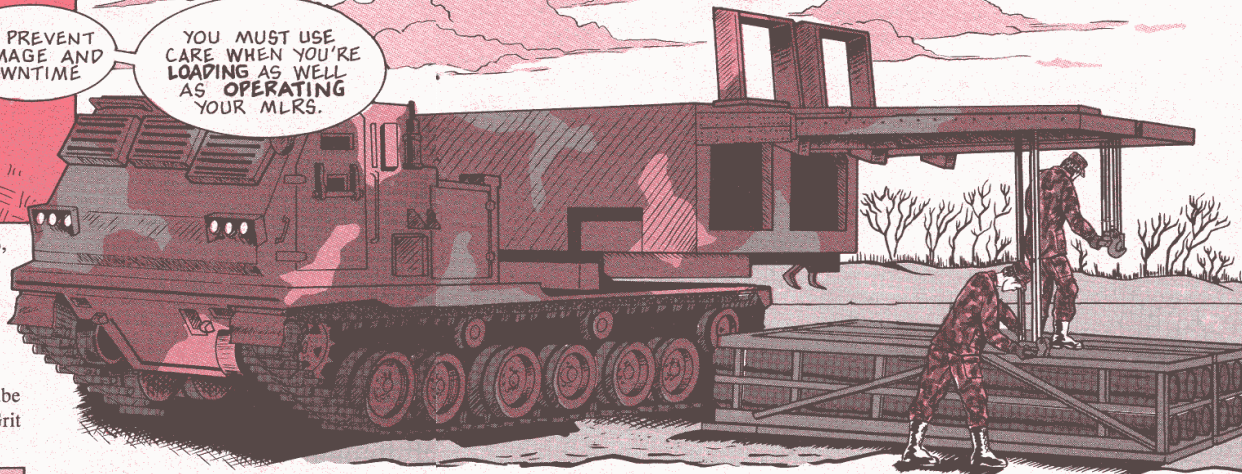


Make sure the boom control cable's routed tight through the brackets on the rear of the Launcher Loader Module



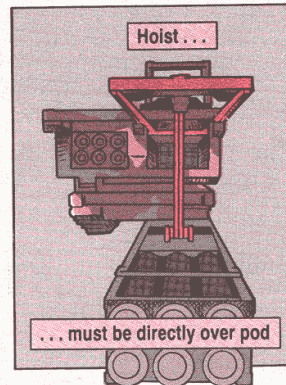
The boom control cable should run through brackets with no slack

(LLM). If there's slack in the cable, it catches on the rear of the vehicle and snaps in two.



Position the MLRS so you pick pods straight up. If you pick a pod up at an angle, you put extra strain on the cables—and they break.

When you spool the cables back on the drum, stand below the hoist and hold onto the hooks to keep a slight tension on the cables as they're rewound into the drum. Otherwise,

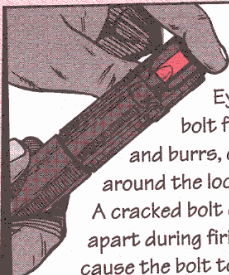


they tangle and snarl. This makes for kinks and twists that weaken the cables.

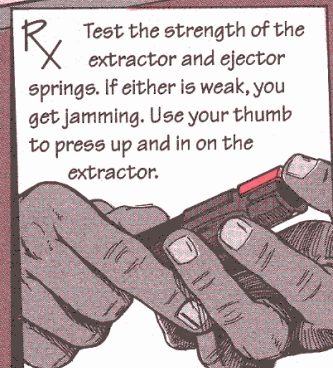
After you stow the LLM, wait at least 30 seconds before you shut off the vehicle engine. That reduces hydraulic pressure. Otherwise, the high pressure fluid in the LLM actuators ruptures seals, causing Class III leaks.

Prescription for

The bolt is the heart of your M60. Just as everything becomes a strain when your own heart gets out of condition, an out-of-condition bolt makes firing a strain. Prevent strain with this PM prescription.

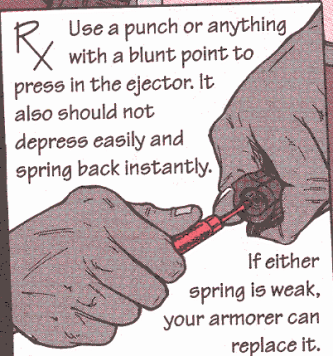


Rx Eyeball the bolt for cracks and burrs, especially around the locking lugs. A cracked bolt can break apart during firing. Burrs cause the bolt to hang up.



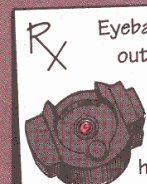
Rx Test the strength of the extractor and ejector springs. If either is weak, you get jamming. Use your thumb to press up and in on the extractor.

It should not depress easily and it should spring back without hesitation.



Rx Use a punch or anything with a blunt point to press in the ejector. It also should not depress easily and spring back instantly.

If either spring is weak, your armorer can replace it.

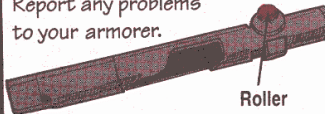


Rx Eyeball the bolt face. An out-of-round firing pin hole or one with pitted edges means you will have firing problems.

Healthy Bolts.

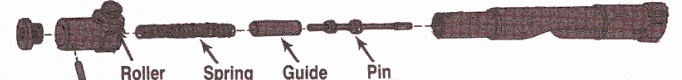


Rx Turn the cam actuator roller. As long as it moves, it's OK. But if it's frozen, your M60 will fire sluggishly and the feed cam in the cover will wear out fast. Report any problems to your armorer.



Roller

Rx Take the bolt apart and clean it with CLP until all carbon is gone. Make sure you put the bolt back together correctly. It goes like this:



- ✓ The long end of the firing pin goes in the bolt first.
- ✓ The small hole in the guide fits on the short end of the firing pin.
- ✓ The spring goes in the guide.
- ✓ The cam actuator's roller end goes on the bolt first.

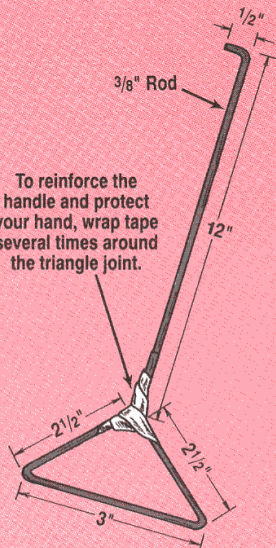
Once you have the bolt assembled, give it a shake. If the bolt plug pin falls out, tell your armorer. He needs to replace the bolt plug.

Unstick

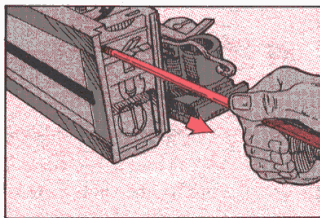
It's going to happen. You armorers are going to have to deal with an M2 bolt stuck in the receiver because its cocking lever is back.

The best way to unstick a stuck bolt is with a tool you make yourself:

Order a 2-ft length of $\frac{3}{8}$ -in brass alloy, NSN 9525-00-249-7441. Cut it down to 20 $\frac{1}{2}$ inches. Bend it like this:

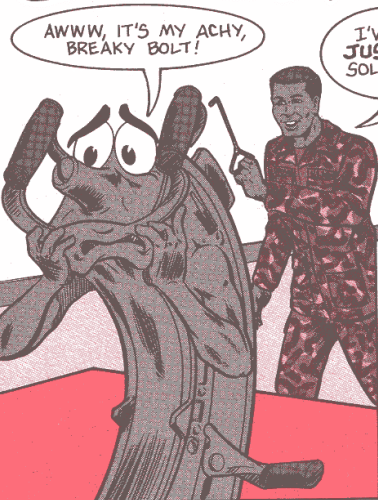


1. To use the tool, remove the backplate, driving rod spring, and bolt pin. Hook the tool over the cocking lever, half-way up the lever. If you get it higher, the lever will jam.

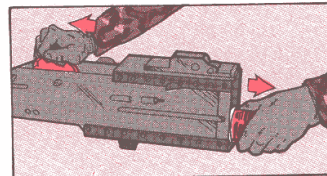


2. Press down hard on the lever as you yank back with the tool several times. The bolt should come unstuck.

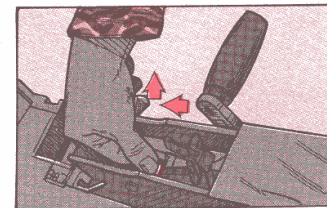
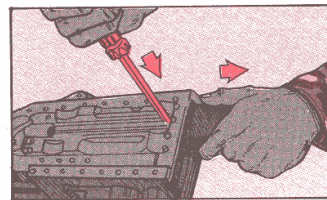
Stuck Bolts



3. Slide the bolt forward as you pull the buffer to the rear. The bolt forces the accelerator down and allows the buffer to be removed. You may need to slide the bolt back and forth several times before you can pull the buffer out.



4. Push down on the front of the barrel extension. Slide the bolt out of the receiver. If the bolt hangs up, pull the extension forward and up until the bolt slides out.

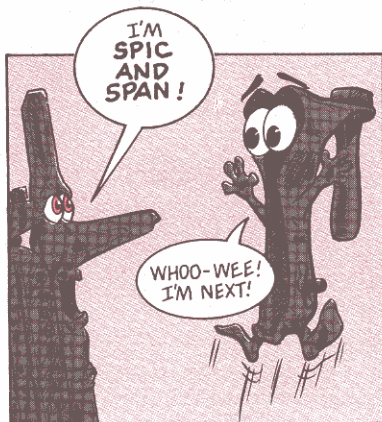


In the field, though, the tool may not be available. But there still may be a solution:

1. After you remove the backplate, driving rod spring, and bolt pin, retract the bolt as far as you can.

2. Press in on the buffer detent spring with a screwdriver as you slide out the buffer assembly about two inches.

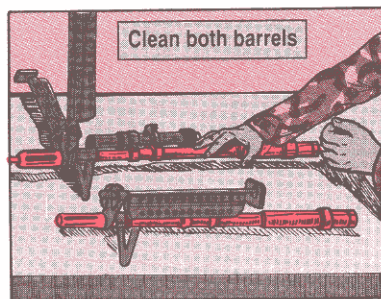
Extras Need PM, Too



If you forget preventive maintenance for your machine gun's extras—spare barrel, blank firing attachment (BFA), traversing and elevating mechanism (T&E)—you put yourself in an extra bad situation when it comes time to fire.

You're supposed to change the barrel after so many rounds or the barrel overheats. If it gets too hot, it's ruined. But if you replace it with a dirty spare barrel, your machine gun stops firing.

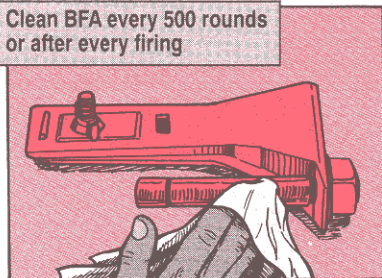
So, when you clean one barrel, clean the other, too.



If the barrel has a carrying bag, use it. That protects it against moisture and dirt.

If the BFA's not cleaned, it gets fouled with carbon which could cause chambering and extracting problems. Clean all BFAs with CLP after firing. You also clean the M60's after 500 rounds, the M2's after 800 rounds and M240's after 2,000 rounds.

Clean BFA every 500 rounds or after every firing



If the M2 or M60 T&E gets gummed up or corroded, it can't be adjusted for firing. If it's banged around during travel, it's knocked out of calibration. That ruins accuracy.

Clean the T&E with a rag and CLP when you clean your machine gun. Protect it by wrapping it in a rag and storing it in the spare barrel bag.

Stow T&E in spare barrel bag



Shorten Spring Check

Dear Editor,

It's important for armorers to regularly check the length of a rifle or machine gun's recoil spring. If the spring gets too long or short, the weapon will recoil and fire poorly.


But it's a hassle to drag out the TM to see what the spring specs are and then a tape measure or ruler to measure the spring.

Measuring springs is a snap, though, if you put the measuring marks on your workbench. Mark a zero point with a felt pen or china marker. Then, if you have M16s, for instance, measure $11\frac{3}{4}$ inches and $13\frac{1}{2}$ inches and write above both spots "M16".

From then on, all you need to do to measure an M16 spring is line it up with the marks. You can tell at a glance if it's too short or long.

Make similar marks for your other weapons' springs like the M60 machine gun.

Homer Parsons
Ft Benning, GA



NOW I CAN
SEE HOW I
MEASURE
UP!

FROM THE DESK OF THE

Editor 

We've taken the measure of your suggestion and given it high marks. Armorers should eyeball the springs for flat spots, too. Replace worn springs.

Load Shifting Is Bad News



A shifting load on a cargo truck or trailer can ruin your day. The sidewalls, front wall and endgate may not be strong enough to hold the load.

That can mean ammo scattered down the road!

Keep truck- or trailer-loaded ammo in place with web strap tiedowns or wood blocking and bracing.

Get the word on how to do it right from:

**US Army Defense Ammunition Center and School
ATTN: SMCAC-DET
Savanna, IL 61074-9369
Or call DSN 585-8071
Commercial 815-273-8071**

Maintenance Advisory and Safety-of-Use Messages

AMCCOM SOU Msg 92-22—Advisory, M9 pistol, NSN 1005-01-118-2640, AMSMC-MAE 151311Z Sep 92.

AMCCOM SOU Msg 92-24—Advisory, MK19 Mod 3 grenade MG weapon system, AMSMC-DSM-MG 251754Z Sep 92.

AMCCOM Maintenance Advisory Msg 92-30—M1-series tanks, AMSMC-MAW 041205Z Sep 92.

AMCCOM Maintenance Advisory Msg 92-31—Transmission lift, NSN 4910-00-585-3622, AMSMC-MA 041256Z Sep 92.

AMCCOM Maintenance Advisory Msg 92-32—Abrams tank turret

race assembly spring, AMSMC-MAW 041820Z Sep 92.

ATCOM SOU Msg 92-15—Advisory, Laundry unit, trailer-mounted, Model M85-100, NSN 3510-01-291-8169, AMSTR-ME 211436Z Sep 92.

CECOM SOU Msg 92-09-01—Mandatory, One-time inspection, AN/TPQ-37 artillery locating radar power transfer box, AMSEL-SF-SEC 101430Z Sep 92.

CRDEC APG MD Maintenance Advisory Msg 92-34—M256/M256A1 chemical agent detector kit, SMCCR-MA 171607Z Sep 92.

TACOM SOU Msg 92-21—Advisory, Technical/Maintenance, 4K and 6K Hyster electric warehouse forklifts, AMSTA-M 041401Z Sep 92.

TACOM SOU Msg 92-22—Advisory, Technical/Maintenance, M915A1 vehicle, AMSTA-M 231211Z Sep 92.

TACOM SOU Msg 92-23—Advisory, Technical/Maintenance, M1-series tanks, M2/M3-series Bradleys and M992 FAASV, AMSTA-M 231727Z Sep 92.

Your Direct Support or Logistics Assistance Office (LAO) can provide you with more information.

Mount Needs Data Plate ID



I'VE GOT THE DATA PLATE OFF THE FACE MASK. NOW I NEED TO FIND OUT HOW TO PUT IT ON THE GM-6 MOUNT.

When the AN/PVS-5 aviation night vision goggle's face mask is removed and the GM-6 mount installed, there's no way to identify the goggles. And, to make matters worse, the current TMs don't give you instructions for removing the data plate from the face mask and putting it on the mount.

HERE'S HOW TO REMOVE THE DATA PLATE FROM THE FACE MASK:

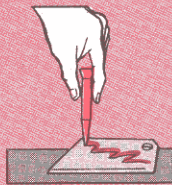
1. Carefully remove the data plate with a knife or single-edge razor blade.
2. Put the data plate on a clean flat surface and flatten the plate.
3. Use the knife or blade to scrape the old glue from the back of the data plate.

HERE'S HOW TO PUT THE DATA PLATE ON THE MOUNT:

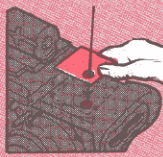
1. Remove the inside screw that holds the electrical connector in place on the mount.



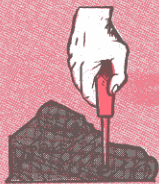
2. Put glue, NSN 8040-00-142-9193, on the back of the data plate.



3. Align the data plate screw hole with the electrical connector screw hole and press the data plate down. (If the plate's nonmetallic, punch a hole for the screw.)



4. Put the screw back in and tighten.



Tailboom Bolts

Dear Windy,

I saw an AH-1F where neither attaching tailboom bolt on the right side had any threads showing and neither bolt on the left side was tight because their threads had bottomed out in the barrel nut.

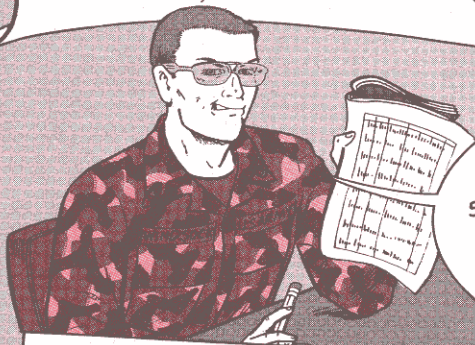
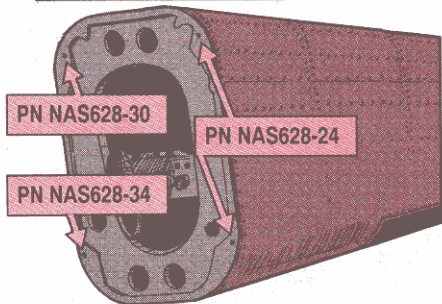
The problem was they were all the wrong bolts.

Page 45-1 of TM 55-1520-236-23P-1 (Ch 7), does not give the tailboom bolts for tailboom, PN 209-961-827-101, S/N BBHY0958, which is an AH-1S MC tailboom used on the AH-1F.

Also, on Page 45-1, PN 209-033-800-83 should be 209-033-800-85 and PN 209-033-800-107 should be 209-033-800-109.

Harold D. Hintze
Ft Bliss, TX

Tailboom attaching bolts



THERE ARE A FEW OTHER BOLT CHANGES ON PAGE 45-1, TOO. IN THE QTY COLUMN, ITEM 1 SHOULD BE 1, NOT 2; AND ITEM 3 SHOULD BE 2, NOT 1. IN THE ITEM NO. COLUMN THE SECOND ITEM 1, ITEM 2 AND ITEM 3 SHOULD BE 1A, 2A AND 3A.

(1)	(2)	(3)	(4)	(5)	(6)
ITEM NO.	SMR CODE	FSCM	PART NUMBER	DESCRIPTION AND USABLE DN CODE (UDC)	QTY
1	PAOZZ	96906	MS21250-08026	.BOLT, SHEAR U/D PN 209-033-800-1, -79, -83, AND -107	2
1A	PROZZ	80205	NAS628-26	.BOLT, SHEAR U/D PN 209-030-802-15	1
2	PAOZZ	96906	MS21250-08030	.BOLT, SHEAR U/D PN 209-033-800-1, -79, -83, AND -107	1
2A	PAOZZ	80205	NAS628-30	.BOLT, SHEAR U/D PN 209-030-802-15	1
3	PAOZZ	96906	MS21250H08024	.BOLT, SHEAR U/D PN 209-033-800-1, -79, -83, AND -107	1
3A	PAOZZ	80205	NAS628-20	.BOLT, SHEAR U/D PN 209-030-802-15	2

Keep Moisture Out

Dear Windy,

Our unit spent many man hours in the winter draining and ground running our OH-58s, because water had seeped through the vent cap and into the tailrotor gear box.

We found that a dab of sealant over the lock ring on top of the cap helps keep water out and does not affect the cap's ability to vent.

Gary W. Lundy
Fresno, CA

MR. LUNDY HAS
A GOOD, QUICK FIX.
1LT STEVEN P. IOOSS RECOMMENDS
COVERING THE CAP WITH A VEHICLE
OIL SAMPLE BOTTLE. HERE'S HOW...

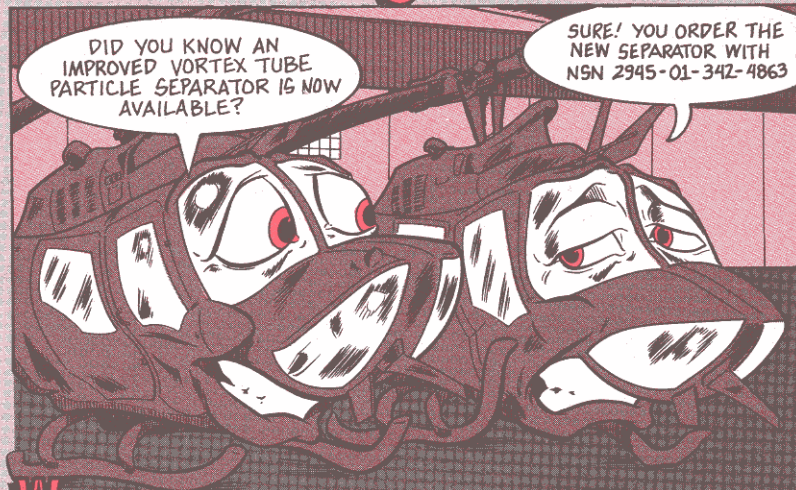
1. Cut off the bottle's threaded neck.
2. Pack the bottle with cotton.
3. Wrap tape around the edge of the bottle until the bottle will fit snugly around the cap.
4. Stick the bottle over the cap and tape it tight.
5. Attach a "Remove Before Flight" streamer, NSN 8345-00-995-7806, by running a wire through the bottle and the streamer.
6. Note removal of the cap as a part of preflight.

Sampling
bottle

Cotton

REMOVE BEFORE FLIGHT

Announcing a New One



When your new separator arrives, don't replace the eductor nozzles. ASAM 082200Z Apr 91 (TB 1-1520-228-20-61) doesn't apply to the new separator. However, the recurring inspection and repair procedures in TM 55-1520-228-23-1 do.

Use your old separator, NSN 2945-00-109-2364 (NSN 2945-01-334-7116 when TB 1-1520-228-20-61 was applied), until you get a replacement.

Toss old unserviceable separators.

Aviation Messages

If your unit has not received a message you have an interest in, check with your next higher headquarters.

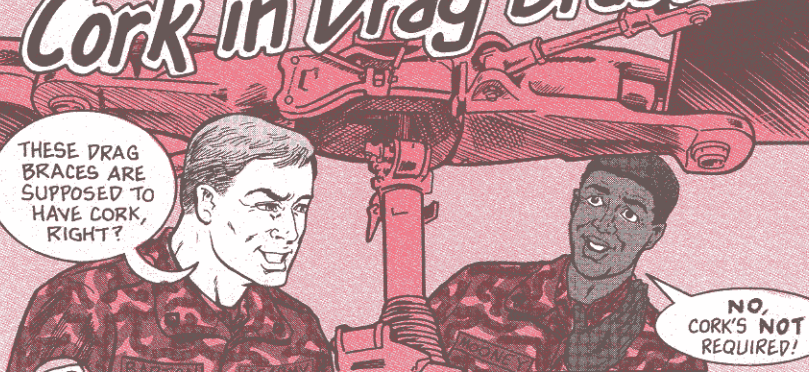
OH-58-92-06, SOF, Tech, Ungrounding of OH-58D, 101500Z Sep 92.
UH-1-92-ASAM-12, Maint Mand, UH-1 series, Revision to UH-1-92-ASAM-11, inspect 90 degree gearbox attachment fitting, 272200Z Aug 92.
UH-1-92-ASAM-13, Maint Mand, UH-1H/V, Inspect droop compensator jackshaft assembly, 301700Z Sep 92.
AH-1-92-ASAM-13, Maint Mand, AH-1, Inspect Kaman 747 Blade,

051800Z Aug 92.
AH-1-92-ASAM-14, Oper, AH-1, Emer Procedure engine inlet air master caution segment light, 132000Z Aug 92.
OH-58-92-ASAM-16, Info, OH-58A/C, Airframe fuel filter install, 061800Z Aug 92.
OH-58-92-ASAM-17, Maint Mand, OH-58D, Inspect tail rotor drive shaft bearings lube holes, 242200Z Aug 92.
OH-58-92-ASAM-18, Maint Mand, OH-58D, Correct OH-58-

CAT 1 EIR Phone:
DSN 693-2066
(24 HOURS)

92-ASAM-17, Inspect tail rotor drive shaft bearings lube holes, 281800Z Aug 92.
UH-60-92-ASAM-05, Maint Mand, H-60 series, Inspect/replace main rotor blade expandable pins, 182015Z Aug 92.
UH-60-92-ASAM-06, Maint Mand, H-60, Inspect hardware pedal adjuster assembly, 211830Z Sep 92.
CH-47-92-ASAM-06, Info, CH-47D/MH-47D ERFS tank assembly, 101600Z Sep 92.

Cork in Drag Braces



THESE DRAG BRACES ARE SUPPOSED TO HAVE CORK, RIGHT?

NO, CORK'S NOT REQUIRED!

Some drag braces come corked, some don't. But cork is not required or authorized. Originally, cork was installed to keep out moisture. Now it's known that it picks up moisture and contributes to corrosion.

If you get corked braces, remove the cork. If your installed braces have cork, there's no requirement to remove it.

LAMS Anchoring

Large Area Maintenance Shelters (LAMS) can collapse during high winds if they're not anchored right. That means using all the storm kit cables and only the right ground anchors. For the word on anchoring these shelters, see your ATCOM LAR.



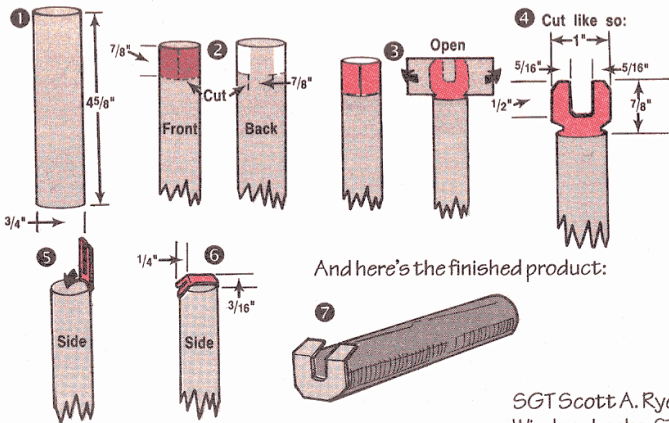
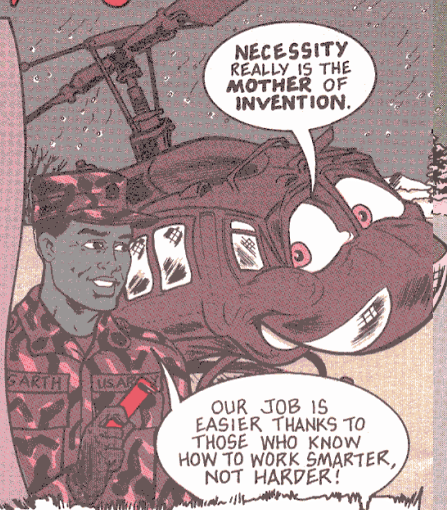
Sloppy Sampling Solutions

Dear Windy,

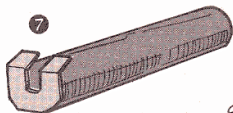
Taking "before the first flight of the day" fuel samples from a Huey's tank is a messy job. I've made a defueling valve tool for use on Hueys with defueling valve, NSN 2915-00-134-4504.

The tool takes care of the problem of a valve that does not seat and leaks. It prevents the valve from opening too much so that the fuel goes directly into the sample bottle, even on windy days, and the valve seats right.

I made the tool out of aluminum tube, NSN 4710-00-277-3627, and here's how I did it:



And here's the finished product:



SGT Scott A. Ryer
Windsor Locks, CT

Dear Sergeant Ryer,

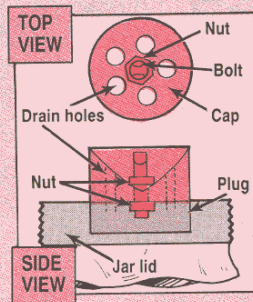
Looks like a good solution to end sloppy sampling on the Huey. Here's a tool solution for the Chinook that lets you open the drain, direct the fuel into your sample jar and close the drain using one hand.

Make this tool with plug, NSN 4730-00-540-2232; cap, NSN 4730-00-554-8917; bolt, NSN 5306-00-687-7570; two nuts, NSN 5310-00-877-5796, and a sample jar.

Here's how:

1. Thread nut on bolt and run down all the way.
2. File slot screwdriver tip on end of bolt.
3. Remove nut to clean bolt threads, then run it down all the way again.
4. Drill 1/4-in hole in center of cap, plug and jar lid.
5. Put bolt through hole in plug, then through jar lid (from bottom), and then through cap. Put other nut on bolt, run it down tight.
6. Drill five drain holes through cap, lid and plug around bolt.

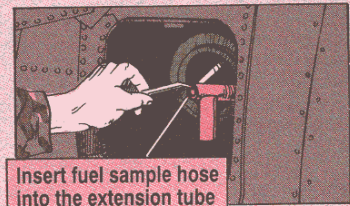
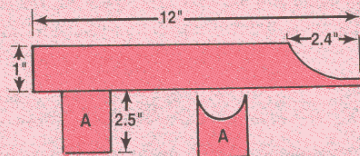
Put device on a sampling jar and you're done.



And here's a fuel sampling tool for the Black Hawk that also helps stop the frustrating job of slipping one flexible hose inside another flexible hose that's inside the gravity fuel port.

Make a plastic extension tube from 1-in diameter PVC to these dimensions:

- Use half-moon file to groove handle. Clean off all burrs using PVC primer. Attach grooved handle to long pipe using PVC cement. Let cure for 24 hours.
- To use extension tube, insert through gravity fuel port until plastic tube surrounds fuel sampling tube. Then insert sample hose inside extension tube and draw fuel sample.

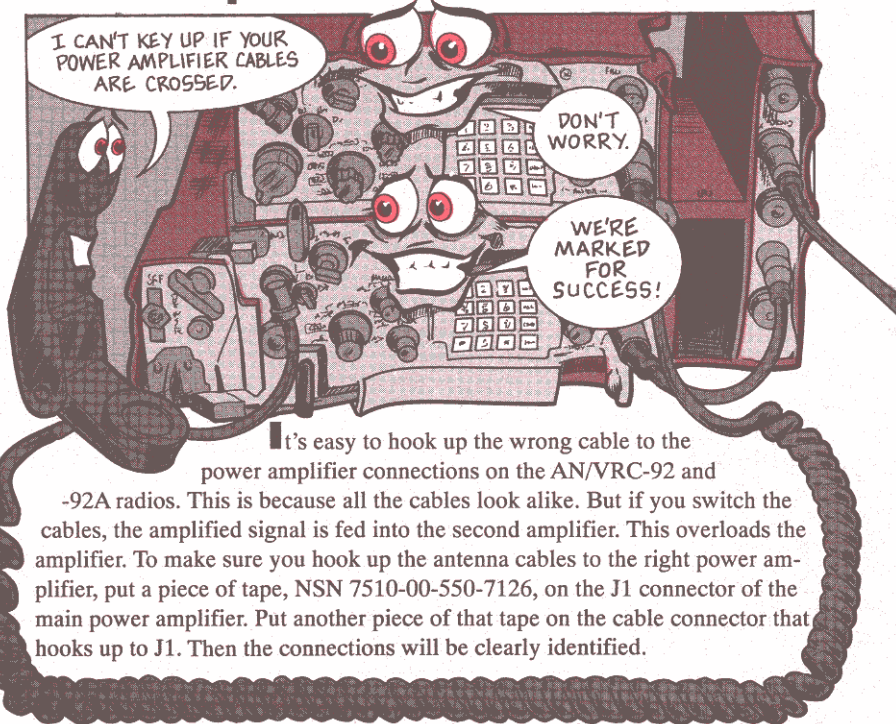


Insert fuel sample hose into the extension tube

Those three tools should make sampling jobs easier and less messy. Make sure you protect your skin and clothing from fuel spills by wearing fuel-resistant gloves, NSN 8415-00-641-4601. They're authorized by CTA 50-900. And don't forget to read FM 10-68, Aircraft Refueling, to get the whole fuel sampling story.

Windy

Tape Identifies Cables



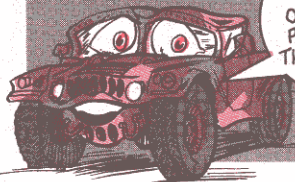
It's easy to hook up the wrong cable to the power amplifier connections on the AN/VRC-92 and -92A radios. This is because all the cables look alike. But if you switch the cables, the amplified signal is fed into the second amplifier. This overloads the amplifier. To make sure you hook up the antenna cables to the right power amplifier, put a piece of tape, NSN 7510-00-550-7126, on the J1 connector of the main power amplifier. Put another piece of that tape on the cable connector that hooks up to J1. Then the connections will be clearly identified.

AN/GRC-106 Radio . . .

Get 100-Amp Kit by Parts

The 100-amp alternator kit used to install the Angry-106 in your HMMWV is an initial issue item only.

HOWEVER,
YOU CAN
ORDER THE
PARTS WITH
THESE NSNs...



Item	NSN
Regulator	2920-01-199-2391
Generator, 100-amp	2920-01-190-2709
Decal	7690-01-197-5500
Clamp, rear	2920-01-199-2395
Clamp, front	2920-01-199-2394
Pulley, grooved	3020-01-204-8132
Guard	4140-01-303-1338
Cable Tie	5975-01-273-8133
Lock Washer	5310-00-637-9541
Lock Washer	5310-00-209-0965

Radio Installation Kit Guide

SB 11-131-1 AND SB 11-700
DO NOT LIST ALL THE INSTALLATION
KITS USED IN THE M998 AND M1038
SOFT-TOP HUMVEES. USE THIS
GUIDE TO GET THE RIGHT
KIT FOR THE JOB...



Radio Set	Installation Kit	LIN	NSN	Qty
AN/GRC-106A	MK-2506/GRC-106*	J48674	5820-01-208-1905	1
AN/GRC-160	MK-2502/VRC****	J48402	5820-01-208-1901	1
	MK-2149/VRC**	J71679	5810-01-125-1031	1
AN/GRC-193A	MK-2541/GRC-193A*	J49150	5820-01-227-5842	1
AN/GRC-213	MK-2542/GRC-213	J73522	5820-01-227-0528	1
AN/VRC-46	MK-2502/VRC****	J48402	5820-01-208-1901	1
	MK-2146/VRC***	J71475	5310-01-125-1029	1
	MK-2147/VRC***	J71543	5810-01-125-4680	1
AN/VRC-47	MK-2503/VRC****	J48470	5820-01-208-1902	1
	MC-1967/VRC**	J31622	5810-01-074-2687	1
	MK-2146/VRC***	J71475	5810-01-125-1029	1
	MK-2147/VRC***	J71543	5810-01-125-4680	1
AN/VRC-49	MK-2505/VRC****	J48606	5820-01-208-1904	1
	MK-2153/VRC**	J71815	5810-01-125-1033	1
	MK-2146/VRC***	J71475	5810-01-125-1029	2
	MK-2147/VRC***	J71543	5810-01-125-4680	2

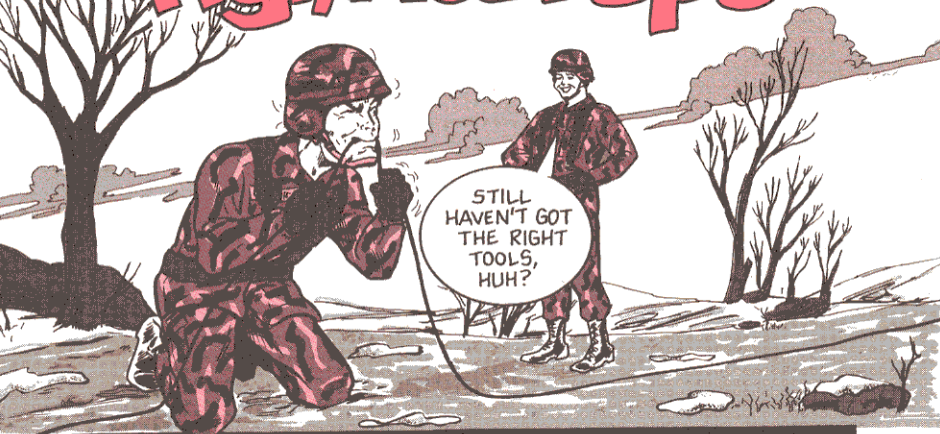
* To install the AN/GRC-106A or AN/GRC-193A in any vehicle with two or more radio sets, order the 100-amp alternator kit, NSN 2920-01-199-2393 (initial issue only).

** Used with the TSEC/KY-57.

*** Either kit can be used for secure communication for a RT-524 using a TSEC/KY-57. The MK-2146/VRC has 7-ft cables and the MK-2147/VRC has 4-ft cables.

**** Order antenna offset kit, NSN 5985-01-258-0037, to make it easier to tie down the antenna. You'll need two offset kits for the AN/VRC-47, or the AN/VRC-49

Fight Foul-ups



PREPARATION IS THE KEY TO PREVENTING **FOUL-UPS** WHEN WORKING WITH FIELD WIRE. THAT MEANS HAVING THE **RIGHT TOOLS** FOR THE JOB. HERE'S WHAT YOU'LL NEED...



When ordering the TL-13 pliers with skinners, put an advice code of 2B in card columns 65-66 of the supply request. That way the supply folks know not to substitute the pliers without skinners.

You'll also need a good supply of stakes to secure the wire whenever trees or other objects aren't available.

TL-13 pliers with skinners	5120-00-247-2063
TL-29 electrical knife	5110-00-240-5943
CS-34 carrying case	5140-00-498-8898
Red wire tags (50 ea)	9905-00-537-8954
Yellow wire tags (50 ea)	9905-00-537-8955
Green wire tags (50 ea)	9905-00-537-8956
White wire tags (50 ea)	9905-00-537-8957
TL-636 electrical tape (for tropic/temperate zone)	5970-00-685-9059
TL-600 electrical tape (for arctic zone)	5970-00-240-0620
TL-83 friction tape	5970-00-644-3167

Round metal stakes are best since they have no sharp edges to cut the wire. Make the stakes out of round metal stock or rebar. Cut the metal to about 18 inches and sharpen one end.

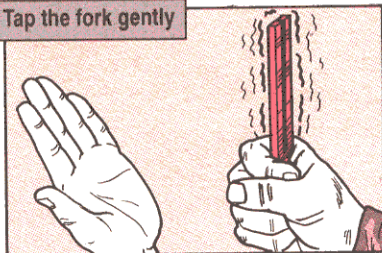
Make Minor Adjustments

THESE TELETYPEWRITERS ARE OLD TIMERS, BUT THEY'RE STILL PUTTING OUT THE GOOD WORD... **MAYBE!**

If you get a lot of garbled traffic, check out a couple of things before you send them to the rest home for repair.

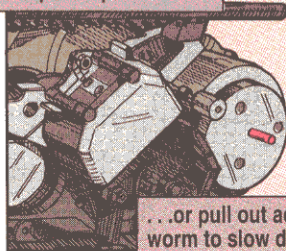
➤ **MOTOR SPEED.** Make sure the motor speed is right. Tap your tuning fork on the heel of your hand. Look through the slots at one of the dots on the governor.

Tap the fork gently



If the dot stands still, no adjustment is needed. However, if it moves left, the motor's too slow. Push the adjustment worm. If the dot goes to the right, slow the motor down by pulling on the worm. Quit adjusting when the dot stands still.

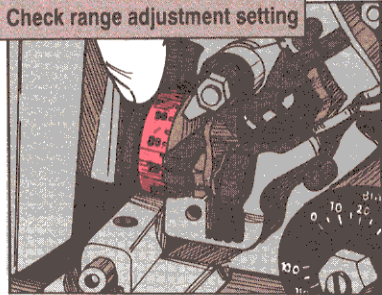
Push adjustment worm to speed up motor . . .



... or pull out adjustment worm to slow down motor

➤ **RANGE ADJUSTMENT.** Check the range adjustment to make sure it's still where you set it. Usually, if the motor speed is OK, and you've got the right current setting, the rangefinder holds until the next scheduled adjustment. Keep adjustments to a minimum.

Check range adjustment setting



If you're still getting nonsense from your teletypewriter, send it for repair.

Survive a Crash

The dreaded computer crash. It destroys without a sound, leaving behind the wreckage of your ULLS supply and maintenance data.

If your ULLS has ever crashed, you know what a chore it is to reconstruct the data without a current backup tape.

Protect yourself. Make backup tapes daily. It takes about 10 to 15 minutes to backup your ULLS data files with a preformatted tape, depending on the amount of data you have.

The tape and format you'll need depend on your tape drive and software. Preformatted tapes work best since most tape drives don't automatically format as they back up.

Here's a list of tape drives and the backup tapes used with them:



Tape Drive	Software	Backup Tape	Format Type	Remarks
Irwin 40 megabyte	EZTape 1.14 or 2.02	3M DC2000 or equivalent	Kappamat	Tape NSN 7045-01-338-6542
Archive 60 megabyte	Sytos 2.01 or 3.10	3M DC600 or equivalent	N/A	Tape formatted during backup. Order under #51327-3M-DC-600A
Colorado 40 megabyte	Jumbo 2.5	3M DC2000 or equivalent	Thetamat Quick 40	
Mountain 40 megabyte	Filesafe 4.5.2	3M DC2000 or equivalent	Thetamat Quick 40	
Everex 40 megabyte	FTape 2.04	3M DC2000 or equivalent	Thetamat Quick 40	

Get the tapes at the SSSC store, or order them through local purchase. They cost between \$20 and \$25 each.

Open Wide and Say Ahhhh!



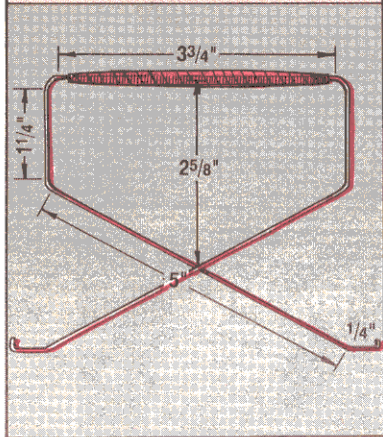
Pulling circuit cards out of your DAS-3's MU-705 disk memory unit is a lot like pulling jaw teeth: Difficult and painful.

Grasp the card anywhere but the two top corners and you risk shorting it out. At the same time, those corners are sharp and pointed. That means you'll come away with cut and bruised fingertips almost every time!

The card extractor tool, NSN 7010-01-101-6680, that's authorized by TM 11-7010-203-23P or a homemade circuit card extractor developed at Ft Gordon, is the solution. The extractor fits the cards perfectly and only costs about \$6 to make.

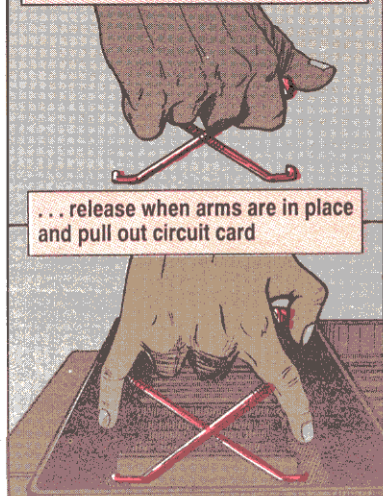
HERE'S HOW TO MAKE IT:

Extractor is made of $17\frac{1}{2}$ inches of #8 gauge steel rod stock. Wrap handle portion of extractor with foam tape, NSN 9320-00-720-0378.



HERE'S HOW TO USE IT:

Squeeze handle to spread extractor arms . . .



. . . release when arms are in place and pull out circuit card

Night Vision Goggles . . .

Save Your Breath

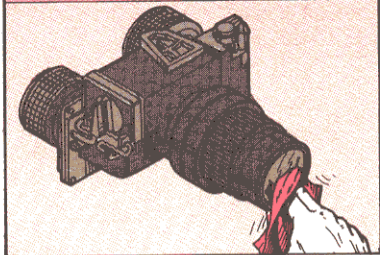


Tempted to wipe off the optical lens with just any old cloth? Resist that temptation. That's a sure way to scratch the lens, especially in cold weather.

In cold weather, resist the temptation, too, to breathe on the optical lens to clean them. If it's below freezing, your breath will frost the lens. When you wipe away the frost, you're bound to leave nasty scratches behind.

Instead, follow this cold-weather cleaning tip: Wipe dirt and smudges off with only lens cleaning tissue. Save your breath for warmer weather.

Always use cleaning tissue, NSN 6640-00-240-5851, to wipe the lens.



CD-ROM Caddy NSN

You can get extra caddies for your CD-ROM with NSN 7025-01-341-8878.

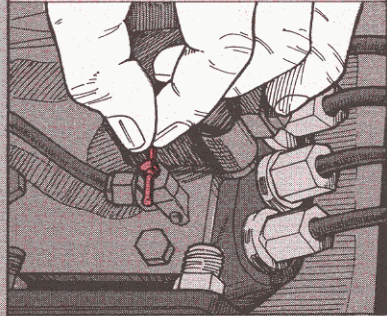
Bleed Away Fuel Problems



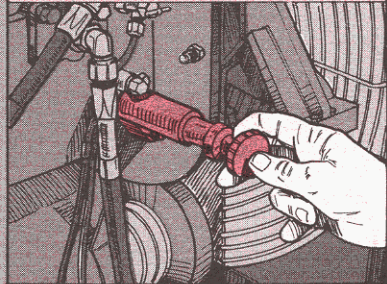
Air trapped in the fuel lines after maintenance or repairs will keep your 100-KW DED generator from running.

The solution is to bleed the lines. Here's how to do it right:

- Put a can under the fuel drain line. Then open the fuel bleed valve.

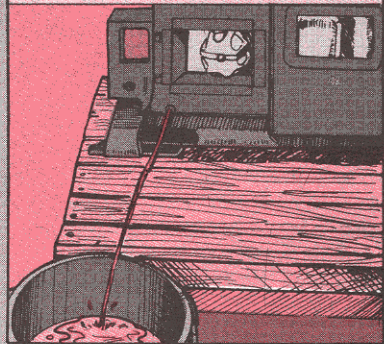


- Operate the priming pump by hand.



OH, CALM DOWN!
I'M DOING THIS FOR
YOUR OWN GOOD!

- Watch the fuel coming out of the drain hose. As soon as you see a solid stream of fuel, close the bleed valve.



- Remove the can and dispose of the fuel properly.

Hear Ye, Hear Ye!



HERE'S
SOMETHING WORTH
HEARING...

HEY. HEY!

WHA...?

HEY, SMITH,
YOU'LL DAMAGE
YOUR **HEARING** IF YOU
FAIL TO SET THE CONTROLS
ON THE NEW AN/PSS-12
MINE DETECTOR THE
RIGHT WAY!

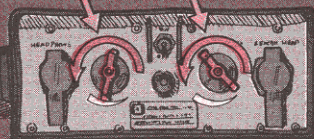
Here's the right way to do it:

Before you turn the ON/OFF switch to the ON position, always turn the **LOUDNESS** and **SENSITIVITY** control knobs all the way down (counterclockwise).

Once you turn the unit ON, adjust the **LOUDNESS** knob to the lowest comfortable level.

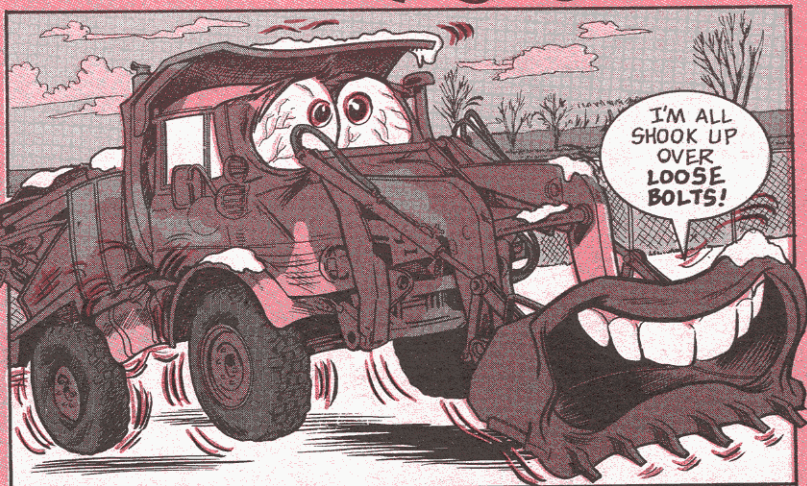
Adjust the **SENSITIVITY** knob often during operation, as needed.

Turn loudness and sensitivity knobs down before switching "ON"



SEE...

Cure for Loose Bolts



Vibration causes the SEE's rear fender bracket and sway bar bolts to loosen. The bolt is harder steel than the frame. So, loose bolts chew into the vehicle's frame. You can solve the problems by adding washers to some bolts and torquing others. Do it like so:

Torque the fender bracket bolts to 210-230 lb-ft.

Add 16mm hardened washers, NSN 5310-01-305-2539, to the platform bolts. Torque 'em to 210-230 lb-ft.

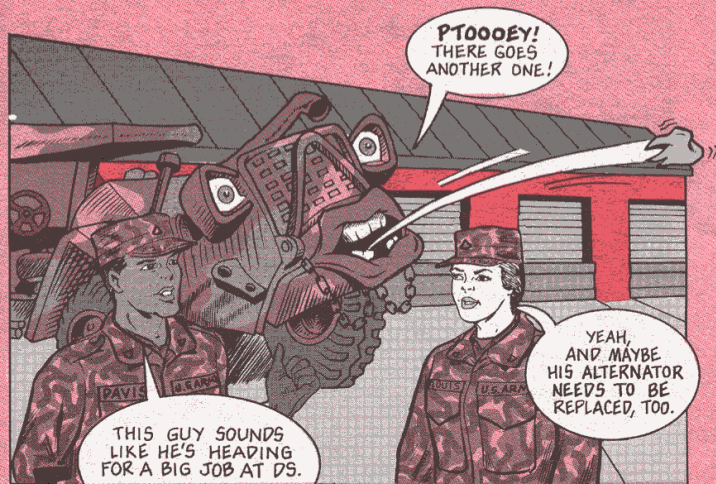
FRONT

CURB
SIDE

ROAD
SIDE

Add 14mm hardened washers to sway bar bracket. Torque to 142-158 lb-ft. Order the 14mm washers on a DD Form 1348-6 using CAGE 64678 and PN 6819900440 from RIC S9I.

The Tale of the Toothless Ring Gear



The teeth of the M4K rough terrain forklift's starter drive mesh with the teeth on the flywheel ring gear to start the engine. Before the engine starts, the starter drive kicks out for a second or two, then it tries to re-engage to continue to crank the engine.

This sudden re-engagement of a spinning starter drive with the turning engine flywheel makes for a sudden contact that knocks teeth off the ring gear.

That means no teeth on the ring gear for the starter drive teeth to mesh with the next time the starter tries to crank the engine. That's when you take your forklift to DS to get a new ring gear.

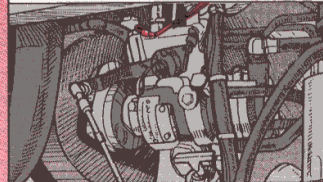
At the root of this whole conflict is a bum alternator. It puts out more volts during startup than it should.

This makes the starter think the engine's started, so the starter quits cranking. Once the engine RPMs drop, the alternator output drops. This voltage drop lets the starter know the engine's not running. If the switch is still engaged, the starter will try to crank the engine again. That's when the damage is done.

So, if you hear any starter chatter when you're trying to crank a forklift, stop immediately . . . and report it!

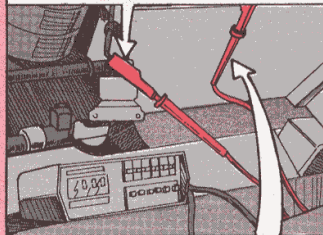
You mechanics can follow these steps to see if the alternator's overcharging:

- 1 Disconnect the electrical lead on the fuel shutoff solenoid.



- 2 Take off the instrument noise baffle mat.
- 3 Disconnect the lockout relay wire (it's the orange wire under the instrument panel and behind the steering column).
- 4 Set the parking brake.
- 5 Move the gear shift lever to neutral.

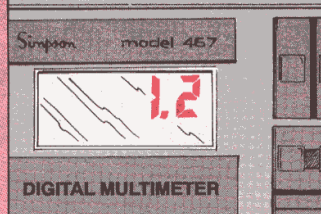
- 6 Connect the red lead from your multimeter to the orange wire that was disconnected from the lockout relay.



- 7 Connect the black lead from the multimeter to the ground.

- 8 Crank the engine. If the reading is two volts or less, the alternator's OK. The alternator's bad if the reading is higher than two volts or if the reading fluctuates. Replace it.

Two or less?



- 9 Reconnect the electrical lead to the fuel shutoff solenoid.

Try to start the engine again.

- 10 Re-test the voltage of the orange wire for the lockout relay with the engine running. This time the reading should be 13 ± 1 volt. If it's not, replace the alternator.

If you get a good reading, reconnect the orange wire to the lockout relay. Then put the noise baffle mat back on.

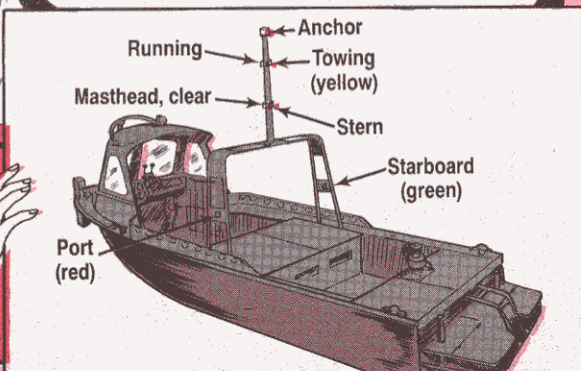
Still hear chatter? Troubleshoot the starting system according to the instructions in the TM.



Light and Lamp Lowdown



LOOKING FOR NSNs FOR NAVIGATION LIGHTS AND LAMPS ON MK2 BRIDGE ERECTION BOATS? YOU WON'T FIND THEM LISTED IN FIG. 41 OF TM 5-1940-277-20P.



Get the lights in Fig 41 with these NSNs:

Light	NSN 6220-01-	Item
Anchor, clear	330-2841	19
Stern, clear	339-6014	21
Towing, yellow	339-6011	25
Port side, red	339-6010	26
Starboard side, green	339-6012	27
Masthead, clear	351-1555	22 & 24

No NSN has been assigned for the running light. Order the light on a DD Form 1348-6 by using CAGE 97403 and part number 13226E0502-1 from RIC S9G.

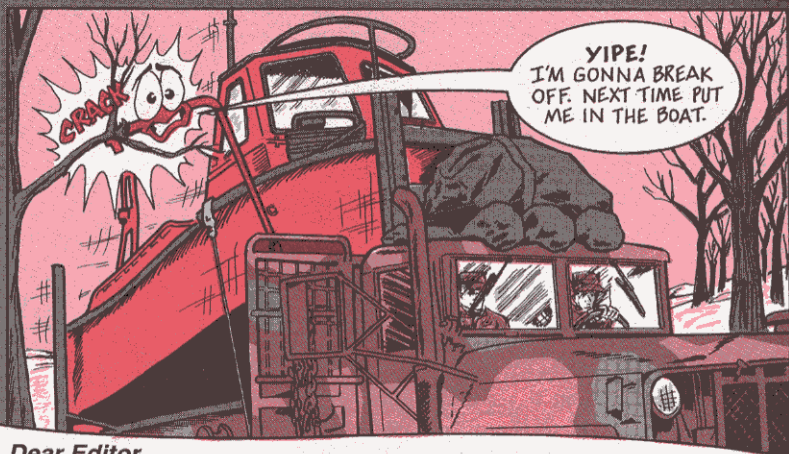
Get the lamps with these NSNs:

Lamp	NSN 6240-01-	Items
10 watt	302-6537	20
25 watt	354-5287	23

Heater Hour Meter

If the hour meter on your 120,000 BTU heater fails, disconnect it. A connected hour meter can shut down the heater and cause damage to the contacts on the heater's K8 safety relay. And the meter is not needed anyway. TROSCOM Maintenance Advisory Message, MAM-MEP-92-14, has the info to disconnect.

Keep Stanchion Safe



Dear Editor,

When we transport our MK1 bridge boat through the woods, the stanchion bangs against anything and everything in its path and gets broken off.

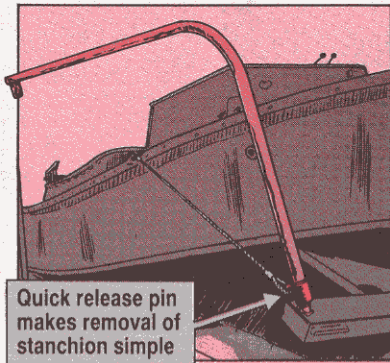
We solved this problem by replacing the mounting hardware with a quick release pin, NSN 5340-00-052-7056.

The NSN is not on the AMDF. Order the pin on a DD 1348-6 using the NSN and put in the Remarks column that the "NSN is not on the AMDF."

The quick release pin makes it simple to remove the stanchion from its socket. We then place the stanchion in the boat, out of harm's way.

We put the stanchion back in its socket before placing the boat in the water.

SFC Garrison
Ft Leonard Wood, MO



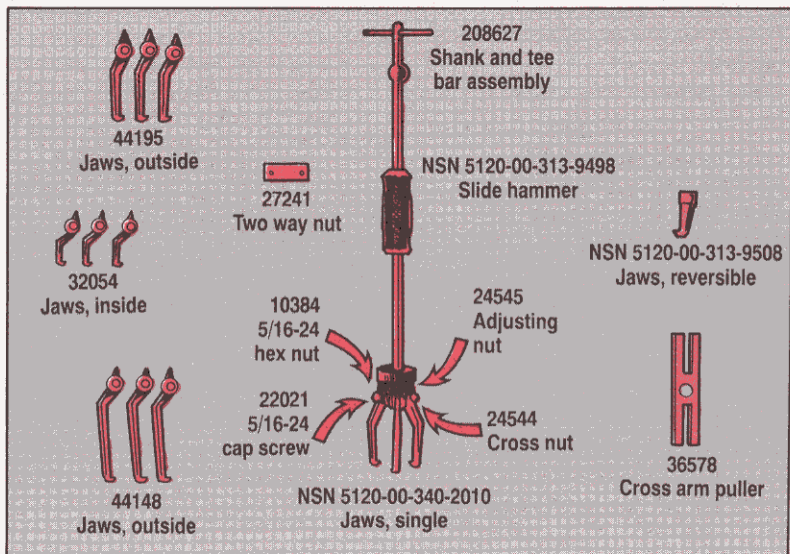
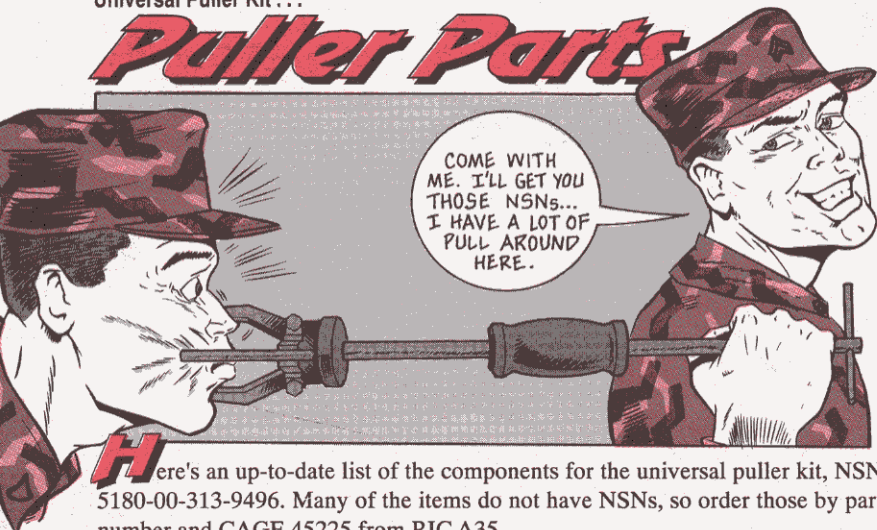
Quick release pin makes removal of stanchion simple

FROM THE DESK OF THE Editor

Good idea! No use transporting the boat only to have it out of commission before it even touches the water.

Universal Puller Kit . . .

Puller Parts



The list shows the latest kit. If yours is older, it may have more jaws. If so, use the additional jaws — don't toss them, but no need to replace them when they wear out.

Socket Head Key Set . . .

All the Pieces . . . In Order

Not all supply catalogs which list key set, socket head screw, NSN 5120-00-935-4641, identify the 20 keys that make up the set.

To help you with the inventory, to make ordering individual replacements easier and to give you the keys by NSN in ascending size sequence, here's the contents of the set:

NSN 5120-00-	Size of key, Socket head screw	NSN 5120-00-	Size of key, Socket head screw
555-2639	0.028 in	240-5300	3/16
198-5400	0.035	242-7411	7/32
198-5401	0.050	224-4659	1/4
198-5398	1/16	240-5274	5/16
224-2504	5/64	198-5390	3/8
242-7410	3/32	240-5277	7/16
889-2162	7/64	198-5391	1/2
240-5292	1/8	240-5268	9/16
889-2163	9/64	224-2510	5/8
198-5392	5/32	222-1489	3/4

Use a micrometer, like NSN 5210-00-540-2973, to determine the size of each key. It's a Class II durable item, authorized as required by Appendix A of CTA 50-970.

Jeweler's Screwdriver Set . . .

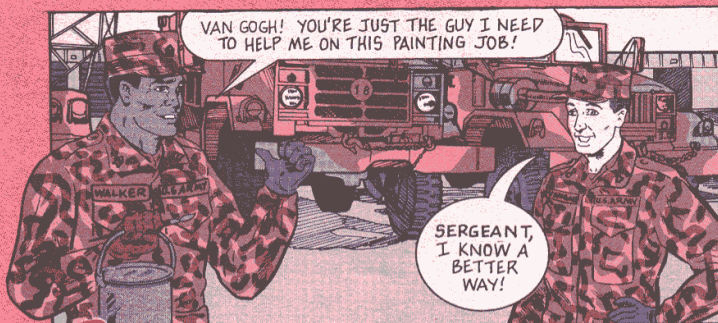
NSNs for Parts

NEED REPLACEMENT SCREWDRIVERS FOR YOUR JEWELER'S SCREWDRIVER SET, NSN 5120-00-288-8739?
HERE ARE THE NSNs...



NSN 5120-00-180-	Tip Width
0705	0.025-in
0706	0.040-in
0727	0.055-in
0728	0.070-in
0729	0.080-in
0730	0.100-in

NSNs for Black and White Decals



Painting numbers and letters on camouflaged equipment can take a big chunk out of your shop time. Use pressure-sensitive decals on your camouflaged equipment instead of paint.

These decals come in white or black and come in packages of 10 or 20. So, check the AMDF before you order to find out how many you'll get with each NSN.

Lusterless White Numerals: NSN 7690-00-

Number	1-in	1 1/2-in	2-in	3-in	4-in
1	857-9688	857-9641	858-3393	311-7002	329-0365
2	857-9689	857-9642	858-3394	311-7032	329-0371
3	857-9690	857-9643	858-3395	311-7088	329-0396
4	857-9691	857-9644	858-3396	311-7089	329-0397
5	857-9692	857-9645	858-3397	311-7128	329-0400
6	857-9693	857-9646	858-3398	311-7140	329-0403
7	857-9694	857-9647	858-3399	311-7148	329-0442
8	857-9695	857-9648	858-3400	311-7149	329-0443
9	857-9696	857-9649	858-3401	311-7164	329-0445
0	857-9697	310-6605	858-3402	311-7228	329-0456

Miscellaneous Lusterless White Decals: NSN 7690-00-

	1-in	1 1/2-in	3-in	4-in	6-in
Max speed	857-9660	857-9611	N/A	N/A	N/A
No smoking	857-9662	857-9613	310-6627	329-0205	N/A
US Army	857-9663	857-9614	310-9208	329-0206	N/A
Flammable	N/A	N/A	N/A	N/A	329-0876

Lusterless White Decals: NSN 7690-00-

Letter	1-in	1 1/2-in	2-in	3-in	4-in
A	857-9664	857-9615	858-3367	310-9617	329-0212*
B	857-9665	857-9616	858-3368	310-9619	329-0215
C	857-9666	857-9617	858-3369	310-9632	329-0216
D	857-9667	857-9618	858-3370	310-9750	329-0217*
E	857-9668	857-9619	858-3371	310-9751	329-0218
F	857-9669	857-9620	858-3372	311-0639	329-0219*
G	857-9670	857-9621	858-3373*	311-2088	329-0220
H	857-9671	857-9622	858-3374	311-2365	329-0221
I	857-9672	857-9623	858-3375	311-2368	329-0222
J	857-9673	857-9624	858-3376	311-3249	329-0226
K	857-9674	857-9625	858-3377	311-3593	329-0228
L	857-9675	857-9626	858-3378	311-3937	329-0231*
M	857-9676	857-9627	858-3379	311-5760	329-0232*
N	857-9677	857-9628	858-3380	311-5768	329-0236*
O	857-9678	857-9629	858-3381	311-6923	329-0239
P	857-9679	857-9630	858-3382	311-6929	329-0243
Q	857-9680	857-9631	858-3383	311-6941	329-0252*
R	857-9681	857-9632	858-3384	311-6954	329-0257
S	857-9682	857-9633	858-3385	311-6955	329-0262
T	857-9683	857-9634	858-3386	311-6956	329-0265
U	022-9764	857-9635	858-3387	311-6964	329-0309*
V	857-9684	857-9636	858-3388	311-6966	329-0311*
W	857-9685	857-9637	858-3389	311-6973	329-0346*
X	857-9686	857-9638	858-3390	311-6981	329-0353*
Y	857-9687	857-9639	858-3391	311-6992	329-0363
Z	022-9768	857-9640	858-3392	311-6995	329-0364*

* Coded "V" on the AMDF. Item can be requisitioned until stocks are exhausted.

Lusterless Black Numerals: NSN 7690-01-

Number	1-in	1 1/2-in	2-in	3-in	4-in
1	030-8556	031-4673	032-0728	031-9559	032-4595
2	030-8557	031-4674	032-0729	031-9560	032-4596
3	030-8558	031-4675	032-2421	031-9561	032-4597
4	030-8559	031-4676	032-2422	031-9562	032-4598
5	030-8560	031-4677	032-1401	031-9563	032-4599
6	030-8561	031-5534	032-2423	031-9564	032-4600
7	030-8562	031-4678	032-2424	031-9565	032-4601
8	030-8563	031-4679	032-2425	031-9566	032-2452
9	030-8564	031-4680	032-0730	031-9567	032-2453
0	030-8565	031-4681	032-0731	031-9568	032-2454

Miscellaneous Lusterless Black Decals: NSN 7690-01-

	1-in	1 1/2-in	2-in	3-in	4-in	6-in
Star symbol	N/A	N/A	N/A	042-0671	N/A	N/A
Max speed	032-3713	032-3715	N/A	N/A	N/A	N/A
No smoking	032-3714	032-4602	032-4604	036-4777	N/A	N/A
US Army	N/A	032-4603	032-4605	032-4607	032-4609	N/A
Mil Police	N/A	N/A	032-4606	032-4608	N/A	N/A
Flammable	N/A	N/A	N/A	065-7583	N/A	047-6457

Lusterless Black Decals: NSN 7690-01-

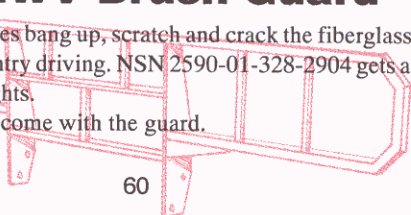
Letter	1-in	1 1/2-in	2-in	3-in	4-in
A	030-7126	031-4660	031-9543	032-0732	032-0741
B	030-5778	031-4661	031-5535	032-0733	032-0742
C	030-5779	031-5521	031-5536	032-2428	032-0743
D	030-5780	031-5522	031-6394	032-2430	032-2434
E	030-5781	031-5523	031-9544	032-2432	032-2436
F	030-5782	031-5524	031-5537	032-0734	032-2437
G	030-5783	031-4662	031-5538	032-0735	032-0744
H	030-5784	031-4663	031-5539	032-0736	032-0745
I	030-8542	031-4664	031-5540	032-0737	032-1402
J	030-5785	031-4665	031-5541	032-0738	032-1403
K	030-5786	031-4666	031-5542	032-0739	032-1404
L	030-8543	031-4667	031-5543	032-0740	032-1405
M	030-7816	031-4668	031-5544	031-9545	032-2438
N	030-8544	031-4669	031-5545	031-9546	032-1406
O	030-8545	031-4670	031-5546	031-9547	032-3712
P	N/A	031-5525	031-5547	031-9548	032-2439
Q	030-8546	031-5526	031-5548	031-9549	032-2441
R	030-8547	031-5527	031-5549	031-9550	032-1407
S	030-8548	031-5528	031-5550	031-9551	032-2443
T	030-8549	031-5529	031-5551	031-9552	032-2445
U	030-8550	031-5530	031-5552	031-9553	032-2447
V	030-8551	031-5531	031-5553	031-9554	032-2449
W	030-8552	031-5532	031-5554	031-9555	032-1408
X	030-8553	031-5533	031-5555	031-9556	032-2451
Y	030-8554	031-4671	032-1400	031-9557	032-4593
Z	030-8555	031-4672	032-0727	031-9558	032-4594



HMMWV Brush Guard

Brush, limbs and branches bang up, scratch and crack the fiberglass hood on the Humvee during cross-country driving. NSN 2590-01-328-2904 gets a brush guard to protect the hood and lights.

Installation instructions come with the guard.



Automated Reporting Revisited

PS 478 told you about a PC-based computer program to help you keep your DA Form 2406 readiness reporting information. The Materiel Readiness Support Activity (MRSA) offered you the program free of charge. Now they ask that you register the program. That way they can send you updates to the program — and you're going to need one soon. The reportable items list embedded in the program will be obsolete when the new AR 700-138 hits the street. Your program will be obsolete, too. To register, fill out and forward the forms found in the back of the user's manual that came with your program. Simple, and it ensures you'll get your updates when they're released.

The Case of the Missing Codes

The usable-on codes for the 30-KW DED generator sets were left out of the Special Information paragraph on Page 6 of TM 9-6115-465-24P (Jun 92). Here they are:

Code	Used On
CLA	MEP-005A
CLB	MEP-104A
CLC	MEP-114A
CZN	MEP-005A (serial numbers KZ00001 thru KZ02752)
CZM	MEP-104A (serial numbers KZ00001 thru KZ02752)
DGG	MEP-114A (serial number RZ70001 and subsequent)

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

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Maintenance Monthly

1B. Publication No. **341-950**

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3B. Annual Subscription Price: **Free**

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6. Publisher: **Department of the Army**

Editor: **Vacant**

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7. Owner: **Department of the Army, Washington, DC 20310**

8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: **None**

9. The purpose, function and nonprofit status of this organization and the exempt status for Federal income tax purposes **Has Not Changed During the Preceding 12 Months**

10. Extent and Nature of Circulation

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A. Total No. Copies (Net Press Run)	157,954	151,037
B. Paid and/or Requested Circulation		
1. Sales through dealers and carriers, street vendors and counter sales	-0-	-0-
2. Mail Subscription	150,642	143,834
C. Total Paid and/or Requested circulation	150,642	143,834
D. Free Distribution by Mail, Carrier or Other means	7,312	7,203
E. Total Distribution	157,954	151,037
F. Copies Not Distributed		
1. Office use, left over	-0-	-0-
2. Return from News Agents	-0-	-0-
G. Total	157,954	151,037
11. I certify the statements made by me above are correct and complete. Jerome J. Hill, Production Manager		

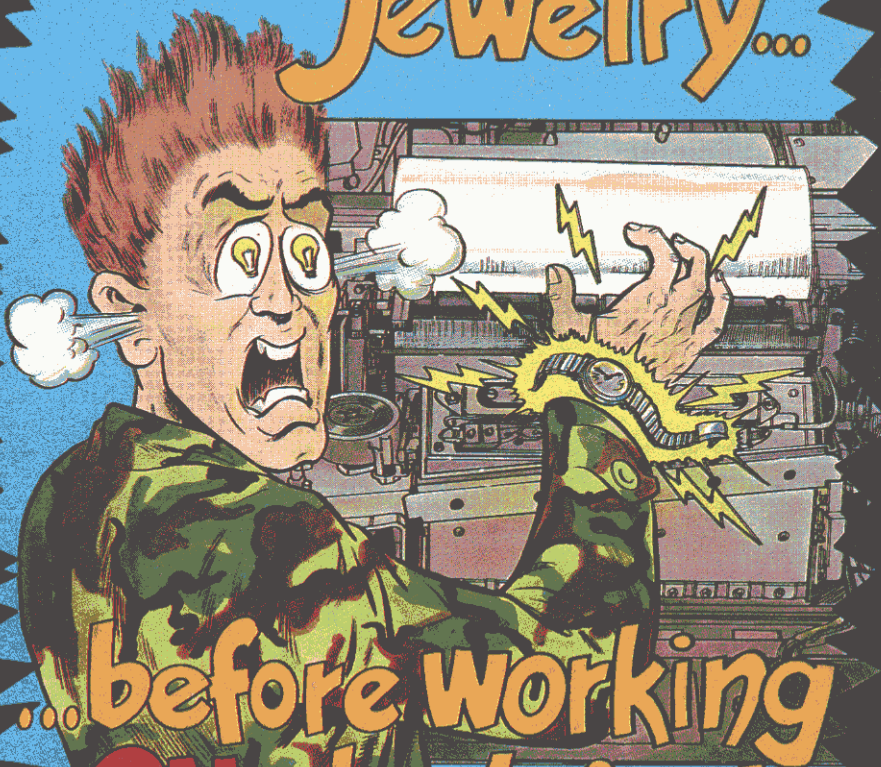
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