

Issue 310

PS

September
1978

THE PREVENTIVE MAINTENANCE MONTHLY

MY DEAR
OLD GRANNY
WAS A HUMBLE
TACHOMETER!

THE WORLD OF ENGINES
COULD NOT EXIST WITHOUT
GAGES... PLUS **OBSERVERS**
WHO KNOW THEIR
IMPORTANCE!

GAGES ARE
LIKE MINI-ROBOTS
WORKING FOR
YOU!

ALFREDO
Alcalá

GET YOUR IDEAS ACROSS, TOO!

Got an idea you think can improve Army equipment, procedures or publications?

Well, share the wealth! Put that idea on one of these forms — DA 1045, 2028-2, 2028 — or SF 368. Using these forms is the best way to get an idea into the hands of the decision makers.

See, just thinkin' — or even talkin' with your buddies about improvement — is not enough. You gotta get that valuable thought up-front, on the record, and into the system. Get it over with these forms.

Use DA Form 1045 to suggest ways to save money, time or anything else you can think of with regard to Army systems, procedures or equipment. Save the Army money — you'll get a piece of the action if you use this form.

DA FORM 1 SEP 72 1045

Use DA Form 2028-2 to suggest improvements to and to report errors in pubs. You can find this form at the end of many equipment pubs...

DA FORM 1 AUG 74 2028-2

... and use DA Form 2028 to suggest improvements to and report errors in pubs that do not include DA Form 2028-2. Also use DA Form 2028 to improve blank forms.

DA FORM 1 FEB 74 2028

STANDARD FORM 368, April 1974

Use an SF 368 to report equipment failure or receipt of defective material. TM 38-750 tells you how to fill it out.

Issue 310 PS September 1978 THE PREVENTIVE MAINTENANCE MONTHLY

Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties.

Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Materiel Readiness Support Activity, Lexington, KY 40511.

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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: MSG Half-Mast PS Magazine Lexington, KY 40511

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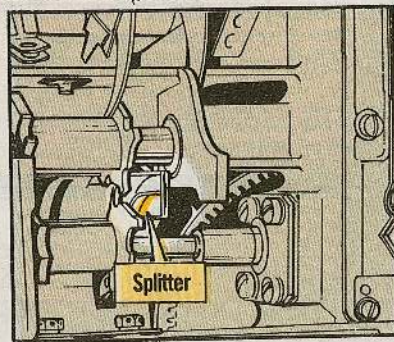


7.62 Magazine Assembly . . .

DRUM SPLITTER

It's small; it's hidden, but the splitter in your M28A1 7.62-MM ammunition magazine assembly (drum) can jam up your ammo like you wouldn't believe.

SPLITTERS MAKES FOR SMOOTH AMMO FLOW!



The splitter is part of the exit chute portion of the outer drum. You can head off trouble by eyeballing it when you load ammo.

First, crank the drum and watch the nose of the rounds as they go over and under the splitter (one round above, one below and so on). The noses should be the same distance from the splitter.

If any rounds touch the splitter, do this:

Remove the chute adapter and file all burrs or nicks on the splitter smooth.

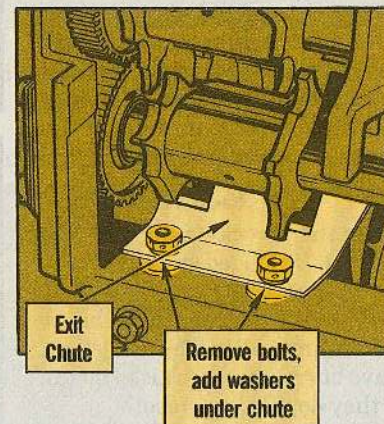
If the lower rounds touch the splitter, remove the two bolts that hold the chute portion of the outer drum assembly to the shelf of the drive assembly.

Put shims under the chute portion until the splitter clears the lower rounds. You may need as many as three 1/32-in washers on each side, usually at the innermost bolt position. The idea is to twist the exit chute, centering the splitter between the sprockets. Reinstall. Tighten the bolts.

Crank the drum to be sure ammo clears over and under the splitter.

The other end of the splitter, like a thin finger, extends into the area where the ammo leaves the inner drum. It needs eyeballing.

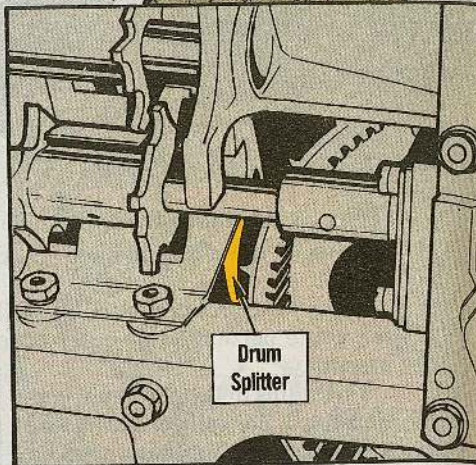
If it's broken, replace the outer drum.



If it's bent, straighten it. Many times it's bent so much that it's within a whisker of touching the vanes of the inner drum.



EASY, WHEN YOU STRAIGHTEN THE SPLITTER!



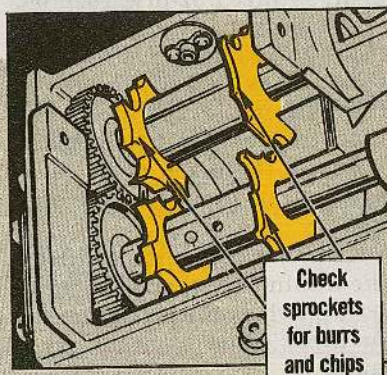
To straighten it, remove the chute adapter, drive and inner drum assembly. File off any burrs. Go easy when you try to straighten it. It breaks. It should be centered between the helix of the outer drum and be positioned 1/8 inch to 3/16 inch from the vanes of the inner drum.

SPROCKETS

Keep the sprockets high on your PM list. Damaged sprockets make for ammo feeding problems.

Sprocket teeth can't be below minimum width. They must not have burrs, chips or raised metal. If they do, file 'em smooth.

The teeth are made of hard metal, and you'll need time and muscle to smooth them out.

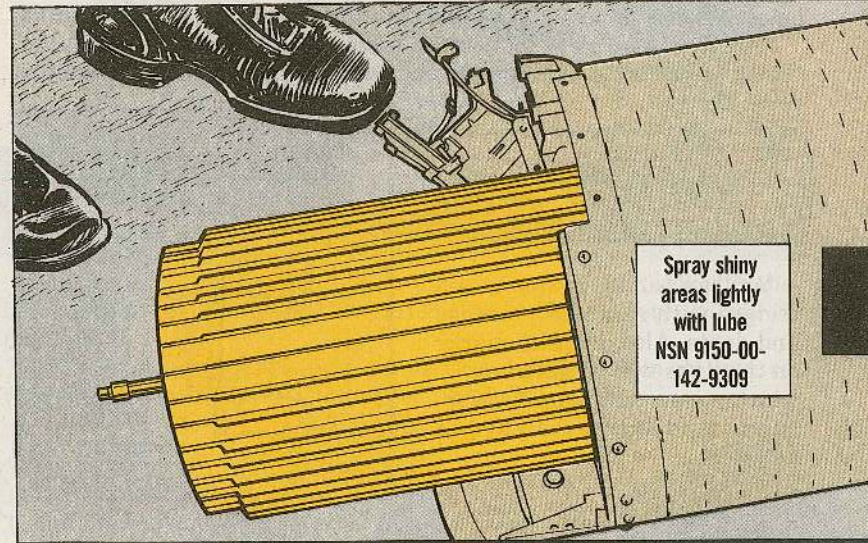


LUBRICATION

To check on whether the surfaces of the inner and outer drum need lube, look for shiny areas.

The lube covering on the surfaces is a dull, dark gray. If you see shiny

areas, spray them with just enough lube to cover the exposed surface. Don't over-lube — you'll make a mush that'll slow ammo flow.



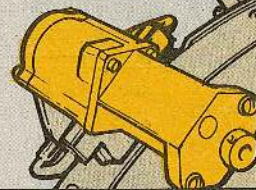
TORQUE LIMITER

When you adjust the torque limiter as it tells you on pages 3-32 and 3-33 of TM 9-1090-203-12 (Jan 76), keep the torque on the high side, 30 lb-in.

Then, check the torque limiter 5 or 6 times in each direction to be sure it's not binding. One or 2 swings might not be enough, because it could be smooth and then bind on the 3rd or so swing.

If the torque limiter doesn't check out, exchange it for a good one.

Check torque limiter for binding



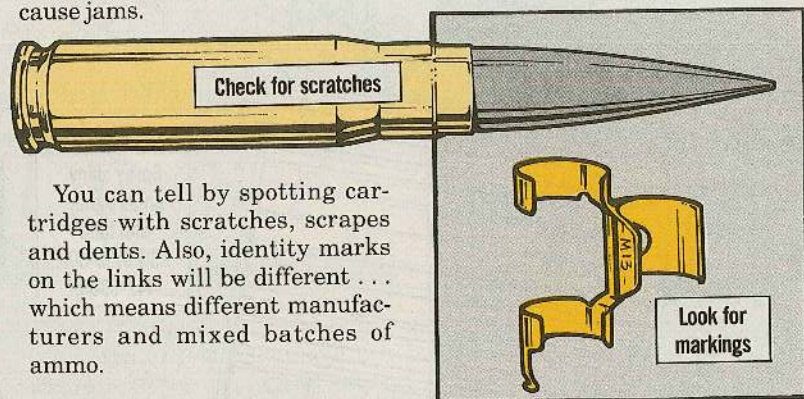
DX IT AND YOU'RE RIGHT BACK IN BUSINESS!



AMMUNITION

If you can't find the trouble after repeated jams, notify range surveillance to check for possible faulty ammunition, and mispositioned links.

Miniguns need new, 1500-round ammo packs for top performance. Check your ammo beforehand, because reused cartridges and links cause jams.



You can tell by spotting cartridges with scratches, scrapes and dents. Also, identity marks on the links will be different . . . which means different manufacturers and mixed batches of ammo.

Never, never power-load ammunition (electric drill or what-have-you). If you don't run into obvious trouble loading the drum, power-loading can set the drum up for it when it's feeding ammo. (Bent rounds and stretched links wipe out sprockets. If they get that far, they can wipe out the delinking feeder and the gun.)

A FINAL REMINDER: CLEAN AND TIME YOUR DRUM ON SCHEDULE! THAT'S A MUST IF YOU WANT IT TO DO THE KIND OF JOB IT CAN DO.

PS END

FOR TOUCH-UPS, ONLY



Choppers are now showing up in the field with a new look. It's the black lacquer paint job on the interior of your Huey, Cobra, Kiowa or Chinook.

Only certain parts and equipment in the cockpit and cabin get painted with MIL-L-46159A, Type I, low-reflective black lacquer.



The rough texture of the lacquer diffuses light, rather than reflecting it. That's what you want when using night vision goggles, and to maintain a low profile to electro-optical detection.

Do not rush out to the hardware store and pick up a can of flat black lacquer, tho. This is not a do-it-yourself deal. Ordinary lacquer won't hack it!

Your support has the detail poop on how to give your bird the black "plush" look.

You can touch up scratches on your new paint job, tho. NSN 8010-01-042-4196 will get you a 16-oz aerosol can of acrylic lacquer, MIL-L-46159A, Type II, for \$19.44.

KEEP 'EM ROLLING



The ground-handling wheels for your Cobra and Huey get a lot of use ... maybe even some abuse?

Add the fact that the wheels have been in the field a long time and you can see that normal wear and tear mean routine PM is a "must." No new assemblies are available.

So, you mechs who maintain 'em should keep repair parts handy. Hydraulic repair parts kit, NSN 1730-00-076-6435 is available to repair Pump, NSN 4320-00-866-7750.

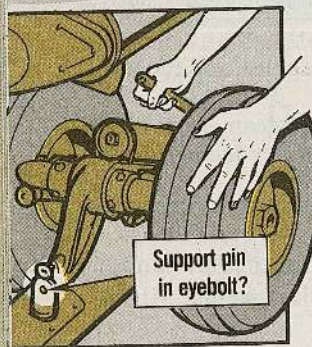
Repair Kit, NSN 4320-00-348-8513 is available to repair Pump, NSN 4320-00-435-0051.

NSN 2660-00-269-7267 will get you the inner tube; NSN 2620-00-269-7553, a new tire.

TAKE IT EASY

When you put the wheels on your bird, be sure the support pin is fully engaged in the skid eyebolts. Otherwise, the wheels will fly off and somebody can get knocked for a loop!

Avoid sharp turns that could tear a tire off the rim — especially one that's under-inflated. So,



Support pin in eyebolt?

keep the tire inflated to 50 PSI.

If you identify wheels, use a stencil to paint your unit identification on the assembly. Metal stamping, especially on the wheel rim or hub, will lead to cracks in the wheel. A wheel failure when towing can sideline your bird for repairs.

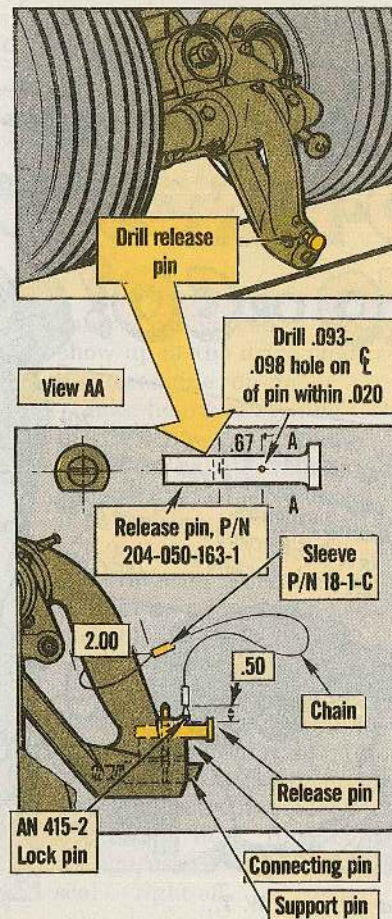
ADD LOCK PIN

During the next wheel PM, drill the release pin and add a lock pin to the assembly. Then, when the wheels are mounted, the lock pin should fit into the release pin — meaning the support pin is fully extended into the skid eyebolts. No more wheels flying off your bird!

Remove the release pin by removing the lube fitting and the connecting pin, using a small screwdriver.

Drill a hole in the release pin using a 3/32-in bit. Clean and deburr the pin. Lube the drilled area with grease, MIL-G-25537, or equivalent.

Reinstall the release pin, connecting pin and lube fitting and you just about got it made in the shade.



CHAIN IT

Latch on to a 12-in length of chain. NSN 4010-00-262-1551 will get you 100 feet for \$11.67. Attach lock pin, NSN 5315-00-194-2455, costing \$3.84, on one end of the chain by using lock wire.

Loop the other end of the chain around the cradle and secure it with wire rope swaging sleeve, NSN 4030-01-021-6339, or equivalent.

Finally, keep those wheels greased, according to the lube chart in the bird organizational maintenance pub.

That's the way to keep 'em rolling!

USED O-RINGS: NO OR GO?

Dear Windy,
TM 55-1500-204-2511 (Apr 70)
is vague about a yea or nay on
reusing O-rings.
Is it OK to reuse O-rings in air-
craft maintenance? MSG W. T.



Dear Sergeant W. T.,

Most of the time your -20 manual has the word on O-rings. F'rinstance, when you find 'em damaged while pulling inspections or replacing repair parts.

When the manual is fuzzy, it's a judgment call. Use the guidelines in para 3-231a, b, and c in the Gen-

eral Aircraft Maintenance Manual when installing new or used O-rings. Not many used O-rings can meet these standards.

The price of a new O-ring is small compared with the cost - and downtime - of a reassembly job caused by a reused O-ring that can't hack it.

Windy

Just A Few Drops, Please!



Sometimes when a T-53 fuel control is changed, a leak will show up at the drive shaft seal during engine run-up.

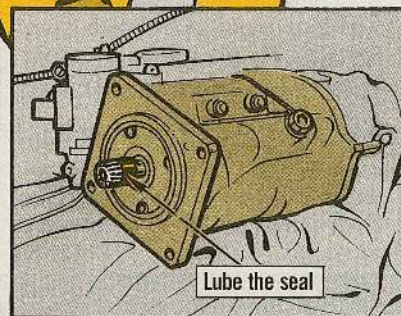
Take heart, Huey and Cobra mechs!

Loosen the attaching nuts and back off on the fuel control to see if rubber seal, NSN 2840-00-570-9811, has entered the counterbore in the N1 gear box fuel control drive gear. The seal is probably hung up.

Lube the seal with turbine engine oil, MIL-L-23699, and start it into the counterbore. The seal will then seat right.

Tighten the attaching nuts and your fuel control won't leak.

On the next fuel control change, use the engine oil on the seal - right-off.



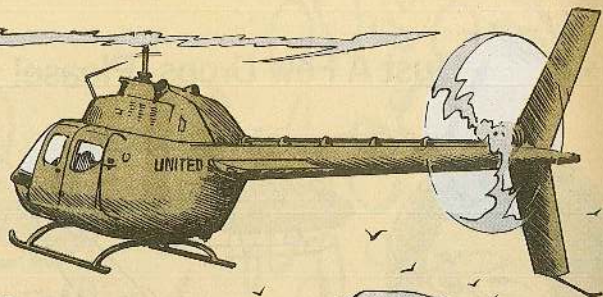
**GOT
ANY
IDEAS?**

Does your outfit have good ways to maintain aircraft ground support equipment? The Transportation School wants to spread the word to make preventive maintenance on that equipment easier, safer and less costly. Send your ideas to:

Commandant
USATSCH
ATTN: ATSP-CD-MS
Fort Eustis, VA 23604

KEEPING YOUR ENGINE

COOL



Your Kiowa turbine engine can't stay cool without a complete air supply, and a bad bleed air heater tube steals some of it. Unless you act fast you're flirting with burned up blades and nozzles.

Course the tube channels hot air from the turbine to the cabin when the heater is on. When the tube goes bad, the air escapes continuously through the flexible portion of the assembly, if the heater is on or off.

A bleed air leak is easy to spot, tho. The steel mesh will turn

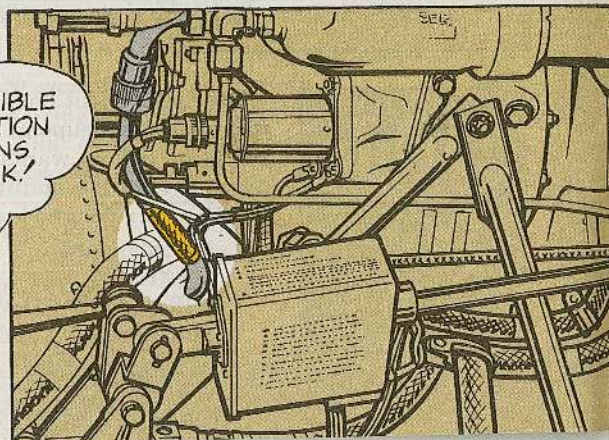
dark from the heat. If it does, remove the tube assembly and blow through it. If air comes through the mesh, the tube is no good. Replace it.

Another indication of a leak is a high turbine outlet temperature reading, and reduced power.

If you need to refresh your memory, Kiowa mechs, the tube is item 25 in Fig 51 of TM 55-1520-228-23P (May 76).

It's up to you. Like the man says — you can pay me now, or, pay me later . . . those engines don't come cheap!

FLEXIBLE
SECTION
TURNS
DARK!



BETTER USE THIS
ON THE FLIGHT
LINE!



DA 2408-13 Landings

Block 10b of the DA Form 2408-13 instructions can leave you confused. The TM 38-750 headshed wants total landings in that block — total that is, the way you write 'em on the DA Form 2408-12. For fixed wing aircraft, that means one number. But for helicopters, that means segregated entries — 3/2A, for example, for 3 regular landings and 2 autorotations. Put the instructions for Block 12 on the DA Form 2408-12 together with the Block 10b instructions of the DA 2408-13 for a complete picture.

Check List Binder

Pilots are always looking for the stock number on the pilot's check list binder . . . there is none! The St. Louis pubs center has 'em. Ask your pubs supply types to order the TM 1500-1 binder on a DA Form 17. This binder is for the older size pubs.

Send Container

The OH-58A main rotor blade shipping container, NSN 8145-00-128-1664, is in short supply. So, when you scrap blades locally,

send the reusable metal (not wood) container back to depot — right away! Keep the supply pipeline filled.

For the Flight Line

For vehicles operating on the flight line, you need a checkered orange and white signal flag, per FM 1-55 (Sep 73). It's authorized by CTA 50-970. NSN 8345-00-543-6914 will get you one for \$2.71.



Tinted
Specs Out!

Tinted eyeglasses, and those that darken when exposed to the sun, are great for the beach. But they should never be worn when inspecting aircraft and other equipment. That's because flaws can't be detected under the ultraviolet light . . . too much light is lost. Use your clear eyeglasses for magnetic particle checks (with black light), or fluorescent penetrant checks.

RAT-A-TAT-CHAT

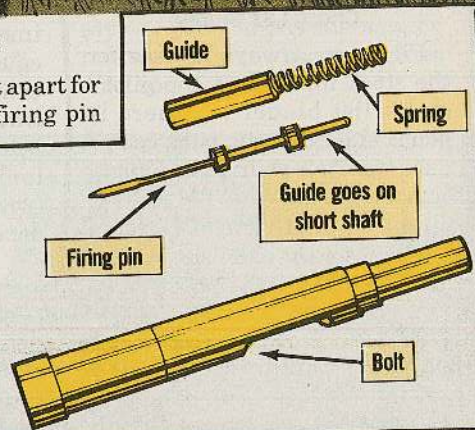


From the butt stock to the muzzle, your M60 machine gun needs knowledgeable, common sense help from you.

Here are some examples:

BOLT: When you take the bolt apart for cleaning, be sure to put the firing pin guide back right.

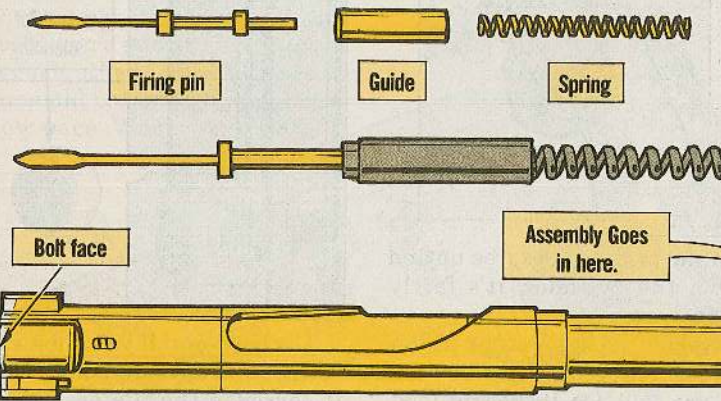
The small hole of the guide fits over the short shaft of the firing pin . . . that's how ol' "firing pin guide" got its name. Then, the firing pin spring slips into the guide until the guide bucks against the shoulder of the firing pin.



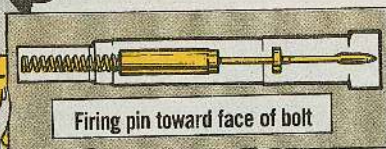
In other words, the firing pin goes in the bolt first, followed by the guide riding on its tail. The spring, inside the guide, is the last part into the bolt.

Some troops are even tempted to put the guide on the wrong, long end of the firing pin. No way.

The point is, if you put the guide in wrong, the gun may get one round off. But, that'll be it.



NOW HERE'S
A BIG MUST!
THE RIGHT
LINE-UP OF
BOLT.



FIRING PIN: When you clean the bolt, be sure to put the firing pin back right (if you get the guide on right, the pin'll be right).

The long end goes toward the face of the bolt (the short end is where the guide rides).

If you install the short end first, the firing pin won't go through the hole in the bolt face. You won't get a round off. Bad news for the gun and maybe for you.

Get the firing pin and the guide in right the first time.

GAS PISTON: The best way to tell if a gas piston is dirty or fouled by carbon is to take it out and look. Even clean it.



If the piston slides free up and down the cylinder, it's fairly clean.

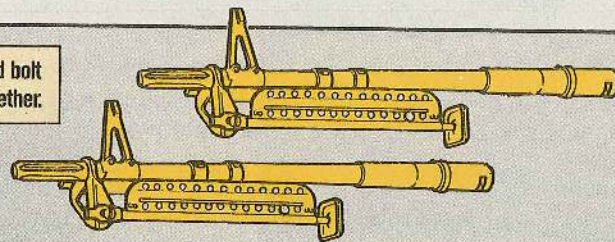
Eyeball the holes of the piston and see if they match the holes of the gas cylinder. If they're lined up, even partially, that's good. Bad carbon buildup will mismatch the holes.



The big point: If you allow carbon to build up to the point where it corrodes the piston, you're gonna have a tough job getting the piston out. You'll also have a tough cleaning job.

BARRELS: Barrels issued for a specific gun should not be changed from gun to gun.

Two barrels and bolt should stay together.



Fact is, the 2 barrels and the bolt in a gun should stay together for life . . . or until a bolt or barrel is no longer serviceable.

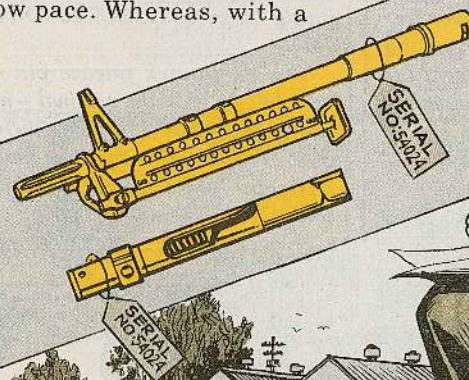
New replacement barrels or bolts should be headspaced when paired with used bolts or barrels. Headspace on a used replacement barrel and a used bolt is another story. The barrel and bolt can tear each other up.

Which means, interchanging used bolts and barrels is not recommended. The 2 barrels and the bolt on a gun kind of get used to each other, wearing out the same old chips and bangs at a slow pace. Whereas, with a

switch, bolt and barrel quickly make a bunch of new chips and bangs. Naturally, you still have the old damage . . . and the combination may be just enough to put a bolt or barrel down.

So, when you remove a barrel or bolt for cleaning or whatever, tag it with the serial number of the gun it came from.

Have your support check headspace periodically.





M2 MG Bolt

When you install the bolt of your M2 machine gun, be sure the bolt switch is in the right position.

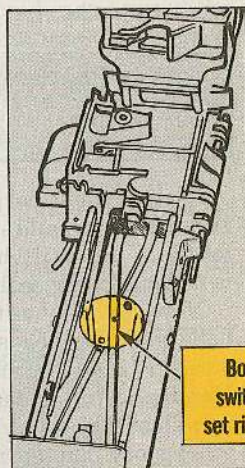
In other words, the switch must be in the same position as the belt feed lever (right-or left-hand feed).

If you reverse the switch and forget the feed lever, a coupla' things can happen:

1. You won't be able to get the bolt all the way back.
2. You can damage the bolt switch and feed lever.



REMEMBER: LEVER AND SWITCH BOTH MUST BE SET FOR LEFT-HAND FEED OR FOR RIGHT-HAND FEED!



Bolt switch set right?

M85 NSN Changes

Dear Half-Mast,

We need some good stock numbers for the lock washer that goes on the M85 machine gun cartridge deflector and for the receiver cover quick-release pin. Can you help?

SFC J. L. Y.

Socket head screw



Lock Washer

Quick release pins ... same NSN

Dear SFC J. L. Y.,

Sure can. You can get the lock washer for the deflector plate with NSN 5310-00-159-6209. It was previously listed as NSN 5310-00-740-7417.

The new quick release pin – a little longer than the original – now can be had with NSN 5340-00-768-8576. The socket head screw for the deflector plate is still available under NSN 5305-00-983-6664.

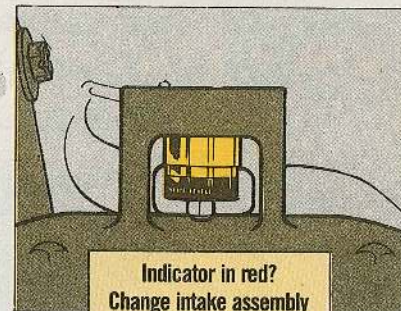
— Half-Mast

M60A1 (RISE) ... Pull in Cleaner Air



Having problems on your tank air restriction indicators?

If the engine compartment of your tank is dirty, the air intake assembly will pull dirt into the air cleaners — which load up in a hurry and push the air restrictor indicator to red.



Indicator in red?
Change intake assembly

When the indicators show red a few minutes or a few miles after the filters have been cleaned, do this: Change the air intake assembly so it is pulling air from the crew compartment instead of the engine compartment, and clean the filters again.

This will hold you until the next scheduled service when you pull the pack and give the engine compartment a good cleaning. Then you can switch back and get the air from the engine compartment again.

'Course, the season has something to do with it, too. You crewmen will ride a lot cooler if you're pulling the air from the crew compartment, and that's what you want in the summer. In the winter, you'll ride warmer if the air is being pulled from the engine compartment.

CHANGE AIR INTAKE ASSEMBLY BY THE SEASON.



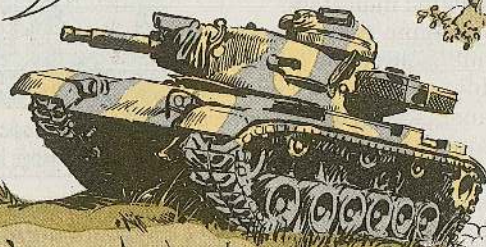
YOU'RE WRONG!

(GULP)!
I'M SORRY!

Final Drive Collar Bolt

The right stock number for the bolt in your M60A1 final drive collar is NSN 5305-01-042-4436. The one given for Item 26, Fig 08-1, TM 9-2300-378-20P/1 is wrong. It's for a fine-thread bolt. You need a coarse-thread.

LEND AN EAR TO
THIS WORD ON YOUR
SCAVENGE SYSTEM!

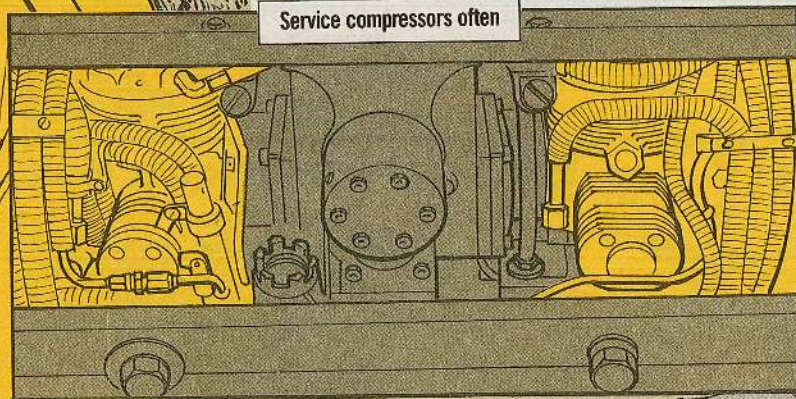


Listen up, M60A2 crewmen! How healthy are the air compressors on your closed breech scavenge system?

Lots of them burn out because they don't get enough internal lubrication.

To keep this from happening to your pair of CBSS compressors, make sure the compressor oil strainer (filter) on each compressor is not clogged with dirt and water.

Service compressors often



AIR COMPRESSOR CARE

TM 9-2350-232-20/1 (Apr 73) and LO 9-2350-232-12 (Dec 73) say to do these services on your compressors:

1. Check oil level every day in the gearbox sight gage and on the dipstick of each compressor.
2. Change oil in compressors whenever any of these things happens:
 - a. You have fired 150 rounds.
 - b. The vehicle has moved 750 miles.
 - c. It has been a quarter of a year since the oil was last changed.

These TM's do not call for the removal and cleaning of the strainer as part of a scheduled service. However, TM 5-4310-340-24 (Mar 73) says on page 2-1 that the strainer has to be serviced quarterly.

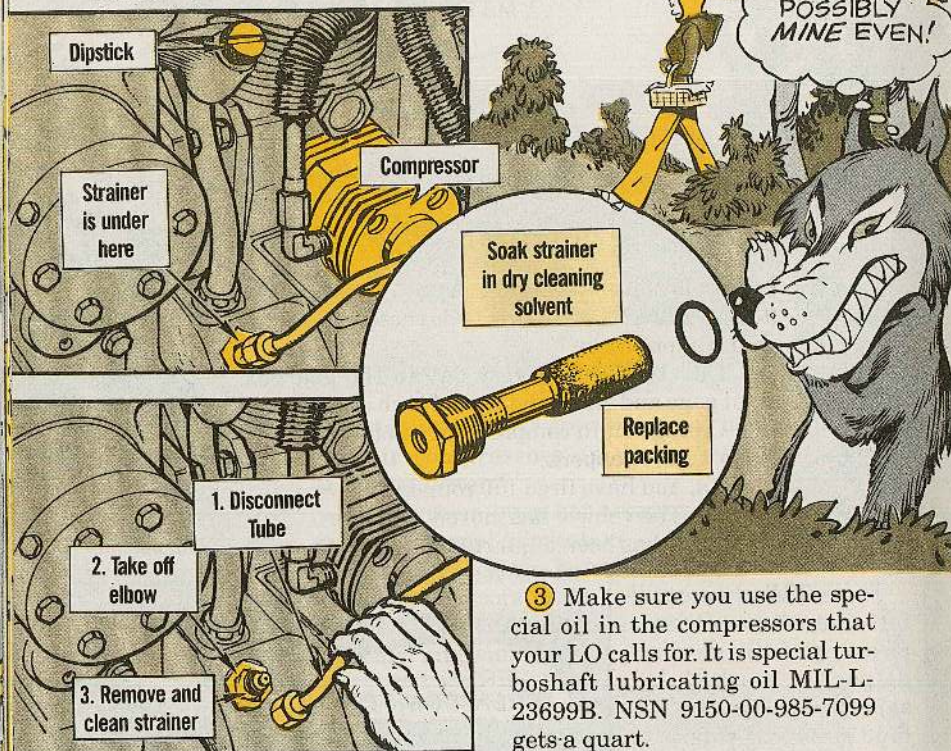
HERE'S A
BREAKDOWN ON
WHAT TO DO!

- ① Regardless of when you think your compressor was serviced last, look carefully at the dipstick in each compressor when you make your daily oil level check. If the oil seems too dirty, change it. At the very least, change your compressor oil after firing 150 rounds, moving 750 miles, or quarterly.

② Take your oil strainer out and clean it after 1,500 miles of operation or semi-annually, whichever comes first. If it's damaged, get a new one as NSN 4710-00-009-2173. It costs \$19.92.

IT'S AS EASY
AS BRUSHING
YOUR TEETH!

POSSIBLY
MINE EVEN!



③ Make sure you use the special oil in the compressors that your LO calls for. It is special turboshaft lubricating oil MIL-L-23699B. NSN 9150-00-985-7099 gets a quart.

Gun Tube Data Source

Need historical information to update your DA Form 2408-4 (Weapon Record Data) on recoilless rifle, artillery and tank tubes?

Get it direct by writing to: Commander Watervliet Arsenal
ATTN: SARWV-QAP
Watervliet, NY 12189

You also can call . . . AUTOVON 974-5127. Be sure to include:

1. Tube serial number.
2. Cannon size, model or series.
3. Cannon serial number.
4. Your return address.

M60A1 Tank . . .

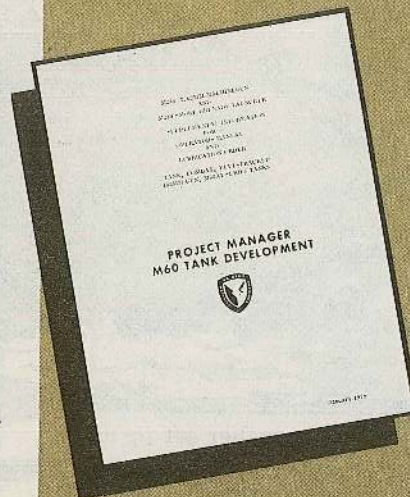
NEW PAM FOR NEW GEAR

If you don't have 'em already, you M60A1 tankers will soon be getting an M240 7.62-MM machine gun and an M239 smoke grenade launcher.

You'll want to give them the best of care. When your vehicle has the modification installed, you'll get a booklet with all your PM dope from the installation team. On new production tanks, the pamphlet will come with the tanks.

This pamphlet is all you get till the TM's are printed for the M239 smoke grenade launcher. Read it and keep it handy when you pull your PM.

New manuals — TM 9-1005-313-10 (Jan 78) and TM 9-1005-313-24P (Mar 78) — just came out for the M240 7.62-MM machine gun.



YOU WON'T HAVE ANY
NEW GEAR TROUBLES
WITH THIS FOR YOUR
GUIDE!

LOOSE

U - JOINTS

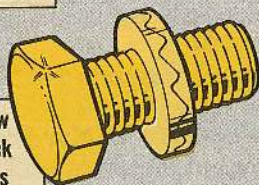
Loose screws in the power train universal joint can wreck your vehicle.

Tablock washers and hardened flat washers have been used to hold the screws on the entire M113/M113A1 family of carriers.

You should replace the washers with a new disc lock washer, NSN 5310-01-051-4149. You use these washers in pairs. They've got to be installed with locking face toward locking face. And, you use one set — two washers — with each screw.

Locking faces

Use new disc-lock washers and screws.



This new washer set-up calls for new screws, too. You need some hardened screws. They are:
Screw, cap, hex head, $\frac{3}{8}$ -24 x 1 $\frac{3}{4}$ -in, NSN 5305-00-269-3241.

Screw, cap, hex head, $\frac{3}{8}$ -24 x 1-in, NSN 5305-00-269-3236.

Here're the parts you need:

VEHICLE	NUMBER OF PARTS
M113A1/M132A1/M125A1	48 Washer sets
M106A1/M577A1/M741/ M667/XM806E1	24 1-in screws 24 $\frac{1}{4}$ -in screws
M548/M730	48 Washer sets 32 $\frac{1}{4}$ -in screws 16 1-in screws

MAN! THOSE THINGS HOLD!

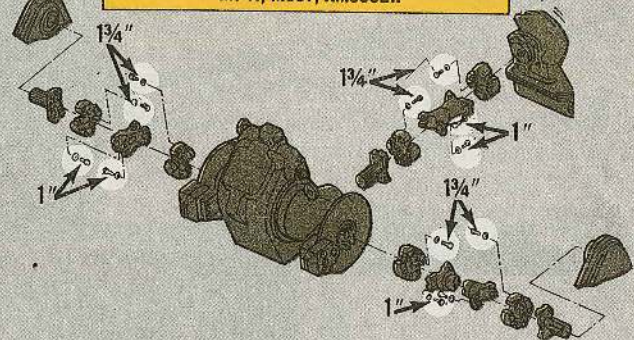
Your mechanic does the job like so —

Take out the drive train universal joints like it says in the -20 TM for the carrier.

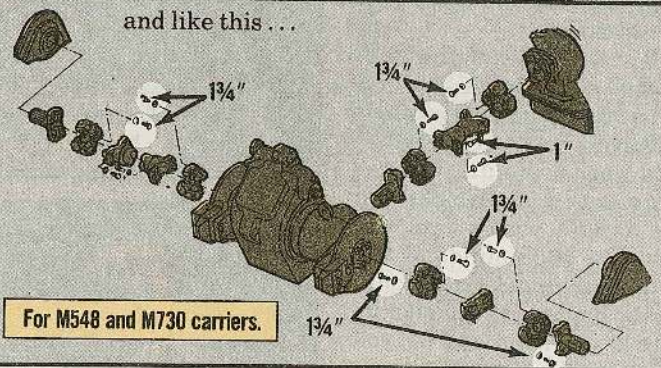
Get rid of the tablock washers, the hardened flat washers and the screws. You start over with new hardware.

Put back the drive train universal joints and shafts. Use the new screws and washers like this ...

For M113A1, M132A1, M125A1, M106A1, M577A1, M741, M667, XM806E1.



and like this ...



For M548 and M730 carriers.

Tighten all screws to 35-40 lb-ft except when using torque adapter NSN 5120-00-977-7421. Then torque should be 28-32 lb-ft.

Now hear this! You use these disc lock washers only once. Use new washers every time you disconnect a U-joint.

CARRIER RAMP FIX

DON'T MAKE FLAT FRIENDS.

HE WAS SUCH A WELL-ROUNDED-TYPE GUY!

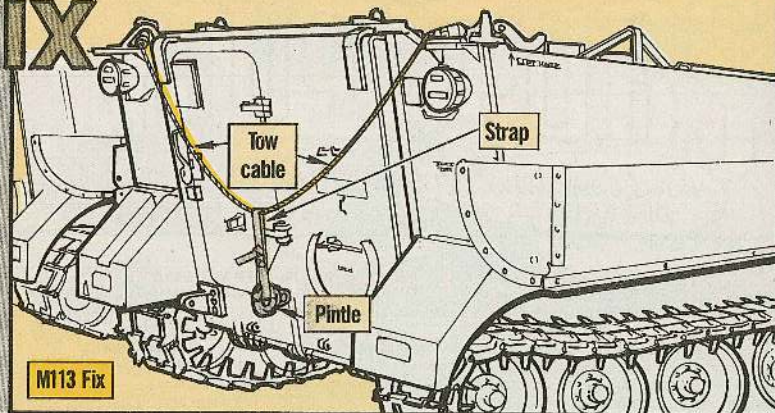
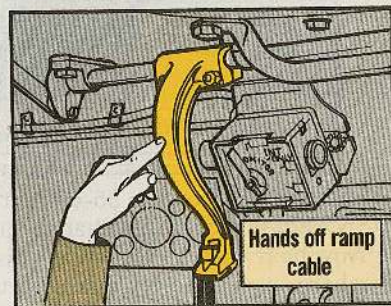
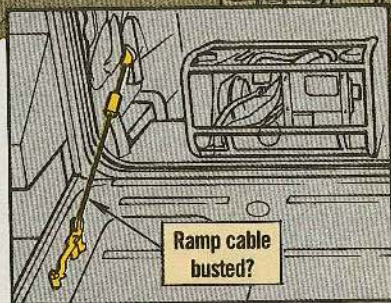
Ramp cable on your M113-type vehicle broken?

In most outfits when this happens the ramp is raised and locked so the vehicle can stay in operation.

This works fine until somebody forgets and unlocks the ramp handle which lets the whole, fat, 400 pounds of the ramp go crashing down on anybody who happens to be under it.

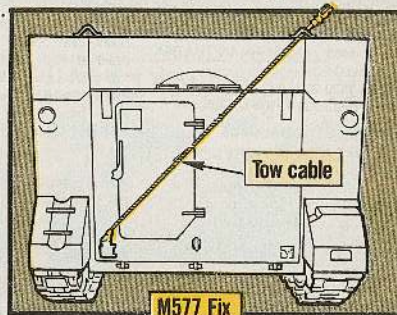
Here are some tips to keep you from having flat friends:

After you latch the ramp in the closed position, stretch the vehicle tow cable so it'll catch the ramp and keep it from falling.



For M113/M113A1 vehicles the tow cable goes from one lifting eye to the other and is held in place with tow hooks, pins, and clips through the tow hooks and tow cable eyes. Once you get the cable positioned you can take out the slack by running a strap or wire of the right length from the center of the tow cable to the pintle.

For M577/M577A1 vehicles you stretch the tow cable from the left towing eye to the right lifting eye. A strap or wire will help remove the tow cable slack by using the pin and clip from the right tow hook to attach to the center of the tow cable. The tow hook itself is not used in this method.



If your ramp cable is working, check it often to make sure it is going to stay that way. If the cable is frayed with broken wire strands, get it replaced.

If you have to run your vehicle without a ramp cable, post a sign on the ramp warning about the danger. Also, tag the ramp locking handle so the driver will know what can happen if he unlocks the ramp.

M60A1 (RISE) NSN Change

That engine starter relay solenoid comes with NSN 2920-00-487-9461. Jot it down in your TM 9-2350-257-20P-1 (Dec 75), page 140, Fig 75, Item 10.

2800 PUBS

WOW! SOMETHING DIFFERENT...

AT LAST!

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Oct 77), TM's, TB's, etc.; DA Pam 310-6 (Jul 77) and Ch 2 (Jan 78), SC's and SM's and DA Pam (C) 310-9 (Nov 76), COMSEC pubs.

TECHNICAL MANUALS

TM 9-1425-480-24 Apr Dragon
TM 9-1430-533-24P Feb Improved HAWK
TM 9-6130-485-14 Feb Lance
TM 11-5821-260-20P-1 Jun AN/ARC-115A(V) Radio Set
TM 11-5840-347-13 Apr AN/PPS-15A(V) Radar Set
TM 11-5985-344-20P Apr AN/TRA-39A Antenna Group
TM 55-1520-228-10 Apr OH-58A
TM 55-1520-235-10 Apr OH-58C

FIELD MANUALS

FM 5-12B1/2 Nov Combat Engineer
FM 5-12B3 Nov Combat Engineer
FM 5-12C1/2 Dec Bridge Spec
FM 5-12C3 Dec Bridge Spec
FM 5-12C4 Dec Bridge Spec
FM 5-62B3 Mar Construction Eqp't Maint Superv

FM 5-62B4 Mar Construction Eqp't Repair Superv
FM 9-21L1/2 Mar Pershing Electron Repairer
FM 9-27B1/2 Mar LCSS Test Spec/Lance Repairer
FM 9-27B3 Mar LCSS Test Spec/Lance Repairer
FM 9-27B4 Mar Land Combat Missile Maint Superv
FM 9-27E1/2 Mar Tow/Dragon Repairer
FM 9-27E3 Mar Tow/Dragon Repairer
FM 9-27F1/2 Mar Vulcan/FAAR Repairer
FM 9-27F3 Mar Vulcan/FAAR Repairer
FM 9-27G3 Mar Chaparral/Redeye Repairer
FM 9-27G4 Mar Light Air Defense Sys Maint Chief
FM 9-27H1/2 Mar Shilleagh Repairer
FM 9-27H3 Mar Shilleagh Repairer
FM 9-46N3 Mar Pershing Electrical-Mech Repairer
FM 9-6325 Mar Mech Maint Superv
FM 9-207 Jan Cold weather: Operation and Maint
FM 10-43M3/4 Mar Fabric Repairer
FM 11-31M1/2 Multichannel Commo Eqp't Operator
FM 20-31 Oct Electric Power Generation in Field

FM 38-725-23 Dec Logistics Codes
FM 44-24M Mar Vulcan/FAAR Mech

MISCELLANEOUS

Cir 750-53 Jun Sample Data Coll M163A1 Vulcan
DA Form 2715 Jul Unit Readiness Report
LO 9-1440-531-12 Jan Improved HAWK
LO 9-1440-585-12 Dec Chaparral
Pam 621-109 Feb Apprenticeship for Aircraft Mech, Armament
Pam 621-110 Feb Apprenticeship for Aircraft Engine Mech (Turbine)
Pam 621-111 Mar Apprenticeship for Maint Mech Hydraulic Eqp't (Aircraft)
Pam 750-34 May PM of Lead-Acid Batteries
SC 5180-95-CL-A12 Mar Tool Kit, Arty Mechanic
TC 5-12B1/2(JB) Aug Combat Engineer
TC 9-46N1/2(JB) Mar Pershing Electrical-Mech Repairer
TC 10-43M1/2(JB) Mar Fabric Repairer Spec
TC 11-31M1/2(JB) Mar Multichannel Communications Equipment Operator
31M Job Book
TC 44-24N1/2(JB) Mar Chaparral Mechanic

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

GTA

GTA 9-1-180 Bearings, Antifric-tion
GTA 9-1-181 Truck, Wrecker, 5-Ton, M816
GTA 9-8-8 Armament Subsys-tem M28A1
GTA 10-1-4 Part III, 5-Gal Insulated Food Container
GTA 10-2-18 Petroleum Tank Vehicles M131A5C, M49A2C
GTA 10-4-16 Care, Use of Sleeping Bags
GTA 55-5-2 Fuel System

TEC LESSONS

010-071-6638-F 81-MM Mortar Ammo

020-171-5228-F Mount, Load, Dismount M85 MG on M60/M60A1
020-171-5230-F Mount, Load, Dismount M85 MG (M60A2)
020-171-5311-F Placing Turret into Operation, M60A2
030-051-6406-F Mobile As-sault Bridge, Part II
600-011-6601-F UH-1D/H PM Daily (PMS)
600-011-6602-F UH-1D/H PM Daily, Forms, Records
600-011-6603-A UH-1D/H PM Daily Part I, Nose, Cabin, Land-ing Gear, Center Fuselage
600-011-6604-A UH-1D/H PM Daily Part 2, Pylon, Engine

Areas

600-011-6605-A UH-1D/H PM Daily Tailboom Area, Power-on Checks
600-011-6606-A UH-1D/H Lubrication
600-011-6651-F OH-58A Daily Inspection
600-011-6652-A OH-58A Daily Part I
600-011-6653-A OH-58A Daily Part II
600-011-6654-A OH-58A Daily Part III
600-011-6655-A OH-58A Re-move, Inspect Hydraulic Servo Actuator
600-011-6656-A OH-58A In-

stall Hydraulic Servo Actuator
610-091-6078-F Test, Analyze Manifold Vacuum of Gasoline Engines
610-091-6083-F Troubleshoot-ing Directional Signal System, Part I
610-091-6084-F Troubleshoot-ing Directional Signal System, Part II
612-051-9659-E Interpreting Starting, Stopping, Slaving, Master Switch Circuits Welded Hull MAB
612-051-9659-F Interpreting Starting, Stopping, Slaving, Master Switch Circuits on Welded Hull MAB



GAGE POWER

YOUR EYES UNDER THE HOOD

UH-OH... WE MUST BE OUTTA FUEL, SARGE!

OH, NO, GIPPER... YOU COULDN'T BE THAT CARELESS!

CHUG COUGH SPUT



HEH... I GUESS I FORGOT TO CHECK THE GAGE.

FORGOT? LAST WEEK YOU BURNT OUT RINGS AND RODS...



...WHEN YOU "FORGOT" YOUR OIL PRESSURE GAGE!

OH, IT'S SO SAD...



... SO FOOLISH TO IGNORE MY FAITHFUL, HARD-WORKING GAGES!

HUH? WHO ARE YOU ...MA'AM?



I AM ALLA KNOWING... GAGE - QUEEN PROTECTOR OF YOUR VAST MACHINE WORLD!

B-BUT YOU LOOK LIKE OUR FRIEND, CONNIE RODD!



ONLY BECAUSE YOU WISH IT SO, SPECIALIST GIPPER... FOR NOW I MUST TAKE YOU TO YOUR GAGE-FORGETTING PUNISHMENT!

BUT... BUT ALL I DID WAS RUN OUT OF GAS AND RUIN A FEW ENGINES.

the fuel Gage fairy's ferry

W-WHAT'S GOING ON HERE!?

YOU'VE DONE ALL YOU CAN, SARGE, NOW IT'S UP TO US!

THEN IN OTHER MYSTIC DIMENSIONS...

IN FAIRNESS TO THE DEFENDANT, THE PROSECUTION AGREES HE MAY BE INCAPABLE OF DOING WHAT A CHILD CAN DO!

LIKE READ... FULL OR EMPTY?

ANYBODY SHOULD BE ABLE TO KEEP TRACK OF THE FIVE BASIC GAGES... LIKE THESE ON THE M151A2 1/4-TON TRUCK.

EXHIBIT A
SPEEDOMETER

FUEL LEVEL GAGE

OIL PRESSURE GAGE

BATTERY GENERATOR INDICATOR
TEMPERATURE GAGE

AND THE AIR CLEANER FILTER INDICATOR ON MOST DIESEL ENGINE EQUIPMENT.

EXHIBIT B

OR COUNT TO FIVE?

THE TACHOMETER WARNS YOU OF ENGINE OVERSPEED

AND THE AIR PRESSURE GAGE IS A LIFE-SAVER ON VEHICLES WITH AIR OR AIR-HYDRAULIC BRAKES.

THE FUEL PRESSURE GAGE HELPS IN COLD WEATHER STARTING.

AND SPECIAL EQUIPMENT HAS STILL OTHER GAGES.

N-NATURALLY!

BUT WITHOUT OPERATOR ATTENTION, ALL VITAL GAGE REPORTS ARE FUTILE... AND MACHINE BREAKDOWN OFTEN RESULTS!

GAGES ARE YOUR EYES UNDER THE HOOD. THEY HELP YOU HEAD OFF TROUBLE!

BUT I CAN'T WATCH ALL OF 'EM ALL THE TIME!

I GOTTA WATCH THE ROAD, TOO, Y' KNOW!

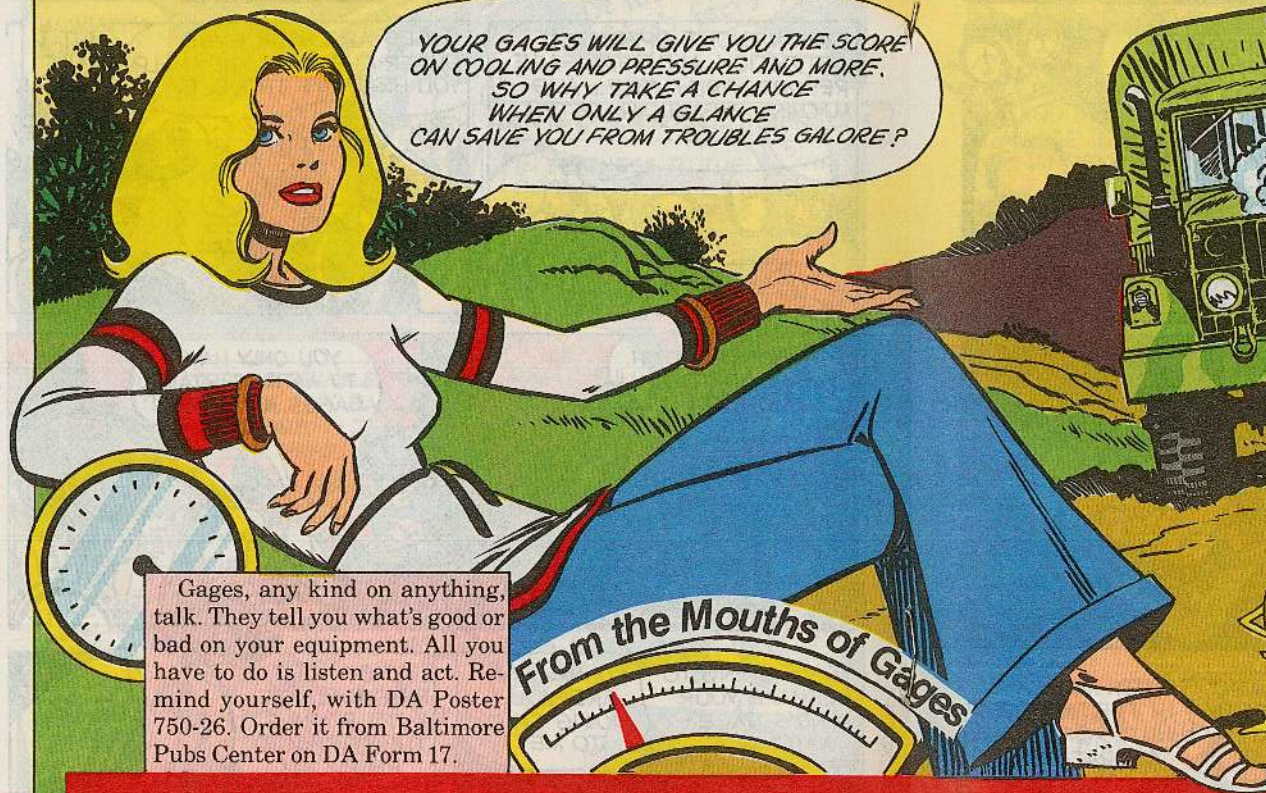
YOU ONLY HAVE TO WATCH CERTAIN GAGES AT CERTAIN TIMES.

WE'RE GOING TO RESHAPE YOUR MIND'S GAGE-WATCHER!

CONNIE! WHY ARE YOU DOING THIS TO ME?

I'M NOT YOUR FRIEND, CONNIE... BUT I DO HAVE THIS POSTER TO HELP YOU!

JOE'S Dope Sheet



Gages, any kind on anything, talk. They tell you what's good or bad on your equipment. All you have to do is listen and act. Remind yourself, with DA Poster 750-26. Order it from Baltimore Pubs Center on DA Form 17.

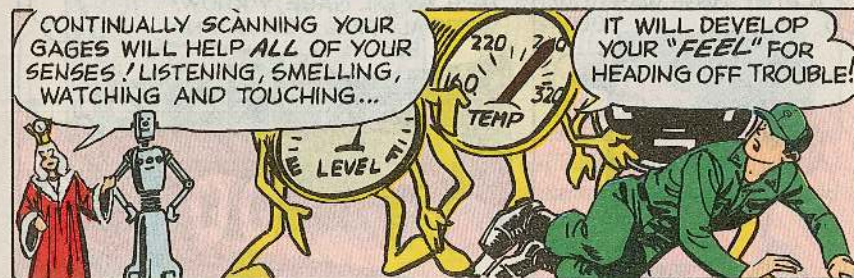
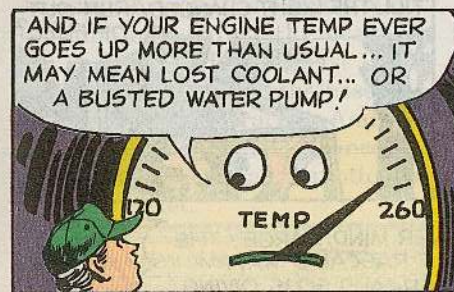
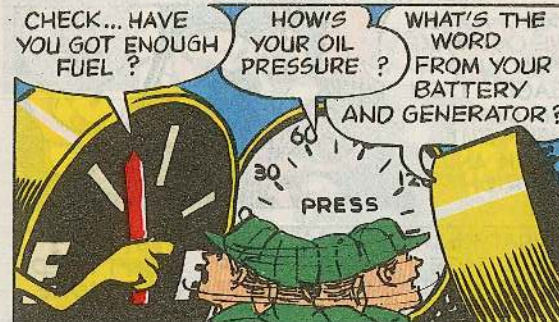
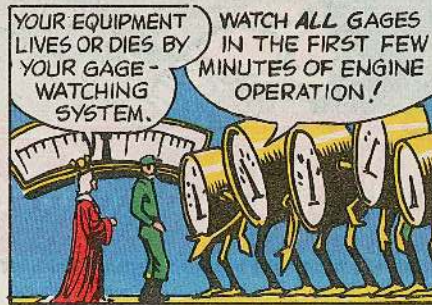
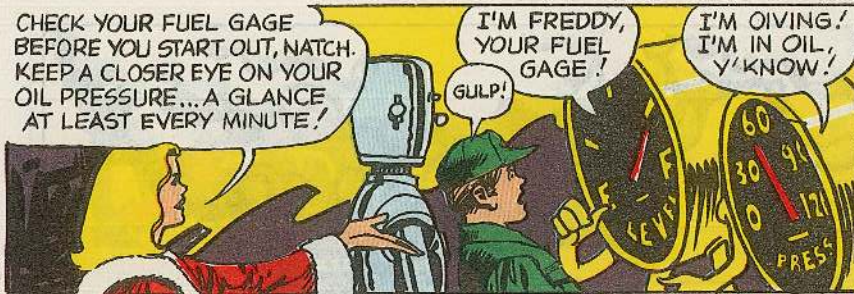
From the Mouths of Gages

HE'S GOTTA REALIZE...

WE'RE HIS BEST FRIENDS!

WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.





TM-218-Series 1/4-Ton Truck...

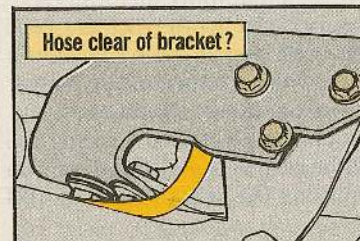
BAD TO WORSE?



Stop — while you still can — and see if your M151A2 is headed for brake trouble.

This can happen if the new, improved rear differential mounting bracket is wearing a hole in your brake hose.

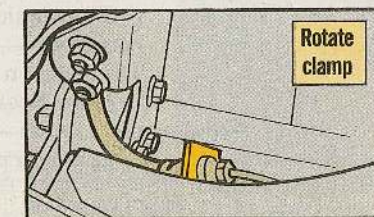
So get under your 1/4-tonner and see if the job was done right. Make sure the brake hose running through the bracket is not rubbing against the bracket. There should be at least 1/8-in clearance between the hose and the top of the bracket. And you need about 1/2-in clearance between the hose and the bottom of the bracket.



This is with the vehicle sitting on the ground — not jacked up.



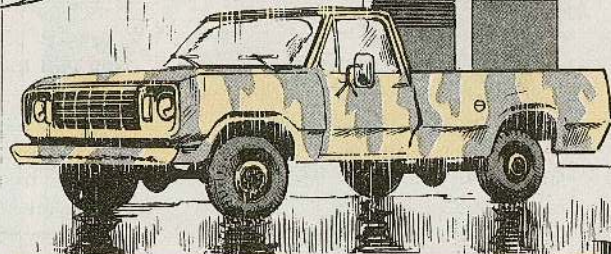
You get more clearance at the bottom of the bracket by rotating the brake hose at the clamp on top of the rear suspension arm.



Then check close to see if this bending and twisting has caused any leaks.

RAIN, RAIN, GO - AND STAY - AWAY

FINDING—AND FIXING—LEAKS IS PRETTY MUCH UP TO YOU. YOUR M880 WILL BE AS DRY AS YOU MAKE IT!



All of you M880 jockeys should know by now that the welcome mat's not out for you if you've got ideas of hosin' out your cab. That rubber floor mat's got a pad on the underside — and that pad soaks up water like a sponge. Then the floor rusts out.

So stick to a brush, broom or damp rag for cleaning the cab.

But even that's not enough to keep some M880's dry inside.

They leak — around the doors — at the vent windows — where the power brake booster's mounted on the firewall — between the heater and the firewall — from inside the doors.

No sweat — and no more leaks — if your truck's still covered by the warranty. Your local Dodge dealer will take care of it. All of the poop on getting manufacturer's defects fixed under the warranty is in TB 9-2300-295-15/14 (Dec 76).

Too late? Your truck's gone by the 12-months-or 12,000-miles warranty limit? Or you're overseas, where the warranty only gives you the parts — and you do the work yourself?

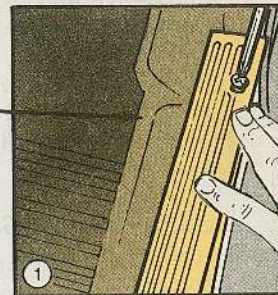
FLOOR IS VICTIM

Any water leaking into your cab winds up under the floor mat — in that sponge-like pad. And you know what happens then to the steel floor!

So, before you start fixing leaks —

Take out the floor mat. You've got to remove the step plate on each side to get the mat out. Put the mat someplace where the pad will dry — absolutely dry. Drying will take quite a while if the pad's really soaked.

You've got to remove the step-plate on each side to get mat out

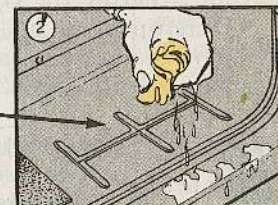


Dry the floor. Use rags or compressed air — but wear goggles if you use air. Use a wire brush and sand paper where there's rust. Clean up the floor with a brush or air.

The floor's got to be clean and dry . . . or painting's a waste of time



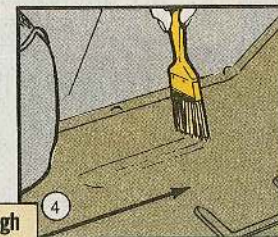
Don't be surprised if you find a lot of water under the mat



Prime the floor with primer paint, NSN 8030-00-852-8013 for 1 gallon. When the primer's dry, put on a coat of non-skid paint, NSN 5610-00-141-7838. Let it dry — not a bit tacky or you'll have a mess if you ever need to take the floor mat out again.

Your own command may not want you to put the mat back in the truck. But before you toss it out, make sure that policy is in writing — or you may wind up "buying" the floor mat.

Put on just enough paint to cover good. A heavy coat takes a long time to dry . . . maybe never



FINDING 'N' FIXING LEAKS

Before you put the floor mat back in, take care of those leaks!

If you don't already know where water's leaking in, get somebody to turn a hose on the outside of the cab while you watch from inside. Natch, you close the doors 'n' windows tight. You'll need a flashlight to see up behind the instrument panel and along the fire wall.

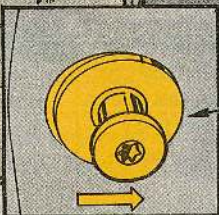
Keep a sharp eye. Leaks are tricky. Water may travel quite a way, along a wire or ledge, before you see it.

DOORS - OF COURSE

Water coming in around a door means the door need adjusting for a better fit. Or the weatherstrip is torn up. Installing a new weatherstrip is covered in para 2-116b, TM 9-2320-266-20 (Jan 76).

Before you adjust the latch, see if adjusting the latch striker will solve your problem

Door latch adjustment hole



Loosen the latch striker and move it in to make the door close tighter

40

HE SAYS, "NOT YET!"



If the door won't close tight ... all the way around ... it'll leak for sure

Adjusting the door latch or latch striker may stop leaking around the door. See page 2-82 in your -20 TM — Figures 2-106 and 2-108 and para 2-118.

If that won't do it, check out FM 43-2 (Oct 75), Metal Body Repair and Related Operations — page 77, para 89, Door Alignment.

I HATE TO BE SUCH A BOTHER!

Water inside the door is no problem. But this water may be leaking into the cab — if the plastic water shield inside the door is positioned wrong. It's s'posed to shoot the water toward the outer side of the door.

If your truck's got these water shields, position 'em right. The shield's shown in your -20 TM — page 2-80, Figure 2-103, left side.

If there's no shield in the door, don't worry about it.

Another leaker in the door may be the vent wing window. The seal is special shaped — and the shape has to be just right. The fix for a leaker is a new seal. Right and left seals are listed as Item 5 on page 113 in your TM 9-2320-266-20P (Feb 78).

Firewall leakers

Your best bet is to check all caulked seams

Put sealant where the power brake booster comes against the firewall

You don't have to take off the door panel to see the water shield ... just pry off the edge

Use sealant NSN-8030-00-874-5875 on all places where water might get through the fire wall

FIND 'EM 'N' FIX 'EM

Leaks may show up in other places on your M880.

Get 'em fixed under your warranty. That's what it's for. You'll save time and money.

If the warranty no longer covers, you'll just have to find the leaks and replace, seal or tighten.

41

SAVE ENGINES

From
Speedy

Death



Overspeeding is killing a lot of diesel engines in those M746 heavy equipment transporter (HET) tractors.

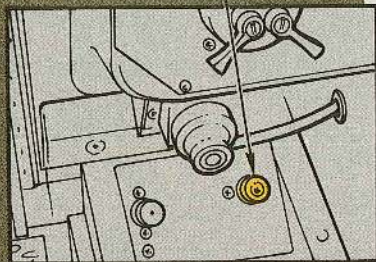
If engine speed goes much over 2,700 RPM, the valves begin to float — maybe even kiss the piston — and there goes another engine.

Most overspeeding comes on downhill travel.

You'd better know how to control your downhill speed before you get to the top of a long, steep grade.

Get out your trusty operator's manual — TM 9-2320-258-10 (Apr 76), para 2-4 — and find out how to control the beast.

2200-2250 RPM—Press
on retarder switch



Start down the hill in the same gear as when you topped it.

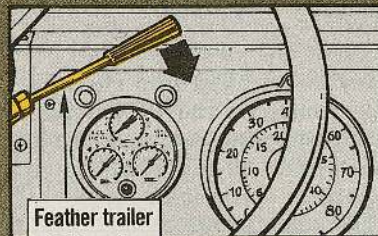
Watch the tachometer. Start using the retarder when the engine reaches 2,200-2,250 RPM. The retarder works only as long as you press down on the switch.

Keep an eyeball on the transmission temperature light. It'll come on at about 225°F. Now watch the transmission temperature gage. If the temp goes on up to 250°F, let off on the retarder. You don't want the transmission oil to get too hot.



Temp at 250°F
— retarder
off

Light
comes
on at
225°F



Feather trailer
brake valve
at 2300 RPM

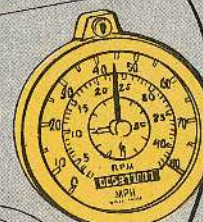
Stay with the retarder — unless the transmission oil gets hot — till you get the engine speed under control. Watch the tach, tho. If it goes up to 2,300 RPM, start feathering the trailer brake valve. To feather, you hit the brake lightly, on-off, on-off, several times. You do this enough to apply the brakes but not enough to make the tires slide.

If you're still picking up speed, keep your cool and stay in control. Watch the tach. If it gets to 2,400 RPM, you've gotta slow 'er down!

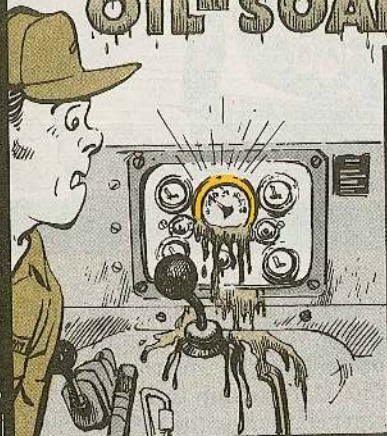
Get on the treadle brake pedal. Push the pedal down easy. No slamming on the brakes — your wheels will lock!

Release the retarder and trailer brake valve when you use the foot brakes.

Use foot brake at 2400 RPM

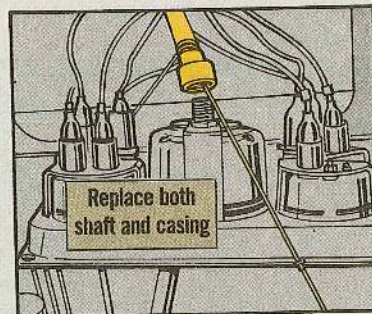
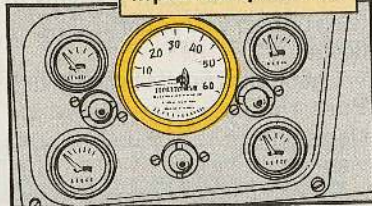


OIL-SOAKED MILES



You can't drain the oil from the speedometer, so you replace it with a new one, NSN 6680-00-933-3599.

Replace bad speedometer



Replace both shaft and casing

Speedometer half-full of oil? Don't laugh — it happens! Transmission oil can work up the flexible shaft into your speedometer head.

Probably your transmission breather valve is plugged. Pressure inside the transmission forces oil up into the drive gear adapter. Then the flexible shaft carries the oil up to the speedometer head.

Here's how you mechs can set it straight:

Remove and clean the breather valve



Remove the speedometer drive shaft assembly. Take it apart and clean the casing and flexible shaft in dry-cleaning solvent. Get all of the oil out or it may be pumped into the new speedometer. If the flexible shaft and casing are shot, replace 'em. NSN 6680-00-973-4187 gets a complete drive shaft assembly. NSN 2530-00-901-9685 gets the flex shaft alone. Always lube the flexible shaft before installing. A good bet is GIA, NSN 9150-00-985-7245.

Element Removal Aid

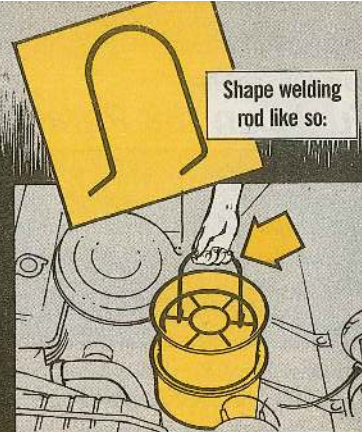
Dear Editor,

Here's an easy-to-make tool that's a big help in removing air filter elements on the TM-218-series 1/4-ton trucks. It'll save a lot of finger cutting.

Just bend a piece of welding rod into a U-shape. And, bend the ends of the rod to make feet.

Slide the feet of the rod under the ribs on the element, and pull the rod straight up.

SGT David W. Carson
588th Engr Bn, Ft Polk

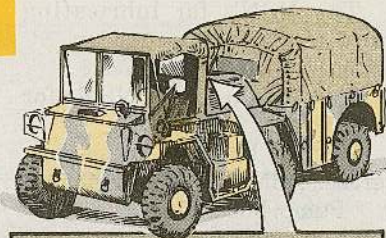


(Ed Note: if the element won't come loose, tap around the side of the housing with a plastic or rubber hammer. Or use the plastic handle of a screwdriver.)

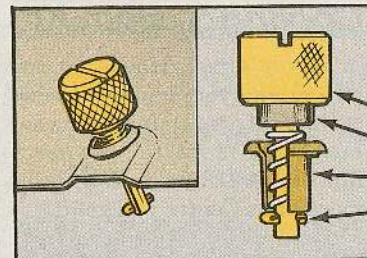
Windshield Storage Fastener

Lookin' for a fastener to keep the door on your Goat's engine compartment cover from flappin' in the breeze?

An upcoming change to TM 9-2320-242-20P (Mar 77) will include these parts and NSN's for keeping that windshield storage compartment door closed:



Fastener goes here



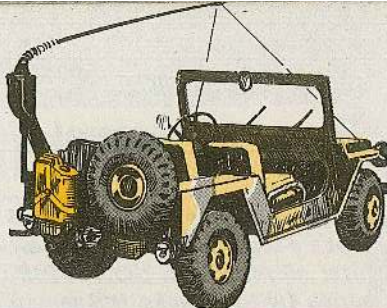
- Stud, NSN 5325-00-962-5323
- Washer, NSN 5310-00-337-8329
- Receptacle, NSN 5325-00-505-4798
- Rivet, NSN 5320-00-075-5139

Camouflage Shade . . . Fuel Can Tint Parade

Dear Half-Mast,

Do fuel cans carried on camouflaged vehicles need to be camouflage painted? If so, what pattern?

CW3 J.K.



Dear Mr. J.K.,

Yes, the cans should be painted — but regulations don't require a pattern.

In most places, vehicles have 2 predominant colors, like forest green and earth brown, or forest green and light green. So paint one side of each fuel can (do the same for water cans) in one dominant color and the other side in the second. You can then mount the can with the side out to best match the vehicle pattern.

If you're in a place where there's one main color, then paint the cans that color.

Half-Mast

Lubricating Pump Buckets . . . Slippery NSN's

The NSN's for lubricating buckets got switched in SC 4910-95-CL-A74 (Jul 77).

Here're the right NSN's for each item:

Pump, bucket lubricating, grease NSN 4930-00-244-4859

Pump, bucket lubricating, oil NSN 4930-00-244-4860

The oil bucket has casters; the grease bucket does not.

NSN-4930-00-244-4859



Grease



Oil

NSN-4930-00-244-4860

Cooling System Kit

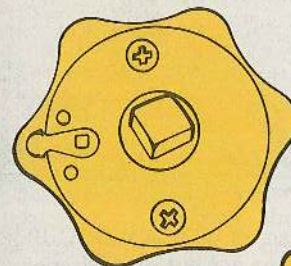
This is a test. How's the rust inhibitor in your engine's cooling system? If you didn't know, DA Poster 750-71 will tell you how to find out. A DA Form 17 to Baltimore Pubs Center will get it.

KEEP YOUR COOL — GET A KIT!

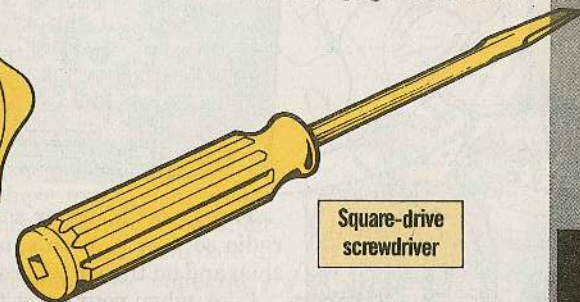


Turret Tool Kit

You can inventory your Turret Mechanic's Tool Kit — SC 5180-95-CL-A51 (Feb 77) — with 99.9 per cent confidence. The 1 flaw is Item 1, page 6. The illustration for the $\frac{3}{8}$ -in square drive, reversible, ratchet-type palm grip socket wrench handle should look like this:



Palm grip



Square-drive screwdriver



Use the handle with the $\frac{3}{8}$ -in female-square drive-screwdrivers shown on page 9 of the SC.

Need A Wood Rasp?



Looking for a replacement wood rasp for your Engineer carpenter's tool kits NSN 5180-00-293-2875 and NSN 5180-00-293-2873?

Get Rasp, wood, NSN 5110-00-233-9718. It's being added to SC 5180-90-CL-N08 and 5180-90-CL-N09 and replaces Rasp NSN 5110-00-519-1768.

NEXT MONTH IN PS

AN/TPQ-32 FAAR

M2 Machine Gun

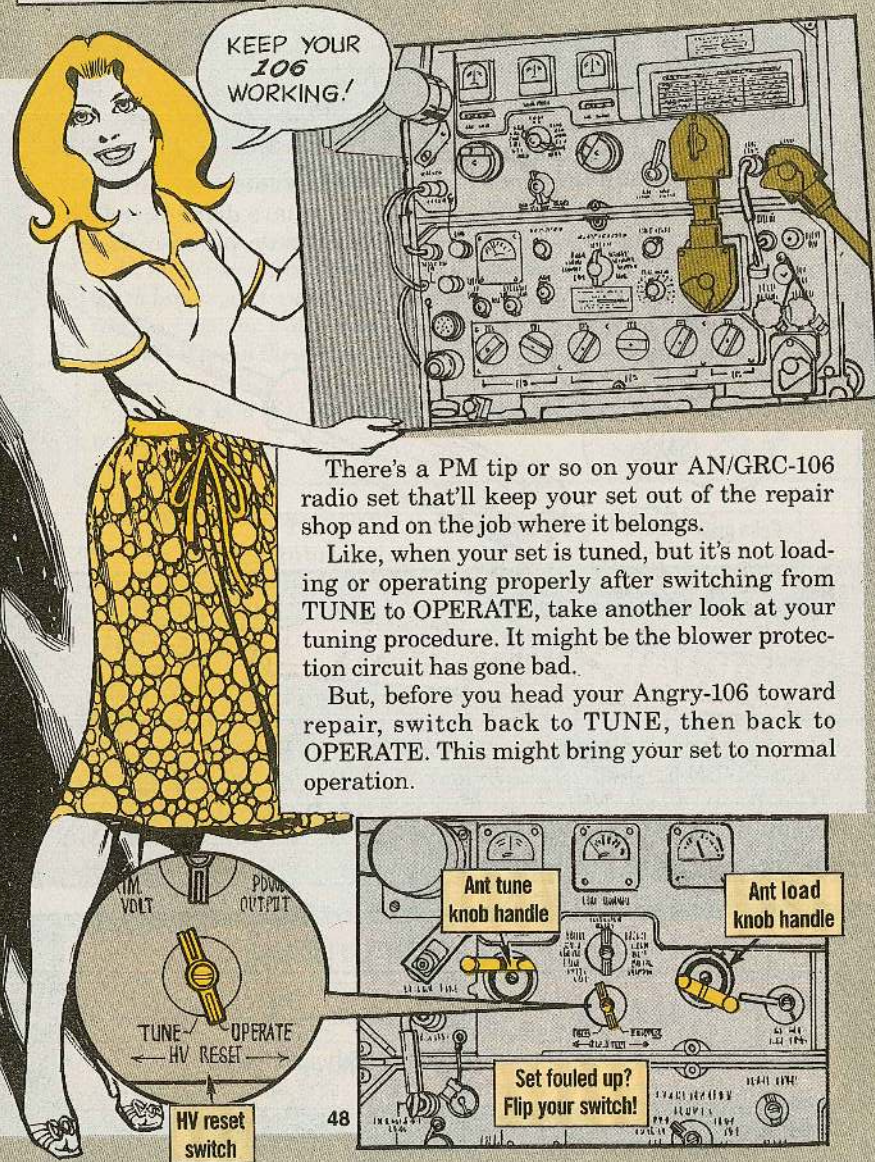
Headsets, Handsets & Microphones

Oil Analysis Update



AN/GRC-106...

TUNING



There's a PM tip or so on your AN/GRC-106 radio set that'll keep your set out of the repair shop and on the job where it belongs.

Like, when your set is tuned, but it's not loading or operating properly after switching from TUNE to OPERATE, take another look at your tuning procedure. It might be the blower protection circuit has gone bad.

But, before you head your Angry-106 toward repair, switch back to TUNE, then back to OPERATE. This might bring your set to normal operation.

TOGETHERNESS

If you're still having a problem operating, and your power source or supply is OK, get your repairman to give you a hand.

Keep the AM-3349 radio frequency amplifier from getting overheated by keeping all clothing and other personal gear off the RF amplifier. You also need to keep dust and dirt out of the AM-3349 heat-exchanger assembly. Clean the assembly with a low-pressure air hose.



Another way to keep your set cool is always keep your RT-662 or -834 receiver-transmitter and AM-3349 together. That goes even when one of these major components needs to be turned in for repair. Send them both to support — especially when adjustment is needed.

Adjusting during a mismatch will cause your dynamic duo to overheat when they are back together again.

You also need to keep handles out of the way when you're not using them so they'll not get banged and broken.

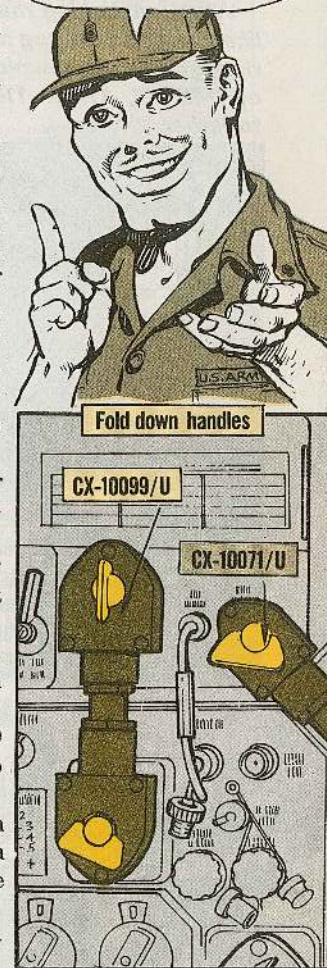
When you've put the CX-10071/U, and CX-10099/U cables on your AN/GRC-106, lock them on and push the lock handles out of the way.

After you have ANT TUNE and ANT LOAD settings where you want them, fold the knob handles in.

And, when you turn the ON-OFF switch on the AM-3349, save the muscle. All it takes is a touch of the fingers to turn it one way or the other.

Put the RT in STANDBY for 2 minutes before shutting it off.

WHEN USING AN AIR HOSE, KEEP THE AIR PRESSURE UNDER 30PSI, AND WEAR GOGGLES!

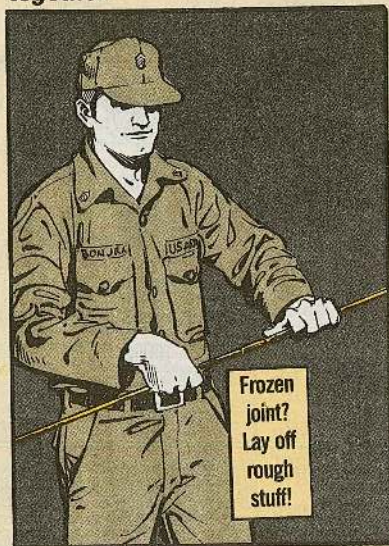


BUSTING LOOSE

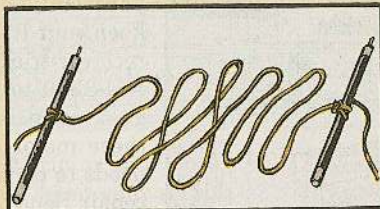
OH-H... ANOTHER MANGLED ANTENNA!

Dear Editor,

When unsticking mast sections, rough stuff like vise grips or a tug of war can do more harm than good. I use the old Indian rope trick when our MS-116, -117 or -118 sections seem welded together.



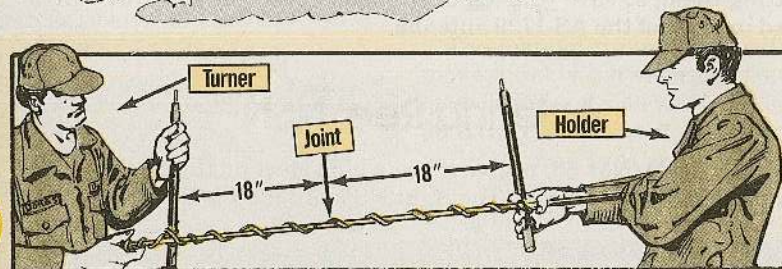
Here's how:



I tie a tent peg to each end of a 5-ft rope (an antenna tie-down is good).

Then, with someone holding the tent peg, I wrap the rope around the sections in a counter-clockwise motion starting 18 inches above the sticking joint and ending 18 inches below it.

JUDGE

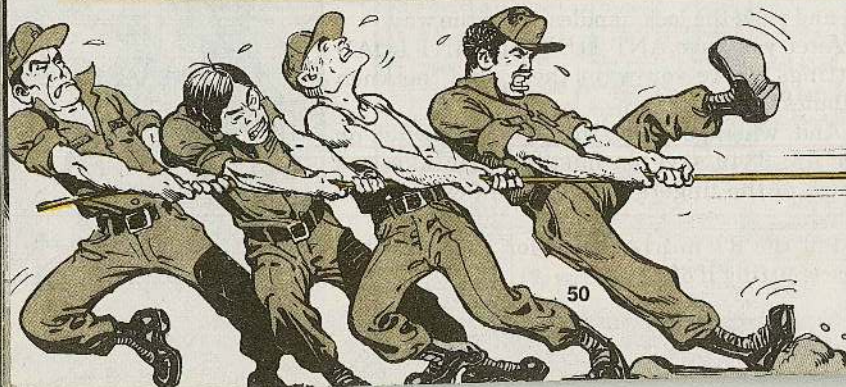


With my helper still holding a peg, I turn the other end around the mast sections until the rope tightens. I continue turning until the section loosens and begins to turn also. If I can, I then take the sections apart by hand. If I can't, I repeat the procedure.

If the lower section binds in the base, I wrap the rope in a counter-clockwise direction down to it. I hold my peg at the base, and have someone turn the top one.

SSG Robert B. Bonura
Ft. Polk, LA

(Ed Note: Good idea! That's one way to end the strong-arm tactics that shorten antenna life. This quick fix can be used on other sturdy, tubular whip antennas, too. To help ward off this sticky situation, use silicone compound, NSN 6850-00-880-7616, on the base and between sections. That'll grease the skids come disconnect time. Check once in a while to make sure the sections aren't binding, tho.)



Frozen Joint

AS-2731 Antenna Update

Hold on to those requests for the new AS-2731/GRC antenna. The pub, TM 11-5985-355-13 (Apr 78), is out . . . but the antenna won't be fielded 'till next year. Anyway, the headshed already knows who'll be getting them, so save yourself some paperwork. The AS-2731 will be used in place of the AS-1729 antenna.

Antenna Reel NSN

TM 11-2586 (Nov 55) is giving you a bum steer on the stock number for the RL-3 antenna reel. The right NSN is 5820-00-030-2969.

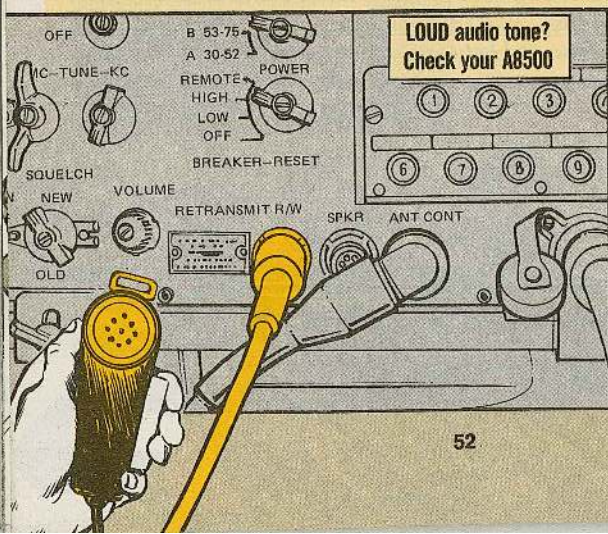
RT-246 BACKFIRE

Your RT-246 receiver-transmitter is hooked up to an AS-1729 antenna.

Your frequency is between 60 and 70 MHz.

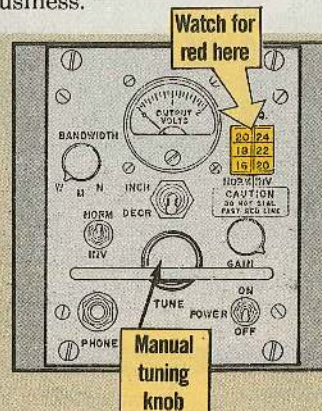
You key the transmitter and a very loud audio tone sets you back on your heels.

Your problem is probably a bad A8500 speech amplifier assembly, NSN 5820-00-884-2477. Have your organization man replace it pronto.

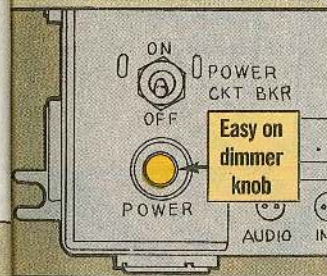
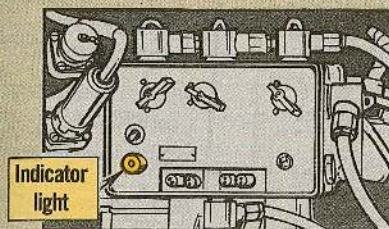


Seeing Red? Better Stop

You TD-860/TRQ-25 and -25A demultiplexer operators better know that red means stop. If you don't, you can put yourself out of business.



On AM-1780 Dimmer . . .



Bring your AM-1780 back alive. Take it easy when you adjust the light or replace the lamp.

The manual tuning knob will move quickly between the frequency limits of your set — 5 and 30 KHz. If you force it, the knob will continue to turn, too. But that slips the gear on the shaft and puts the set out of synch. Which means downtime for calibration.

Solution? Simple. When you're tuning, watch for the red line below the 5 and above the 30 on your FREQ dial. Then, be prepared to stop.

No Rough Stuff Needed!

PLEASE, I'M JUST A LITTLE KNOB!



If you put the muscle to the AM-1780 audio frequency amplifier dimmer knob, your set takes a turn for the worse.

This little knob doesn't move far to do its job and catches when it's done. Muscling past this point puts a twist in everything behind the indicator light.

Wires twist, which puts a strain on the assembly's insulator. Pretty soon — poof — your amplifier short-circuits.



PUT SUPPORT

TO WORK

UH... LISTED? WELL...
UM... I LISTED THE
PAINT JOB
IT NEEDS!

AND YOU
WANT US TO
GUESS
THE REST!?

LET ME
HIT HIM!

WE CAN GET HIM MORE
DA 2407's! USE THESE
FOR A STARTER!

If you've ever taken your car into a garage for repair you know that what you tell the mechanic is crucial.

The mechanic must know the car's age, make and model, mileage and any warranty information you have.

Then, you get down to the nitty-gritty: what's wrong with it. The mechanic wants a complete description of what the car does or does not do, what noises it makes, what clues you've discovered for a fault — like increased oil use or leaks or an odd smell.

If you want extra work like the brakes checked, new windshield wipers, oil or filter change, or whatever — tell the mechanic. After all, you're paying for the work. You want it all done and done right the first time.

That applies to your Army equipment, too. There's no MOS for mind-reader. You must tell the mechanic, specialist or support outfit what's wrong.

Maybe you don't make out a check when you pick up that truck or tank, helicopter or radio — but you still pay for the repair work. You pay for that work in the box marked "taxes" on your paycheck slip.

If the equipment comes back half-fixed — or if no work was done at all because you forgot to tell the maintenance people about it you've wasted your money.

That's where the DA Form 2407 Maintenance Request comes in. You use that form to communicate with the mechanic or specialist at your support shop.

Use DA 2407 to give support the information you'd want a mechanic working on your car to have.

MAINTENANCE REQUEST			
For use of this form, see TM 38-750 (a) and (b) in the Office of the Deputy Chief of Staff for Logistics.			
SECTION 1		1. ORGANIZATION	
CONTROL NUMBER		278013	
2. SERIAL NUMBER		HQ, 1st BN, 30th Inf.	
123456		APO NY	
7. MAINTENANCE ACTIVITY		5. MODEL	
F		M561	
14. FAILURE DETECTED DURING (See instructions for use of X)		9. SELECTED ITEM	
☐ SCHEDULED ☐ TEST ☐ STORAGE ☐ FLIGHT		☐ YES ☒ NO R	
☐ MAINTENANCE ☐ NORMAL ☐ INSPECTION ☐ OTHER		☒ INOPERATIVE ☐ OVERHEATING	
☐ HANDLING ☒ OPERATIONS		☐ NOISY ☐ LOW PERFORMANCE	
15. FIRST INDICATION OF TROUBLE (Select one)			
☒ 1008 ☐ 1009 ☐ 1010 ☐ 1011 ☐ 1012 ☐ 1013 ☐ 1014 ☐ 1015 ☐ 1016 ☐ 1017 ☐ 1018 ☐ 1019 ☐ 1020			
16. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURE IN EQUIPMENT TMs (Do not prescribe repairs)			
OIL LEAK UNDER VEHICLE.			
VEHICLE WILL NOT START			

HOW YOU
FILL OUT THIS
FORM DETERMINES
HOW WELL AND
HOW QUICKLY THE
JOB GETS DONE!

Put the whole story
in block 16.
It's better to be
clear than brief.

Make sure you describe the fault in detail: what went wrong, what you think may be wrong, what clues you have that something is going wrong.

TM 38-750 Para 3-8c(22)(a) tells you to describe the fault or symptoms briefly and clearly in Block 16. Clearly is more important than briefly. Never make support fill in the blanks. Give 'em the whole story.

Sure, they may catch anything you forget — but then again, they may not.

If you want something done apart from fixing a fault, say so. If you want a specific item or subsystem repaired, say so. If you don't tell support what to do, you can't blame them for not doing it.

M-2 Burner Checkup

OH, MAN, CLYDE, YOU GOTTA KEEP THAT COOKER HAPPY!

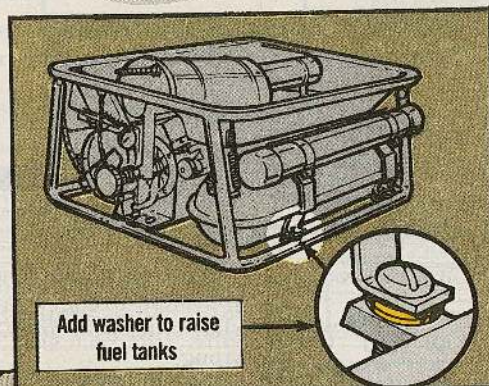
I'M READING...
I'M READING!

Take a look at the fuel tank mounting brackets on the M-2 burner unit of your field range. They should keep your fuel tank from sticking out below the burner frame.

But if the bottom of the tank is damaged — or shows wear — here's what to do:

Add enough 1/4-in diameter flat washers — NSN 5310-00-639-7554 — under the 4 fuel mounting brackets to raise the fuel tank within the frame.

Hold on, tho, podner. Raising the tank too much puts the generator in a bind.



It has to slide forward a wee bit to lift free of the burner assembly at replacement time. Para 4-19, TM 10-7360-204-13 (Jan 74) has this how-to deal.

If the generator is binding, add enough of the 1/4-in washers under the air shutter bracket to release the tension.

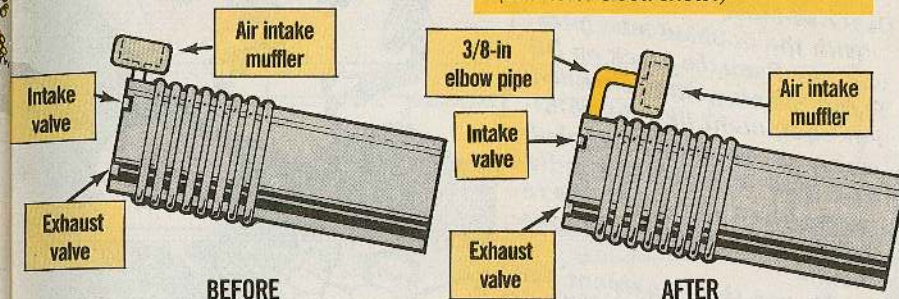
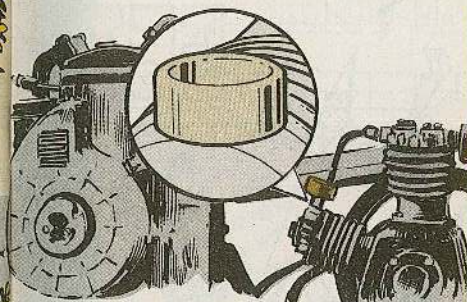
Elbow the Intake Muffler

Dear Editor,

In its present vertical position, the air intake muffler is a rain catcher — lets moisture enter the cylinder. Result: Rust and corrosion.

By using a 90° 3/8-in NPT elbow pipe, NSN 4730-00-253-4413, you can turn the muffler to a horizontal position. No rain, no sweat.

(Ed note: Good show!)



BEFORE

AFTER

NEW Cat Pub



D8K tractor operators and mechanics should doublecheck their Caterpillar serial numbers soonest.

If the vehicle serial number is 77V5006 or higher, or the engine serial number is 17S5008 or higher, you need a new parts pub for maintenance/repair parts

support.

Ask your support to get you a copy of Caterpillar parts manual No. SEBP1111.

Caterpillar parts manual No. UEG0891S listed in UMSP 5-2410-234 is still good for the D8K with vehicle/engine serial numbers lower than these.

On Your DD 314 . . . A **PEN** AND **PENCIL** SET



Dear Half-Mast,
With the doubled lube intervals, the Remarks Block on DD Forms 314 are getting crowded. For equipment like the M151-series, we list the lube symbols and their intervals in the Remarks Block along with tire rotation and antifreeze information.

We use the 10 percent variance to pull our lubes with an S service. But, since the S is the major service, only the S is inked in. How do we keep up with the lubes – especially the 12,000-miles|annual and 24,000 miles|biennial lubes?

SFC R. C. M.

Dear SFC R.C.M.,

Even though you're pulling the lubes and S service together, you can schedule them separately. Pencil in the Ls – plus their subsymbols

or whatever you use – and the mileage on the day they're due. If they fall on the same day as the S, for example, just pencil them in a day apart.

THIS ONE'S EASY!

DD FORM 314	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31									
REGISTRATION NUMBER	ADMINISTRATION NO.										NOMENCLATURE										MODEL										ASSIGNED TO									
JAN																																								
FEB	543216																																							
MAR																																								
APR																																								
MAY																																								
JUN																																								
JUL																																								
AUG																																								
DATE RECEIVED	RECEIVED FROM										DISPOSITION																													
REGISTRATION NUMBER	ADMINISTRATION NO.										NOMENCLATURE										MODEL										ASSIGNED TO									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31										

Ink in the major service symbol and usage figure but leave the other symbol on the form, too.

When you actually pull the combined services, ink in the S and the mileage – but, leave the lubes on the form in pencil. That way, you know the right services were scheduled and pulled.

Half-Mast

On EIR Exhibits . . .

Wait For Word

Burned up over a bum design, safety hazard or equipment falling down on the job? Send the word out on an SF 368, Equipment Improvement Recommendation (EIR).

Pull the component, part or end item that caused the problem you describe in your EIR. Write "EIR Exhibit" across the face of a DA form 2402 and attach it to the item. Also, tape or tie a copy of your EIR (form or message) to the item.

Store the EIR exhibit in a safe place and wait. Within 15 to 30 days you should get word on where to send your exhibit. But, no matter how long it takes, that exhibit is the push behind your EIR and its solution!

OOH! I'D LIKE TO TELL SOMEBODY WHAT I THINK OF THIS ☆?❄️@?!...



THE

STATUS SYMBOL

IT'S MY
STATUS
SYMBOL,
SARGE!

WELL, WELL... I DO
BELIEVE *WE* HAVE
GOT BETTER ONES!
DO I MAKE MYSELF CLEAR?

The latest luxury car ... leather coats ... and \$300 boots. X's ... circle X's ... dashes ... and diagonals.

What do those things have in common? They're all status symbols for somebody. But while that car or coat or those boots may not be status symbols tomorrow, the 4 status symbols for Army equipment faults are gonna be around for a while. So make sure you know them all.

You've probably got no sweat on using X's, dashes and diagonals.

Lots of people, though, treat the circle X like a bad case of flu — something to avoid.

But the circle X status symbol is just as handy — and just as available to you — as the other 3 symbols.

SET



YOU CAN ASSIGN A CIRCLE X STATUS SYMBOL TO A FAULT IF:

- Your equipment has a fault that a message or letter from higher HQ or a local letter, reg or SOP OKed for a circle X status symbol;
- You get word on a limited urgent MWO that says you can operate the equipment under certain limitations until the MWO can be applied;
- You find a fault that poses a safety or operational problem only under specific conditions.

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET (TM 38-750)

8	⊗	Windshield wipers INOPERATIVE
---	---	----------------------------------

You — the operator, crew chief or mechanic — can assign a circle x status symbol if the fault matches the circle x definition

DA FORM 2404
JAN 04

But your CO, CO's representative or higher command sets the limitations and clears the equipment for operation.

16. STATUS	17. FAULTS AND/OR REMARKS
⊗	LFT. WINGSPAR CORRODED - ACFT RESTRICTED TO 160 KNOTS IAW DA MSG. DAAA AA 1267802. Sept 78 <i>J. Stewart</i>

DA FORM 2404-13, AIRCRAFT INSPECTION AND MAINTENANCE RECORD

13 Sept 78	724	⊗	Cleared for limited operations <i>J. Shelby CO</i>
REMARKS 13 Sept 78 LIMITED OPERATIONAL! RESTRICTED TO DAYTIME USE ONLY. <i>J.S.</i>			

EQUIPMENT DAILY OR MONTHLY LOG DA FORM 2408

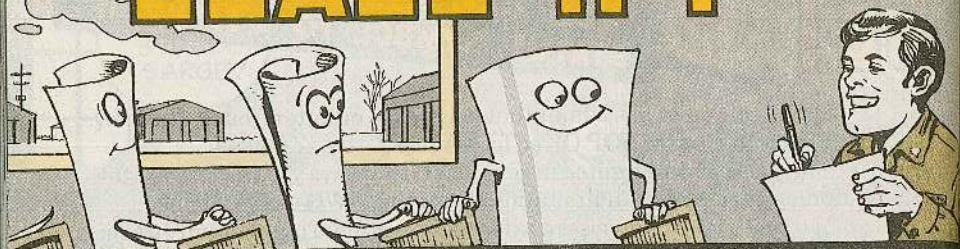
In those 3 cases, you — the operator, TAMMS clerk, mechanic or maintenance supervisor — can assign a circle X status symbol to a fault.

But you cannot set the limitations or clear the equipment for operation on that status symbol. Only your CO or the CO's design-

nated representative can set the limitations and clear the equipment for operation. And only the CO can downgrade a fault from an X to a circle X status.

The circle X is just another status symbol — useful when you need it — as long as you handle with care!

CLASS-IFY YOUR



Some things go on PLL and some things don't. Before you get to the dueling pistols stage with your support, make sure you're ordering the right items from the right shop.

Only repair parts — Class IX items — come through the maintenance support company. That includes all your PLL requests.

Most items listed in your organizational repair parts manuals go on PLL if they're demand supported or they're on your mission essential items list.

But sometimes — especially in older manuals — the repair parts list includes items like welding rods, sandpaper, friction tape, steel wool and cleaning rags.

Those items are NOT OK'd for PLL stockage. They're "as needed" administrative type supplies. Any requests for them you send to your PLL-support shop will bounce back.

SECTION III. REPAIR PARTS LIST — Continued

(2) SMR CODE	(3) NATIONAL STOCK NUMBER (NSN)	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY
3877	4200-00-500-2111	0114-2	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2112	0106-2	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2113	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2114	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2115	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2116	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2117	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2118	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2119	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2120	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2121	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2122	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2123	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2124	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2125	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2126	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2127	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2128	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2129	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2130	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2131	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2132	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2133	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2134	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2135	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2136	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2137	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2138	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2139	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2140	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2141	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2142	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2143	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2144	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2145	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2146	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2147	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2148	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2149	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2150	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2151	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2152	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2153	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2154	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2155	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2156	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2157	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2158	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2159	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2160	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2161	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2162	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2163	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2164	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2165	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2166	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2167	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2168	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2169	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2170	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2171	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2172	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2173	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2174	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2175	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2176	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2177	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2178	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2179	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2180	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2181	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2182	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2183	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2184	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2185	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2186	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2187	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2188	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2189	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2190	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2191	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2192	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2193	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2194	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2195	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2196	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2197	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2198	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2199	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2200	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2201	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2202	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2203	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2204	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2205	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2206	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2207	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2208	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2209	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2210	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2211	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2212	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2213	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2214	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2215	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2216	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2217	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2218	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2219	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2220	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2221	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2222	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2223	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2224	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2225	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2226	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2227	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2228	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2229	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2230	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2231	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2232	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2233	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2234	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2235	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2236	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2237	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2238	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2239	0105	53655	CLAMP ASSEMBLY, EXHAUSTER	A	EA 7
3877	4200-00-500-2240	0111	53655	SCREW, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2241	0112	53655	NUT, CYLINDER CLAMP	A	EA 2
3877	4200-00-500-2242	0113	53655	WIRE, CYLINDER CLAMP	A	EA 2

A House for a Microfiche

PUT THE ANSWERS AT YOUR FINGERTIPS!

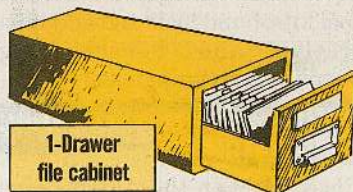
WE DIDN'T SAY FISH HOUSE!

Microfiche pubs give you a lot of valuable info — but they won't help a bit if they're stashed out-of-sight and out-of-mind.

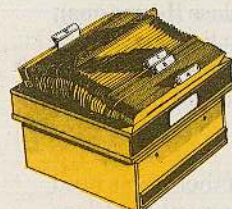
With a little effort, you can now get housing ready-made to store — and protect — those pubs.

FICHE FINDER

Has 12 pockets holding up to 180 microfiche



1-Drawer file cabinet

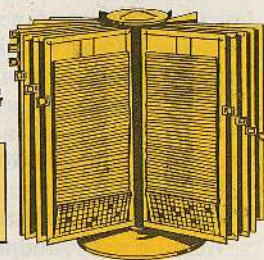


VERTICAL FILE

Holds up to 300 microfiche

REVOLVING STAND

Holds 1300-6800 microfiche



The supply system doesn't stock microfiche housing. It is, though, available on the local market. Here's how to ask support to local purchase it:

- Whip out an old-style exception data supply request. Tell support you want microfiche housing and how many pages are in those pubs you need to store.
- Refer support to Federal Supply Schedule, Federal Supply Class 74, Part IV, Record Keeping Equipment (Oct 77-Sep 78). The July 77 issue of the Defense Logistics Services Center (DLSC) Newsletter (Vol. VII, No. 2) also lists — and shows — some of the housing that's available.
- Write "Local Purchase" across the bottom of the request form.

If that fails to net you some housing, you can go to supply for one or more 5 x 8-in metal 1-drawer file cabinets. The cabinet is 16 inches deep, costs \$6.70 and comes under NSN 7110-00-273-8772. CTA 50-970 is your request authority.



Battery Heater Caution

Your TM tells you to, but some troupes forget to disconnect the nickel-cadmium battery heater cables in the M163/163A1 SP Vulcan. If you forget, and the weather's hot, the batteries can explode. So disconnect 'em when the temperature's above 32°F. Secure the cables so's they won't get damaged.

Slippery Springs?

Grease or oil on a leaf spring will trap grit and cause the leaves to wearout. This can result in overflexibility of the spring — a safety hazard! So never apply any lubricant to the surface of a leaf spring. Wash off any lube you find on a spring.

Weight Classifications

Need weight classification numbers for your vehicle? Cop a copy of FM 5-36 (Jan 70), Route Reconnaissance and Classification. Appendix D has the info you need.

20-Ton Dump NSN

NSN 5925-01-023-9114 gets the ignition circuit breaker switch for your 20-ton CCE dump truck. Jot it down by PN 513068C1 on page 75 of your MSP 5-3805-254 (Aug 75).

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-757-081/11

M16A1 Shooters

TM 9-1005-249-10 (Apr 77) says to clean your rifle on 3 consecutive days after firing it (page 16). That was a good idea years ago, but using a better cleaning agent — Rifle Bore Cleaner (RBC) — makes the extra cleaning bit unnecessary.

Clean it real well with RBC, wipe it dry and lube it like the TM says on pages 21-23. TB 43-0001-36-01 (1978) has the word on this correction.

2 1/2-Ton MAC Muffled

Replacing the front inner axle seal on your 2 1/2-ton truck is not direct support like it says in the MAC on page 469 in TM 9-2320-209-20 (Apr 65). It's Organizational Maintenance. See the SMR Code for NSN 5330-00-075-1764, page 229, TM 9-2320-209-20P (Oct 76).

5-Ton NSN Update

NSN 5310-01-043-5217 gets the brake shoe screw outer washer for your M809-series 5-ton truck. This NSN replaces NSN 5310-00-217-7730 in TM 9-2320-260-20P (Nov 72), page 212. Jot it down in your TM, till the change or revision comes out.

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?

DON'T BANG YOUR BUDDY'S EARS ABOUT **BAD** EQUIPMENT AND **BAD** TOOLS!



Tell it to the
"WHEELS" SF 368

QUALITY DEFICIENCY REPORT (Category II)

SECTION I

For Use Screening only
US Army General M.
New Cumberland, Pa.
New Cumberland, Pa.
2b. Typed Name, Duty Phone

1a. Form (Originating point)
Co A 3/4 Armor
Fort Bluegrass, KY 40511

1b. Typed Name, Duty Phone, Signature
1c. Date
1d. Report Serial No.

1e. Date Deficiency
Discovered
1f. Date
1g. Part No.

1h. National Stock No. (NSN)
1i. National Stock No. (NSN)
1j. Serial Lot/Batch No.

1k. Nameplate
1l. Wrench, Open

11. Item
☒ New
☐ Replaced/Overhauled
12. Date Manufactured/
Repaired/Overhauled

13. Operating Time at Failure
14. Inspected
15. Defective

16. Quantity
17. Item Under Warranty
18. Item Under Warranty

19. Part of:
Shop equipment, Automotive paint and repair
20. Shop equipment, Automotive paint and repair
21. Shop equipment, Automotive paint and repair

16. Defective
Item
Work
DefWith
17. Next
Higher
Assembly

18. Ext. Correction Cost
19. Item Under Warranty
20. Item Under Warranty

17. Dollar Value
18. Ext. Correction Cost
19. Item Under Warranty

20. Item Under Warranty
21. Item Under Warranty

22. Action/Disposition
23. Holding Exempt for 30 days
24. Details (Describe in best ability, what is wrong, how and why, circumstances prior to difficulty, date
including disposition, recommendations. Identify with related item number. Include and file

25. This wrench broke while being used to per
No unusual stress was placed on w
26. This tool to the ad

**FILL
IT OUT
AND
SEND
IT
TODAY
!**