

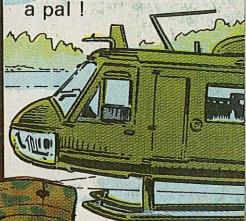
Issue 360

PS

November
1982

THE PREVENTIVE MAINTENANCE MONTHLY

Lend this
issue to
a pal!



THAT'S T.E.
FROM OUTER
SPACE,
CONNIE!

YEAH-- HE'S
SOLVED OUR
FOREIGN OBJECT
DAMAGE PROBLEM!

♪ ♪ ♪
LUV
FOD
JUNK! ♪
♪ ♪

MURPHY
ANDERSON

PUBS PAGE IS BACK!
See page 28

"Any War, Anywhere, ANYTIME"

Inherent in Army readiness is the maintenance of a continuing capability to fulfill its mission: to engage if called upon, in "any war, anywhere, anytime, in any manner." —FM 100-1

Since you and your equipment help provide the cutting edge of the Army, your equipment's GO or NO-GO status is of critical importance—to you, your outfit, the Army, the nation.

The chain of command right on up to the Commander-in-Chief is depending on you for accurate reports as to whether you're ready or not-ready to engage the enemy "anywhere, anytime".

Think about that the next time you pull your Preventive Maintenance Checks and Services. Do what you can do...and report on your DA Form 2404 what you can't. As the eyes and ears of readiness, you've got to tell it like it is.

FM 100-1 goes on to say "...that somewhere, sometime, the success or failure of critical national policies will once again rest in the hands of a few good, well-led soldiers, who trained well in time of peace to fight well in time of war."

Time to take a bow.

But before you do, would you mind pulling that PMCS again? You want to be sure, right?

PS 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:

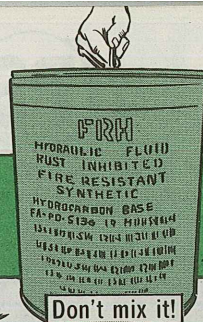
MSG Half-Mast
PS Magazine
Lexington, KY
40511

Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 23 February 1979 in accordance with AR 310-1.

DISTRIBUTION: In accordance with requirements submitted on DA Form 12-5. Private subscriptions: Order from US Govt Printing Office, Suppl of Documents, Washington, DC 20402, \$24. per year to US and APO; \$30. to foreign address.

Postmaster: Send address changes to Cdr. US Army AG Pubs Ctr, 2800 Eastern Blvd. Baltimore, MD 21220.

FRH



Don't mix it!

Boy, was I wrong about hydraulic fluid FRH (Mil-H-46170)!



Let me tell ya, it'll burn.

It's called fire-resistant hydraulic fluid...I thought it wouldn't burn.

Now it's true that it won't catch fire as fast as OHT. Its "flash-point" is 180-200° higher. But it's not fire-proof.

Believe me, FRH can be touched off by open flame. A burning match thrown into a FRH spill caused my injuries. Electrical shorts or arcs can ignite it, too.

I also thought you could mix FRH and OHT. Wrong again! Adding OHT to FRH lowers the flashpoint of the FRH. That defeats its fire-resistant characteristics.

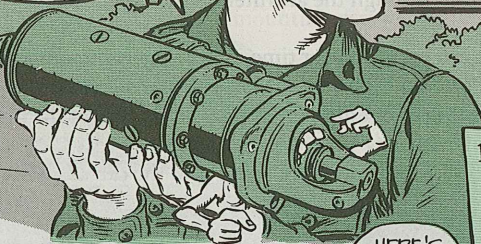
You don't mix 'em unless it's an emergency.

**Just look at me!
I learned my lesson the hard
way. How about you?**



Engine Starters...

Count the Teeth

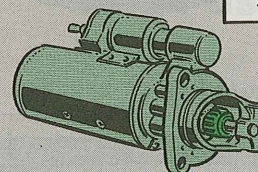


Confused by the similarity of starters used on some trucks, carriers and self-propelled artillery?

Counting the gear teeth can clear up the confusion.

Mark a tooth with chalk or paint
and count from there. _____

Count the teeth



HERE'S
HOW THE
TOOTH-
COUNTING
BREAKS
DOWN...

11 teeth—

M809-series 5-ton trucks
M123-series 10-ton trucks
M107 gun
M108 howitzer
M109-series howitzers
M110-series howitzers
M578 recovery vehicle

12 teeth—
all 2½-ton and 5-ton multi-
fuel engine trucks, and
M39A1 5-ton with Mack
diesel

13 teeth—
M113A1/A2 family of
vehicles

For more info, check out TB 43-0001-39-6 (July 81), Page 3-7.

PS 366 NOV 82

Inhibitor OK for Diesels

I'M
OK!

... BUT I
SAYS
HERE...

DON'T
FRET IT..
HE'S
OK!

No matter what it says on the container, NSN 6850-00-060-5312 is the fuel system icing inhibitor for diesel engine equipment. It's so identified on Page B-1, FM 9-207, Operation & Maintenance of Ordnance Materiel in Cold Weather (0° to -65°F). Disregard any restriction to "jet turbine engine fuels" that may be on the container. Instructions for using the inhibitor are on Page 2-7 of the FM.

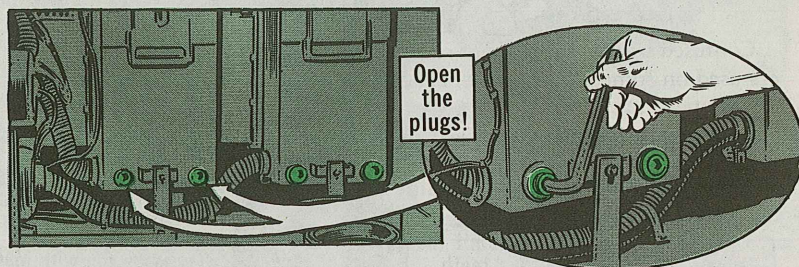
Air Box Clean-out

The next time you mechanics pull a service, clean out the air cleaner boxes. Most of the dirt drawn in through the air filters is blown out by the dust exhausters.

But the dirt that's left can build up over time. When it gets mixed with water from any source—most often a high-pressure hose—it turns into a mud cake.

Keep that from happening by opening the 2 plugs at the base of the filter box and blowing the dirt out with low-pressure air (30-PSI or less).

Of course, you never direct high-pressure water into the cab of your vehicle.



Write to Bonnie

IF YOU HAVE A SUPPLY OR MAINTENANCE PROBLEM, LET ME HELP! SEND A NOTE OFF TO...

BONNIE
% PS MAGAZINE
LEXINGTON, KY,
40511.



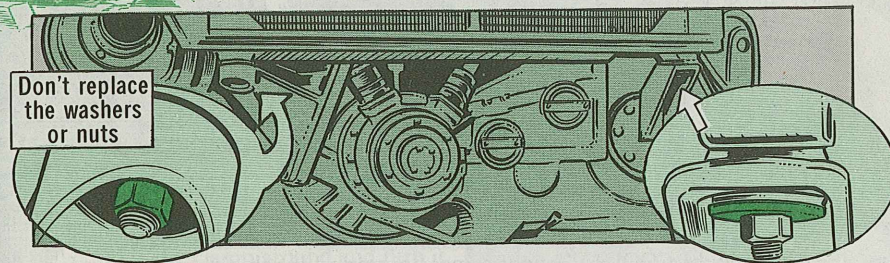
Easy Radiator Removal!

Would being able to remove the radiator without removing the powerpack save you time and work? You bet it will!

Next time the pack is out of the vehicle, don't replace the flat washer, lock washer and nut holding the mounting screws to the front and rear radiator mounts.

That way, the screws—which are held in place on the bottom of the radiator with brackets—will act as mounting studs.

To remove the radiator, all you'll need to do is disconnect the upper mounts and hoses and lift the radiator out.



Push 'Em Back

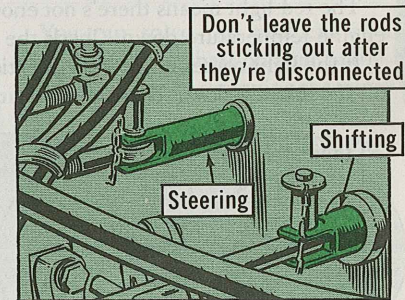
You can prevent damage to steer and shift control rods when you pull the powerplant if you follow the book.

If you don't, those control rods will be bent or broken, and you'll have to replace 'em.

TM 9-2350-217-20N tells you to block the track, release the parking brake, place the transmission shifter in "R2", and move the steering wheel to the full right position.

Moving the shifter and steering wheel lets you disconnect the controls easily.

Some troops don't move the shifter into "4" and don't turn the steering wheel to the far left after the rods are disconnected.

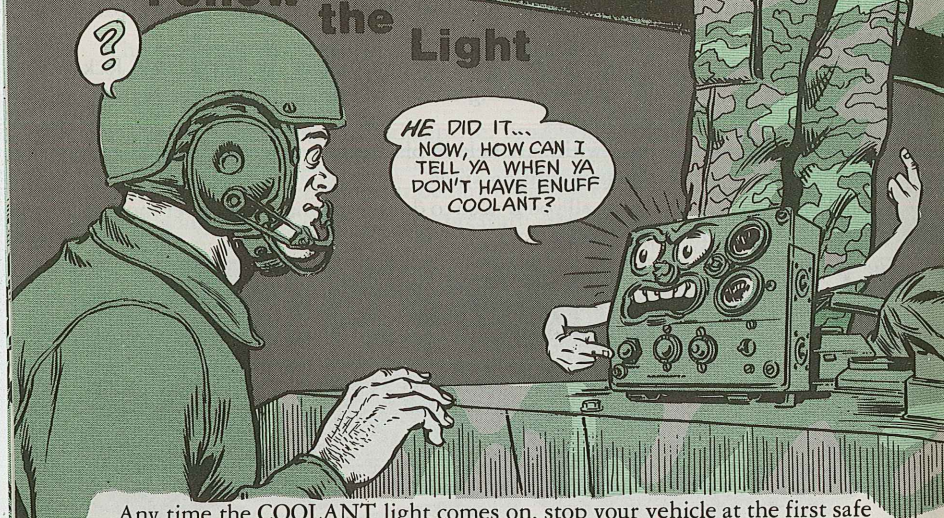


That leaves the rods sticking out, in the way, when the pack is pulled. Then they get damaged.

To reconnect the rods, you move the shifter and steering wheel back the way they were when you disconnected them.

M109A2/A3 Howitzers...

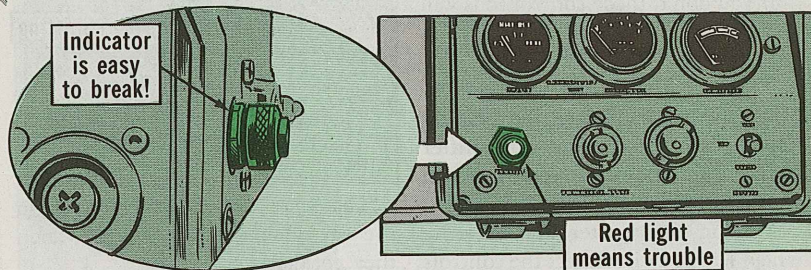
Follow the Light



Any time the COOLANT light comes on, stop your vehicle at the first safe place and cut the engine.

The red light means there's not enough coolant in the radiator to keep your engine temperature down. Check the coolant and add what's needed.

If the light comes on before operation (it'll glow when the master switch is on if coolant is low), check the coolant level again.



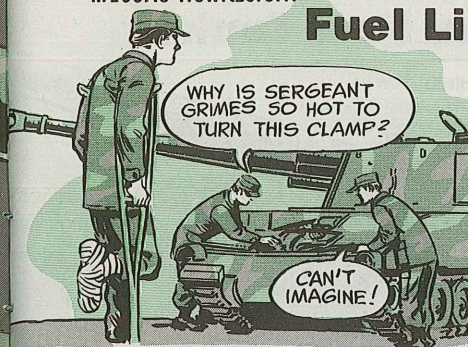
The indicator is easy to break if you're not careful when you move the panel for driving in the raised position.

The low coolant level indicator is cheap protection against engine overheating, so watch it—both in moving the panel and during operation.

Of course, you still need to check the water temperature gage during operation.

M109A3 Howitzers...

Fuel Line Move



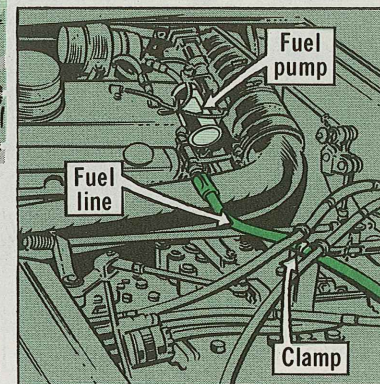
You howitzer mechanics can eliminate a possible safety hazard by making a small move.

Next time you service the primary fuel filter, reroute the fuel line running from the filter to the fuel pump under those other lines and cables.

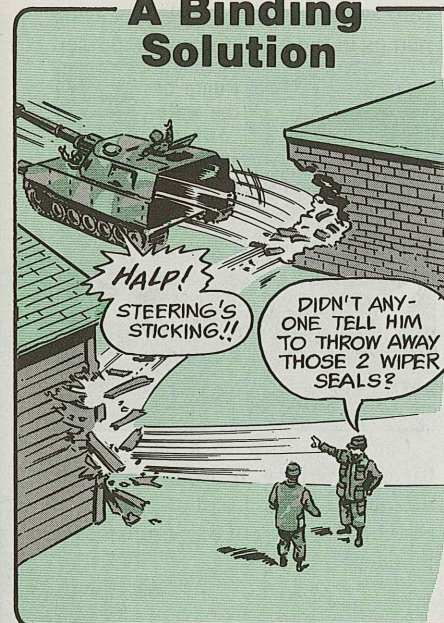
Move the clamp around and turn it

upside down so you can secure the fuel line under the other lines.

With that done, you'll have one less tripping hazard to avoid.



A Binding Solution



You can solve the problem of a binding steering shaft on your M109-series howitzer by removing the wiper seals.

These 2 seals—Item 2, Fig 102, Page 4-312 of TM 9-2350-217-24P/1—can be tight enough to cause binding when the steering wheel is rotated full right or full left.

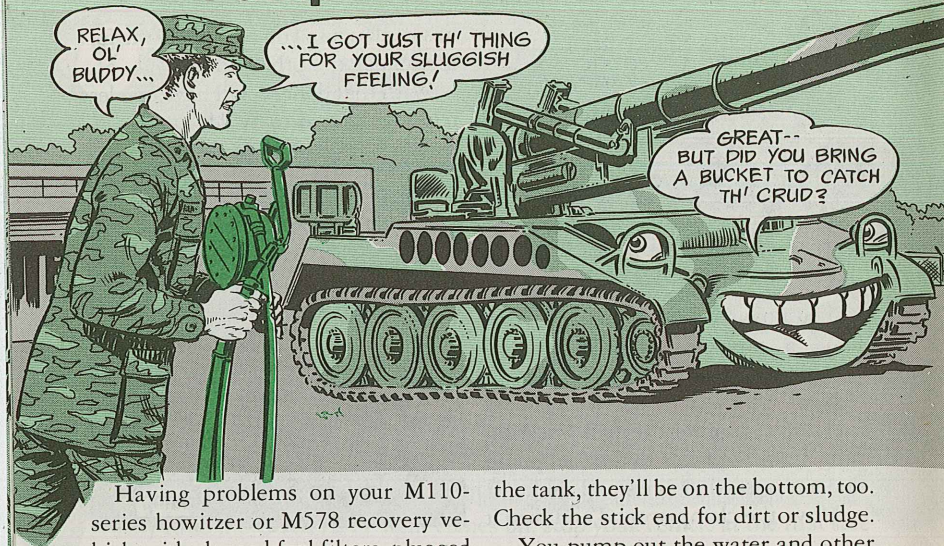
Remove the seals and throw them away. TB 43-0001-39-1 (Apr 82) gives you the go-ahead.

Remove wiper seals,
NSN 5330-00-134-3021,
and throw 'em away



All Clogged Up?...

Pump Out the Fuel Tanks



Having problems on your M110-series howitzer or M578 recovery vehicle with clogged fuel filters, plugged fuel injectors or a sputtering, sluggish engine?

Your fuel tanks may be loaded with water, dirt and sludge. That stuff is murder on filters, injectors and engines.

Check out your fuel tanks during the next Q-service by using water indicating paste, NSN 6850-00-001-4194. CTA 50-970 is your authorization for the paste.

Smear a thin streak of the paste up from the end of a clean stick or rod. Drop that end into the fuel tank until it touches bottom.

Pull the stick out and check the color of the paste. Water will change the paste color—from green/yellow to red, for example.

If there're other contaminants in

the tank, they'll be on the bottom, too. Check the stick end for dirt or sludge.

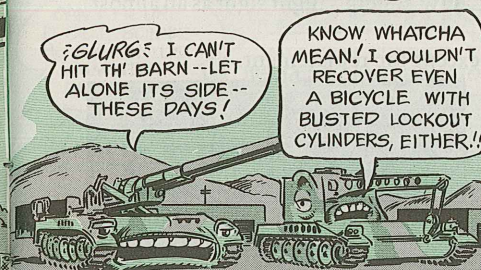
You pump out the water and other stuff with one of the fuel dispensing pumps in the No. 2 Common tool set.



Catch the stuff in a bucket, can, barrel—anything. Just don't pump it out on the ground. Follow your unit SOP for disposing of contaminated oil products.

Here's the Key to...

Avoiding the Big Lockout



Busted suspension lockout cylinders are bad news for you M110-series howitzer and M578 recovery vehicle crews.

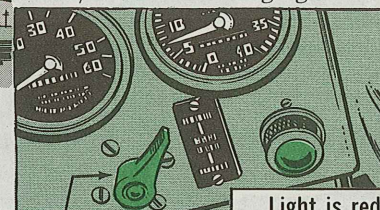
If you don't have a stable firing or lifting platform, like you have if the lockouts are working, you may not hit

M113 FOV...

that target or recover the vehicle.

So never drive your vehicle with the suspension locked or you'll bust the cylinders.

Pay attention to the suspension locked/unlocked warning light.



Move suspension valve control handle to **UNLOCKED** before moving

Light is red when suspension is locked

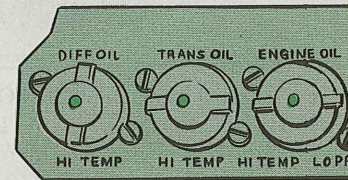
No Glow—No Go

The PMCS for your vehicle's instrument panel have been changed, and changed a lot.

- The instrument panel checks are now "before operation" checks.

CHECK THESE LIGHTS TO SEE THAT THEY'RE NOT MISSING OR BROKEN!

- See if the HI TEMP TRANS OIL warning light and HI TEMP DIFF OIL warning light are present. If any one is missing or broken, your vehicle is not mission capable (NMC).



- See that the engine low pressure warning light comes on when the master switch is turned on. If it won't, your vehicle is NMC.

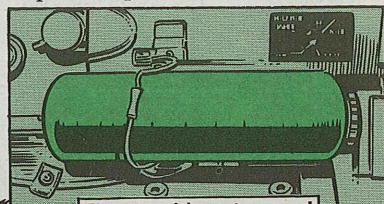
For a Cool TOW Night Sight

Look on the coolant cartridge of your TOW system's night sight as an almost permanent part of the sight.

The cartridge stays on at all times, except for replacement.

The only time you remove it is to replace it.

When the cartridge is removed for any length of time, dust and dirt get to the sight's cryostat assembly. That causes expensive damage.



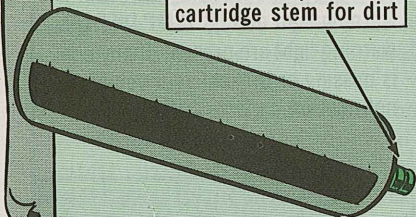
The cartridge stays on!

TO AVOID
DAMAGE, CHANGE
CARTRIDGES
QUICKLY...

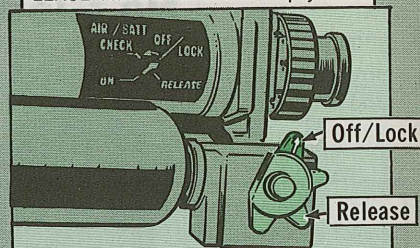
- Have a full cartridge on hand, ready to install.

• Check the cartridge stem (neck) for dirt. If you spot any, the bottle should go to your bottle cleaning station.

Check the replacement cartridge stem for dirt



- Put the actuator switch on RELEASE and remove the empty.



- Install the full one and put the actuator switch on OFF/LOCK.



Replacements must be in sealed bags

Leave the switch on OFF/LOCK whenever the sight's not in use. That position holds the cartridge in place without using coolant.

Check replacement cartridges to be sure they're still in their sealed, plastic bags. They must stay sealed till use to protect them from dirt or other contaminants. No bag, no use.

TOW
Tips...

Head Off Moisture Mysteries

CAN'T FIGURE
IT OUT, BONNIE --
HE'S GIVIN' US
BUM TEST
READINGS...

HAVE YOU CHECKED
HIS DESSICANT INDICATOR?

GLURG

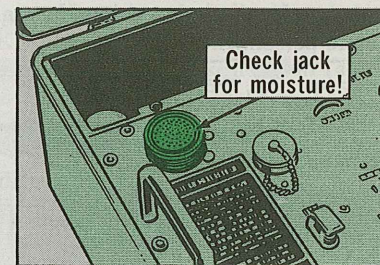
AH'M
DROWNIN'...

The control panel of your missile guidance set (MGS) looks moisture-tight, but don't bet on it. Moisture or rain can seep in and short out the circuitry if the gaskets are worn or installed wrong.

So, whenever the coil cord or W2 cable is disconnected, close and latch the MGS cover. That'll give you the protection you need.

Suspect a moisture problem, too, if your MGS test readings are erratic. Check the dessicant indicator.

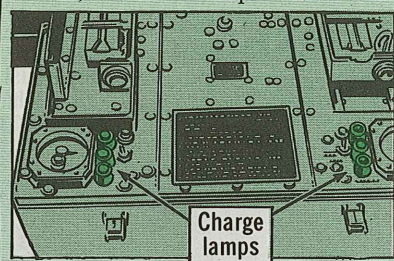
Sometimes the source of the problem will be a wet J1 jack. Air dry it and give the MGS another try.



Charger Lamps

A quick check by you can save your TOW battery charger a trip to the repair shop.

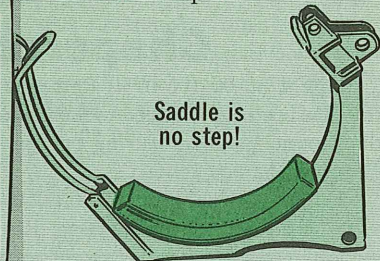
If 1 or more of the 6 "charge" lights don't come on when you think they should, check and replace the nec-



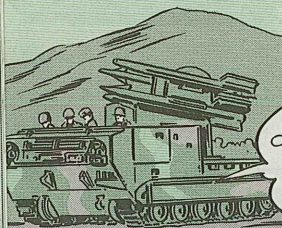
essary lamps. Your problem may just be a burned-out bulb.

Careful With Saddles

The saddle assemblies on the racks of your TOW vehicles can hold equipment just fine. But, the concentrated weight of you and your boondockers can put your system down from a busted saddle or pin.



The saddles are not steps, so find something else to put your weight on.



Chaparral GSCB Hookup

NOW THAT WE HOOKED UP OUR GSCB ACCORDING TO TH' NEW TM, WE'RE READY FOR TH' RANGE!

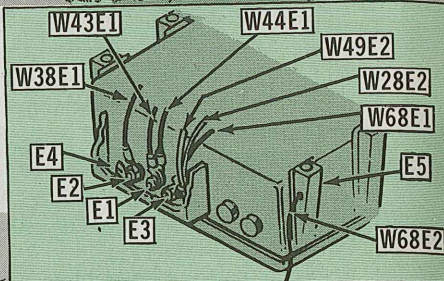
HEY-- WAIT UP, TROOPS!!

Para 4-68B, Page 4-153, Step 4 (Installation) of TM 9-1440-1585-20-2 (Aug 81) has a bad mistake on cabling to the generator set control box (GSCB).

It could damage equipment or injure personnel.

STEP 4 CONNECTIONS TO THE GSCB TERMINALS ARE WRONG!

THEY SHOULD GO LIKE THIS...



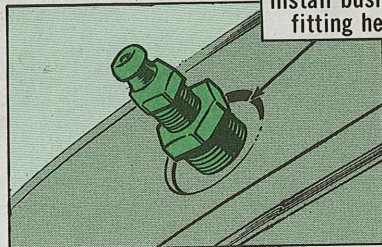
Cable	GSCB Terminal	Torque
W38E1 to	E2	300 in-lbs
W43E1 and W44E1 to	E1	140 in-lbs
W28E2, W49E2 and W68E1 to	E3	140 in-lbs
W68E2 to	E5	40 in-lbs

Step 4 will be corrected in C1 to TM 9-1440-1585-20-2.

Chaparral Bushing

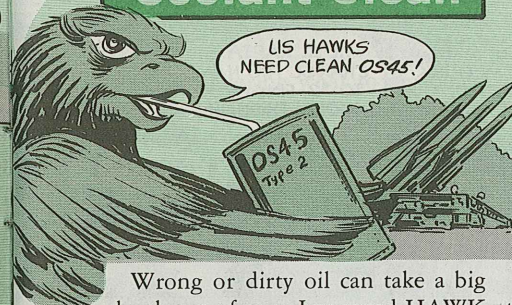
NSN 4730-00-196-0930 gets you the pipe bushing you need to lubricate the mount azimuth bearing on your Chaparral launch station.

The lube fitting, NSN 4730-00-050-4208, inserts into the bushing. Remove the hex-head access screw over the bearing and then screw in the bushing and lube fitting.



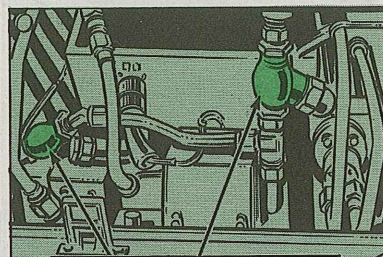
AN/MPQ-50 IPAR...

Keep the Coolant Clean



Wrong or dirty oil can take a big chunk out of your Improved HAWK missile system. Bad oil overheats the stabilatron tube and damages components in the RT group.

So what to do?



Replace filters as necessary

Keep the whole liquid coolant system clean and uncontaminated by replacing filters...like it says in Table 3-1 of TM 9-1430-1534-12-1.

Your support must purge the system annually, but...if you suspect the coolant's contaminated, contact your support team to purge it. It could be contaminated from dirt or from adding the wrong oil.

Which brings up a vital point: Use only OS45 Type 2, NSN 9160-00-237-4777.

Be sure the oil's clean and keep it clean! It's a big thing in keeping your I-HAWK flying.

TOW/Cobra Ground Pin Mix-up?

Before you install the ground safety release access pins on the racks of your TOW/Cobra M65 missile system, check their sizes.

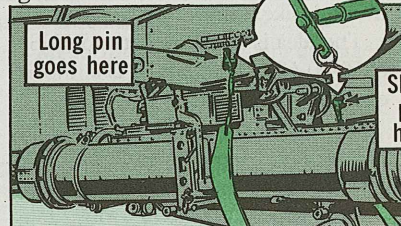
The longer pin goes to the access on the outboard rack.

The short pin goes to the access on the inboard rack.

If you put the short one in the outboard rack, it can work out.

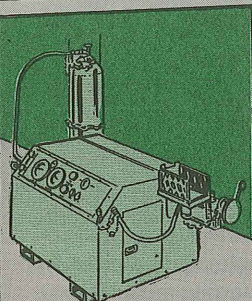
Among other possibilities, it means

that a launcher can be jettisoned accidentally while your Cobra is on the ground.



Stinger GPU...

That 6200 PSI Can Drill You!



YES--THEY'RE TAKIN' "3-FINGERS" MCGURK TO TH' HOSPITAL, BONNIE!

HE'LL HAFTA CHANGE HIS NAME TO "2-FINGERS" NOW, THOUGH...

=GASP=

Leak hunting on the M80 gas pumping unit (GPU) of your Stinger missile system is important preventive maintenance.

It assures that the GPU will properly recharge your unit's tracking head trainer bottles, that argon gas won't be wasted...and that you and other crewmen will be safe.

Which brings up the kicker:

The argon gas in the bottle is under very high pressure. Same goes for the gas in the GPU...up to 6200 pounds per square inch!

It can kill you.

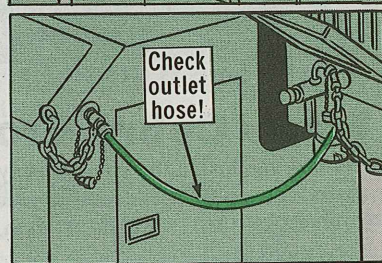
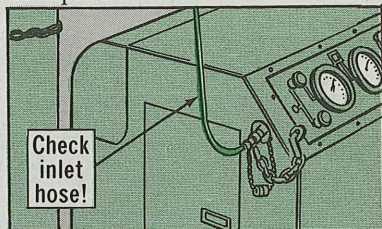
So, when you're leak hunting, don't search with your fingers or your hand. If you stick your finger over a pinhole leak, the pressurized gas can cut through like a knife.

The idea is, use leak detector, NSN 6850-00-621-1820, which is authorized with your GPU.

Or, use the detergent listed on Page E-2 of TM 9-6920-430-14. Any soap and applicator will do in a pinch.

Just keep your fingers away.

Large leaks you can hear. Small leaks have to be found. Any leak has to be repaired.



Whatever you do, never ignore the required monthly checks on the inlet and outlet flexible hoses. If the date on the tags is more than 6 months old, you must make a proof-pressure test on the hoses. See section IV, Page 3-16 of your TM.

M240 Barrel Turn-In

IT'S SUPPORT FOR YOU, BUDDY!

WAIT!!

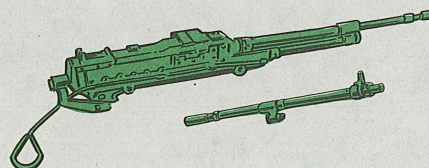
...DON'T FORGET ME!



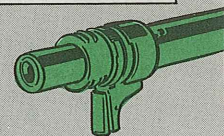
Been wondering what to do about the matched barrels on your M240 machine gun when one becomes unserviceable?

unit's been using both barrels, the "spare" may also need replacing.

Turn in gun and spare barrel



The second barrel needs a DS check and possible headspacing. DS needs the receiver to do that.



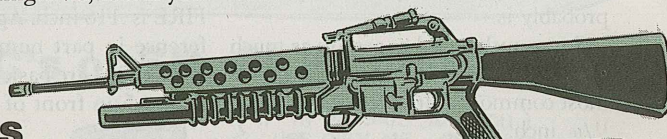
Turn everything in to direct support—machine gun, barrels and all.

If 1 barrel is worn enough to replace, the other might be, too. If your

If 1 barrel is replaced, DS has to gage and headspace it to the receiver.

So, if a barrel's worn, turn in the gun and both barrels. DS will take it from there.

M203 Breech Threads



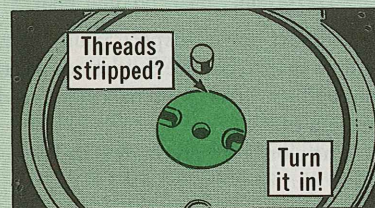
Dear Half-Mast,

Can breech insert threads on the M203 grenade launcher be repaired? Insert threads are damaged when you release the firing pin. Then, the threads on the receiver are stripped when you remove the insert.

H. K.

Dear H. K.,

The breech insert threads can be repaired, but a lot of damage to the threads can be prevented. Pass on the word to knock off the dry firing. That hammers the firing pin into the insert and damages threads.

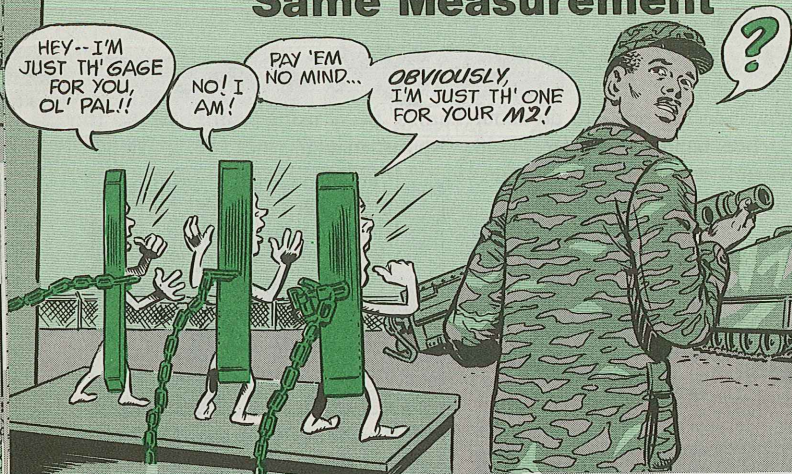


Meantime, if threads are damaged, armorers can turn the weapon in for repair. A new procedure for thread repair at General Support level is in TB 43-0001-36-2 (Jul 81) and TB 43-0001-36-3 (Oct 81).

Half-Mast

M2 MG Gages...

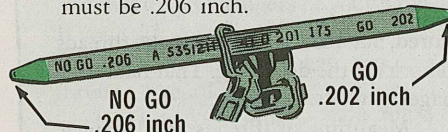
Different Sizes, Same Measurement



Fear not if the headspace gage for your M2 machine gun is larger or smaller than the one your buddy has. It probably is.

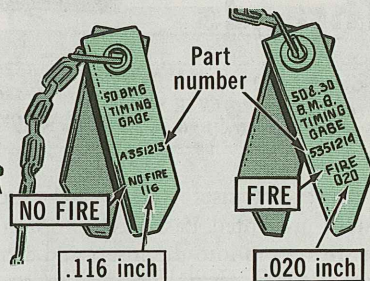
Some authorized gages are as much as a half inch wider than others. The most common widths are $\frac{5}{16}$, $\frac{9}{16}$ and $\frac{11}{16}$ inch.

The vital measurements are the GO and NO GO gage thicknesses stamped into the side of the gage at each end. GO must be .202 inch, and NO GO must be .206 inch.



Also stamped on the headspace gage is the part number. The number 351211 is what you're looking for. On the 3 common gages, the part number will be 5351211 or A5351211 or A351211-2.

Timing gages are fairly standard in size, and the FIRE thickness should be .020 inch, stamped in the gage. NO FIRE is .116 inch. Again, there's a difference in part numbers, but 351213 and 351214 are basic. There may be an A or a 5 in front of those numbers.



Support must inspect your gages once a year to be sure they're not worn enough to throw your headspace and timing off.

The word for everybody is in TB 43-0196 (Jul 81).

DO WE GIVE OUR WEAPONS A 3-DAY CLEANING WITH CLP, SIR?

HMMM... LET'S ASK SGT. HALF-MAST!

CLP One Time

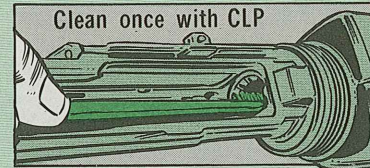
Dear Half-Mast,

Page 65 of PS 310 says if we use RBC, a 3-day cleaning on our small arms is not needed after firing. Does this hold true when troops clean with CLP?

1LT B. C. T.

Dear Lieutenant B.C.T.,

You bet, Sir! CLP, like RBC, is a one-shot cleaner. Pubs such as TM 9-1005-



249-10 (Apr 77) and FM 23-67 (M60 machine gun), which require a 3-day cleaning period, will be changed to 1 cleaning only with CLP or RBC. The word will be in changes or revisions to PMCS tables of small arms TM's.

Meanwhile, no small arms require 3-day cleaning.

You might pass down a reminder to the troops to shake CLP well before using to get the preservative working.

Half-Mast

ABC's of SD, CLP and RBC

When your weapon's TM calls for cleaning with SD cleaning compound, use SD.

CLP and RBC are not substitutes for SD.

But you can use CLP with SD on carbon built-up areas to make your job easier. All you need's the time.

Coat the stubborn area with CLP. Let it set for about 12 hours.

Then, clean thoroughly with SD and put on a light coat of CLP.

For less stubborn carbon build-up—like with the M60 machine gun gas



IF TH' TM SAYS SD... YOU USE ONLY ME --SD!

cylinder—apply CLP and let it set for an hour or so before cleaning.

Gas cylinder



Let CLP set for 1 hour and clean

M97 Subsystem Savers

A MEMORY EXERCISE
BY YOU CAN KEEP COMPONENTS
OF YOUR M97E1/E2 ARMAMENT
SUBSYSTEMS OUT OF THE
REPAIR SHOP!

F'INSTANCE...

QR Pins

When the time comes to remove the recoil adapter and the slider on the forward gun mounts, think slider first.

That is, remove the quick-release (QR) pin from the slider...and then remove the QR pin from the adapter.

That way you won't shear the retaining screw in the slider housing. When you install them, put the pin in the adapter first! The slider pin goes in last.

Remove slider
quick-release
pin first

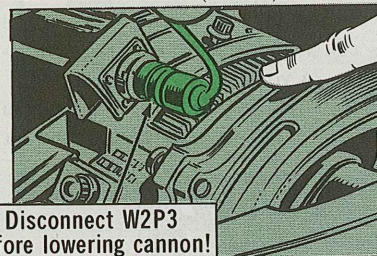
Adapter
quick-release
pin

Slider

Recoil
adapter

The Cannon

Before you drop the cannon, disconnect the fire volts (W2P3) cable.



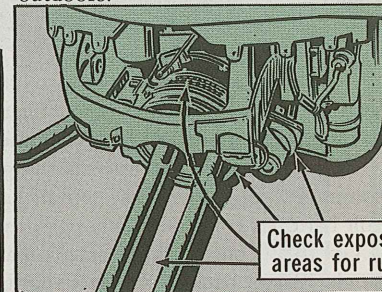
Disconnect W2P3
before lowering cannon!

If you forgot that exercise, the weight of the cannon will rip the cable out.

Lube 'Em

Even with a new coat of oil, humidity and rain help put rust on subsystem feeders, barrels, gears and whatever else isn't covered.

A coat of oil lasts about 2 weeks outdoors.



Check exposed
areas for rust

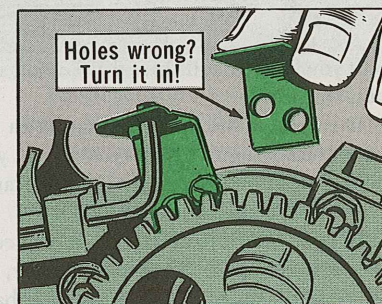
Check the weapon for rust if it's been sitting outside. If your lube order goes beyond the rusting period, shorten it to meet conditions. If the aircraft's parked outside, point the gun slightly down. That'll help keep rain out of the barrels.

Feeder Lock Pin

If you're getting flat lock pin (retainer), NSN 1005-00-148-6468, for your M89E1 declutching feeder with the holes drilled wrong, turn it back in.

Forget about bending the lock pin the opposite way. That'll weaken the metal and possibly cause a malfunction later.

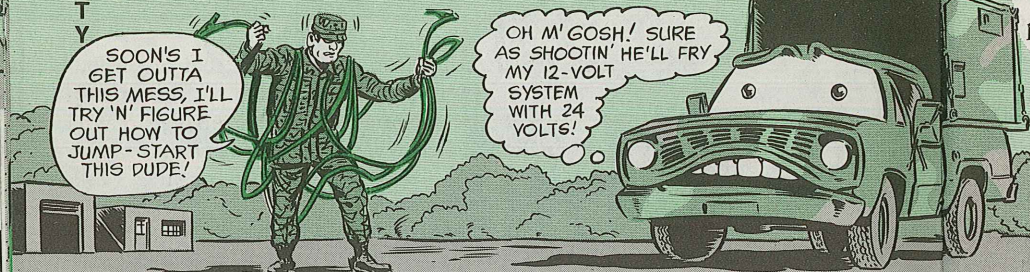
If the holes are drilled wrong, turn it in and get credit for it.



Holes wrong?
Turn it in!

M880-Series
1¼-Ton
Trucks...

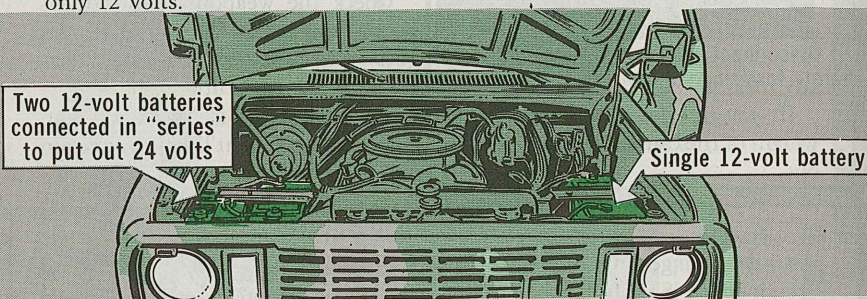
Look Before You Jump!



If you don't know exactly how to jump-start your M880-series truck from its own 24-volt system, don't try it! There's a 50-50 chance you'll ruin the wiring harness and other components of the 12-volt system.

This goes for those trucks that've got the add-on 24-volt system to operate ammo equipment. This system includes a 24-volt alternator and a pair of 12-volt batteries connected in series to put out 24 volts.

Get this! Your truck operates on a 12-volt system—a 12-volt alternator, a single 12-volt battery, a starter, lights and other electrical parts designed for only 12 volts.



If you feed 24 volts into this 12-volt system, something's going to give—give out, that is.

It is handy, tho, to have that extra battery power for jump-starting when your truck's regular battery can't get you started.

You need only 1 jumper cable because the 24-volt system and the 12-volt system have the same ground.

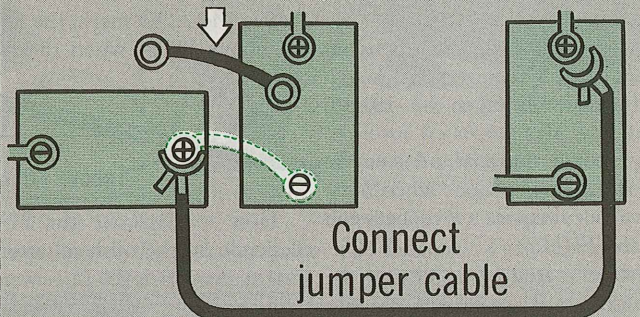
But you've got to be careful to connect to only 12 volts of the 24-volt system! If you hook up to the inside battery, you get 24 volts. So take a good, hard look...hook up only to the outside battery.

To be on the safe side, take off the cable connecting the pair of batteries. Connect your cable to the positive (+) post of the outside battery and to the positive (+) post of your truck's starting battery.

Clip on Dotted Line

SELF-JUMP-STARTING

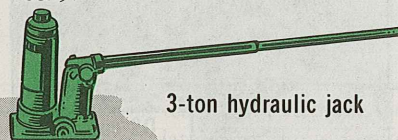
Remove short cable



Center label on 3x4-in self-stick, transparent plastic sheet, NSN 9330-00-618-7218, and mount on clean, dry surface

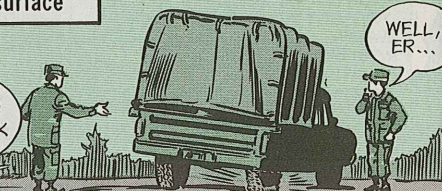
M880 Hydraulic Jack

Need a jack for your M880-series 1¼-ton truck? Use NSN 5120-00-233-6829.



3-ton hydraulic jack

Y'MEAN YA NEVER ORDERED THAT 3-TON JACK LIKE I TOLD YA?



This'll get you a 3-ton hydraulic jack that's better than the original screw jack—especially if you are hauling a commo shelter or have a contact maintenance truck.

CTA 50-970 authorizes a minimum of 1 per shop, but your command can authorize extra jacks for your trucks.

Goer
Vehicles... **FULL Is
Not Enough**



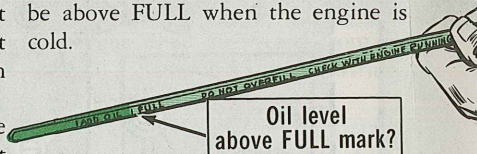
Make sure the oil level reads a bit above FULL on the dipstick before starting your Goer engine. This is a switch from what's now in TM 9-2320-233-10.

TB 43-0001-39-8 (Jan 82) spells out this new PMCS requirement, and it will be included in C3 to the -10 tech manual.

Why should the cold oil level be above FULL on the Goer when most other vehicles require a level between ADD and FULL?

The Goer's true oil level can't be determined until the engine has run for 3 to 5 minutes.

The oil level drops when the engine warms up. To make sure it won't drop below the ADD mark, the level must be above FULL when the engine is cold.

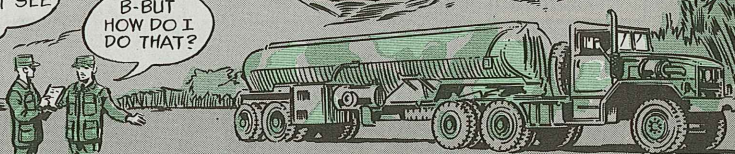


How much above the FULL line depends on the oil level after engine warm up. Oil level in a warmed-up engine should read between the ADD and FULL marks.

M131A5C Aqua-Glo Fitting

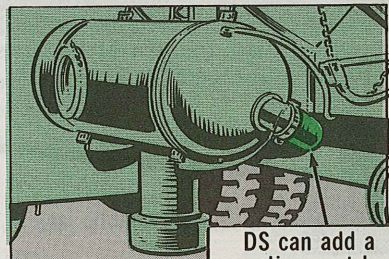
TAKE A SAMPLE OF YOUR JP-4 T' SEE IF YOU GOT A WATER PROBLEM PRIVATE!

B-BUT HOW DO I DO THAT?



If you carry JP-4 jet fuel in your M131A5C 5,000-gal fuel tanker, you need a sampling port for the Aqua-Glo water detection kit.

If your tanker does not have a sampling port, your support unit can put one in for you. The instructions are in the EIR Digest, TB 43-0001-39-2 (Jul 82).



DS can add a sampling port here

Antifreeze and Battery Tester...

Zero Your Tester



First, test it with distilled water, NSN 6810-00-682-6867.

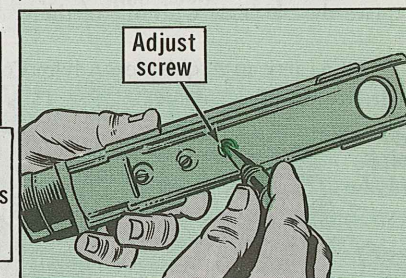
If the reading on the antifreeze scale is more than 34°F or less than 30°F,

under the edge. Remove the clear silicone sealer over the screw farthest from the eyepiece.

Use the $\frac{3}{16}$ -in flat tip screwdriver in the No. 1 Common tool set to adjust the screw. Turning it clockwise in-



the tester is faulty. Take 3 or 4 readings to be sure.

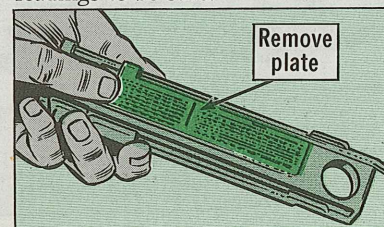


creases the reading; counterclockwise decreases the reading.

Make sure the final adjustment to 32°F is clockwise!

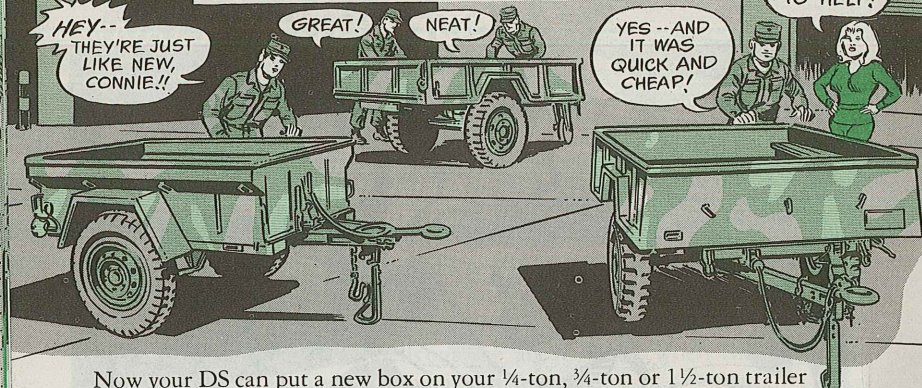
When you get your tester adjusted, use a little adhesive, NSN 8040-00-995-0590, to hold the screw in place. Replace the instruction plate.

Never turn the center screw—it holds the lens in place. Don't turn the screw closest to the eyepiece, either.



Turn your tester over. Remove the instruction plate by working a knife

New Trailer Box Available



Now your DS can put a new box on your ¼-ton, ¾-ton or 1½-ton trailer—if the old box is beyond repair and if the chassis is in good shape.

This may be a quicker 'n' cheaper solution to problems of replacing old trailers with rusted-out bodies.

If your support's inspection shows that the structural (frame) members, brake lines and other chassis components are safe and serviceable, they can replace the old body with one of these:

¼-ton—NSN 2510-01-111-7096
¾-ton—NSN 2510-01-111-7095
1½-ton—NSN 2510-01-111-7097

All 3 carry an Acquisition Advice Code of "D" in the AMDF, which means they're readily available.

Stowing Trailer Spare



Dear Half-Mast,

Page 23 of PS 345 gives us the scoop on a spare tire for the ¾-ton trailer. Is there a recommended way to stow the spare? Any mount or bracket in supply?

1LT R. H. R.

Dear Lieutenant R. H. R.,

There's no mounting bracket or other hardware for stowing the spare on the trailer or any recommended method. You can stow it in either the trailer or the truck.

Half-Mast

Dump Truck Troop Seats

Troops seats and related parts for your M51-series 5-ton dump truck are not in TM 9-2320-211-20P.

USE THIS LIST FROM PAGE 576 OF TM 9-2320-260-20P FOR THE MB17 5-TON DUMP TRUCK!



NSN	Item	Qty Needed
2510-00-860-0523	Side rack left	1
2510-00-860-0517	Side rack right	1
2540-00-860-0516	Curtain end	1
2540-00-860-0518	Cover	1
2540-00-860-0519	Bow	5
2540-00-860-0520	Troop seat side rack left	1
2540-00-860-0522	Troop seat side rack right	1
5340-00-594-8032	Strap safety assy	1

M915-Series Trucks...

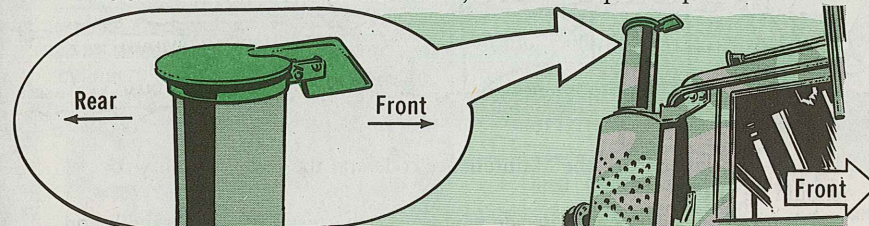
Exhaust Cap Position

FRONT?
SIDE?
REAR?



There's some fuss 'n' hassle over the position of the exhaust stack cap on M915-series trucks. Should it open to the front? The rear? The side?

To save time and head off heartburn, mount the cap so it opens to the rear.

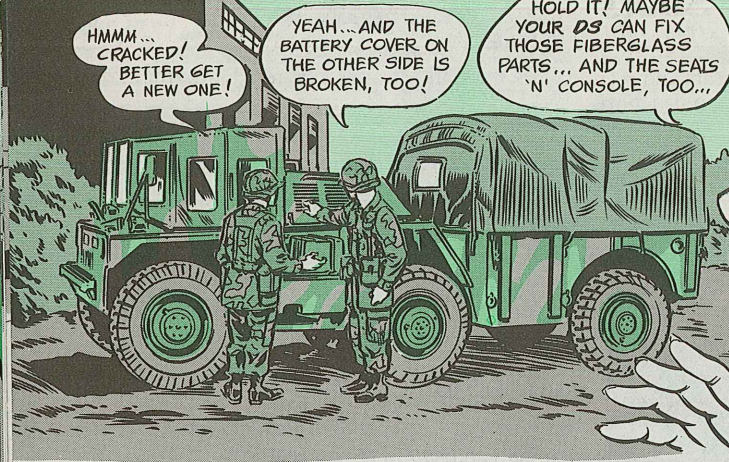


Altho the position doesn't make a lot of difference in the exhaust gas getting out, open-to-rear offers a slight edge.

If the cap is missing, order under NSN 2990-00-089-2079.

Gama Goat...

Fiberglass Lives On!



Hold that battery box cover! Just because it's cracked is no reason to junk it. Maybe it can be repaired.

Same goes for other fiberglass components of your Goat—like the driver's and co-driver's seat shells and the cab console.

Yes, those items are repairable—by direct support. Pay no mind to that "ZZ" in the TM 9-2320-242-20P SMR code for those items. It's wrong! The final 2

FINAL LETTERS
OF THE SMR
CODE SHOULD
BE FF!

Fig No.	Item No.	SMR code	National stock number	Part number	FSCM	Description
52	1	PAOZZ	6140-00-125-8780	11594783	19207	COVER
138	1	PAOZZ	2510-00-171-2755	11594951	19207	CONSOLE ASSEMBLY CONSOLE
138	2	ZDOZZ		11594736	19207	
140	5	PAOZZ	2540-00-173-6931	11595005	19207	SEAT, INDIVIDUAL: LEFT SIDE
141	3	PAOZZ	2540-00-173-6931	11595005	19207	SEAT, INDIVIDUAL: RIGHT SIDE

letters—the last part of the Maintenance code and the Recoverability code—should be "FF".

It's up to your support to decide whether the battery covers, seat shells and console can be repaired with their fiberglass repair kit.

Replacing all of those items on a Goat can cost several hundred dollars. Maybe they can be saved with a few bucks' worth of time and material.

Side Weight Class Marking

SGT. HALF-MAST, TH TM AND TH' AR ARE NOT SPECIFIC...

YEAH -- CAN YOU GIVE US TH' SOP?

HAPPY TO!

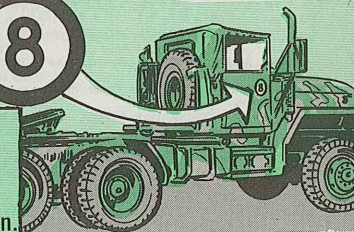
Are you confused about the "gross weight classification...marked on the right side of the...vehicle" as mentioned in AR 750-58, Para 25, and TB 43-0209, Para 13?

This'll clear the air until the AR and TB are changed or revised to spell it out:

A black number, 3 inches high, is centered inside a black circle, ¾ inch wide and 6 inches in diameter, applied directly to the camouflage paint. Just make sure it's not on top of any black color in the camouflage pattern.

No exact location is specified, but the best place on a truck is in the upper right area of the door, where it's least likely to suffer from wear and scrapes.

8



Seep or Leak?



Dear Half-Mast,

You say on Page 1 of PS 337 that we are not supposed to pull back the wheel cylinder boots to check for leaks—just "eyeball" them. If the boots are not pulled back, won't small leaks of brake fluid go undetected?

SSG C. F.

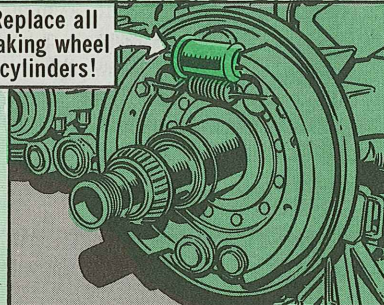
Dear Sergeant C.F.,

Some seepage into the boot is normal, but leakage means trouble.

Since pressure causes leakage, the boot won't be able to hold back the

fluid. It'll leak out and be readily seen without pulling back the boot.

Replace all leaking wheel cylinders!



BY LEAVING THE BOOT ALONE DURING INSPECTION, YOU...

- Head off replacing cylinders only because of normal seeps.
- Don't start leaks by getting dirt inside the boot.
- Save yourself time, energy, and parts.

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list was made from a computer printout provided by The Adjutant General.

LO 5-3740-214-12 Mar Aerosol insecticide gen Mod XKA
LO 5-4110-235-12 May Refrig unit, GED, Mgr Eqpt Corp, Mod ERU-5G
TB 55-1520-227-20-23 Apr Inspect rotor blade shock absorbers, CH-47B, CH-47C
TB 55-1520-237-20-27 Jun Inspect UH-60A Black Hawk pilot/copilot seat rubbing bar
TB 55-1520-241-20-18 Apr Inspection connecting link clevis fittings, CH-47A, CH-47B, CH-47C
TB 55-1520-241-30-2 Feb Inspect AGB valves on CH-47A, B, C
TB 55-1520-244-20-4 May Inspect pitch change link tube assy, all AH-1
TM 5-2590-214-10 Feb Roller, mine clearing
TM 5-2590-214-23&P Mar Roller, mine clearing
TM 5-4110-232-24P May Refrig unit, Mod Remd-G/II-VI-5600A
TM 5-4120-359-14 Feb Air conditioner 18,000-BTU, Keco Mod F18H4-2
TM 5-4520-242-23P Mar Heater, space,

multifuel w/blower, 28-VDC Mod VBM 15-1V
TM 5-6675-329-13&P Feb Self-leveling survey level, Wild Heerbrugg Mod NA2-80
TM 9-1100-204-20&P May M454 atomic proj, M455 lng atomic proj
TM 9-1265-370-10-3 Jan MILES M63 for M113 APC
TM 9-1430-489-12 Dec 81 Azimuth laying set, Lance
TM 9-1430-489-24P Nov 81 Azimuth laying set Lance 1A
TM 9-2350-265-20-1 May M1 tank hull
TM 9-4910-719-14&P Jan Bead breaker, pneumatic Iowa Mold Tooling Co, Mod IMT
TM 9-4931-436-14&P Feb Aline device, Laser trans
TM 9-4935-386-24P Nov 81 Test sets Pershing 1A
TM 9-4925-3105-14&P Feb Test set, electronic sys, M144 for MILES vehicles
TM 9-6940-477-24P Mar G/VLLD instructor set, student trainer set, ground Laser locator designator
TM 11-1290-388-10 Dec 81 Sound ranging data processing gp, OL-274/TNS-1A
TM 11-5820-553-10 Feb Radio AN/PRC-70
TM 11-5820-880-20P Apr Transceiver multiplexers, TD-1288/GRC, TD-1289

(V) 1/GRC, TD-1289 (V) 2/GRC, TD-1289 (V) 3/GRC
TM 11-5825-270-23 Mar Monitor, radio freq R-2176/FRN
TM 11-5841-289-13 Dec 81 Radar AN/APN-215 (V) 1
TM 11-5825-1831-10-HR May Radar processor interface test set, TS-2973A/APS-94D
TM 11-6625-2735-24P-1 May Oscilloscope, OS-261B (V) 1/U
TM 11-6625-2774-14&P Mar Decade resistor, ZM-58/U Clarostat Mod 240C
TM 11-6825-2850-14&P Apr Recorder, RO-458 (V) 1/U Hewlett-Packard Mod HP-7035B
TM 11-6625-2978-14 Feb Power supply, PP-7549/U Tektronix Mod 1106
TM 32-5811-001-24&P-HR Mar Master control set, OA-8931/TSC-124
TM 32-5895-206-10 May Radio Receiver AN/TRQ-30 (V) 1, AN/TRQ-30 (V) 2, AN/TRQ-30 (V) 4
TM 32-5895-242-14&P-HR May Comm control central, AN/TGC-35A
TM 32-5895-201-14&P Apr Antenna sys AN/GSA-131 (V) 1, AN/GSA-131 (V) 2, AN/GSA-131 (V) 3
TM 55-1520-217-S Feb Prep for shipment, CH-54
TM 55-1520-235-MTF Mar Maint test fit manual, OH-58C

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

Movies, TV Tapes

MF (VT) 46-13114 Improved Mark 66 2.75-in rocket motor
THAR #75 Equipping the Force (Chief of Staff)
TF 38-6278 C-1 cleaning process
TF (VT) 46-6207 Helicopter weight and balance planning
TF (VT) 46-6217 Trust your instruments (aircraft)
TF 46-6249 MK66 Improved rocket motor with 2.75-in rocket
TVT 21-51 MILES
TVT 21-52 MILES (Infantry)
TVT 21-54 MILES on M60-series tanks

TEC Lessons

041-061-6176-J Crew maint 105-MM howitzer M101A1
043-441-1058-J TWT monthly alignment—FAAR
011-113-7221-A PMCS for AN/GRC-160, AN/PRC-77
222-011-6230-F Op PM on PU-619/M
231-906-3017-A AN/URR-71(R-1518/URR) Op maintenance, troubleshooting
231-906-3018-A AN/URR-71(R-1518/URR)
231-906-4054-A Power installation AN/TRD-23/23-A
231-906-4110-A Install KW-7 in AN/GRC-122

231-906-5031-A AN/URR-71(R-1518/URR) Op and troubleshooting
231-906-5570-A AN/TRR-33 whip antennas
551-101-8067-A Select supplies for issue (DLOGS)
551-101-8077-A MHE operator
551-101-8078-A PMCS for forklift truck
551-101-8080-A Unload and load flatbed trailer
551-101-8081-A Unload and load a MILVAN
551-101-8082-A Repack and reinforce fiberboard box
551-101-8083-A Repack &

reinforce wooden box
551-101-8084-A Stencil identification markings on box
551-101-8085-A Clean items of supply
551-101-8086-A Dry items of supply
551-101-8087-A Apply temporary preservatives
551-101-8088-A Package items of supply
610-091-6586-A Replace accelerator pedal and throttle linkage on M561/M792 Gama Goat
610-091-6656-A STE/ICE on 1/2-ton truck M151 series

M67 Heater Hood

You can now get the hood assembly for the M67 immersion heater with NSN 4520-01-136-5495.

Space Heater Wrench

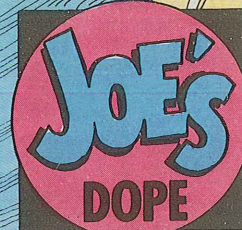
Need a replacement for the open-end wrench that came with your M1941 or M1950 space heater? Use NSN 5120-00-293-0809. It has the same 3/8-in and 9/16-in ends as the old wrench. Pencil the number in TM 10-4500-200-13 so you'll have it handy.

4,000-lb RTFL Tire Tip

Got a slow leak in a 4,000-lb RT forklift tire that you can't find? Could be caused by rust on the inside of the rim. Several newly-delivered forklifts have had this problem. A little rust there keeps the bead from sealing. Remove it by lightly sanding the inside of the rim.

Sitting Pretty?

If a crew seat back cover in your OH-58A/C has seen better days, ask for a replacement with NSN 1680-00-421-1322.



FOD..

Only YOU Can Prevent It!

WHAT A STRANGE ASSIGNMENT, JIM...

AN UNIDENTIFIED OBJECT APPEARED ON THE DEW SCREENS FOR AN INSTANT...

... THEN DISAPPEARED... SOMEWHERE IN THE VICINITY OF BALD MOUNTAIN OVER THERE...

LET'S MAKE A PASS TO SEE IF WE CAN SPOT ANYTHING...

HEY... WHAT TH'...

THWUP... CRACK-TH-WACK

SOUNDS LIKE TROUBLE WITH OUR TAIL ROTOR DRIVE SHAFT!!

OH, FINE!!

WE GOTTA SET 'ER DOWN... PRONTO...

... AND THE TOP O' BALD MOUNTAIN IS OUR SAFEST BET...

THAK THWACK

WHEW! THAT WAS CLOSE!

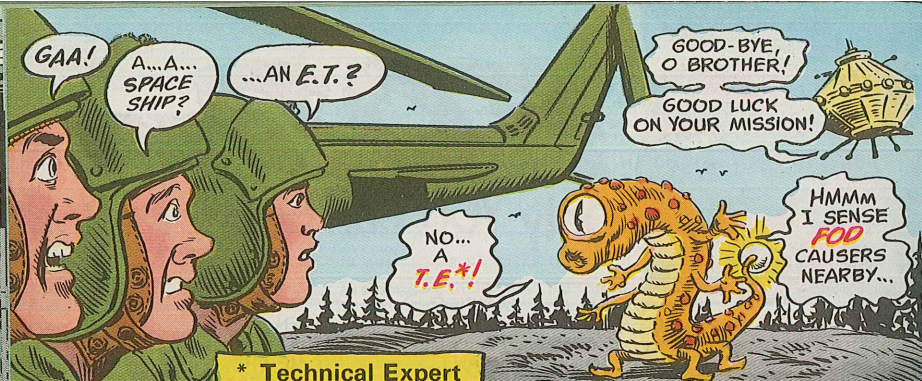
SGT. HILL... SEE WHAT'S WRONG BACK THERE!

YESSIR!

...ER...

WOT'S THAT--?

FOD FOD FOD YUM FOD...



GAA!
A...A...
SPACE
SHIP?
...AN E.T.?

GOOD-BYE,
O BROTHER!
GOOD LUCK
ON YOUR MISSION!

NO...
A
T.E.!

HMMM
I SENSE
FOD
CAUSERS
NEARBY...

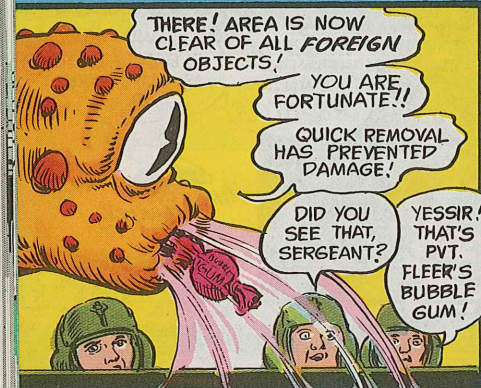
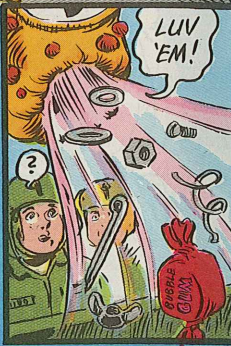
*** Technical Expert**



AH--HERE THEY
ARE--IN THE
DRIVE SHAFT
TUNNEL...

FOD MATERIALS
ARE MY FAVORITE
FOOD!!

LUV
'EM!



THERE! AREA IS NOW
CLEAR OF ALL **FOREIGN**
OBJECTS!

YOU ARE
FORTUNATE!!

QUICK REMOVAL
HAS PREVENTED
DAMAGE!

DID YOU
SEE THAT,
SERGEANT?

YESSIR!
THAT'S
PVT.
FLEER'S
BUBBLE
GUM!



HMMM... THIS LAST
OBJECT IS ODD
FOD!



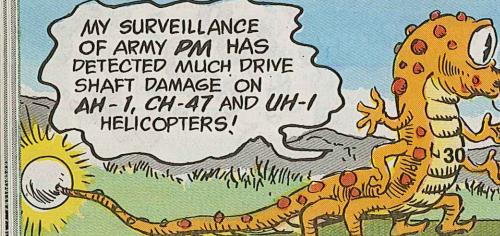
I LIKE
IT!

I LIKE
IT!

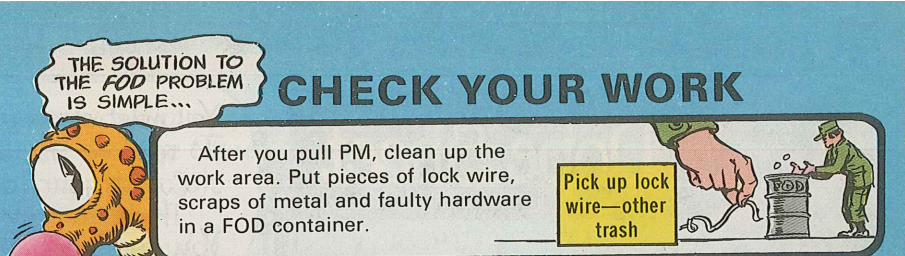


NOW, EARTH SOLDIERS,
BE AWARE!! **FOREIGN**
OBJECT DAMAGE (**FOD**)
IS ON THE INCREASE --
PART OF MY MISSION IS
TO STAMP IT OUT!

JUST LATELY SCREWDRIVERS
PLIERS AND OLD DRIVE SHAFT
MOUNT BOLTS HAVE CAUSED
DAMAGE TO SHAFTS
AND HANGERS!



MY SURVEILLANCE
OF ARMY **PM** HAS
DETECTED MUCH DRIVE
SHAFT DAMAGE ON
AH-1, CH-47 AND UH-1
HELICOPTERS!

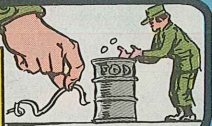


THE SOLUTION TO
THE **FOD** PROBLEM
IS SIMPLE...

CHECK YOUR WORK

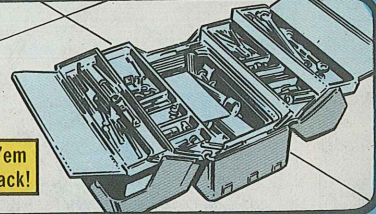
After you pull **PM**, clean up the
work area. Put pieces of lock wire,
scraps of metal and faulty hardware
in a **FOD** container.

Pick up lock
wire--other
trash



Before you close your tool box,
make a final inspection of the work
area for any tools that you may
have left behind. Also, check your
tool box to make sure all tools are
present 'n' accounted for.

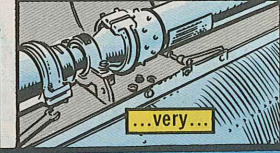
Put 'em
all back!



There are so many curved surfaces on aircraft cowlings it's hard
to find a level place from which to work. So drive shaft tunnels
are a favorite place to lay tools, "temporarily." Eyeball the tunnel
area thoroughly.



Check this
area...



...very...



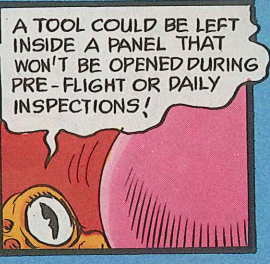
...thoroughly



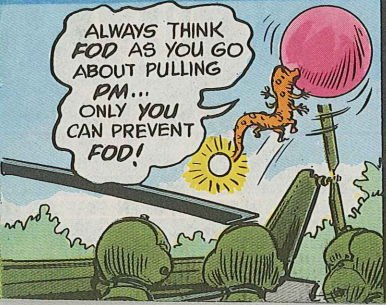
ALWAYS LEAVE THE
WORK AREA AS CLEAN
AS YOU FOUND IT!



YOU CAN'T DEPEND ON
THE CREW TO FIND
EVERY PIECE OF **FOD**
MATERIAL!



A TOOL COULD BE LEFT
INSIDE A PANEL THAT
WON'T BE OPENED DURING
PRE-FLIGHT OR DAILY
INSPECTIONS!



ALWAYS THINK
FOD AS YOU GO
ABOUT PULLING
PM...
ONLY YOU
CAN PREVENT
FOD!



SO LONG, TERRANS,
I HAVE OTHER
SOLDIERS TO
ENLIGHTEN!
HERE'S A
TOKEN OF
MY VISIT!



IT--
IT'S A
POSTER
!!

HURRY, MEN! LET'S
GET BACK TO BASE!
HAVE WE GOT A
REPORT TO MAKE!
**FOD... T.E.'S...
UFO'S...**

Joe's

Dope Sheet

You must clean up your work place, my Friend,
To reverse the aircraft damage trend!
Count your tools; can the trash
That can bring on a crash--
You can chop FOD to an end!!

RIGHT,
T.E.!!

START A NEW
TREND, TROOPS...

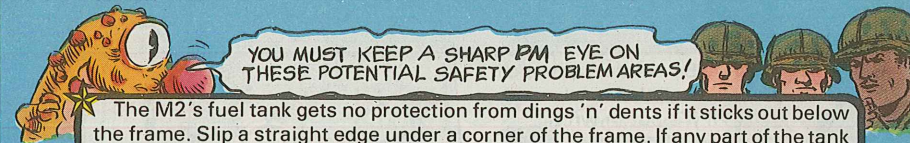
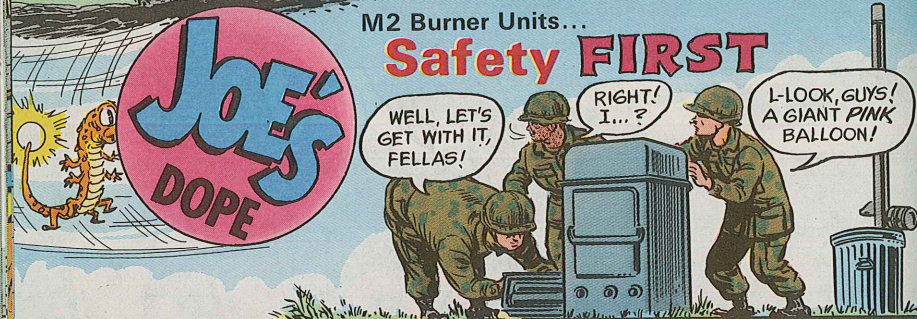
**NO
FOD!!**

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.



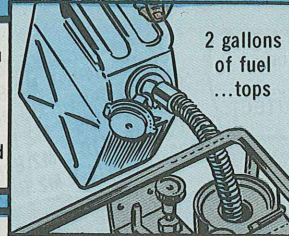


The M2's fuel tank gets no protection from dings 'n' dents if it sticks out below the frame. Slip a straight edge under a corner of the frame. If any part of the tank touches it, add just enough washers, NSN 5310-00-639-7554, to the 4 fuel tank



mounting brackets to raise the tank to safety. Don't add too many, tho. The tank'll get in the generator's way.

Static electricity builds up when you pour fuel from the 5-gal fuel can into the M2's fuel tank. One spark can send you into orbit.

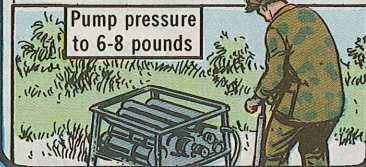


2 gallons of fuel ...tops

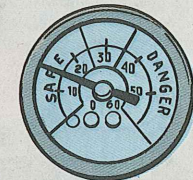
Keep the can's metal spout in contact with the metal fuel tank while you're pouring. That'll defuse the static electricity threat.

Keep the fuel tank full to head off condensation...but not too full. Only fill the tank to the bottom of the filler tube. There has to be enough air in the tank to expand and pressurize the fuel when the temperature rises.

Use hand inflating pump, NSN 4320-00-852-9036, to pressurize the burner until the pressure gage reads 6-8 PSI. Never use a compressor or the auxiliary air supply hose from a vehicle. They put out too much pressure.



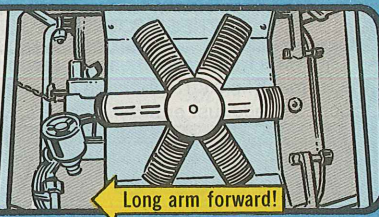
Watch the pressure gage when you fire up the burner unit. If it hits 20 PSI, turn the flame down. If the pressure keeps on rising, shut the burner unit down and let it cool off.



Don't let pressure get above 20 PSI

Never operate the burner without a clean, shiny top shield. The shield directs the heat upward...away from the burner unit's fuel supply. Never use abrasives to clean the top or bottom shields. Abrasives dull the surface...and the shields won't reflect heat as they should. The shinier the shield, the better it works. You get more heat for cooking and less danger of a fuel tank exploding.

Be careful how you install the star burner. If it's put in wrong, you'll get a fuel flood in the mixing chamber. Always make sure the long arm is toward the front.



Your pubs are the best maintenance tools you can own. TM10-7360-204-13&P and FM 10-23 keep you up on use and maintenance information.

TM 10-7360-204-13&P

FM 10-23

Keep your M2 maintenance know-how razor-sharp with Training Extension Courses (TEC).

HERE'S A LIST TO GET YOU STARTED...

800-101-8407-F M2 Burner Unit: PM
800-101-8408-F M2 Burner Unit: Before-Opn Maint
800-101-8409-E M2 Burner Unit: Operation
800-101-8410-E M2 Burner Unit: After-Opn Maint
800-101-8411-E M2 Burner Unit: After-Opn Maint of Preheater

TEC LESSONS ARE AVAILABLE THRU YOUR LOCAL TRAINING AIDS SUPPORT CENTER.

O.K. T.E., WE'VE FOLLOWED YOUR INFO!

LET'S LIGHT UP THE M2! GIMME A MATCH, ED--

MATCH? --ULP!

WE DON'T HAVE ANY!

OH, NO! NO FIRE... NO COOK!

WE'RE DOOMED, GUYS!

? MAYBE NOT...

LOOK!

T.E. DID IT... LIT IT WITH HIS TAIL!

LATER?...

THANKS, SERGEANT!

WE COULDN'T HAVE WITHOUT T.E....OR ... WHERE IS HE?

HE JUST LEFT... SAID THERE'S AN ARMOR UNIT NEARBY THAT NEEDS HELP!

CONGRATS, MEN... CHOW'S GREAT!! DIDN'T THINK YOU COULD DO IT!

36

AIR MOBILITY

'Plug' for the Birds!

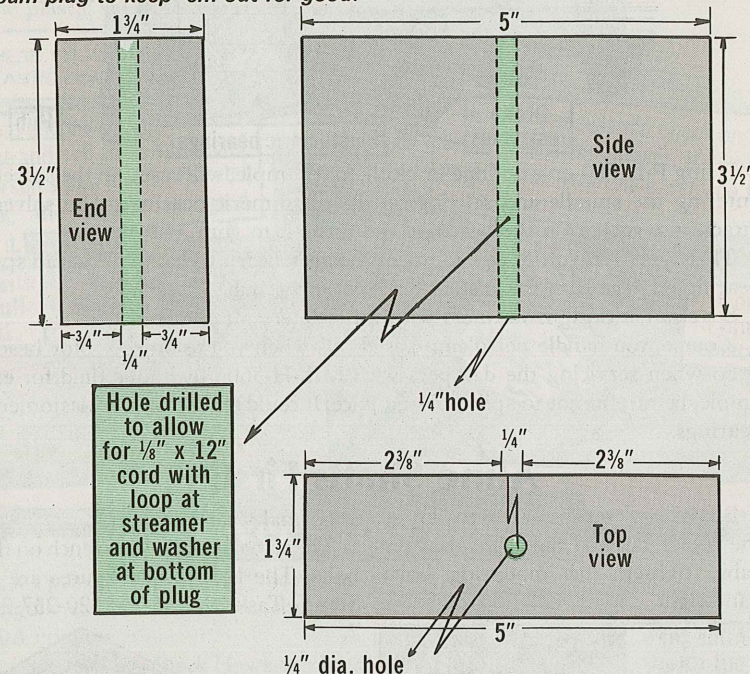
WOULDJA LOOKIT THAT, MABEL!

DOWNRIGHT INHOSPITABLE, ALFIE!

Dear Editor,

There is a problem with the handhold on the Black Hawk tail gear box cowling—birds flock in there and set up housekeeping in a matter of minutes.

Removing the nests can be a never-ending chore, so we came up with a styrofoam plug to keep 'em out for good.



We attached a 5-ft-long streamer labeled REMOVE BEFORE FLIGHT to the plug.

The plug saves time and prevents the possibility of foreign object damage in the pylon area.

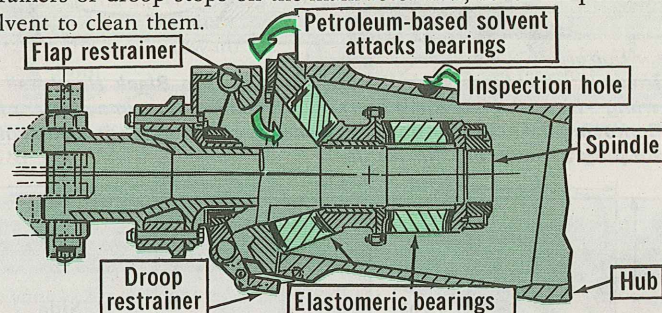
(Ed Note—A good idea but make it out of plywood. Styrofoam can break and possibly give you foreign object damage.)

SSG Thomas Jeffery
101st Abn Div (Air Aslt)
Ft. Campbell, KY

37

Save the Bearings!

When you Black Hawk mechs mount the UH-60A to correct sticking anti-flap restrainers or droop stops on the main rotor hub, **never** use petroleum-based solvent to clean them.



Using P-D-680 on a sponge or cloth, for example, will result in the solvent entering the spindle and settling on the elastomeric bearings. The solvent attacks the rubber on the bearings and turns it to gum.

That type of revoltin' development means a bearing change. You can spot bearing damage thru the inspection hole in the hub.

So, clean sticking restrainers with **mild detergent** and water.

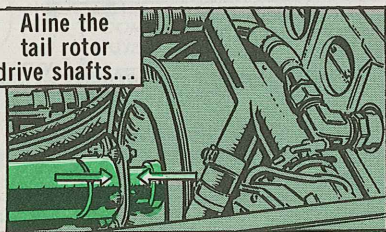
'Course, you handle petroleum-based oils when you're on the rotor head.

So when servicing the dampers with MIL-H-5606 hydraulic fluid, for example, be careful not to spill that red juice. It could end up on the elastomeric bearings.

Aline Shafts First!

Black Hawk mechs: when you lower the cooler fan and radiator into your baby, tighten the mounting bolts hand-tight.

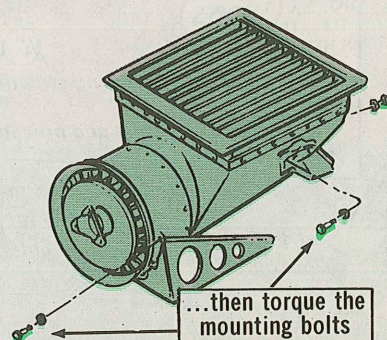
Aline the tail rotor drive shafts...



The idea is to align the tail rotor drive shafts so you don't have any

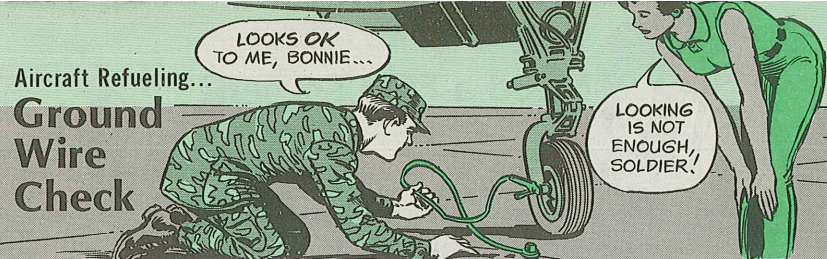
abnormal wear on them.

Then, make with the wrench on the bolts. The bolt torque figures are in Step 6, Task 29, TM 55-1520-237-23-7.



Aircraft Refueling...

Ground Wire Check



The monthly visual inspection for ground wires that's called out in FM 10-68, Para 3-10 (2)c, doesn't help much on hi-visibility yellow ground cable, NSN 4010-00-286-2681. You need special procedures to find out if the wire inside the plastic sheath is damaged.

USE THESE STEPS TO TEST THE PLASTIC COATED CABLE...

- Clamp one end of the cable in a bench vise and pull on the other end. If one person's pull makes it stretch or break, the cable's no good. Replace it.

Make with the pull test!

- Run a resistance check on the cable with a multimeter. If you get over 5 ohms resistance, replace the cable.

If over 5 ohms, replace it!



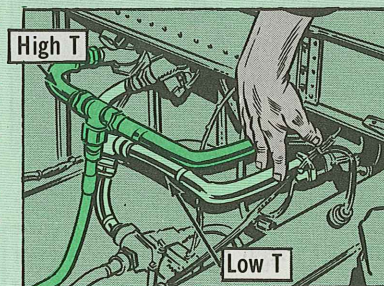
Never Cross the T's

It's possible to Murphy* the fire extinguisher connections to the UH-60A engines.

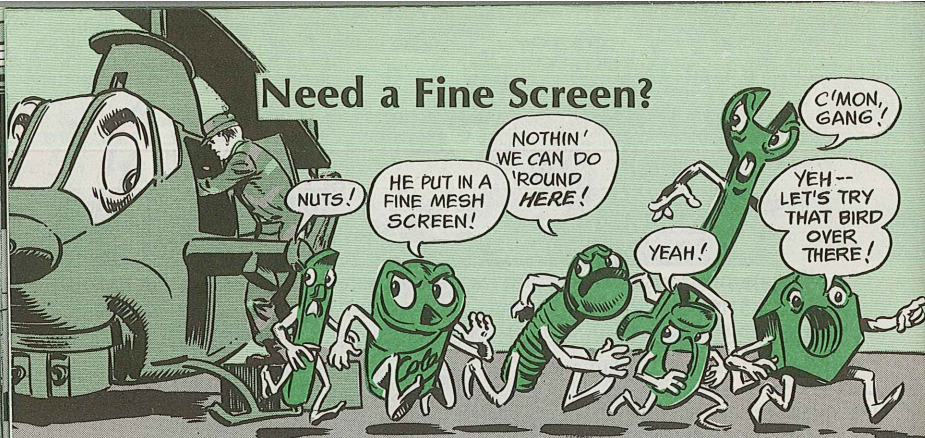
In that event, Black Hawk mechs, a pilot pulling the extinguisher for a bad engine would actually be putting the good engine out of commission.

Never cross the T's after your 500 flight-hour weight test of the fire extinguisher bottles. Reconnect the high T to the No. 2 (right) engine and the low T to the No. 1 (left) engine.

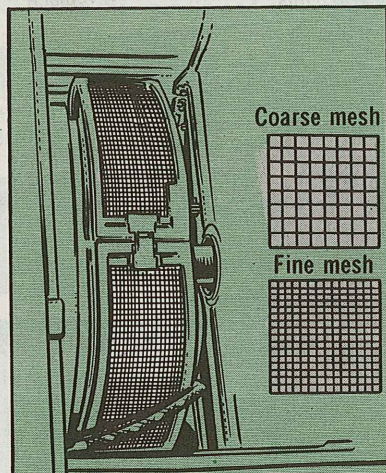
*Murphy's Law: If a part can be installed wrong, it will be.



Need a Fine Screen?



During the next Phase Maintenance on your Cobra, eyeball the engine FOD screen. It's important.



If you only have the coarse-mesh screen, you also need a fine-mesh screen wrapped around it.

It seems that when MWO 55-1520-221-30-48 removed the bulky engine air inlet screen, not all the aircraft got the replacement fine-mesh screen called for in the mod.

In that case, you have to add the screen.

Fig D-185 in TM 55-1520-236-23 shows you how to make the screen but not how to install it. So, follow these steps:

Cut the screen in half, lengthwise. You're only allowed an overlay of 2 mesh openings and a .070-in gap.

To prevent overlapping of your screen on the back edges of the FOD screen, make some wedge cuts in the screen you made.

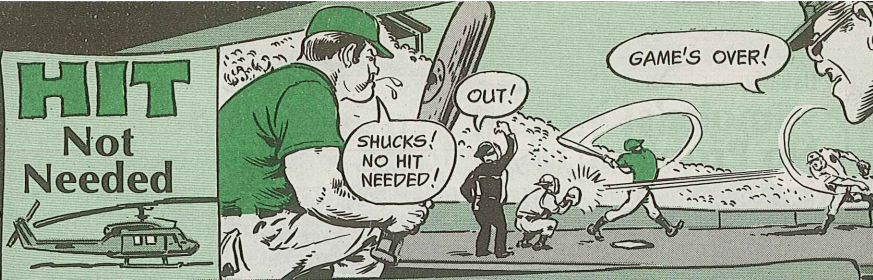
Line your fine-mesh screen along the leading edge of the FOD screen. Then, form the screen to the FOD screen.

Using any of your stainless steel lock wire, secure one end of the screen. NSN 9505-00-293-4208, for example, will do the trick. Lace every fifth opening along the outer perimeter of the screen to the FOD screen.

'Course, you have to cover both halves of the FOD screen.

To prevent the edge of the screen from snagging your fingers during maintenance, you can add some Pro-Seal around the outer perimeter.

HIT Not Needed



Dear Windy,

When we remove a T-53 engine from an aircraft to pull other maintenance, is a new baseline standard health indicator test (HIT) check needed?
SP4 I. F. G.

Dear Specialist I. F. G.,

No. You need C1 (11 Feb 82) to TM 55-2840-229-23. Para 1-116 has the latest word.

YOU NEED
A NEW
BASELINE
STANDARD
HIT WHEN...



A new or overhauled engine is first installed. When maintenance is to be done that affects the fuel flow, air flow or gas path of the engine. When a new baseline standard turbine engine analysis check (TEAC) is scheduled.

If Needed...

Add a Washer

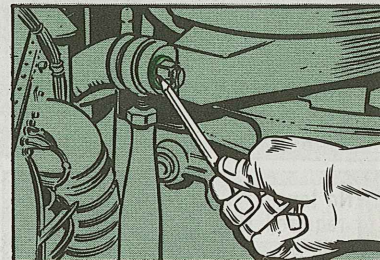
NUTS! CAN'T
LINE UP THE
COTTER PIN!



When you're attaching the AH-1G/TH-1G cyclic hydraulic servo to the swashplate, as shown in Detail B, Fig 7-20 of TM 55-1520-221-23, you use 2 special washers, PN 140-007-33-28C4, NSN 5310-00-911-9446. One goes under the bolt head and one under the nut.

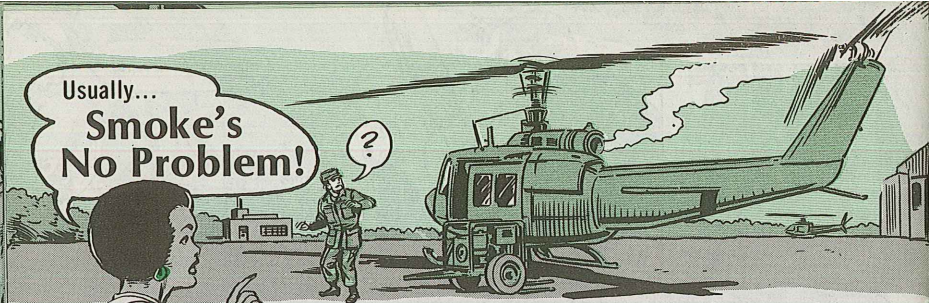
So far, so good!

If you can't line up the cotter pin with the nut after you make with the torque wrench, tho, it's OK to add a regular flat washer.



Add washer, AN960-PD816, NSN 5310-00-167-0751, under the nut. It's listed in Fig 252 of TM 55-1520-221-23P.

Usually...
**Smoke's
No Problem!**



The No. 3 main bearing seal in a T-53 engine may work fine during engine operation. But in a static condition, some oil may drip past the seal and puddle in the tailpipe.

You'll get a little smoke when the engine is cranked up. No sweat!

You don't have a problem unless oil consumption is more than 2.4 pints per hour, according to Troubleshooting Procedure 29 on Page 1-162 of TM 55-2840-229-23.



Stains
here?

If an oil burner has dark brown or black oil stains on the rear face of the power turbine disk or on the struts, and smokes, the second stage turbine rotor seal has to be replaced.

Before you move the bird to AVIM, you can get confirmation of the problem by calling Corpus Christi Army Depot at AUTOVON 861-2651 or -2652.

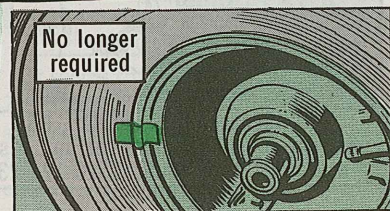
Nix on Slippage Marks

Dear Windy,
Para 3-14n of TM 55-1520-227-23/2 says that the CH-47 needs tire slippage marks.

Para 5-11g of TM 55-2620-200-24, on tires and tubes, says that tire slippage marks for Army aircraft are no longer required.

What gives?

SGT R.E.J.



No longer
required

Dear Sergeant R.E.J.,

Go with the word in TM 55-2620-200-24.

THE TIRE SLIPPAGE
MARK REQUIREMENT
IS BEING DELETED
FROM ALL INDIVIDUAL
AIRCRAFT PUBS!

Cobra Seals

The AMDF tells you to fabricate the special rubber seal, NSN 5330-00-986-6284, for your Cobra's baffle air assembly. No fabrication is needed. That NSN gets you the complete seal. Put Advice Code 2A on your request.

Every 'Phase'

TB 55-1520-227-20-22 calls for a one-time inspection of variable inlet guide vanes on a CH-47C T55-L-11ASA engine. To prevent compressor blade failure due to excessive wear, you also need to make the check at every Phase Maintenance inspection. The word's in TSARCOM Msg CH-47-81-15.

Follow the Manual

Replace the servo supply filter element in the fuel control of a T53 engine at the intervals listed in Para 1-64 of TM 55-2840-229-23. You don't have to replace the element every 50 hours. That info is being removed from the special inspection section of TM 55-1520-234-23-1 on the AH-1S(Mod).

Short Stopper

Stop water and moisture from shorting out your Cobra's starter generator with a dab of silicone compound, NSN 6850-00-880-7616. Apply the compound to connector plug, NSN 5935-01-038-6480, before hooking in to the wire bundle, PN 209-075-070-21.

Rescue Hoist OK?

If you dustoff types have a deficiency in your high performance hoist, NSN 1680-01-058-3671, it's under warranty for the first 100 hours of operation, or 2 years after delivery—whichever comes first. TSARCOM Supply Letter 13-82 has the info about processing a claim.

For a Good HIT...

Some pilots, when making the Health Indicator Test (HIT), are using the next highest outside air temperature (OAT) reading. That's wrong! Using the next highest reading will make for false, negative results. Use the nearest OAT reading, as outlined in Para 1-116, TM 55-2840-229-23-1—except when the OAT falls dead center between 2 temperature marks. If you get a middle reading, record the next lowest figure.

Aviation Messages

UH-1-82-03 Inspect servo wire drive rod DRSTS-MEA 021730Z Jul 82
CH-47-82-05 Change in forward and aft transmission filter inspection DRSTS-MEC 162100Z Jul 82
CH-47-82-06 Restriction: Night operation with night vision goggles DRSTS-MEC 261405Z Jul 82
T-42-82-01 Replace wing bolts DRSTS-MEC 202030Z Jul 82
OV-1-82-01 Inspect wire chaffing at "top hat" bracket DRSTS-MEC 151830Z Jul 82
UH-60-82-08 Inspect engine output shaft assy DRSTS-MEA 031500Z Jul 82
UH-60-82-09 Inspect gimbal DRSTS-MEA 021930Z Jul 82
UH-60-82-10 Service life for main rotor blade tip cap DRSTS-MEA 081430Z Jul 82

Cat 1 EIR Phone:
AUTOVON 693-2066
(24 hours)

Grounding G-106

REMEMBER, SOLDIERS, THAT AN/GRC-106 MUST BE PROPERLY GROUNDED...

YOUR SAFETY IS AT STAKE!

If just being around your AN/GRC-106 radio set gives you a tingly feeling all over, you'd better check your grounding.

A tingle or spark is your warning that dangerous electricity is floating around. The next time it may give you a real charge.

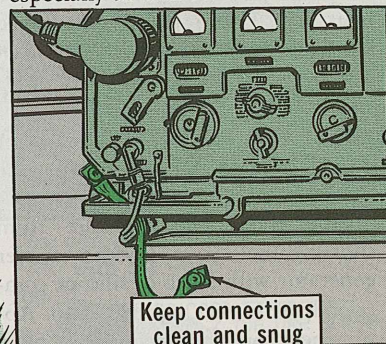
Your first line of defense is the grounding strap on your set. The 14-in lead you need is NSN 5995-00-173-6141.

The lead is attached to the corner hex-head screws of your receiver-transmitter or amplifier, depending on your installation.

COURSE, WHATEVER YOUR SETUP, SOME RULES ALWAYS APPLY!

Keep connections clean. Be sure no paint, dirt, grease or other non-conductor gets in the way of your connections.

Corrosion is an enemy, too. Watch for it on ground rods, straps and especially at connections.



Keep connections clean and snug

Keep connections tight. Tying a broken ground strap into a bow is a no-no. And, remember that an alli-

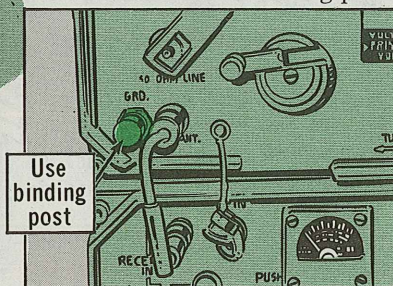
UNDERSTOOD, SERGEANT!

WAY TO GO!

gator clip is not as dependable a fastener as a bolt or screw.

To complete the grounding of your big AM set, fasten the other end of the grounding strap to the mounting shelf.

If your -106 components are mounted side-by-side, both must be grounded to the shelf. If they're stacked, tho, only the RT is grounded to the shelf. The amplifier is grounded to the vehicle chassis by another strap connected to its GRD binding post.

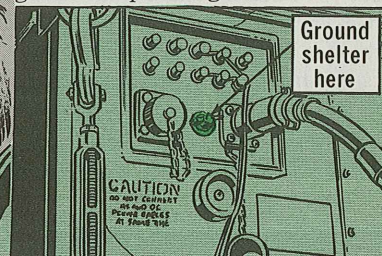


Use binding post

If your radio is in a shelter, the same rules apply. In this case, tho, the strap from the GRD binding post goes to the equipment rack, shelter wall or other convenient point.

That's only part of the battle. Now you've got to ground the shelter.

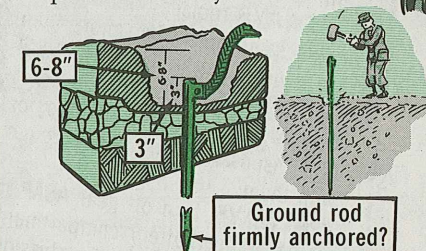
Start by fastening your outside ground strap to the ground terminal in



Ground shelter here

the power entrance box. That's the spot designed into the gear by the engineers. Others may seem as good, but they're not. Go by the book.

Finally, be sure your grounding rod is firmly anchored. Do that by first digging a hole a few inches deep. Drive the rod with light blows. This keeps the earth fairly intact so it acts as



Ground rod firmly anchored?

a better conductor. Drive the rod as deep as you can. Try to get within a few inches of the bottom of the hole.

More good poop on grounding techniques and materials is in TC 11-6.

Night-Sight Cells...

Know Battery Etiquette

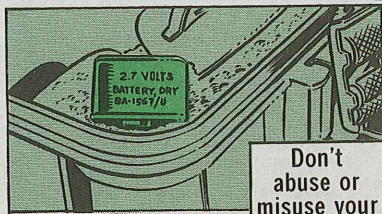
You won't find it on the package, but you'd better believe it: The use of mercury and lithium batteries, like those in your night vision equipment, can be hazardous to your health.

The BA-1567 mercury battery and its lithium replacement, BA-5567, are a pair to watch. If you abuse or misuse 'em, they can turn on you.

DUNNO--BUT I THINK I HEAR A SNAKE!

HEY... DO I SMELL A SKUNK?

SOLDIER--TURN OFF THOSE GOGGLES--QUICK!!



Don't abuse or misuse your batteries!

TO KEEP 'EM AT BAY, KNOW THESE DO'S...

ALWAYS remove batteries when the gear will be out of use for a while. To keep from shorting 'em during storage, put 'em back in the shipping box. If that's not handy, just tape the terminals.

ALWAYS replace both batteries at the same time when more than one is used, like in your AN/PVS-4 and AN/TVS-5.

ALWAYS turn in batteries for PDO disposal when you're through with them.

ALWAYS turn off gear ASAP if you feel the battery compartment heating up, hear the battery hissing or smell the irritating odor of sulfur dioxide. Then, **always** wait for the battery to cool before removing it.

NEVER crush, puncture, disassemble or otherwise mutilate.
NEVER heat or burn.
NEVER short circuit.
NEVER try to recharge.
NEVER use batteries that have bulged or burst. Turn 'em in for a trip to the PDO.

...AND THESE NO-NO'S!

BB-622 Battery...

Charging Update

To get the best out of your AN/PVS-5 radar set's silver-zinc power source, you've got to put your best in at charging time.

Here're a few tips to help you do just that:

Use only the PP-4127 battery charger for the job. Keep the battery cover off and watch for gassing.

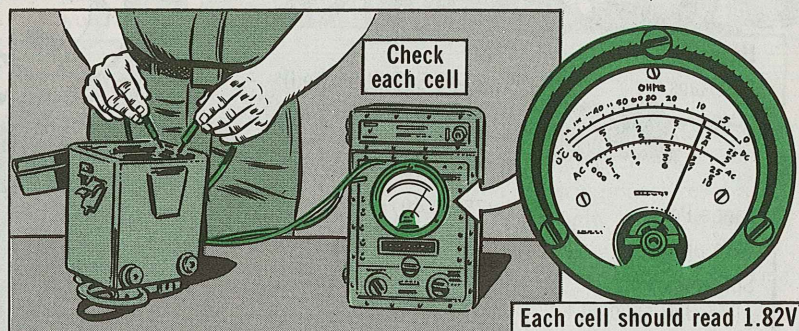
If the charger kicks out before 15 hours and keeps cutting off at 8.1 (+ or - 0.1) volts after resetting, make sure the cable connections are clean and undamaged.

Eyeball the top terminal nuts to be sure they're clean and tight.

Then, if the battery won't charge right after an extra 24-hour waiting period, turn it in.

If charging time goes past 20 hours, look for a short or a bad charger.

Heavy gassing in 3 of the 4 cells with the charger going is a sure tipoff to a short. Check each cell individually. If one is shorted, turn the battery in.



The above tips are for initial charging. Never discharge a battery below 5.2 volts. During recharging, the charger will trip when the battery is fully charged, usually at 8.1 (+ or - 0.1) volts).

Once it trips, let the BB-622 cool. Press the charge circuit ON. If the charger shuts off in 5 to 15 minutes, the battery's ready.

If your fully-charged battery won't power your radar for at least 4 hours, turn it in for another one.

Feeling
Strung
Out..?

Wire Holds It All Together

When your unit operates in the field, wire is what helps hold everything together. If your wire technique is lousy, so's your unit's commo.

Here're a few tried and true tips to get you in and out of the field in good shape.

Gettin' Ready

Bone up before you go. FM 24-20, Field Wire and Field Cable Techniques, gives you lots of tips on how to lay, recover and splice field wire. It also shows you all the accessories you'll need.



Item	NSN
Wire tags	9905-00-537-8954 (red)
	9905-00-537-8955 (yellow)
	9905-00-537-8956 (green)
	9905-00-537-8957 (white)
Lance Pole	5975-00-407-6371
Wire pike	MILP43116ATYPE1-9FT FSCM 81439
Splicing sleeve (MK-356 splicing kit)	5940-00-818-1774
M-221 terminal board	5940-00-164-8112
TL-636 electrical tape (for use in temperate or tropical zones)	5970-00-685-9059
TL-600 electrical tape (arctic or cold weather)	5970-00-240-0620
TL-83 insulation tape	5970-00-644-3167

48



In the Field

If you've boned up on your FM, wire laying can be a snap. Still...

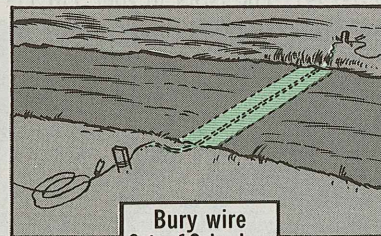
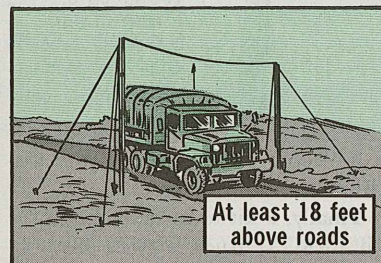
If you're crossing a road, the best

way to get the wire to the other side is dig a trench for it. That keeps vehicles off.

But, if you're in a big hurry, use lance poles or something similar to run the wire overhead.

Be sure it's high enough to allow the tallest vehicle underneath.

If you're stringing wire through trees, use a weight to throw the wire over limbs. If you've got 'em, nose plugs from howitzer shells work fine.

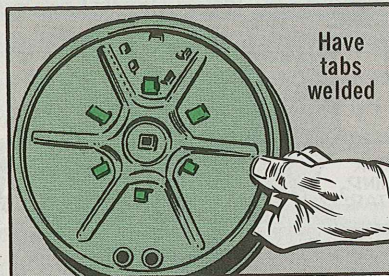


Nose plug
makes good
weight

49

Keep your wire-laying equipment in good shape with solid PM.

Your DR-8 spool, for instance. Watch those tabs. If your spools still have the bent-over tabs, get your support to tack-weld 'em as soon as



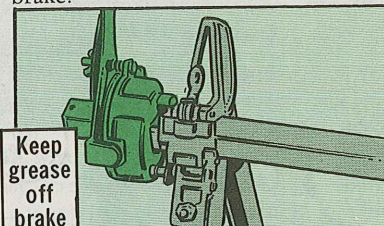
you can. If you don't, the disks can pop off and leave you a wire-y mess.

Treat your RL-39 with respect, too. Once it's unserviceable, you can't repair it. There are no parts in the system.

Keeping your RL-31 fit means keeping it lubed. Like Para 22c of TM



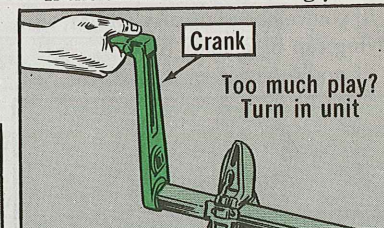
11-362 says, grease it every 8 hours of use. Then, after 40 hours, clean it and regrease. Be sure to keep grease off the brake.



When you paint your reel, leave the bearings out of it. Paint there can grind you to a halt.

Use the crank for reeling in only. When paying out wire, the crank becomes a free-wheeling club. Remove it before it removes your head.

If the crank doesn't fit snugly on the



axle—too much play—turn your machine in. It's unserviceable.

Finally, a kit to install your RL-31 on an M151 truck is NSN 3895-00-537-7947. The NSN in your TM 11-362's C7 has been dropped from the system.



Coming Home

When you're packing it in to go back to post, take as much wire with you as you can.

Wear gloves to protect your skin, and lift the wire off the ground as much as possible to protect its skin.

When you get time, in the field or at your unit, look over the wire to see what you've got.



Get some help, an extra reel, your tape and splicing equipment and go through your recovered wire.

As you reel it neatly onto the spare reel, eyeball it closely. Clean it as it winds past, too.

Look for cuts, excessive splices, worn spots, jacket deterioration and other damage.

If a bad spot covers less than 3 inches of wire, tape it. If it's longer, cut it out and splice.

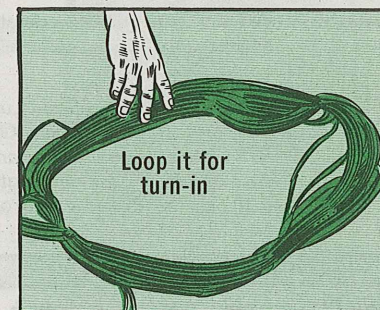
To help you decide what to keep and what to turn in, use these guidelines:

Check loop resistance with a multimeter. WD-1 should show 200-230 ohms per mile at 70°F. Cold weather drops resistance. Also, wire length and resistance change proportionately. A ½-mi loop will have 100 to 115 ohms resistance, for instance.

A considerably higher reading shows bad splices or a break. Lower readings show a short circuit.

OK, it meets the multimeter test. Look again. Wire with more than 4 splices per ½ mile is good only for training.

If it fails both tests, turn it in. Check with your PDO for turn-in requirements. You shouldn't have to cut it into strips. That's dangerous and unnecessary.



If PDO doesn't care, why not tie it into loops. Turn it in at a rate of 48 pounds per mile.

DON'T FRET! B COMPANY IS DUE TO BIVOUAC HERE NEXT WEEK...

NUTS! LOOKS LIKE ITS LIGHTS OUT!

YEH -- AN' THEY'LL BE DAYS GETTIN' THEIR WIRE ACT TOGETHER!

TROOP
SUPPORT

Slings 'n' Cables

WIRE ROPE

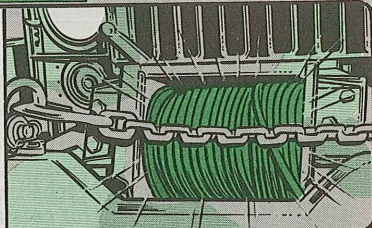
umpus

TAKING CARE
OF WIRE ROPE AND
SLINGS IS MORE THAN
JUST DOING THOSE
THINGS CALLED FOR IN
THE PMCS TABLES!

PROBLEM: Spit polish, brass-button-shiny wire rope.

CAUSE: Inspectionitis fever.

CURE: Protective coat of oil. Use enough to work down between the layers and strands of wire.



2 PROBLEM: Caked-on dirt, mud, slime.

CAUSE: Working environment; operator neglect.

CURE: Clean the wire soonest. Lube and protect it with new OE/HDO 30 oil. Never use old crank-case oil 'cause it's contaminated with acid that'll eat the wire rope f-a-s-t.



Use pry bar like this...



3 PROBLEM: Cable on reel or winch is crushed, kinked, birdcaged.

CAUSE: Operator inattention during winching/lifting operations.

CURE: Keep sharp lookout for pesky problems when working with running rope. Loosen a jammed cable with the pry bar resting on the reel flange...never on the rope.



...not like this!

HERE'RE
HALF A DOZEN
COMMON CAUSES OF
CABLE KONK-OUT
AND THEIR
CURES...



4 PROBLEM: Coating on wire rope flaking off.

CAUSE: Somebody used corrosion preventive compound for protection and lubrication.

CURE: No matter what your equipment's LO calls for, never use anything but new OE/HDO 30 oil on wire rope.



5 PROBLEM: New wire rope rusted.

CAUSE: Left unprotected in storage.

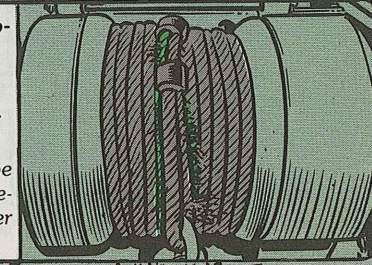
CURE: Keep wire rope in tightly closed boxes to protect it from corrosive fumes. If you can't cover it, coat the outside layer of the reel or coil with new OE/HDO 30 oil.



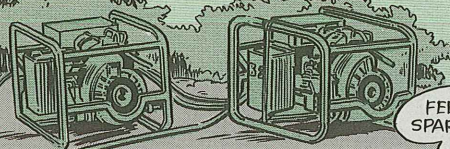
6 PROBLEM: Wrecked or damaged equipment.

CAUSE: Operator used old, worn cable.

CURE: Mark and identify wire rope taken out of service. Never reuse it on cranes, hoists, or other load-carrying equipment.



Use Spark Stoppers



FEEL SAFER WITH
SPARK ARRESTER
KITS?

YOU
BET!

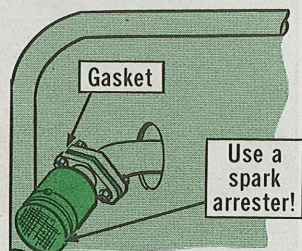
MY KINDA
PEOPLE!

Every generator you operate in National Forests and Parks during military exercises needs a spark arrester.

Here're the spark arrester kit numbers for small generators... gasoline or diesel-driven:

Generator	NSN 2990-01-032-
.5 and 1.5 KW	0755
3.0 KW	7384
5.0 KW	0757
10.0 KW	3750

These numbers are not in your parts manuals yet. Use the end item in your MTOE/MTDA as the authority for a spark arrester kit until its NSN shows up in the equipment parts manual. Each kit comes with installation info.

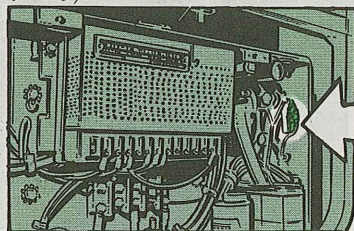


Some generator operator manuals have this word; others will pick it up in a change or revision.

MEP-026A Capacitor NSN

The C4 capacitor NSN/PN has disappeared from Fig FO-3 in TM 5-6115-271-14...and from Fig 14 in the -24P.

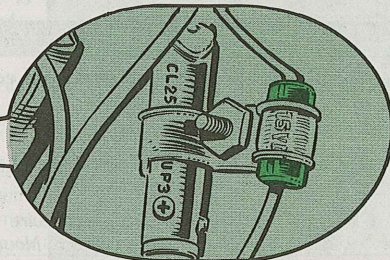
You still need it, tho, for the timing circuit on your 3-KW 28-VDC generator set that has the old style voltage regulator PN 13213E4081 (FSCM 97403).



THE TM'S
DON'T SHOW
IT!

MUST NOT NEED IT!

YES YOU
DO, TROOPS!



Use NSN 5910-01-060-9517 for a replacement 14 microfarad, 125-VDC C4 capacitor.

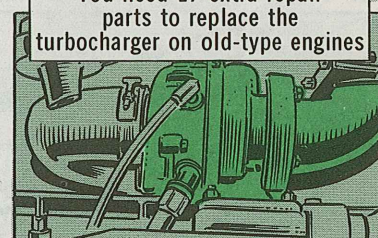
Turbocharger Parts

BONNIE, I NEED MORE THAN'S
LISTED HERE TO DO A TURBO JOB!

NO SWEAT,
SOLDIER!



You need 17 extra repair
parts to replace the
turbocharger on old-type engines



Replacing the turbocharger on a Model 645M scoop loader that has an Allis-Chalmers engine can cause a lot of extra downtime. That's because you need more than the repair parts listed for Fig 40, TM 5-3805-239-20P.

HERE'RE
THE EXTRA
17 ITEMS YOU
NEED!
THE FSCM
IS
90940...

PN	Item	Qty
74029309	turbocharger kit	1
74027765	elbow	1
70916269	cap screw	4
74026975	hose	1
74925280	clamp	2
74027713	tube assembly	1
70920280	elbow	1
74027721	tube assembly	1
74339532	gasket	1
70919224	cap screw	2
70910287	lock washer	2
74027719	hose	1
74255950	clamp	2
74027718	fitting	1
74650229	hose	1
70919225	cap screw	4
70223940	nuts	4

Turbocharger assembly, NSN 2950-00-018-2191, Item 32, Fig 40, TM 5-3809-239-20P, is not available. You'll have to use the above parts for a replacement turbocharger.

No. 1 Common...

SUPPLY

Puller Kit Parts

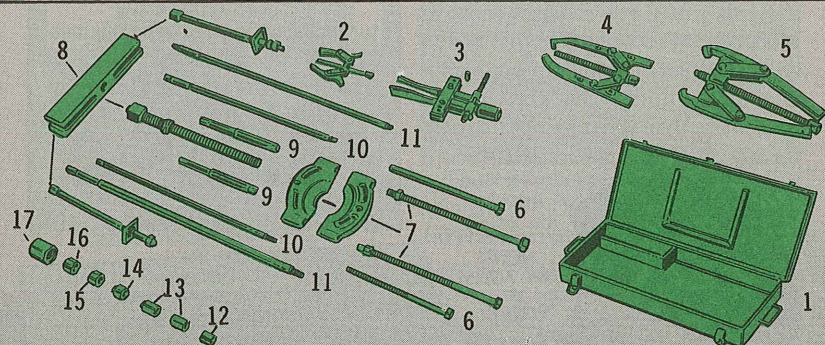
DR. I. YANKEM,
TH' POST DENTIST,
HAS ORDERED A
PULLER KIT...

WELL, HE WAS A
MECHANIC 'FORE HE
GOT HIS DDS...

D'YA THINK THERE'S
A MIX-UP?...

Changes have been made to the Puller Kit, Mechanical, NSN 5120-00-423-1596. It's a component of your No. 1 Common shop set SC 4910-95-CL-A74.

Here're the items you should have to match those in SC 4910-95-CL-A74-HR. You get 1 each unless noted otherwise.



Item No.	NSN/PN	Item
1	5140-00-357-5463	Box, Puller set
2	5120-00-595-9304	Puller, Mechanical
3	5120-00-355-6220	Puller Attachment, Mechanical
4	5120-00-030-7942	Puller, Mechanical
5	5120-00-288-7711	Puller, Mechanical
6	PN 952-3 (45225)	Bolt, Capscrew (2)
7	5120-00-711-6753	Puller Attachment, Mechanical
8	5120-00-633-5085	Puller, Pusher, Mechanical
9	5120-00-227-0633	Puller & Pusher (2)
10	5120-00-227-0635	Puller & Pusher (2)
11	5120-00-227-0636	Puller & Pusher (2)
12	5120-00-357-5180	Adapter, Mechanical Puller
13	5120-00-357-5181	Adapter, Mechanical Puller (2)
14	5120-00-357-5182	Adapter, Mechanical Puller
15	5120-00-357-5183	Adapter, Mechanical Puller
16	5120-00-357-5184	Adapter, Mechanical Puller
17	5120-00-357-5186	Adapter, Mechanical Puller

Fabric Repair Kit

HURRY!! HOW DO
WE FIX THIS LEAK?

SAYS HERE WE
NEED KIT, REPAIR,
NSN 5430-00-641-8957!

NSN 5430-00-641-8957 gets a repair kit for making temporary emergency repairs on collapsible 3,000-gal fabric water tanks, pneumatic boats, life rafts, fuel tanks and drums.

HERE'S WHAT YOU
GET FOR \$122...

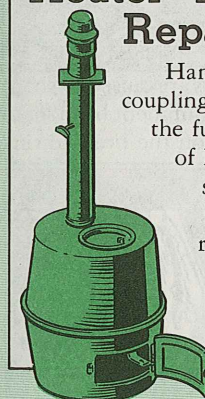
No.	NSN	Item
1a	5340-00-720-8864	3-in dia patch (4)
1b	5340-00-720-8863	5-in dia patch (2)
1c	5340-00-720-8858	7½-in dia patch (2)
1d	5510-00-255-9493	3-in lg wood plug (2)
1e	5510-00-255-9492	5-in lg wood plug (2)

Repair instructions (2)

TM 5-5430-210-12 tells you how to use the kit components.

Note these new numbers in Sect II Integral Components of End Items.

Heater Hose Repairs



Hang onto the splice coupling that comes with the fuel hose assembly of M1941 or M1950 space heaters. It's not available as a repair part, so it's the only one you're going to get.

Back Issues

NEED COPIES OF PS PUBLISHED
DURING THE PAST 3½ YEARS?
JUST DROP ME A NOTE?

Bonnie
c/o PS Magazine
Lexington, KY
40511

THEY'RE
FREE!

Tire PM Tips

TIRE COSTS CAN RUN TO 50 PERCENT OF THE OPERATING COSTS OF RUBBER-TIRED CONSTRUCTION AND MATERIAL HANDLING EQUIPMENT...

YOU CAN SAVE TIRE DOLLARS WITH GOOD OPERATOR PM!



Driving Tips

Slow down when you leave or enter the load or dump area from the haul road. Speed kills tires. Slower speed will reduce impact damage and cut-throughs.

Never skid down steep slopes. Next to outright spinning your wheels, the quickest way to strip a tire is to lock the wheels of a fully loaded machine while going downhill.

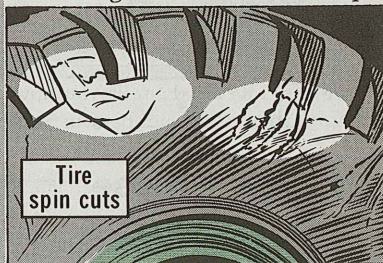
Braking a fast-moving loaded scraper or dump truck down a 20 percent grade grinds off the rubber like an emery wheel grinding down a piece of soft metal.

Keep the working area clean. Lower the bucket to the ground when you near a bank or pile of rocks or rubble. Pick up junk that could damage the tires. Loose rocks cause tire spinning and unstable vehicle handling.

Approach a pile or bank straight on. Angling into the pile exposes the front tire sidewalls to a beating from falling rocks.

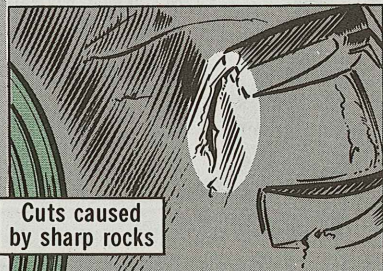
Tire Tips

Check your equipment tires often, especially in quarry areas. Look for tell-tale signs of too much tire spin



Tire spin cuts

cuts. Tire spin cuts are caused by sharp rocks when the equipment has a lot of stress and strain on the tire and rim.



Cuts caused by sharp rocks

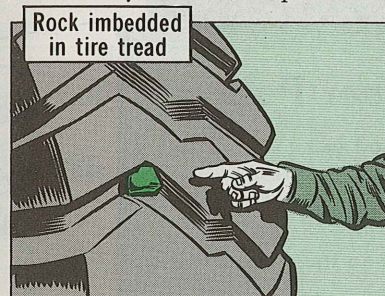
GOT ALL THE IMBEDDED ROCKS OUT, SERGEANT... BUT WE GOT SOME TIRE SPIN CUTS!

NOTE 'EM IN THE LOGBOOK... AND NOW CHECK OUT THEIR AIR PRESSURE!

GOTCHA!



Check your tires when you stop for a break. Get rid of all imbedded rocks. An imbedded rock "stone drills" right thru a tire. Every time the tire rotates, the rock is pushed deeper into the tread. Pretty soon the rock passes thru

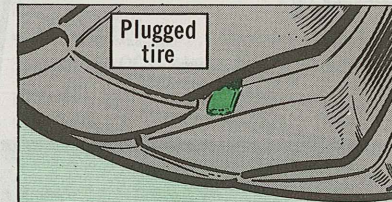


Rock imbedded in tire tread

the tread and into the soft body rubber. You're just waiting for a blowout or puncture.

Remove the rock and you stop the cut from flexing open again and picking up another one. TM 9-2610-200-20 has tire patching poop if you need it.

Keep the right amount of air in tires. Never over- or under-inflate



Plugged tire

tires to make 'em match in size or circumference. Paint the recommended cold inflation pressure on the wheel rim near the valve stem.

Never use steel-belted radial tires and bias ply nylon tires mixed on the same vehicle. You'll have loss of steering control, poor handling, maybe even mechanical damage, and uneven tire wear.

Always use the type of tire on the equipment that's designed for the job you're doing. Use matched tread design tires on drive wheels.

Replace tires that have less than $13/32$ -in tread depth.

Automated
Supply
Systems...

You'll FLUB without the PUB!

The advantage of an automated supply system is that it'll help you do your job better, easier—and faster!

But, you have to know what makes your particular system tick. The only way you can zig when the system zigs and zag when the system zags is to follow the pub tailored to fit that system.

AR 710-2, SUPPLY POLICY BELOW THE WHOLESALE LEVEL, GIVES YOU THE OVERALL **WHY'S** OF SUPPLY...

FOR THE **HOW'S**, YOU GO TO THE SPECIFIC USER'S MANUAL FOR YOUR SYSTEM...

Survey Officer Pub

Need some quick how-to's on being a property surveying officer?

FM 10-14-3, Surveying Officer's Guide, tells you how to handle a Report of Survey, decide negligence, compute costs and all the other details of that job.

Have your pubs people order a hurry-up copy on DA Form 4569.

Get on normal distribution for it by marking DA Form 12-9A, Requirements for Property Accountability-A, or DA Form 12-11B, Block 337.

Supply System

Pub

Manual

- DA Pamphlet 710-2-1, Using Unit Supply System Manual Procedures (Jan 82) with 1 interim change. (DA Pam 710-2-2 is your supply support activity's manual procedures pub.)

SAILS

- TM 38-L03-11, Standard Army Intermediate Logistics System (SAILS) Functional User's Manual (Dec 78) with 2 changes. Only units specifically operating a PLL under SAILS need this pub.
- TM 38-L03-19, SAILS Procedures for Customers (Feb 80), with 6 changes. Any unit whose requests feed through the SAILS system (almost everybody!) needs this one.

DLOGS

- TM 38-L22-15-2, Division Logistics System (DLOGS) Using Unit Procedures (Jun 78), with 12 changes.

DS4

- TM 38-L32-11 (Test), Direct Support Unit Standard Supply System (DS4) Customer (User) Procedures (Mar 80), with 4 changes.

DAS3

- TM 38-L84-12 (Test), Functional User's Manual for the Phoenix Supply System, Direct Support Unit Procedures (Decentralized Automated Service Support System) (DAS3) (Oct 81), with 3 changes.

If you need AR 710-2 or DA Pam 710-2-1, tell your pubs people to order a hurry-up copy on DA Form 4569 through AUTODIN.

But the pubs with L in the middle of the number travel a little different road.

ORDER THEM ON A DA FORM 17 FROM...

Commander
US Army Logistics Center
ATTN: ATCL-SP
Fort Lee, VA 23801

USING UNIT SUPPLY
Manual Procedure



Search for ROOTS

SO THAT'S IT...
WE'RE TRYING TO
TRACE THE ORIGINS
OF OUR *MIL3A1*...



YES...
CAN YOU
HELP?



WELL, I CAN'T
GIVE YOU A COPY OF
THE ORIGINAL FORM,
BUT...

When your local search for historical info fails, Para 5-2d of TM 38-750 tells you to contact the Materiel Readiness Support Activity (MRSA).

But tracing an item's roots leads through some tangled branches. So MRSA may be limited in what they can give you.

They cannot give you a copy of the original form. When the info is keypunched for the computer, the old forms are tossed out.

The original DA Form 2408-9 Acceptance or Gain Report info goes into the computer intact. But if or when later Transfer or Usage Reports come in, the computer replaces old info with new. Some info—like when the equipment joined the Army—may be lost.

So what do you get when you ask MRSA for help?

They supply you with any Acceptance or Gain info—that has not been replaced—and all the info from the last 2 Transfer or Usage Reports (if any were turned in).

BUT AS LONG AS
YOU HAVE ENOUGH
DATA TO FILL OUT A
DA FORM 2408-9
TRANSFER REPORT,
YOU'RE COVERED...

You must have enough info
to fill out a Transfer Report

Just put UNK for unknown in any blocks you and MRSA cannot fill on the DA Form 2408-9 Acceptance Report you keep in the consolidated binder.

If MRSA tells you they have a record of your gear, the next step's easy. Fill out a replacement form. Tuck the logbook copy in the binder and toss the other copies.

If they have no record, though, go by Para 5-8d of TM 38-750.

DA Form 2406 and Appendix E...

An Im-Perfect Match

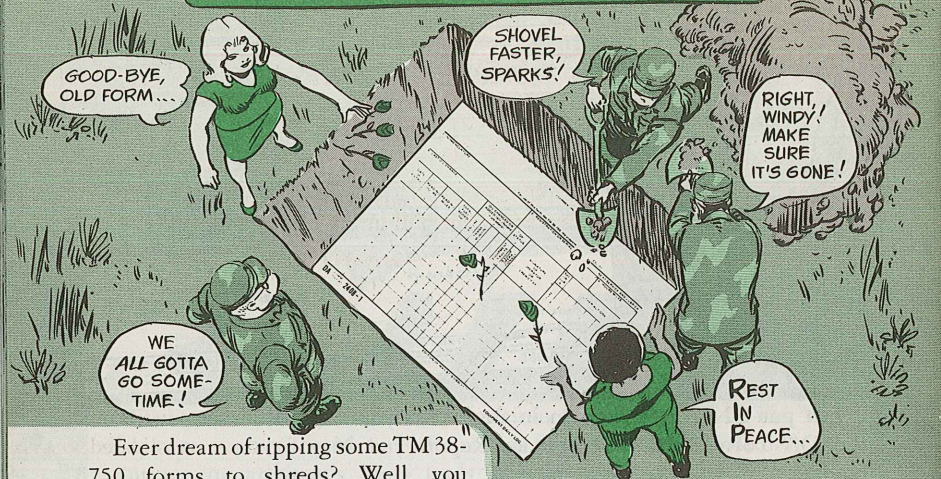
Sometimes Appendix E of TM 38-750 lags behind Para 4-6.

When your DA Form 2406-reportable gear is not listed in Appendix E, get its Equipment Category Code (ECC) from Para 4-6. Then, turn to Appendix E again.

Find the same ECC in Appendix E. Keep the same logbook records as the other gear under that ECC.

If the ECC in Appendix E covers a variety of items with different forms marked, keep the records required on the most similar type of gear.

The Late DA Form 2408-1



Ever dream of ripping some TM 38-750 forms to shreds? Well, you TAMMS clerks and dispatchers can do just that.

Interim Change 102 to TM 38-750 killed off the DA Form 2408-1, Equipment Daily Log.

You dispatchers use DA Form 2401 and DD Form 1970 to control equipment on dispatch.

Note fuel and oil use in the Remarks Block of the DA Form 2401 at the end of the dispatch, on a DA Form 2408-18 or wherever your CO or SOP says.

You show services pulled and

scheduled lubes and services on the DD Form 314 as usual.

Find an X status symbol fault? Your CO or the CO's representative decides if it can be downgraded to a circled X and for what limited operations. But instead of the DA Form 2408-1, it now goes on the DA Form 2404

See PS 358, Pages 58-63 for details in handling this situation.

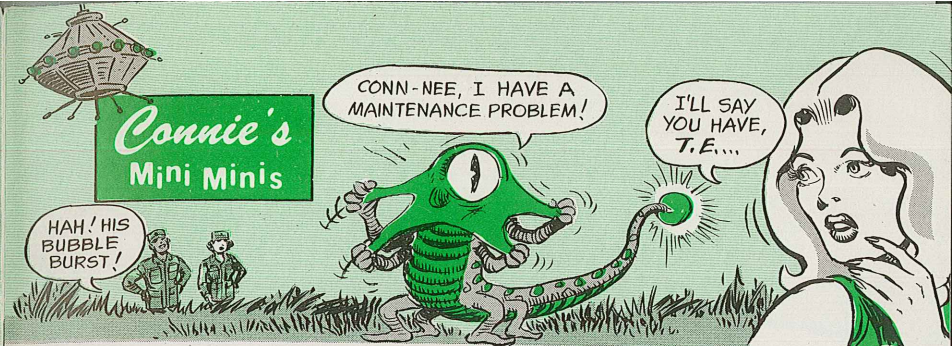
Watch for more message changes to TM 38-750 by the Supply and Maintenance Assessment and Review Team (SMART).

M746 & Goer AOAP Valves

The word on adding AOAP sampling valves to the engine and transmission on your M746 truck-tractor and Goer vehicles is in TB 43-0001-39-7 (Oct 81). The M746 is covered in Para 2-16a and 2-16d; the Goer is in Para 3-4 and 3-5.

Fuel Pod Lock

Locking the lid on a 600-gal fuel pod takes a lock with a long shackle. Use NSN 5340-00-682-1645 or 5340-01-004-5180 for a low-security lock with a 2½-in shackle clearance.



Connie's Mini Minis

Forms Shelter

TM 38-750 is going through a complete overhaul. Entries, procedures and even forms are dropping off. You can make it with fewer forms! But if you want to hold onto a dropped form for a while, go ahead. Para 5-15g on Page 5-44 of TM 38-750 OK's keeping rescinded forms locally. That's not a permanent license to keep those forms, though! Just use that paragraph and the old forms until you have the new system working.

M819 Wrecker Needs MWO

If your M819 5-ton tractor wrecker truck didn't get modified according to MWO 9-2320-260-30-1, it's deadlined—NORM/NOT READY—until the MWO is applied. Under this MWO, your support will change wheel hubs and rims to allow use of 12:00x20 16-ply tires on the front. Application of the MWO lifts the speed restriction—30 MPH max—required by TACOM Msg DRSTA-CZ 051430 May 80.

M880 Transfer Lube

The transfer case gear oil in your 1¼-ton truck needs changing every 24,000 miles or 2 years, not every 2,400 miles as called for in C6 to TM 9-2320-266-20. LO 9-2320-266-12 has the right information.

M880 Ignition Switch

Organizational mechs replace the ignition switch cylinder, NSN 2920-01-004-1907, on M880 trucks. The cylinder is not in TM 9-2320-266-20P, and the -34P says it's a DS job. Make a note of the NSN and SMB Code "PAOZZ" in your -20P. Instructions on removing and replacing the cylinder are in TM 9-2320-266-20, Page 2-40.1, Para 2-38.1.

UG-306 Adapter NSN

The UG-306 adapter connector you sometimes use to hook up your R-442 receiver antenna has changed numbers. Order it with NSN 5935-01-032-5404. NSN 5935-00-666-1649 has been deleted from the AMDF.

S-4 How-to Pub

New (or old!) battalion S-4's wanting a short "how-to" course can stop looking! FM 10-14-2, Guide for the Battalion S-4, goes over all the possible aspects of the S-4's job: Supply, maintenance, services, transportation, facilities, training and admin in garrison and the field. Tell your pubs people to order you a copy on DA Form 4569. Get on distribution for later versions by marking DA Form 12-11A&B, Block 96 or Block 267.

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Gear Gonna Be IDLE Awhile*?

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dry cells!

That'll
head off
creeping
corrosion
and KO'd
equipment!



* Awhile:
A Day or
More