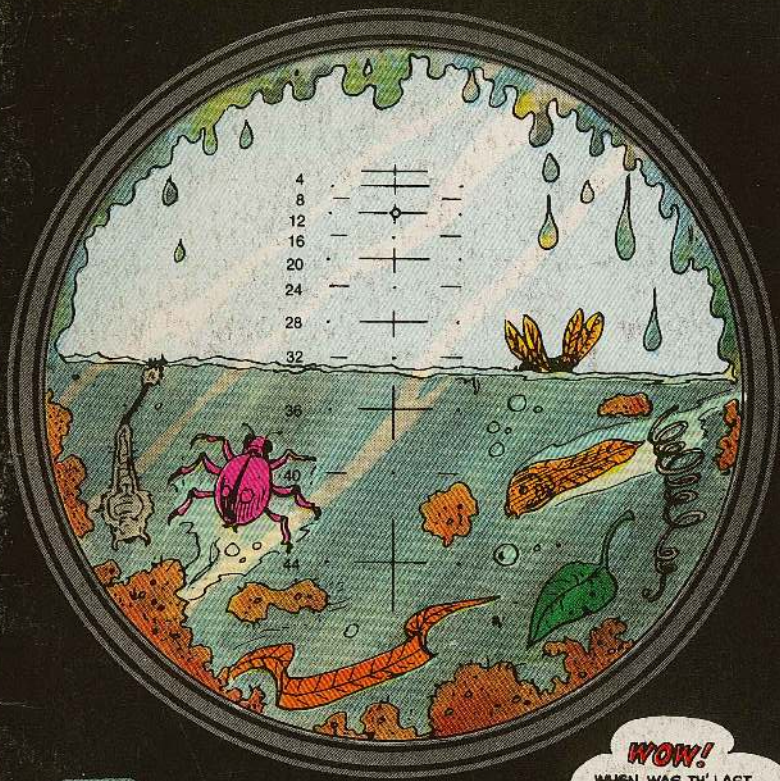


Issue 286

PS

September
1976

THE PREVENTIVE MAINTENANCE MONTHLY



MURPHY
ANDERSON

WOW!

WHEN WAS TH' LAST
TIME YOU PURGED THIS
OPTICAL GEAR?

WOULD YOU BELIEVE..?

Would you believe that you help stack up back orders for parts that will cost Uncle more than \$19,000,000 in the next few months? And that's just on trucks and tracked vehicles alone.

JUST BACK ORDERS... **WOW!**

MAYBE WE'RE USING TOO MANY PARTS

Hard to believe, huh?

Would you believe 15,600 windshield wiper motors that will cost \$136,000? How about 1,800 heaters for \$200,000? Or, canvas covers for 2½-ton trucks for \$314,000? And almost 5,000 APC radiators for \$1.8 millions?

MUST BE TH' MUD!

IN THIS HEAT?

STAY DRY UNDER CANVAS!

More than 1600 2½-ton truck engines are on back order for \$9,000,000! These are just examples of hundreds of items.

OK, YOU GUYS! WHO LET THAT OIL LEVEL GET LOW!

Most parts and assemblies on your equipment get replaced for normal wear and tear. But, how about looking at the way you operate your vehicles? Do they get worn or damaged unnecessarily? How about the way you lube and adjust? Is the oil always A-OK in your engine? How about the coolant?

NORMAL WEAR IS OK....

BUT WATCH TEAR-UP THAT'S NOT NECESSARY!!

LUBED... COOL....

Repairs? Are all parts that get replaced really bad? Or do some have life left in them?

CHANGE THAT PART ONLY IF IT'S REALLY BAD!

The way you operate and maintain can make a big bang on Uncle Sam's budget... like that nineteen million dollars worth.

THAT CAN BLOW HIS MIND...

AND HIS POCKETBOOK!

Take a hard look and see what you can do to keep the bucks down but your equipment up.

\$\$\$ DOWN...

FIGHTING GEAR UP!

HEY, SOLDIER...

DID YOU SEE THIS?

THESE WORDS TELL YOU WHAT PS IS ALL ABOUT!

ARE YOU IN A
-COMBAT UNIT?
-COMBAT SUPPORT
UNIT?
OR
ARE YOU A
MAINTENANCE
OR
SUPPLY SOLDIER?

YES ?

THEN PS IS FOR YOU!

Your Unit getting copies for ALL to read?

If not, send in a subscription change on DA FORM 12-5.

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 Maintenance Management Center, Lexington, KY 40511.

ISSUE No. 286 SEPTEMBER 1976

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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: Or call: AUTOVON 745-3503.

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 December 1975 in accordance with AR 310-1. DISTRIBUTION: In accordance with requirements submitted on DA Form 12-5.



COMBAT SUPPORT

Your self-propelled amphib unit of the Mobile Assault Bridge—FMC Corp model BF-FMC-1— needs PM care, too.

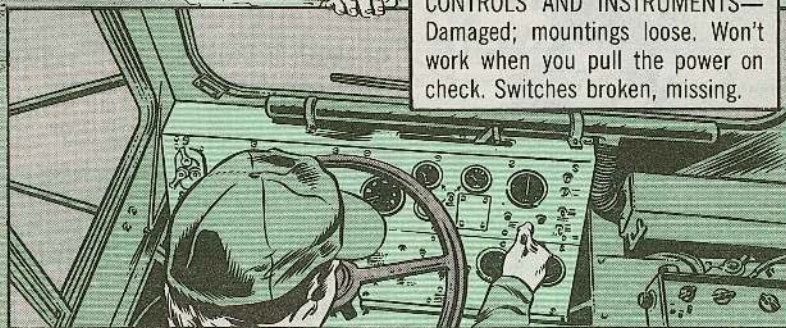
Every time you get ready to board the riveted hull beast, take a long walk- around to be sure there's no damage to hull, superstructure, marine drive, etc.

FINISHED?
NOW YOU'RE READY
TO MAKE AN INSPECTOR-
TYPE EAGLE-EYE TOUR
FOR SOME COMMON
GOOFS!...

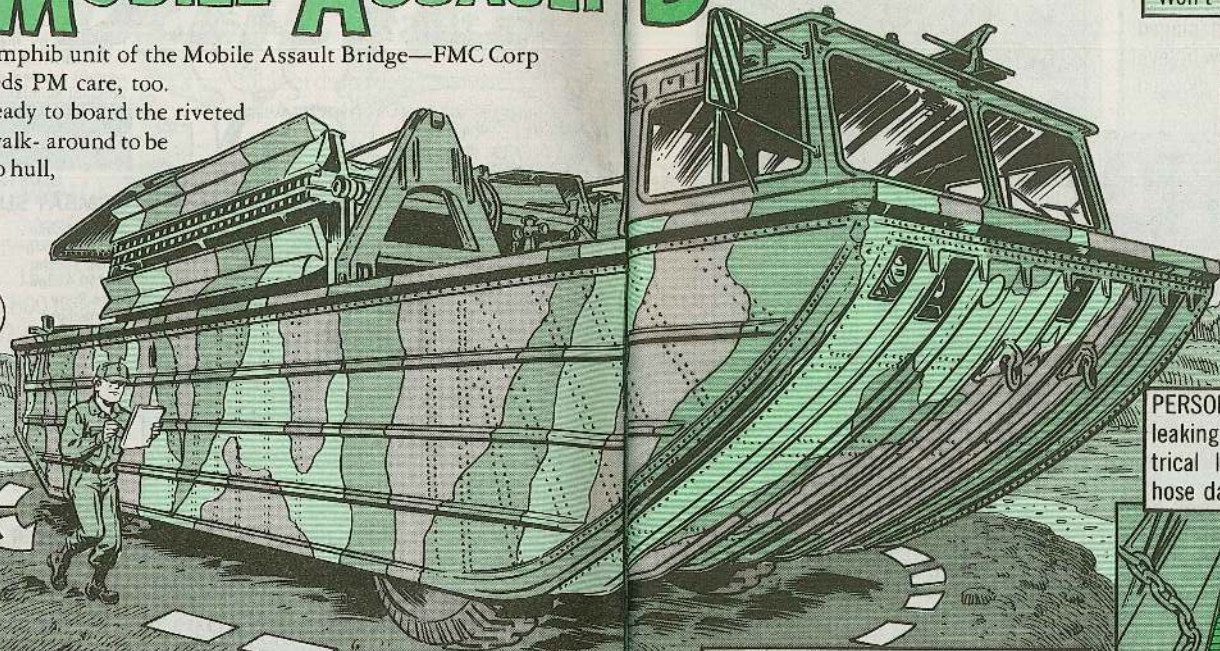


LIKE
THESE...

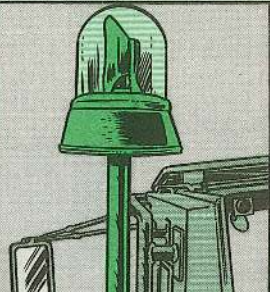
CONTROLS AND INSTRUMENTS—
Damaged; mountings loose. Won't
work when you pull the power on
check. Switches broken, missing.



BE YOUR OWN INSPECTOR... MOBILE ASSAULT BRIDGE

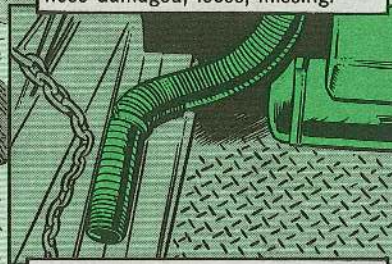


LIGHTS—Lens broken, missing.
Won't work when switched ON.



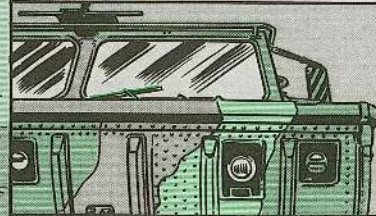
REAR VIEW MIRROR—
Broken, bent.

PERSONNEL HEATER—Damaged;
leaking fuel; mounting loose; elec-
trical leads damaged; distribution
hose damaged, loose, missing.



FIRE EXTINGUISHER (2)—Seals
missing, broken; underweight. (Each
extinguisher's net weight must be
within 10 percent of that stated on
the extinguisher.)

WINDSHIELD AND WINDOW
GLASS—Broken, missing, crazed
beyond repair. Weather stripping
deteriorated, missing.



WINDSHIELD WIPERS—Blades mis-
sing; rubber gouged; blade won't
make contact with glass when you
use hand operated lever.

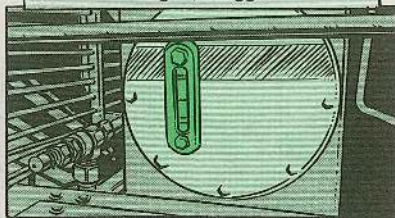
NO PROBLEM,
HALF-MAST-- YOUR
WINDSHIELD JUST
NEEDS CLEANING!

GRRRMMP!

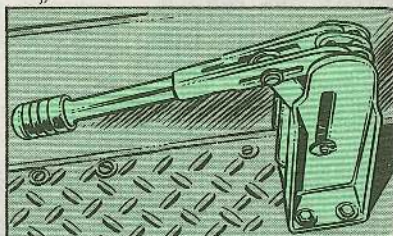


PS MORE

MAIN HYDRAULIC RESERVOIR—Oil level gage missing, damaged. Oil cap missing; seal missing, damaged. Cracked, leaking. Fluid below hi-level mark. Drain cock frozen, clogged. Screen damaged, clogged.



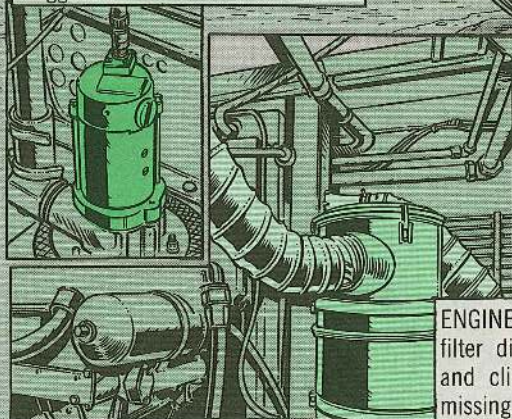
HAND BRAKE—Needs adjustment. Links damaged. Shoes worn too much, need adjusting.



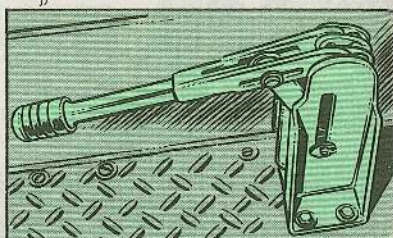
BRAKE FLUID RESERVOIR—Leaking, damaged; needs fluid.



BILGE PUMPS—Mounting and electrical leads loose, damaged. Screens clogged.



ENGINE AIR CLEANER—Cup and filter dirty. Mounting loose; clamp and clips broken. Hose damaged, missing, loose.

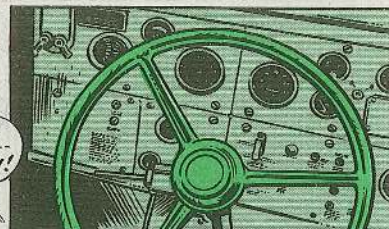


HOW'RE THE
BILGE PUMPS?

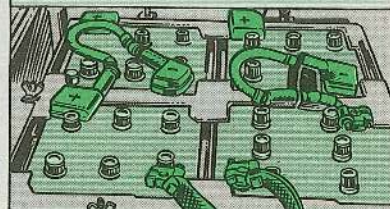
HEY,
GANG--
CHOW!

STEERING ASSEMBLY—Mounting loose, damaged. Leaking. Hold one! Does tire rub against the hull when you turn the steering wheel full left/right? If so, adjust it, pronto. Drag link, boot, and tie-rod damaged, loose.

GREAT! BILGE AREA'S
CLEAN AS A PIN, CONNIE!



BATTERIES (4)—Mountings, cables loose, missing. Cable connections and terminals corroded. Cracked, leaking. Caps missing; vent holes clogged. Cells need filling. Rubber terminal covers missing. Ground strap loose, missing.



HEATER FUEL PUMP—Screen dirty, clogged, damaged. Leaking. Won't operate right.

AIR-HYDRAULIC POWER CYLINDER (MULTIPACK)—Leaking. Mounting loose.

BRAKE MASTER CYLINDER—Mounting loose. Leaking. Pressure gone? Call O-level mechanic. Linkage needs adjusting. Fluid low.

SHOULD BE-- YOU
PUMPED ALL YOUR
BILGE OUT HERE!

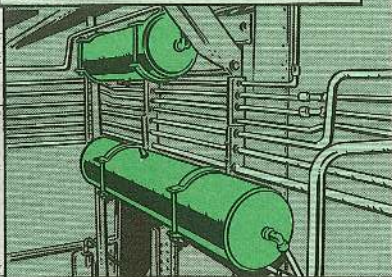
GO 'WAY, KID!

YOU GOT
A BUM
STEER--

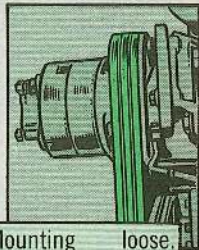
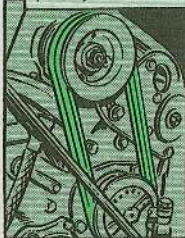
THIS IS A MAB
COMIC-- NOT A
MAD!



AIR RECEIVER AND STORAGE TANK—Draincocks frozen. Receiver, tank, lines, valves leak. Lines loose. Relief valve setting not 100 PSI.



AIR COMPRESSOR DRIVE BELTS—Need adjusting. (They should deflect $\frac{1}{2}$ to $\frac{3}{4}$ -in midway between pulleys.) Frayed, worn, cracked. Fan drive and alternator drive belts should depress $\frac{3}{8}$ to $\frac{1}{2}$ -in midway between pulleys.



ALTERNATOR—Mounting loose. Belts or electrical connector loose.

ENGINE CRANKCASE BREATHER—Screens clogged; gaskets missing.

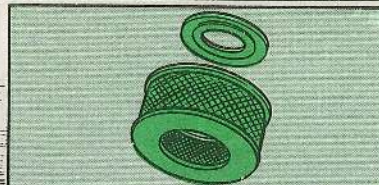


TRANSMISSION OIL—Low; filter dirty; gasket damaged, missing. Plug loose, missing.

ENGINE OIL—Low; dipstick broken, missing; filler cap seal missing, loose. Drain plug frozen.



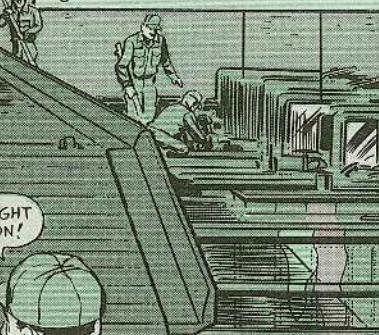
WHEEL WELL HYDRAULIC AIR BLOWER—Motor defective. Hose leaking. Mounting loose, damaged.



WHEEL WELL AIR BLOWER AIR CLEANER—Filter dirty, clogged; gasket missing; hardware missing.

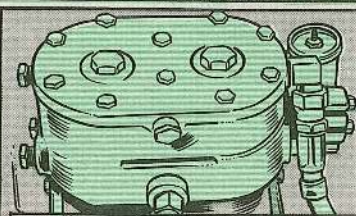
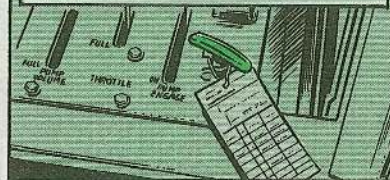


HYDRAULIC FLUID FILTERS—Clogged, dirty. Filter lines and mountings loose, leaking; packing or washers damaged, missing; springs damaged; gaskets damaged, missing.



DRIVE LINE UNIVERSAL JOINTS—Hardware missing; joints leaking. Bolts loose, missing. Needs lube.

FIXED FIRE EXTINGUISHERS (2)—Same PM checks as for portable fire extinguishers. PLUS a good look for loose valves, connections, tubes and controls.



AIR COMPRESSOR AND GOVERNOR—Mounting loose. Oil, air or coolant lines leaking. Governor needs adjusting. (It must cut out at 100 PSI.)

AND
STAY
OUTTA THIS
AREA, LAD!
IT'S
DANGEROUS!



NEEDLESS TO SAY,
MAB CREWS SHOULD CHECK
THESE POINTS THROUGHOUT
ALL EXERCISES!



RIGHT
ON!



HMMPH!
IF THIS ISN'T
A MAD COMIC,
IT'S AT LEAST
A GROUCHY
ONE!



PS MORE

HIGH PRESSURE HYDRAULIC PUMP—PTO mounting loose, damaged. Hose leaking. Control rod needs adjusting.

MARINE DRIVE PTO—Engage solenoid valve electrical leads loose; hydraulic lines leaking. PTO connection to propeller shaft loose.

AIR HEATER—Filter dirty. Electrode connection loose. Fuel line leaking. Gasket, spring damaged.

AIR HEATER COIL—Wire cracked.

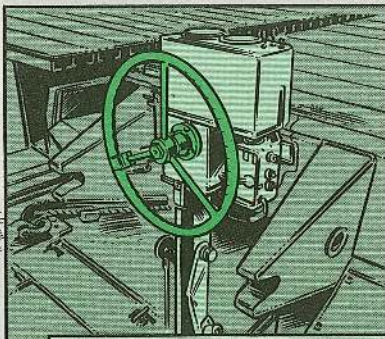
AIR HEATER SOLENOID VALVE—Electrical connector loose, broken; fuel lines leaking.

AIR HEATER FUEL PUMP AND MOTOR—Mounting loose, damaged. Electrical connector loose, damaged. Fuel lines (2) loose, damaged.

RADIATOR—Coolant level low (It's gotta be 2 inches below filler neck.) Air passages clogged; hose frayed, broken. Mountings loose; drain cocks frozen, damaged; cap missing.

FUEL FILTER AND FUEL STRAINER—Dirty; filter dirty, damaged.

TRANSMISSION BREATHER—Dirty, clogged.



REAR CONTROL STATION—Controls, instruments damaged, defective, mountings loose.

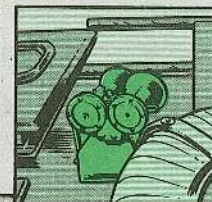
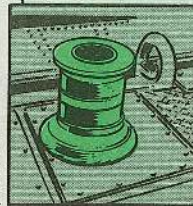
HOW 'BOUT THE MARINE DRIVE?

I'LL CHECK...

HEY!... A LEAKING HYDRAULIC LINE!

MAB? DAF! IS THE WORD!

CAPSTAN—Mounting loose. Hose lines and fittings leaking or damaged. Hydraulic motor mounting loose, damaged. Capstan binding. Hold one. You check the lines, fittings, motor while in the engine room.



HORN—Solenoid electrical lead loose, broken; mounting loose.

WHEEL SUSPENSION DOUBLE UNIVERSAL JOINT—Boot check plugs and O-rings missing; boot damaged; needs lube job.

STARTER MOTOR—Electrical leads loose, damaged. Mounting loose.

MARINE DRIVE STEERING AND ELEVATING HYDRAULIC MOTORS—Hydraulic lines to manifold leaking.

MARINE DRIVE—Damaged; hydraulic lines leaking; electrical connectors damaged, loose; shear pin missing, loose. Propeller and duct damaged.

HULL—Rivets loose, missing, corroded; skin ruptured; seams open; frame members bent.

TIRES / WHEELS—Pressure low (Must be 50 PSI for highway travel; 25 PSI for cross-country—or if you're operating in snow.) Worn, cut, broken, imbedded foreign junk. Valve caps missing.

Keep your MAB clean. Every ferry or bridge operation leaves a big hunk of mud, sand, and debris jammed in the hull and superstructure. So use your water pump—Table 4-2, Special Tools—and hose her down good.

NEW TYPE MAB?

GUESS SO... SHOULD WE HOSE IT DOWN?

Doublecheck your homework with TM 5-5420-204-12 (Oct 73), GTA—Graphic Training Aid—5-4-26 (May 74), TM 5-5420-205-14 (Aug 73) and the LO 5-5420-204-12 series.

YOU WILL SAVE A HEAP OF DOWNTIME, PARTS REPLACEMENT COSTS, KNUCKLE BUSTING AND SHIN BARKING!

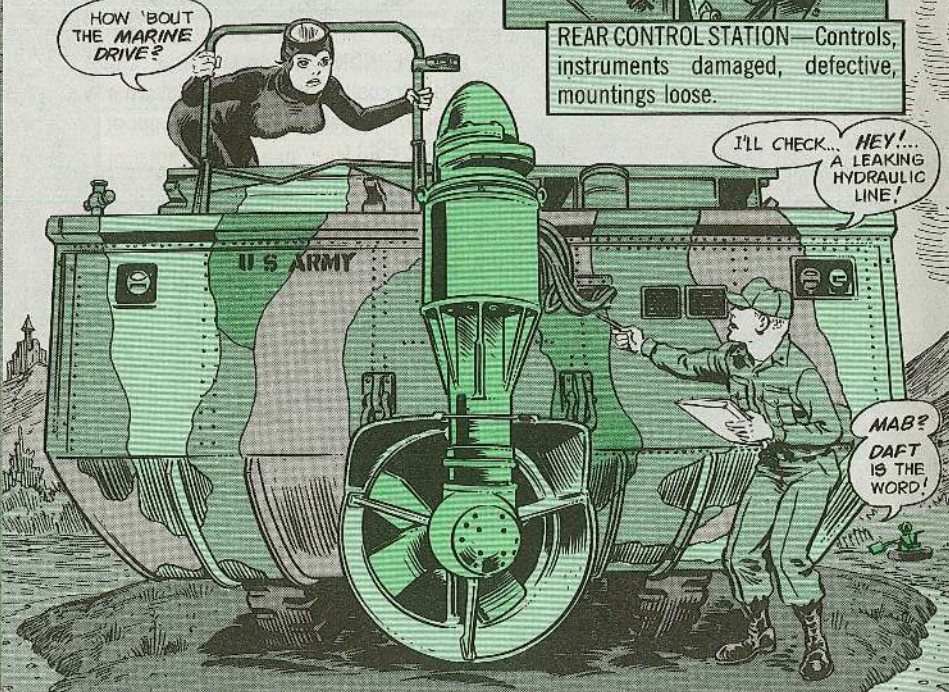
T'SAY NOTHIN' O' SORE BACKS AN' TENDER NOGGINS!

SPUTTER: HEY, CUT IT OUT, WISE GUYS!!

HA-HA!

PS END

HO-HO!



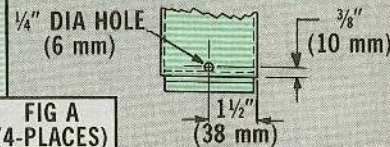
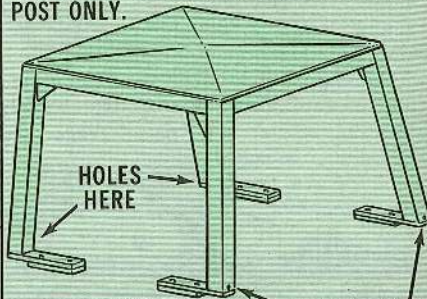


INSTRUCTIONS

DRILL A $\frac{1}{4}$ " DIA HOLE IN EACH POST USING THE DIMENSIONS GIVEN IN FIG A.

NOTICE:

HOLES ARE DRILLED IN OUTSIDE WALL OF POST ONLY.



A busted leg on your scoop loader's ROPS—Roll Over Protective Structure—canopy is one too many. It deadlines your loader PDQ!

Water can get into the upright tubes ... freeze ... expand ... and bust the vertical posts.

And you never operate a loader that has a damaged ROPS canopy. No way! You never repair a canopy, either.

If you have a freeze-damaged ROPS, write to the Commander, US Army Tank-Automotive Command, ATTN: DRSTA-MVB, Warren, MI 48090. You'll get instructions on what to do with the damaged ROPS.

Meanwhile, back at the farm ...

Preventive Maintenance is the big scene stealer: Keep water out of the posts.

Here's how: Drill a $\frac{1}{4}$ -in diameter hole in the exact center of each outside wall of the post. This is $1\frac{1}{2}$ -in from the edge of the post. Center of the hole must be exactly $\frac{3}{8}$ -in from the bottom of the post.

These holes must be accurately placed to meet—and keep—the manufacturer's certification in force.

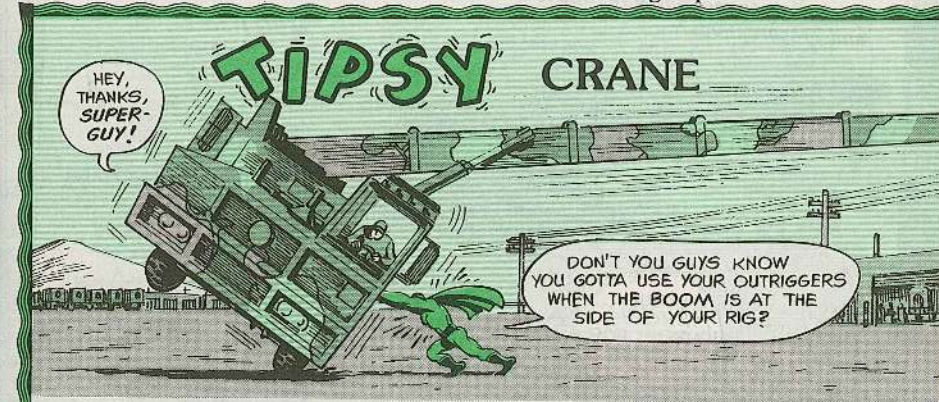
A misplaced hole could weaken the tubes—and cause the ROPS to crumple during a rollover.

PROTECTION



Here's another PM tip. The canopy top is spot welded to the 4 upright posts. If you use a high-pressure stream of water to wash the underside of the ROPS canopy, you force water into the posts thru the unwelded areas. Messes up the noise barrier stuff, too.

So, use low-pressure water. Better still, use a wet rag wipedown here.



If you lean over too far, you'll fall if you don't have a support. The same thing can happen to your 25-ton P&H model MT250 crane unless you use your outriggers.

The boom on this crane is too long and heavy to be stable when it's at the side of the vehicle. If it's not supported by the outriggers, the weight of the boom tips the crane to its side, an embarrassing position.

Keep your crane upright by using the outriggers to keep things in balance.

BALANCING

WIRE ROPE

PROTECTION

NONE

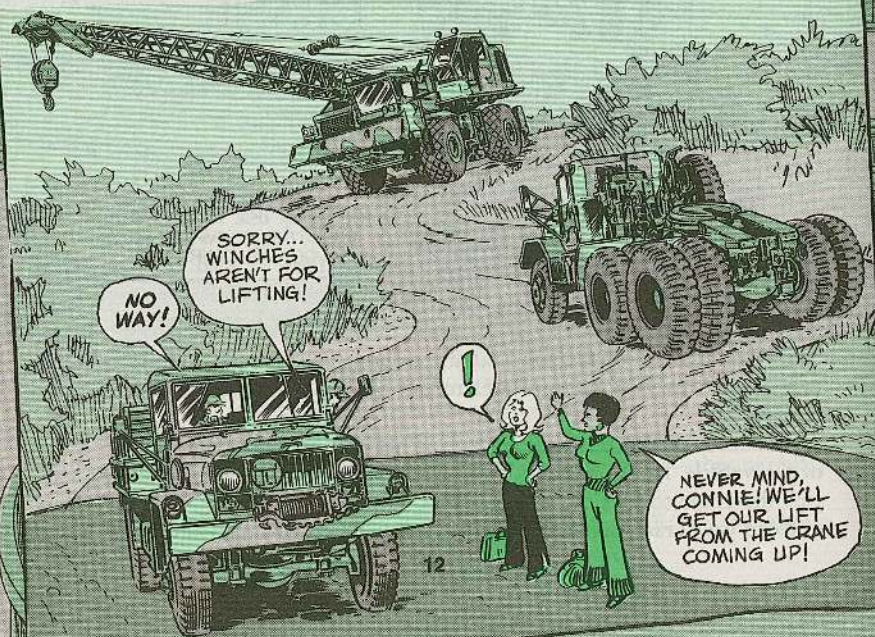
CW II

PLENTY

OE/HDO 30

Dear Half-Mast,
I find there're several different types of lubricants and preservatives specified for winch and crane wire rope. LO's and TM's for different equipment call for such things as OE/HDO 30, OE/HDO 50, CWII, CWIIB, Fed VV-L-751—and an oddball, MIL-P-16173 (Grade 1), shows up in LO 9-2320-260-12 (Dec 73). It seems to me that wire rope is wire rope. So why all of these different lubes and preservatives?

MSG R.M.T.



12

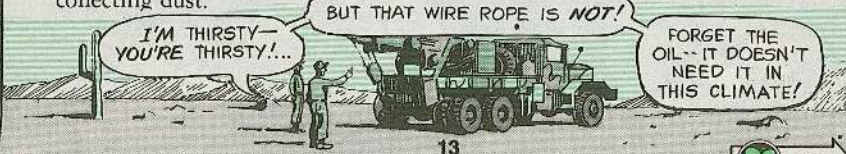
Dear Sergeant R.M.T.,

The best bet is to stick to exactly what's in your equipment's LO and TM. But that pub may be old and behind the times on wire rope protection. Or there may just be a goof in the pub. If you suspect the info is off-base, send in a DA Form 2028—like it says in that pub—and get the straight poop from the headshed.

F'rinstance, LO 9-2320-260-12 is offbase with that MIL-P-16173. Although it is a corrosion preventive compound, it's not what you want for winch or crane wire rope. It'll flake off when the wire rope bends during operation. You need something that'll stay on the job.

As a general rule, winch wire rope should be cleaned after each operation and then given a coat of OE/HDO 30. This's figured on the winch being used quite often and the wire rope probably picking up dirt from dragging on the ground.

Engine oil protects the wire rope well enough—unless you're in a real damp or real salty area. Fact is, little—or no—protection is needed in dry, dusty areas. Where rust 'n' corrosion are no problem, oil just makes a dirt problem by collecting dust.



13

PS MORE



A light coating of oil won't make for messy handling—and winch wire rope does get a lot of handling.

But you may have to put up with messier handling—if the winch is not used much or if conditions are real damp or real salty. The rope may need heavy duty protection.

Heavy duty protection is given with CW II (also called Lubricating Oil, Exposed Gear, Fed Spec VV-L-751). It stays stickier than oil and will pick up more dirt—and even stones—when the wire rope drags on the ground.

CW II is put on your wire rope after cleaning and after coating with engine oil.

There're 3 different grades of CW II. Pick the one for the temperature in your area:

- Grade A (or 1) for -20° to +30°F, NSN 9150-00-261-7891, 35-lb pail.
- Grade B (or 2) for +30° to +80°F, NSN 9150-00-246-3276, 35-lb pail.
- Grade C (or 3) for +80° to +130°F, NSN 9150-00-264-2918, 35-lb pail.

Your supply support can also get CW II for you in 5-lb cans or 120-lb drums—as listed in the DGSC 9100-IL microfiche.

You may find that the CW II will pour better if it's heated. And it'll soak into the wire rope better when it's hot.

Unless the LO or TM for your crane says different, CW II is best for crane wire rope. This wire rope doesn't get handled or dragged on the ground as much as the wire rope on a winch.



* Used crankcase oil is bad news for wire rope. Acid in used oil will eat metal. If the LO or TM for your equipment calls for used oil, it's out of date.

HECK NO, IT'S NOT A PIECE OF STRING... IT'S WHAT'S LEFT OF MY WIRE ROPE AFTER I PUT USED CRANKCASE OIL ON IT!

* Wrapping your winch with canvas or burlap is OK for travel. This'll keep the oil or CW II from picking up a lot of dirt. But a winch cover is no good otherwise.

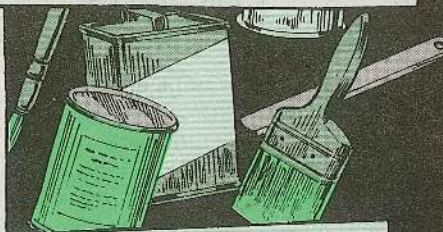
IT'LL CAUSE CONDENSATION OF MOIST AIR AND MAKE RUST 'N' CORROSION WORSE!



NEW AR TO MARK AND PAINT BY

The latest word on marking and painting of Army materiel is AR 750-58 (25 Feb 76). It replaces Chap 4 of AR 746-1 and includes camouflage painting requirements.

The new AR has the word, but look to these equipment TB's for the details:

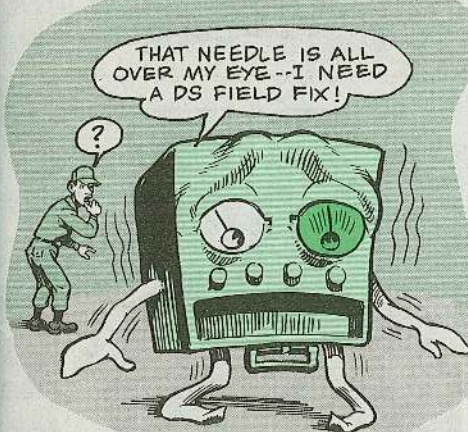


EQUIPMENT

TB

Electronics-painting, preserving	43-0118
Electronics-safe handling, identification	43-0122
Vessels	43-0144
Improved HAWK missile system	43-0166
Troop Support	43-0147
Military vehicles, construction and materials handling equip.	43-0209
Pershing missile	9-1425-380-14-1
Aircraft	746-93-2
Armament Command equip.	746-95-1

TACH-DWELL FIELD FIX



Using a Simpson TDS-2 tach-dwell meter, NSN 4910-00-788-8549?

Some of those TDS-2's have needles which wander around the meter face like a drunk on a binge when you set 'em up in tach mode... especially (and sometimes only) when you're testing the M151-series vehicles.

If your meter's OK (needle holds steady), forget about this article. If the needle wanders, turn the meter in to direct support for a field fix authorized in ARMCOM Message DRSAR-MAT-T 101504Z Mar 76.

GOAT to IT

A 4-legged goat might be happy to be left alone in a junkyard, munching tin can labels. Your 6-wheeled model needs more care than that.

His name is Truck, Cargo, 1¼-ton, 6x6, M561 or Truck, Ambulance, 1¼-ton, 6x6, M792, but you can call him Gama for short.

He'll get you and your load where you're going and back if you take good care of him. And that starts with the before-operation inspection. Do it by the book—page 3-20 of TM 9-2320-242-10 (Mar 70).

TM9-2320-242-10

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL FOR

YOUR FIRST IMPRESSION

Start inspecting Gama as soon as you catch sight of him parked there on the line. Does he seem to be leaning or sagging? Could be a busted spring or flat tire.



Take a walk around the goat, looking for big, obvious things that might not be so obvious close-up. Like rust spots, dangling wires, broken or missing parts—anything that looks wrong.

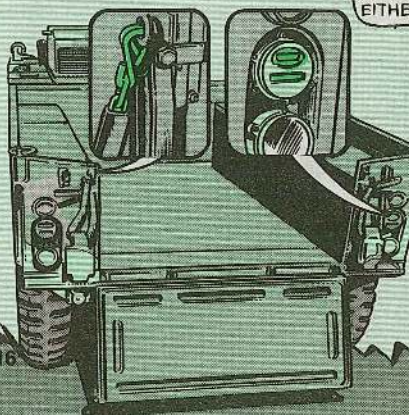
WIRES
FRAYED...
BUSTED
TAIL
LIGHT...
MISSING
PINTLE...
LUGS
LOOSE...
WHAT
A DUD!



Special—Make sure the tailgates's straight enough so it'll seal, 'specially if Gama's gonna go swimming. And check to see that the S-hooks on each tailgate chain are closed, so you won't lose the chain.

See that the lenses on the tail lights and blackout markers are snug enough to keep the wet out.

Look for signs of leaking oil. Any dripping of fluid needs attention right away.



AS THE WISE
OLD GOAT SAYS
"FIRST IMPRESSIONS
MEAN A LOT... BUT
WHAT'S UNDERNEATH
IS IMPORTANT ALSO."

CHEEEE!
THE ARMY
SHOULD HAVE
A BETTER SPOKES-
MAN! GAMA GIVES
A BAAA-AAD
IMPRESSION!

AWW, C'MON
AND EAT TH' GRAPES
ON THIS SIDE, HOWARD...
THEY'RE NOT SO SOUR!

UNDERNEATH

Get a good look at the underside, 'specially the suspension.

Special—Don't get excited if there're 2 empty bolt holes in the upper suspension arms. The new setup calls for 4 bolts, leaving the outer 2 holes (nearest the wheel) empty.



Special—Make sure the hull drain plugs are in—all 3 of 'em. Gama's got a cousin in the Navy who taught him to swim, but he'll sink like a rock if those plugs are left out. And they keep road dirt out, too.



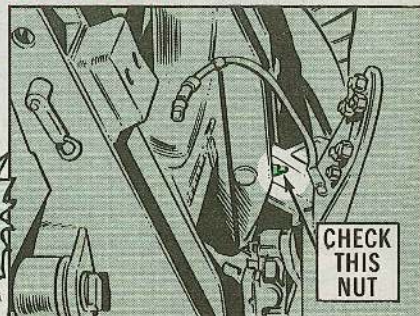
PLUGS IN PLACE?



ARTICULATION JOINT

This goat's got more moves than O.J. going through the line. You've gotta check that "hip" joint to make sure it's working right. Clean out any dirt 'n' debris.

Special—Reach in and feel the nuts on the capscrews holding the hitch pins. Make sure they're tight.



ENGINE COMPARTMENT

Take a good, hard look at Gama's "innards." If something looks wrong it probably is wrong. Check the bottom of the engine bay for more signs of leaks. If there's water in there, drain or pump it out.



Special—Be careful with that engine cover. Make sure it's all the way back before you start messing around inside. And when you close it, see that it's not gonna mash the hood catches.

Check the coolant (½ inch below the surge tank filler neck) and the oil (full).

Drain about a half-cup of fuel from the primary fuel filter and check for water or crud. Do the same with the secondary fuel filter. If you find anything (other than fuel), tell the mechanic.



BACK OUTSIDE

Take off the battery covers and check for good connections, clean batteries, and a good electrolyte level in both batteries. The electrolyte should be up to the ring. Add distilled water if needed, but never overfill—you'll weaken the acid and the battery won't charge fully. To check the connections, just give the cables a wiggle with your fingertips. A healthy yank can cause trouble where there was none.

Fill up the fuel tanks to the "full" tag inside the filler neck. Keeping the tanks full will keep water from condensing inside. Overfilling is bad here, too. You need some room for the fuel to expand when it warms up.

Check the horn and windshield wipers.

Special—Make sure the blades are not held down by clips.

Have a buddy help you check the lights.

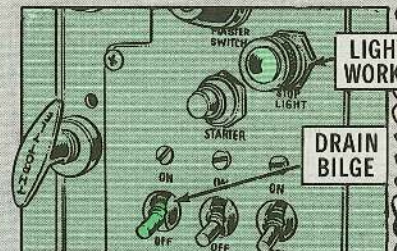
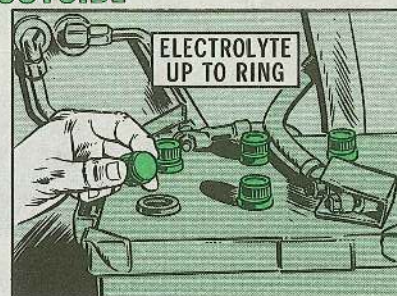
Special—Remember to check the carrier personnel stop light.

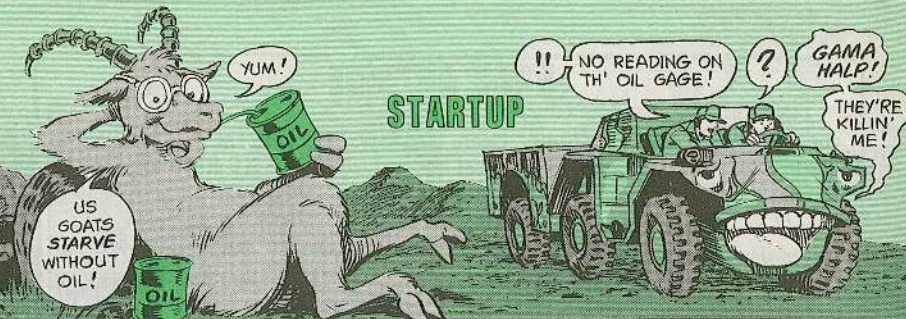
Turn on the bilge pump to see that it works. Do not run it dry for more 'n 12 seconds.

Check the tools; the pioneer tools on the tailgate (not on the ambulance) and the tools in the bag behind the operator and crew seats.

Special—Make sure you have the truss for 5-wheel operation. It's your "spare tire" that gets you home.

Work the clutch and brake pedals. Free play should be ¾ to 1 ½ inches for the clutch and ½ to ¼ inch for the brake.





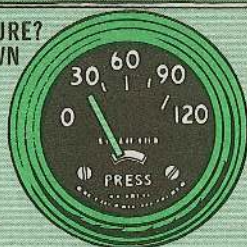
Start the engine and watch for normal instrument readings. If you do not get some oil pressure (about 12 PSI—the needle just barely moves) within a few seconds, shut down and tell the mechanic. Either your gage doesn't work or the engine's starving for oil.

Now that Gama's idling well, test the parking brake. Set the brake, slip Gama into gear and try to move forward. If the brake doesn't hold, adjust it with the knob on the end of the handle.

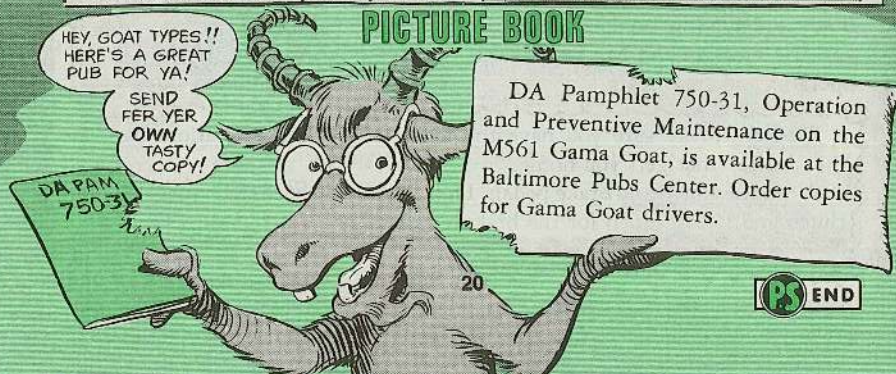
Release the parking brake and test the service brakes. Move forward slowly and stop. It's better to find out the brakes don't work when you're moving slow than to find out in second gear on your way out of the motor park.

All you need to do is take care of Gama, and he'll take you anywhere.

NO PRESSURE?
SHUT DOWN
QUICK

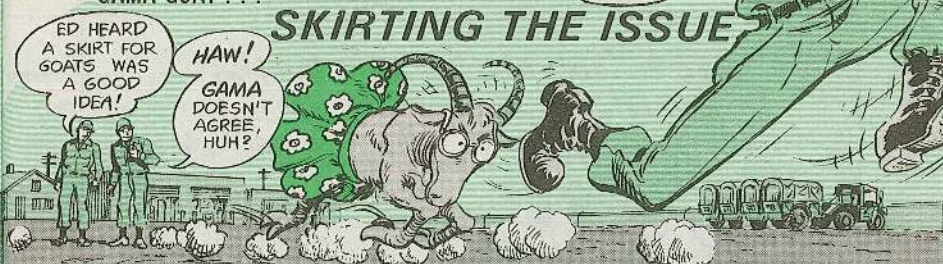


PICTURE BOOK



PS END

GAMA GOAT...



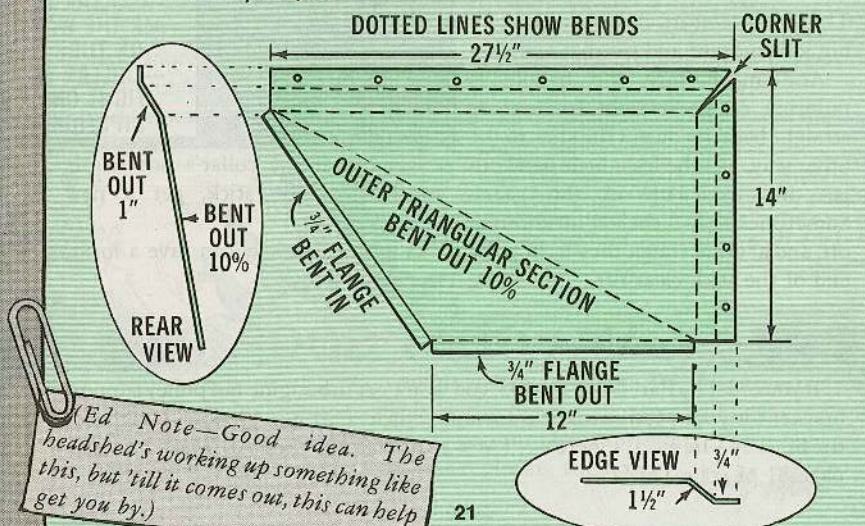
Dear Editor,

Our Gama Goats have a nasty habit of flinging dirt and mud from the center wheels back up into the driver's compartment.

We fixed this by adding fender skirts. Our metal shop made them from 1/8-in aluminum.

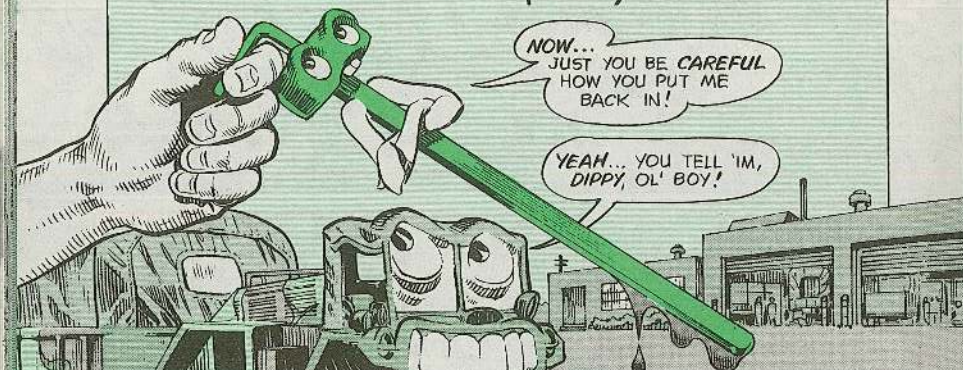
These skirts not only make driving more comfortable, they also protect the driver from injury from flying rocks kicked up. Our commander OK'ed the skirts.

Paul L. Thompson
Ft. Campbell, KY



(Ed Note—Good idea. The headshed's working up something like this, but 'till it comes out, this can help get you by.)

GET ON THE (DIP) STICK

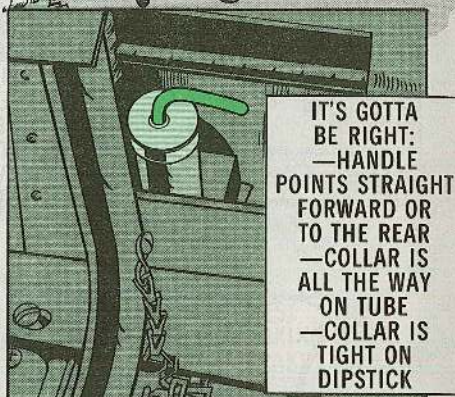


When you check the fluid level in the Gama Goat transfer, be careful how you replace that dipstick.

You could end up with water in the transfer or a broken dipstick.

If you're not careful in pushing it all the way down, the collar of the dipstick can catch on the tube, and the stick'll sit there cocked to one side. This'll let water in, and you know it's a big job to drain and fill that transfer.

And make sure the handle is pointing either straight forward or straight back. If you put the stick in the other way, just the least little bend can get it mixed up in the gears. Sometimes they'll chew a little chunk off, and at other times, they'll chop the end of the stick clear off.



'Course, if the collar's not firmly attached to the stick, get a new dipstick.

A little care today can save a lot of work tomorrow.

GAMA GOAT GOOF

If you order by Part No. 5135403, you won't get the engine fan pulley support bracket for your M561 or M792 1¼-ton vehicle. Part No. 5134503 is right for the bracket—Item 11, Figure 32, TM 9-2320-242-20P (Sep 70). Make a note on page 81 of your TM.

WHAT PRICE TAG ON SAFETY?



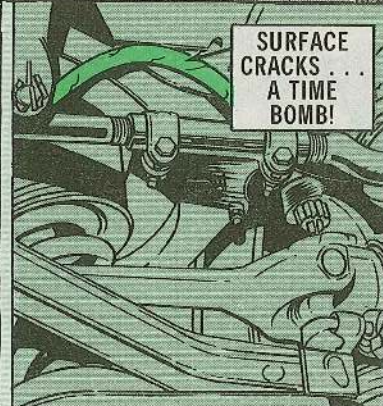
Dear Half-Mast.

Replacing a vehicle's brake hose only because of "surface cracking" seems ridiculous and expensive to me. Yet this is one of the deficiencies called out in TB 9-2300-405-14 (Oct 71), Mandatory Brake Hose Inspection And Replacement—Tactical Vehicles.

I really do not feel that cracked rubber alone is a problem that warrants changing the hose at a cost of \$1.30, plus down time and 1 hour maintenance time.

Is this a mistake in the TB?

CW3 M.D.J.



Dear Mr. M.D.J.,

No, Sir, that's no goof in the TB. It means exactly what it says.

That might seem to be a heavy price to pay when the brake hose appears to have more life left in it. But there's got to be some dividing line between safe and unsafe—and that's it.

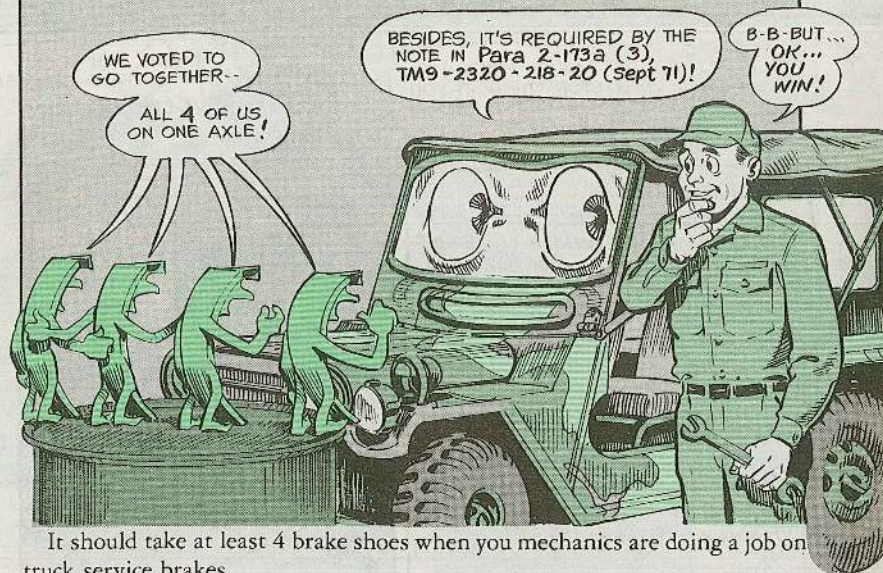
The next notice might be complete brake hose failure—with a loss of life and property.



Except for those inspection points spelled out in the TB, the only other way to check out a brake hose would be with a bench test to see if the hose can stand up under pressure—adding a 25-50 percent factor for safety. This would take more time and cost more than just replacing the hose.

Half-Mast

BABY NEEDS 4 NEW SHOES!



It should take at least 4 brake shoes when you mechanics are doing a job on truck service brakes

That's 2 shoes for each wheel on an axle.

You wouldn't replace the shoes only for 1 wheel. Unless somebody goofed before, the brake lining in both wheels will be worn down about the same. So you might as well replace all 4 shoes while you're at it.

This is required for the M151A2 and other TM-218-series ¼-ton vehicles—because of the individual wheel suspension. Brakes have to work exactly the same at both ends of the axle. See "Note," para 2-173a(3), TM 9-2320-218-20 (Sep 71).

Fact is, you have to use brake shoes from the same manufacturer in both wheels on your ¼-ton. The shoes are color-coded when you get 'em—so use only the same color on 1 axle.

NSN 2530-01-016-2010 brings 4 brake shoes in a set.

Next Month In PS

NEW GENERATOR PROCEDURES

M16A1 RIFLE HINTS

★
ARMS ROOM SECURITY TIPS

★
BYOI ON THE JD410 TRACTOR

TIRE & TUBE REPAIR . . .

"STITCHER" IS A MUST



Dear Editor,

Those chemical cure patches for tires and tubes (PS 280, pages 16 & 17) work well on tubeless tires, too. I like them better than the stuff in the tubeless tire repair kit.

Once you stick a patch on a tire or tube, though, it's a good idea to roll it down well. Use *Stitcher*. Cementing and Vulcanizing, NSN 5120-00-293-0392.

This works out trapped air and makes the patch stick better.

Clyde Noel
AMSA 38
Wichita, KS



STITCHING PATCH OVER PUNCTURE,
STITCH CENTER AND WORK OUTWARD

(Ed Note: The *stitcher* is listed in the GSA Catalog (Oct 75), page 79. Its price, on the AMDF, is \$2.05. It can be authorized under CTA 50-970 (Jul 74), page A-1, Appendix A, FSC 5120 and Note 1.

(Info on using the *stitcher* for tube repair is in TM 9-2610-200-20 (Nov 72), page 2-15, para 2-10f. It's shown in tire repair in Ch 1 (May 74), Figures 4-17 and 4-33.)



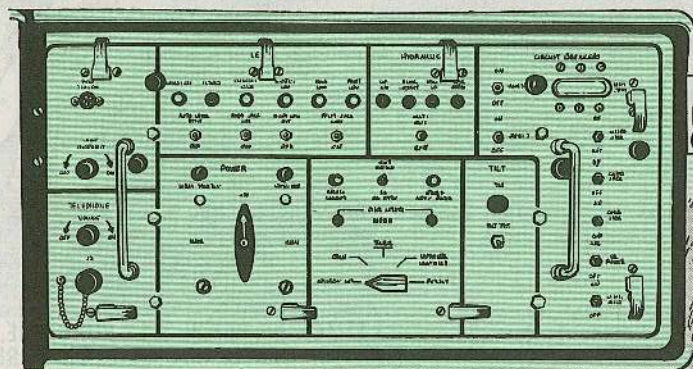
FIREPOWER

PERSHING 1A ERECTOR-LAUNCHER

HOLD YOUR HOSE!

NO, NO, **NO!!**
NEVER HIGH PRESSURE
WATER ON AN **EL!**

Sure, you clean grease, oil, road grime and mud from your EL—Erector-Launcher—splash plate, landing gear, treadways, frame underside, etc. with a hose. But N-E-V-E-R use high pressure water hose!



NO WATER
IN ELECTRICAL
CONTROL BOX!!

You could force water into the control box—it's happened. And moisture in the control box breeds corrosion and fungus.

These 2 varmints on connector pins 'n' sockets can deadline your missile system.

When?

HEY--WET
PINS--**YUM!**

FUNGUS

HELP!

CORROSION

When you pull the EL's monthly PM neutral integrity—operational—test per para 4-108e, Change 13, TM 9-1440-380-14 (Sep 69) and you get zilch action!

So, bone up and hone up your memory cells on the PM poop in para 4-4a of the Dash 14.

Focus your PM on keeping the control box cover tight during hosedown; clean off all fungus from the EL's electrical connector pins 'n' sockets; and wipe the control panel dry... dry... dry!

ST-120/SERVO-LOOP AMPLIFIER

PERSHING POOPER

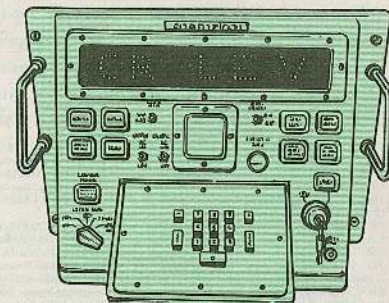
Each Pershing Stabilized Platform 120—ST-120—is electronically matched and mated to a Servo-Loop Amplifier—SLA.

Each ST-120's ID plate has its own serial number, and the serial number of the SLA it's supposed to work with. Same serial number deal goes for the SLA's ID plate.

But these 2 items can—and do—get separated. Then the items can get mis-matched with another ST-120 or SLA.

That's the making of a super bad scene. Mis-matched sets cause a missile malfunction. This is where you come on strong... with PM.

Pershing operators are alerted to a possible mis-mated deal when pulling the Confidence Countdown.



ST-120 AND SLA ARE MATCHED—
NO SUBSTITUTES.

Here's just one f'rinstance: In step 6 when the PTS-AN/TSM-87 IRI displays CR LEV and the ST-120 won't level within 5 minutes.

Could be that an ST-120 has been mis-mated with the wrong SLA. Your Pershing goes into HOLDING... you go into action, soonest.

LOOK!...
MISMATCHED!

UH-OH!
THAT MEANS
TROUBLE!

THE ST-120
WON'T LEVEL,
BONNIE!

YOUR SERGEANT
WILL GET IN TOUCH
WITH SUPPORT, WHO'LL
CHECK OUT THE BUG!
THAT'LL SAVE TIME...
AND MAYBE A HEAP
OF PARTS
REPLACEMENT \$\$\$





This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Nov 74), and Ch 3 (Oct 75), TMs, TB's, etc., DA Pam 310-6 (Jul 75), and Ch 3 (May 75), SO's and SM's, and DA Pam (Q) 310-9 (Aug 74), COMSEC Pubs.

TECHNICAL MANUALS

TM3-4240-280-10 Mar Mask, Aircraft ABC-M24
TM5-2805-257-14 Apr Engine, Gasoline, 3-HP Mil Std Mode
TM 5-3820-235-23P May Pneumatic Drill, Crawler SP 4, 1/2 In Bore, (Chicago Mod G-900)
TM 5-5430-210-12 Apr Tank (Fabric) Collapsible, POL, 60,000-Gal
Ch 1, TM 5-6115-465-12 Jun Generator Set, DED Skid, 30-KW, 3 Ph, MEP-005A/10A/11A Precise
Ch 11, TM 9-1015-234-12 Apr M102 Toward Howitzer
Ch 2, TM 9-1015-234-20P May M102 Howitzer
TM 9-1410-585-24-P Apr Chaparral
TM 5-1425-480-10 Apr Dragon
Ch 4, TM 9-2320-206-20P May 10-Ton M123 and M125-Series Trucks
TM 9-2320-258-10 Apr M746 22 1/2-Ton Truck-Tractor
TM 9-2320-258-20 May Truck, Tractor, 22 1/2-Ton, 8x6, M746
TM 9-2320-258-20P May M746 22 1/2-Ton Truck-Tractor
Ch 14, TM 9-2320-230-12 May M551 and M551AT Sheridan

Ch 4, TM 9-2350-247-ESC May M548 Cargo Carrier
TM 11-5805-262-ESC May SB-22/PT Switchboard
TM 11-5805-650-12AP Apr TA-838/TT Telephone Set
(OUO) TM 11-5810-232-12P Apr TSEC/KG-27
(FOUO) TM 11-5810-247-12P Mar Sec HYL-3/TSEC
Ch 5, TM 11-5815-331-14 May AN/VSC-2 Radio Teletypewriter Set
Ch 4, TM 11-5815-332-15 Jun AN/VSC-3 Radio Teletypewriter Set
Ch 6, TM 11-5820-520-12 Jun AN/GRC-108
TM 11-5820-572-14 May Radio Set AN/FRC-113 (V)-Series
TM 11-5820-580-14 Jun AM-4832/FRC-113 (V) Amplifier-Power Supply
TM 11-5820-603-14 Jun AM-4419/GRC Amplifier-Power Supply
TM 11-5820-923-14 May AN/FRC-155(V) Through AN/FRC-160(V) Radio Set
Ch 1, TM 11-5855-203-10 Apr Night Vision Sight, AN/PVS-2, -2A, -2B
Ch 2, TM 11-5885-213-12 May IM-174/PD Radiometer
TM 11-6252-255-20P May TS-723(J)/U Spectrum Analyzer
TM 43-0105 Apr Corrosion Control for Army Aircraft
Ch 4, TM 55-1510-204-20P Jun OV-10 and OV-1C
Ch 2, TM 55-1510-204-20P/PMP/1 Jun OV-D Aircraft
Ch 7, TM 55-1520-210-PMS Jun UH-10/H Aircraft
Ch 7, TM 55-1520-210-10-CL May YUH-1D, UH-1D, UH-1H

Ch 25, TM 55-1520-210-20 May UH-40/H
Ch 26, TM 55-1520-210-20 May UH-1D/H
TM 55-1520-214-23P May OH-6A
Ch 5, TM 55-1520-219-PMS Jun UH-1B Aircraft
Ch 12, TM 55-1520-219-20 May UH-1B
Ch 5, TM 55-1520-220-PMS Jun UH-1C/M
Ch 10, TM 55-1520-220-20 Dec UH-1C/M
Ch 14, TM 55-1520-220-20 May UH-1C/M
Ch 15, TM 55-1520-220-20 Jun UH-1C/M
Ch 1, TM 55-1520-221-20P Apr Helicopter, Attack-AH-1G
Ch 12, TM 55-1520-221-PMP Jun AH-1G
Ch 4, TM 55-1520-221-20 May AH-1G, AH-1Q, TH-1G
Ch 19, TM 55-1520-227-20-1 May CH-47B, CH-47C
Ch 20, TM 55-1520-227-20-1 Jun CH-47B, CH-47C
TM 55-2620-201-24 Jan Aircraft Tires, Tubes
TM 55-2840-231-23P May T-63-A-5A, T-63-A-700 Engines

MISCELLANEOUS

DA Form 2765 Jan Request for Issue or Turn-In
LO 5-3810-290-12-2 Mar Hanson Crane 5-Ton
LO 5-3810-290-12-3 Mar Hanson Crane 5-Ton
LO 9-2320-216-12 Mar M151-Series 1/2-Ton Trucks
LO 9-2320-258-12 Apr M746 22 1/2-Ton Truck-Tractor
SB 11-437 Jun Improved Guard Receiver Squelch Circuit Board For AN/ARC-116 Radio Set
TC 23-24-1 Apr Firing the Dragon from the M113

AUDIO-VISUAL STUFF—

Available At Your Local TASO

TECH LESSONS

020-171-1606-F Gun/Launcher M551 Loading
020-171-1622-F Telescope, Periscope Operation M551
020-171-1631-F Prep to Fire M551—Part I
020-171-6380-E Bore-sight Main Gun, Sights M60/M60A1—Part II
043-441-5906-F Vulcan Pre-Op Checks—Part I
043-441-5908-F Vulcan Pre-Op Checks—Part III
043-441-5909-F Vulcan Pre-Op Checks—Part IV

043-441-5935-F Load, Download Vulcan (SP)—Part III
043-441-5936-F Load, Download Vulcan (SP)—Part IV
043-441-5938-F Vulcan Engagement of Aerial Targets—Part II
043-441-5948-F March Order SP & Towed Vulcan
043-441-7817-F Chaparral Weekly Maint Checks—Part IV
043-441-7818-F Chaparral Weekly Maint Checks—Part V
043-441-7830-F Chaparral Cold Weather Checks
335-061-0126-F Field Wire

Install—Ties
941-071-0084-F M60 Machinegun
944-441-0008-F 2 1/2-Ton Truck—Tire Changing, Repairs
953-071-0061-F AN/PVS-2 Starlight Scope
NEW FILMS
TF 3-4899 CBR Decontamination
TF 11-4699 Laser Safety
TG 10-4-15 Maintenance of Chemical-Protective Clothing
TV TAPES
TVT 46-69 OH-58A Kiowa

Cockpit Procedures (3 tapes)
TVT 46-70 OH-58A Kiowa Preflight (3 tapes)
TVT 55-66 Small Aircraft Components: Preservation, Prep for Shipment (2 tapes)
TVT 55-67 Automotive Battery Care (2 tapes)
TVT 55-68 Aircraft Cleaning (2 tapes)
TVT 55-101 Operator Larc Amphibians and Crew Maintenance—Introduction and Larc V (2 tapes)

DA Form 3318 Line-Out

Shook up over the directions in Fig 2-27 of AR 710-2 for filling out a DA Form 3318? Forget the blank that shows up on the fourth line. The head shed deleted that entry in Change 3. You do not need to skip that line on your forms.

M880-Series Trans Fluid

Those new M880-series 1 1/4-ton trucks require DEXRON fluid in their automatic transmissions to keep the warranty valid. You can get a quart of it with NSN 9150-00-698-2382 or 5 gallons with NSN 9150-00-657-4959.

JOE'S DOPE

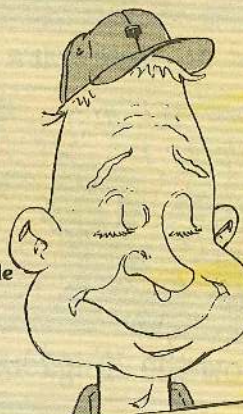
DOWN WITH TOOL ABUSE
the KINGDOM of
PHOOL

GENUS HOMO... GENIUS?

We hear that man's brain enabled his gain,
His ride to the moon in a flivver.
But 't isn't quite so, for a lot of his GO
Came out of the tools in his quiver.

Chimpanzees are smart, but they haven't the art
To make a saw or a socket.
And horses are fast, but they ran dead last
In making gear for a rocket.

So if "civilized" people climbed Progress' tall steeple
By dint o' contriv'n' with tools.
What kind of dumb goat would cut his own throat
By abusin' such valuable jewels?



Show me a person who abuses a tool

OUCH! W-WHAT
HAPPENED?

WHERE
AM I?

WHY-- YOU'RE NOW IN
YOUR NEW HOME-- THE
KINGDOM OF PHOOL,
MR. MAHTHER--ER, GOOSE!

I'M YOUR
WELCOME GUIDE,
DUMMIE
DUDD...

COME
ALONG NOW.

And I'll show you a native of the Kingdom of PHOOL.

HOME?
PHOOL?

MY
CAP...

OOOH!
MY
BACK--

YOUR CLASSIC ABUSE
OF A TOOL... USING **PLIERS**
AS A WRENCH... JUST
QUALIFIED YOU AS A
FIRST CLASS PHOOL!

SCRATCH
SCREECH

Now the Kingdom of PHOOL is a state-of-mind place--

WAITAMINNI!
A TOOL IS A
TOOL-- AN'
PLIERS
CAN BE
USED FOR
MOST ANY-
THING!

PERFECT--
PERFECT!

WITH YOUR THINKING,
YOU'LL SOON BE KING
OF THIS LAND!

WHEE!
WHO NEEDS
HAMMERS?

CLUNK

Not a nation or country, not distinguished by race.

HOW? I WUZ'N'T
EVEN BORN
HERE!

WONDERFUL!
NOBODY IS...

FURTHERMORE, PHOOL CITIZENS
ARE MALE AND FEMALE, YOUNG
AND OLD, EVERY COLOR AND
EVERY NATIONALITY...

KNIVES
ARE GOOD
FOR PRYING!

FINE AS A
SCREWDRIVER,
TOO!

OR
AS A
CHISEL!

The citizenship rules are simple and clear:

...AND WHAT GOOD
CITIZENS OF PHOOL
THEY ALL MAKE!!

GO BY
TH' BOOK...

...N' YOU'RE
A SCHNOOK!

RIGHT
ON!

"Just misuse your tools and we'll welcome you here.

SEE HOW HARD
THEY WORK!!

HEY!

...AXE
MAKES
A GOOD
CROW-
BAR!

CREAK

WHO SAYS
A HACKSAW
AIN'T FOR
WOOD?

SC-REEE
SCRAW

Just ignorance alone gives you Comrad class,

...SOME ARE NOT
SO APT-- BUT THEY
TRY!!

HECK!
RUBBER
MALLET
DON'T WORK
TOO GOOD...

BETTER GET
A METAL ONE...

THUD

HOPE I
DON'T HAFTA
GO FOR A
WRENCH!

Deliberate abuse gives status of Phass."

OTHERS ARE
TALENTED--AND
REALLY EXCEL!!

LOOK--USE A
CHEATER ON YER
WRENCH AN' YOU
CAN NOT ONLY RIP
OFF A BOLT HEAD
--YOU CAN CRACK
THE SOCKET
WALLS!

MARVELOUS!
I'M GONNA
RECOMMEND
YOU FOR THE
PHASS
AWARD!

ERR...
ARE THERE
EVER ANY
DROPOUTS
FROM PHOOL,
DUMMIE!

OH, YES--
IT'S EASY TO
DROPOUT!
THIS POSTER
TELLS
HOW!

JOE'S Dope Sheet



YOU TELL 'EM,
CONNIE!

YER
OUR
BEST
PAL!

Just follow this one simple rule:
Match the smartness built into each tool!
Know them and use them--
But never abuse them--
You'll stay out of the Kingdom of Phool!

USE US,
FELLAS...

... BUT DON'T
ABUSE US!

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 national anthem of the Kingdom of PHOOL

INTERESTING POSTER! WHO IS TH' DAME? SHE LOOKS LIKE YOU, DUMMIE!

CONNE RODD! NO RELATION...
THANK GOODNESS!! IF SHE HAD HER WAY... WHY, THERE'D BE NO "Kingdom of PHOOL," BUT...

Is the unearthly sob of a sacrificed tool;

...SINCE PHOOL IS SO FULL OF PHOOLS, IT'S OBVIOUS LOTS O' MAINTENANCE TYPES PAY HER NO HEED!

OH, LISTEN TO THE SWEET MUSIC-- THE TROOPS ARE PLAYIN' THE PHOOL ANTHEM!

SCRAWK-
SKRAK!!
KRONK SCREEE CLUNGK

It rips at the heart with its anguish and pain--

WHIRRR

IF I LEAN ON THIS ELECTRIC DRILL LONG ENUFF 'N' HARD ENUFF, I CAN OVERHEAT THE BIT-- AND RUIN IT!

BET I CAN POKE A HOLE WITH THIS FILE'S TANG! WHO NEEDS A PUNCH?

YEAH! AN' MY FILE IS GREAT FOR SHARPENING TOOLS-- MAKES MORE "MUSIC" AND IS FASTER THAN A SHARPENING STONE!

PING

SCREEK

Tho sad to most men, PHOOLS love the refrain--

OH, LOVELY...
LOVE-LY, TROOPS!

RIGHT ON DUMMIE!

KEEP UP THE PLACE AND SOON WE CAN ADD ANOTHER "BAR" (24 KARAT TYPE) TO OUR FLAG!

FLAG?

BAM

BLANG

The flag of the Kingdom-- too heavy to fly--

WHY, YES! WE'VE WORKED SO HARD FOR IT-- NOT ONLY BY ABUSING TOOLS 10,000 DIFFERENT WAYS-- BUT BY DAMAGING THE ITEMS BEING WORKED ON!

YOU JUST WOULDN'T BELIEVE THE BOLTS BENT... THREADS STRIPPED... SCREW HEADS MANGLED BY THE WRONG TOOLS.

Is a solid gold millstone all units must buy--

OUR UNIT IS THE UNQUESTIONED CHAMP WHEN IT COMES TO EQUIPMENT ON DOWN TIME!

AND WE'VE EARNED MOST POINTS OF ALL FOR OUR GLORIOUS PERFORMANCE IN THE AREA OF TOOL ABUSE!

The units don't want it-- it's a burden they bear;

LOOK-- THEY'RE HANGING THE FLAG NOW!

OOOF!

IT'S TAKEN EVERYBODY IN PHOOL, DUMMIE-- BUT WE'VE MANAGED TO RAISE TH' FLAG!

UGH!

RAY!

PANT!

But as long as there're PHOOLS it'll always be there;

OOOOHHH! ISN'T IT JUST LOVELY!!

ERR, YEAH!

Y'SAY TH' UNITS BUY IT, DUMMIE?...

BUT WHERE DO THEY GET TH' MONEY, HUH?

It represents damage to equipment and tools
Directly traceable to the habits of **PHOOLS**.

TEE HEE!
FROM THE TAX-
PAYERS, SILLY
GOOSE!

-- BUT **I'M** A
TAXPAYER!!

SHUSHH!!

HERE COME
A GROUP OF
PHOOLS--
PHASSES
ALL-- TO PAY
HOMAGE!

I'VE
HAD
IT!

THIS PLACE
AIN'T FOR
ME!!

But how do you spot 'em to give 'em the boot?
"When **PHOOLS** face the millstone...they give a salute!"

I'M GETTIN'
OUT... BUT
FIRST!!

TAKE
THAT!

AND
THAT

AN'
THAT!

OH, "GOOSE"
TOO BAD!!
YOU COULD
O' BEEN
KING!!

AN' THAT--
AN' THAT
AN'...

HE'S COMING
AROUND!

YUP!
HE'S
OK!

GULP: **CONNIE RODD!**
WHAT BRINGS YOU HERE?

JUST DROPPING
OFF A FEW
PUBS ON
TOOL
CARE!

GULP:
GREAT!

GUESS I CAN USE
'EM, ALL RIGHT...ER...
CONNIE-- I
JUST GOTTA
SAY IT--
YOU'RE SURE
NO **DUMMIE!**

~EPILOGUE~

Yes, the Kingdom of Phool
is a mythical site--
Impossible to find
when tools are used right.

To be on the safe side
you might look around--
And count yourself lucky
if no millstone is found!

* TM 9-243--Hand Tools
TM 5-461--Engineer Hand Tools

36

CHECK YOUR CHECKER...



CAN'T
UNDERSTAND
IT CONNIE...
DEAD BATTERIES!
...AN' WE JUST
TESTED 'EM!

YEAH--THE
OPTICAL TESTER
SHOWED THEY
HAD A GOOD
CHARGE!

OK -- BUT WHEN
HAVE YOU TESTED
YOUR **TESTER?**



Cancer could be sneaking up on your
optical anti-freeze and battery tester,
NSN 6630-00-105-1418.

Battery acid chews on the cement
around the measuring window in that
tester. Before you know it you get bum
readings.

You can check your tester. It takes a
little distilled water.

Like this: Clean the tester well and
dry it off. Then put distilled water on
the measuring window (with a really
clean dropper, of course). If you get a
reading anywhere below 30° or above
34° F, your little tester gem is on the
fritz.

There's no repair on that item so all
you can do is turn it in and ask for a
new one.

It'll extend the life of your tester if
you clean it carefully after each use,
especially on batteries.



CEMENT OK
AROUND WINDOW?

TEST WITH
DISTILLED WATER

H	-	+15
A	-	
R	-	
G	-	
E	1.100-	+20
BATTERY		
CHARGE	-	+25

READING IN THIS
RANGE MEANS YOUR
TESTER IS OK!

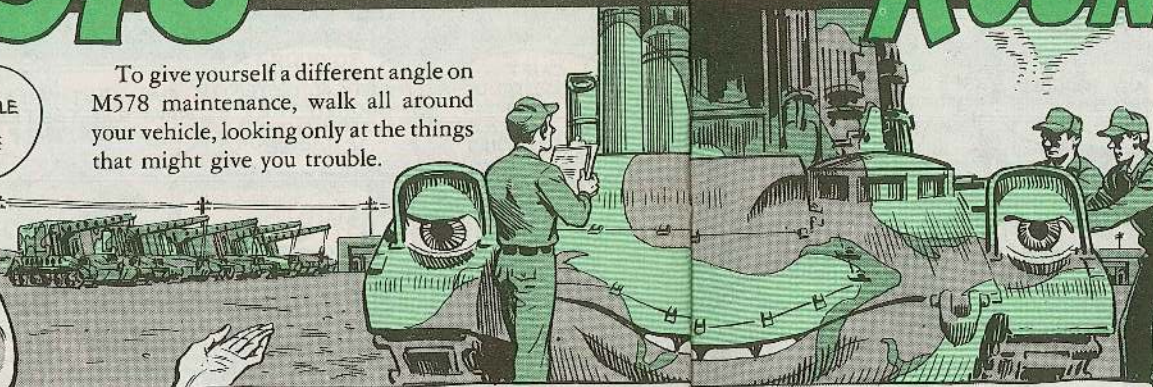
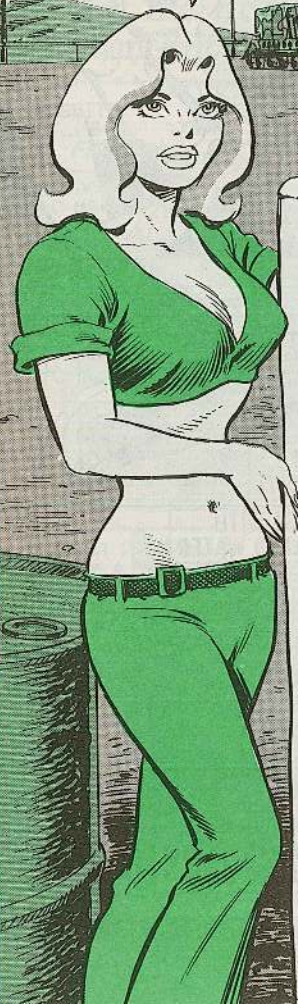
+30
+34

37

M578 RECOVERY VEHICLE *Roundup* PART II

HERE'S PART II OF THE M578 TALE TO KEEP YOU STRAIGHT ON THE PM RECOVERY ROAD!

To give yourself a different angle on M578 maintenance, walk all around your vehicle, looking only at the things that might give you trouble.

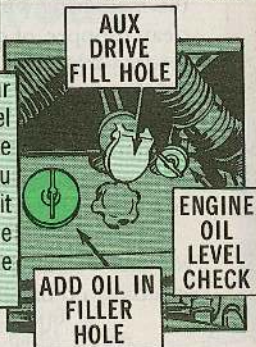


FRONT OF VEHICLE

DECK CLIPS—A lot of deck clip cap screws got stripped threads because they were torqued down too hard or because they were tightened without having both the flat washer and the lock washer in place. Get what you need from this list and tighten the screws to not over 10-12 lb-ft: Clip, NSN 2510-00-020-2331; flat washer, NSN 5310-00-080-6004; lock washer, NSN 5310-00-637-9531; cap screw, NSN 5305-00-269-2806.

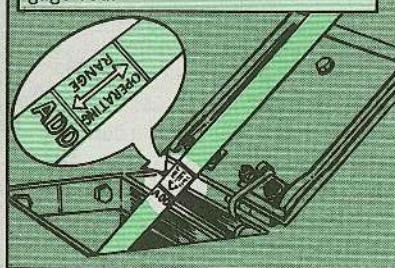


ENGINE OIL LEVEL—After your M578 stands overnight the oil level may read as much as $\frac{3}{4}$ inch over the FULL mark. This is normal. If you have to add oil to the engine, pour it through the filler hole in the engine rocker arm cover, not through the auxiliary drive fill hole.

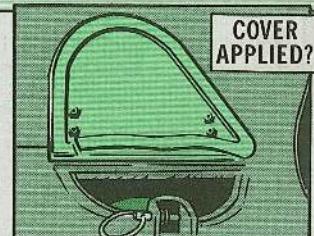


AUXILIARY DRIVE—The auxiliary drive dipstick is sometimes overlooked because it's under the filter screen. It should show at FULL mark or slightly above when cold check is made.

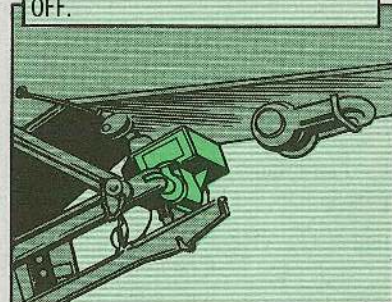
TRANSMISSION—Before starting the engine make sure the transmission oil level is within the OPERATING RANGE stamped on the gage rod.



FUEL FILLER—If MWO 9-2350-238-40/1 has been applied to your vehicle, you'll have a cover to protect the fuel filler cap. If it doesn't have the cover, water will collect in the cap well. The gasket on your fuel filler cap can be the only thing keeping the water out of your fuel, so check it often. If it's shot, get yourself a new cap, NSN 2910-00-141-9758.



LEVEL WIND—Remember, the level wind is dangerous. It can hurt you if you touch it when it's turned ON. Adjust it only after it has been turned OFF.

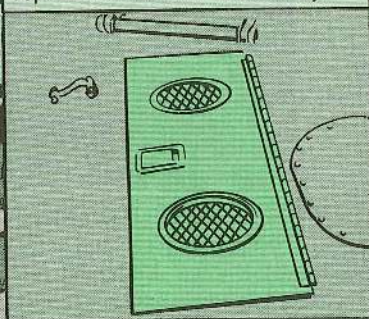


IMPACT WRENCH COMPARTMENT—Water gets in and slops around. While it doesn't hurt the impact wrench much, it's bad for the blower motor which is in the same compartment. Mop up the water. Get your mechanic to drill a 1/4-in hole to keep the water drained out.

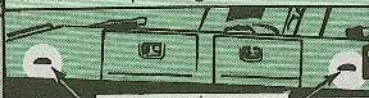


DRILL HOLE

BATTERY COMPARTMENT ACCESS DOOR—If you have to step on one of the battery cover screens, do it lightly. This access cover won't take much abuse and if you break it a replacement is hard to come by.



BLOWER MOTORS—There are 2 blower motors and one could be conked out while the other is still OK. When you check them out with the engine running, hand feel both air exhaust holes to make sure both motors are pushing out air.



HAND FEEL THESE

FRONT OF VEHICLE (Cont.)

ANY TROUBLE SPOTS IN THIS AREA, MEN?

NOPE...

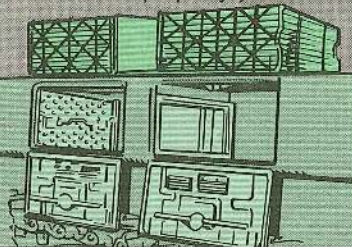
FRONT IS IN GREAT SHAPE, CONNIE!

NONE HERE!

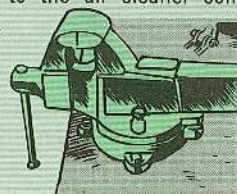


FACE OF THE CAB—Make sure the water can, saw, oxygen and acetylene tanks, pioneer tools, armament and tarpaulin are all present and in good order.

AIR CLEANERS—In addition to cleaning the air cleaners, check air cleaner compartments often for water and mop up any you find.



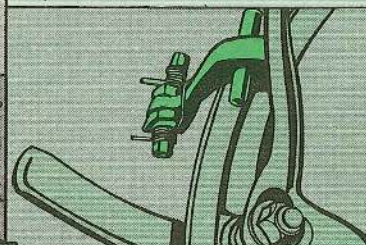
WISE—Vises come in both 3 and 4 hole models so you may have to drill a hole or weld one shut to make a replacement vise work. Remember, the air cleaner compartment is right below where you'll be working so get the air cleaners out first and clean up the compartment before you put 'em back. Make sure no holes are left open to the air cleaner compartment.



DRAIN VALVE HANDLES—There are 3 drain valve handles and they all work the same way: The valve is OPEN when the handle is pushed in and turned and CLOSED when the handle is pulled out. Keep all the valves CLOSED when operating vehicle, or they can get damaged when you go over rough terrain. The handles are:

WATERLOGGED HULL—Water accumulates in the hull, particularly in the area between the third and fourth idler wheels. When this water freezes in winter it can do a lot of damage to the hull. Get on a grade, open the drains and try to get all the water out. Be 'specially careful about this during the quarterly maintenance and after fording. To keep water out of your hull, drain it often and never use high pressure water hoses at a higher level than the tops of the roadwheels.

HATCH COVER LATCHES—(For driver, rigger and crane operator)—Your hatch cover hold down latch is being improved. Until the new latches come out, check your present latch for holding power and replace it if it won't work.



1. Near spare track.
2. At the rear of the hull.



3. In the driver's compartment.



REAR OF VEHICLE

GASOLINE CANS—Both in good shape, full and secured in position.

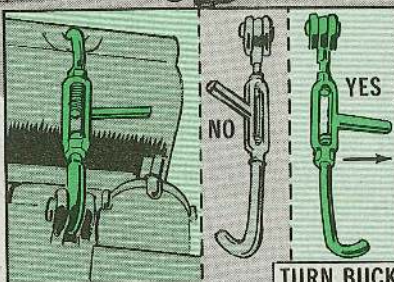
YEP!
THE CAB DOORS
ARE LOCKED,
CONNIE!

CAB REAR DOORS—Keep 'em closed or locked open when you traverse the cab.

GOOD! LEFT OPEN, THEY COULD
HIT THE TOWBAR MOUNTINGS IN FRONT
AND MAYBE HURT SOMEBODY DURING
TRAVERSE!

WRITE UP
SPADE HYDRAULIC
HOSES—THEY'RE
RUBBING!

GOTCHA!



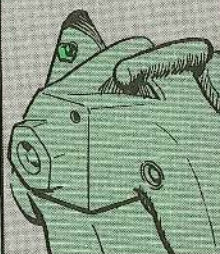
SPADE
SECURED

TURN BUCKLE
POSITIONED
OUTBOARD

SPADE TRAVEL LOCK—When the spade is raised, be sure to secure it with the spade travel lock. When the spade is down, carefully position the spade travel lock on the deck with the turnbuckle handle outboard. Unless this is done, the turnbuckle can get caught and broken when you turn the cab.

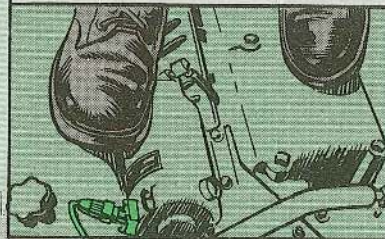
SPADE HYDRAULIC LINES—Check your outside spade hydraulic hoses with the spade in both the raised and the lowered position for rubbing or damage to the hoses.

TOW PINTLE—The lube fitting back of the tow pintle is a little hard to see so it won't get the grease it should. Be sure and give it a little dab.

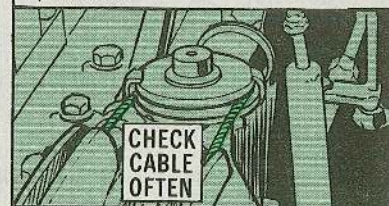


WITH DECK PLATES OFF

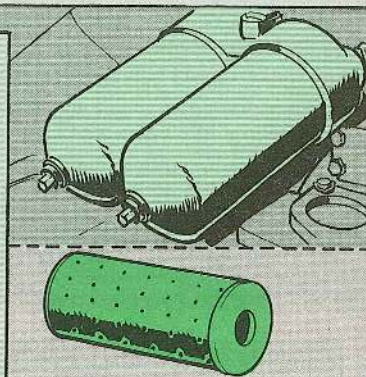
WATCH YOUR STEP—If you have to walk over the vehicle after you've taken the deck plates off, be careful. A lot of sensors and solenoids get broken just because some lout stepped on them. So be neat and watch your feet.



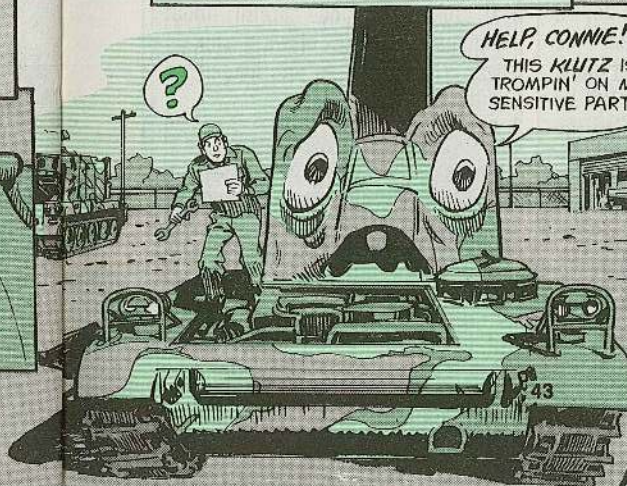
BRAKE LEVER CABLE—Your brake lever cable can slip out of the groove of the equalizing pulley if the cable is too loose or one of the cable retaining clips gets broken. Check on this every time you have the deck plates off.



OIL FILTERS—The oil filter elements are supposed to be replaced quarterly by your unit mechanic the way it says on page 2-13 of his TM 9-2350-238-20. This might look difficult because there's a blank space on page 9 of his TM 9-2350-238-20P (Apr 72) where the stock number of the elements is supposed to be listed. No problem! He can order filter elements as NSN 2940-00-580-6283. It's OK in the AMDF at \$1.71.



HELP, CONNIE!
THIS KLUTZ IS
TROMPIN' ON MY
SENSITIVE PARTS!



ENGINE IDLE SPEED—Normal idle speed is 550-600 RPM but in these 3 situations your engine idle speed should be 1,000-1,200 RPM:

1. During the 5-minute warm up, until water temperature indicator begins to rise.
2. Whenever you have to idle for a long period of time.
3. During the approximately 2-min period before engine shut down (until coolant temperature reaches 170-185°F.)

FUEL FILTER DRAINING—Drain the low-pressure filter before engine is started, then drain the high pressure fuel filters (through the driver's access panel) during engine warmup when idle is at 1,000-1,200. (The engine must be going or you can't drain the high pressure filter right. Take about a cup of fuel out of each filter. Drain more if it's still dirty.



IDLE 1,000-1,200 RPM



DRAIN
FILTERS
OFTEN

HERE'S SOME
REAL IMPORTANT
POOP FOR YOU
DRIVER TYPES!



TIMELY

DRIVING RANGE—When it's a toss up which range to use for a particular terrain, always select the lower range. If you use a lower range than you should, little harm will be done. If the range is too high the engine will overheat and so will the transmission oil.

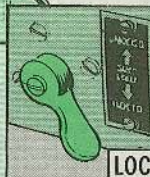


EXHAUST PORT—When you drive in a cross wind be careful about exhaust port gases blowing back on you. This could get you loaded up with carbon monoxide.

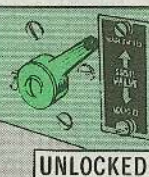


COMPARTMENT

SUSPENSION LOCKOUT—Works in both LOCKED and UNLOCKED positions and indicator light goes on when handle is in locked position.



LOCKED



UNLOCKED

(Note: Drive carefully at slow speeds when moving a load with the suspension in the locked position.)

When driving the vehicle from one location to another, the suspension should always be unlocked. During wrecker operations and when carrying loads, the suspension is usually in the locked position for short distances at slow speeds.

You get the best winch pull with the suspension locked out and the spade dug in. Back the vehicle on the spade before you lock out the wheels. If you lock out the wheels before you move on the spade the wheels won't be supporting the load evenly. Later, when you want to move off the spade, first turn your lockout control to UNLOCKED and then wait until the lockout indicator light goes out before you move off the spade.

SPADE CONTROL—With engine running, spade control should raise and lower the spade smoothly and evenly without "catching" or "jumping".



SPADE
OPERATE
SMOOTHLY?

TIPS

AUXILIARY DRIVE MAGNETIC CLUTCH—It tends to leak oil and its adjustment and assembly are a little critical. You can help it by trying to keep the oil level correct. Keep water from entering the clutch breather. Use your high-pressure water hoses no higher than the tops of the road wheels.

CURRENT MWO's—There are only 3 active MWO's:

MWO 9-2350-238-30/2 —Install gas particulate filter.

MWO 9-2300-391-40—Improve auxiliary drive.

MWO 9-2350-238-40/1 —Miscellaneous.

Your support can apply any your M578 does not have.

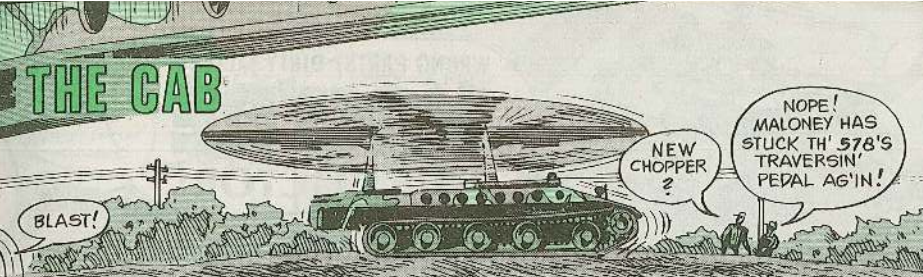
NORMAL
NORMAL

MWO 9-2350-238-30/2

PS MORE

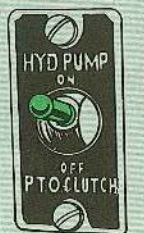
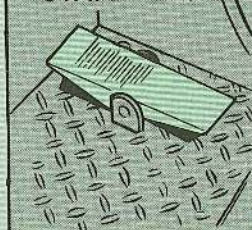


INSIDE THE CAB

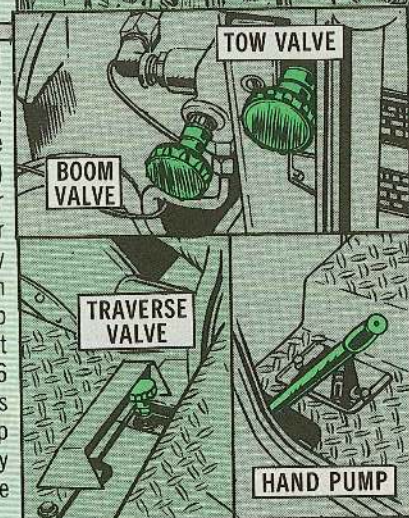


TRAVERSING PEDAL—This pedal is always armed and dangerous. When you step on the pedal the cab will rotate instantly whether you really want it to or not. As long as the driver has the hydraulic pump PTO switch in the ON position (normal during winching and cab operations) the hydraulic pump is working. If you step on the pedal by accident you can chew up equipment or—even worse—people.

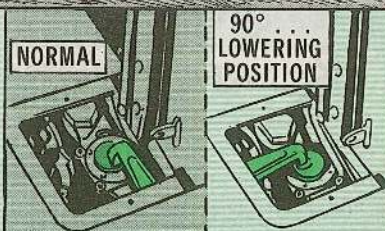
C-A-R-E-F-U-L!



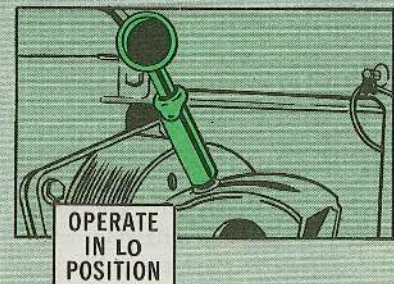
PRESSURE SELECTOR VALVES—All 3 pressure selector valves (tow winch brake and boom winch brake in the operator's area and the traverse brake in the rigger's area) should be pressed all the way IN for normal operations. The selector valve knobs are pulled OUT only during emergency operation in which the hydraulic ram hand pump in the crane operator's compartment is used. (At least once every 6 months check out all selector valves by using them in the hand pump position. If you forget to do this they could corrode so you couldn't use them in a real emergency.)



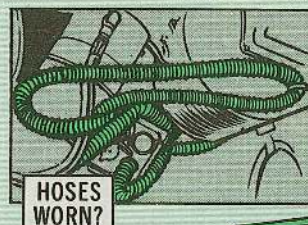
LOWERING THE BOOM—Even if you have a hydraulic or engine failure, you can still lower the boom. All you have to do is take off the access cover under the rigger's seat and turn the boom cylinder bypass valve handle 90° to the lowering position.



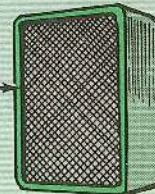
BOOM WINCH—Forget about the HI operating position. You are better off leaving it in LO both for paying out the cable and for winching it in. Make specially sure it is in LO before hooking the eyelet. Reason? The crane operator has better control that way and the rigger is less likely to mash his hand between the boom hook and the hull eyelet.

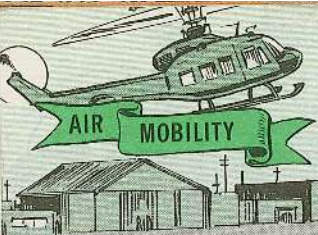


GAS PARTICULATE FILTER—If your vehicle is equipped with the gas particulate filter, check the hoses for holes and the filters for flat or worn seals that won't keep the air from passing through the center of the filter as it should. If you need replacement filters or airflow tester NSN 6680-00-436-4212, get in touch with your outfit's CBR man. If your vehicle is not equipped with the gas particulate filter, get your support to apply MWO 9-2350-238-30/2.



SEAL WORN?





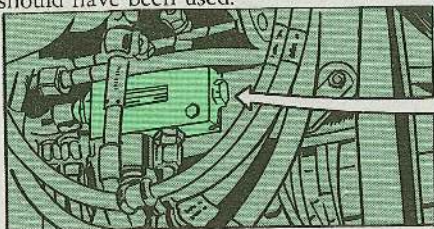
WRONG PARTS? DIRTY FILTERS?

YOU'RE THE DOCTOR!

Maintaining a clean aircraft hydraulic system requires the best effort a mech can muster. To prevent failure and contamination of the system, he has to take a surgical-like approach toward hydraulics.

Rx USE RIGHT PARTS

Take the Snake, for example. More than one throttle jockey has set his bird down and reported a stiff, binding cyclic control during flight. The problem has been traced to installation of a Huey lockout valve where a Cobra lockout valve should have been used.



NEVER SUBSTITUTE A HUEY LOCKOUT VALVE FOR A COBRA LOCKOUT VALVE

Sure, valves look alike and they can be switched. But that's where any similarity ends. A wrong valve can block the return of hydraulic fluid to the reservoir—give you a control lockup.

You can't even detect the switch on a maintenance operational check because the cyclic binding is intermittent.

You have to eyeball the parts catalog any time you put a part in the hydraulic system. Just remember, a part drawing may not always be accurate. So, read the small print—especially about the part needed when your bird is in compliance with a modification work order.

Above all, never accept a substitute part from tech supply, unless the parts pub shows you can use it.

FIG. NO.	SECTION	DESCRIPTION	QTY	UNIT
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA
133	27	PACAH 1650-00-839-7078 209-076-130-1	1	EA

HERE'S SOME HELPFUL HUEY-BIRD HYDRAULIC INFO...

TEN-FOUR, CONNIE-- I READ YOU LOUD 'N' CLEAR!

GULP

HERE I COME, SNAKE, OL' BOY... YOU'RE IN GOOD HANDS!

AFTER ALL WUZN'T I ALL-STATE?

Rx KEEP SYSTEM CLEAN

The 3 hydraulic servos in your Huey really take a beating. Dirt gets into the seals. An abrasive action, caused by dirty seals rubbing on the anodized aluminum cylinder barrel, contaminates the hydraulic fluid.

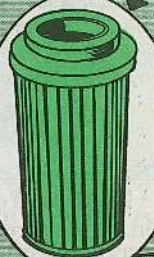
'Course, the bird has a hydraulic filter to keep the system clean. That's the baby you want to check during your PM inspections.

Remember—when the filter warning button "pops", the filter is saturated and you get a reduced flow of dirty fluid. Unfiltered fluid wears out bearings—the pump . . . the whole system. So, the filter element has to be changed or cleaned, depending on the type of filter you use.

Eyeballing the filter for a popped button takes a little extra effort. You can't see the filter button in the hell hole by looking thru the airframe opening under the transmission. You have to roll up the insulation blanket and remove umpteen screws in the structural panel for a look-see.



WHEN BUTTON POPS, TAKE CARE OF ELEMENT



Sure, you have to use a little elbow grease to prevent dirt from turning clean, red juice brown. But cleaning the filter can head off the chore of giving your bird a transfusion.

"HOW'S YOUR GRIP?"

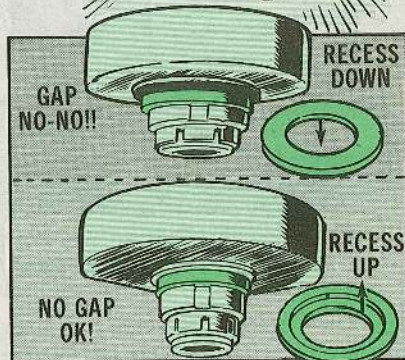
The first chance you Huey and Cobra mechs get, eyeball the main rotor retaining bolts. Some of the bolt nut lower washers have been Murphied and that can mean real trouble.

A gap between the washer and the grip means the washer is upside down. The washer is bottoming on the shank of the bolt, giving you all sorts of extra fatigue forces acting on the hub.

So, if you spot a washer Murphy, remove the nut and turn the washer around. Make with the torque wrench when you put the nut back.

Course, the washer is installed right when there is no gap between the washer and grip.

And... whenever you put blades on your baby, make sure the counterbore in the washer faces "up", so the torque on the nut bears against the grip.



NO BLAST, PLEASE!



Never use a direct spray of water on internal aircraft parts, birdmen. Water under pressure can do a lot of damage.

Take the 2 hydraulic fluid reservoirs on the Huey and Cobra, for example. There is a vent in each reservoir, and any water entering it will settle to the bottom of the reservoir.

There is no drain to remove trapped water. You know what happens when water and magnesium meet? Corrosion, that will actually eat thru the bottom of the reservoir!

Any blistering of the paint, or dark spots when you remove the paint, will clue you that the reservoir has just about had it. A leaking reservoir is in your immediate future.

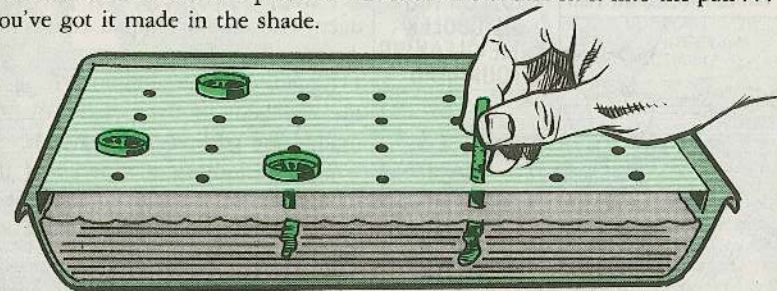
There's only one way to save the reservoirs—hand clean 'em with a cloth... water is a no-no!

GAGE CHECKING... MADE EASY



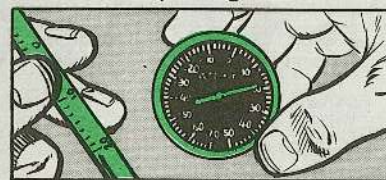
Looking for a suitable container to use for checking the outside air temperature gages on your turbine engine choppers?

How about a mess hall baking pan from property disposal? It works fine! Just drill some holes in a piece of thin sheet metal and fit it into the pan... you've got it made in the shade.

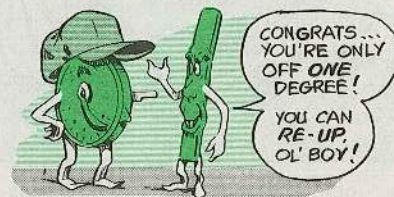


Remove the sun shield and slip the gage into a pan of warm water, to the 2-1/2-in depth called for in AVSCOM message AMSAV-FEP 191745Z May 75.

Add mercury centigrade thermometer, NSN 6685-00-566-8666.

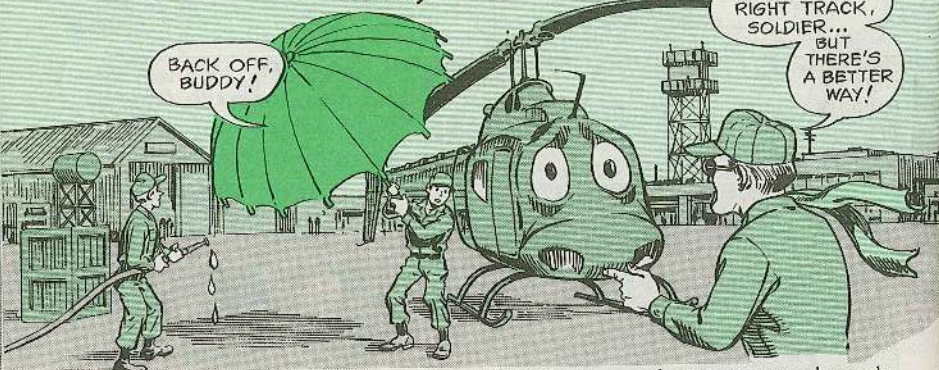


Compare the gage reading with the thermometer. Then, make the same check using ice water.



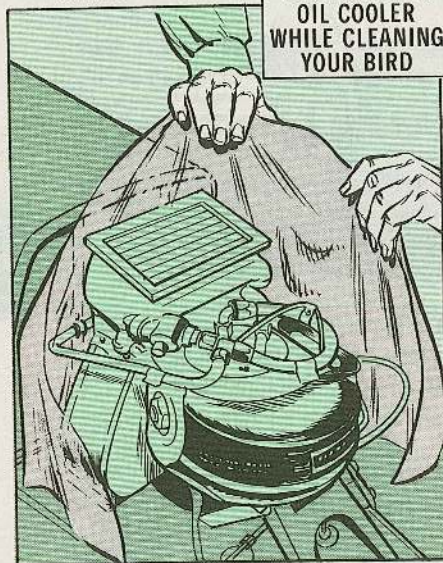
The gage has to be within 2 degrees C on both tests to be kept in service.

HEY, NO SPRAY!



Spray no water or cleaning solvents on the helpless core of your OH-58A's oil cooler or directly on the pylon isolation mount.

PROTECT YOUR OIL COOLER WHILE CLEANING YOUR BIRD



Shield the cooler with a locally-made cover, which you remove after cleaning your bird.

Water or solvent can run through the core of the oil cooler assembly... down into the fabric air ducts... and get trapped in the lowest part of a duct. The trapped liquid causes the duct to rot.

Liquids can work under the edges of the top boot of the pylon isolation mount and get inside the mount.

The elastomeric dampener of the mount can separate from the mount frame, leading to air-frame vibration and lateral spike knocking.

...AND THAT'S BAD NEWS ALL AROUND...

SO BE SURE TO COVER THE COOLER WHILE CLEANING THE BIRD!



A VISUAL CHECK

Dear Windy,
Sequence 4.6 of TM 55-1520-228-20PMP (May 72) says to inspect the engine mounts for security, cracks and damage. There is no inspection poop in TM 55-1520-228-20 (Oct 72), however.

TM 55-1520-228-34 (Nov 72), para 5-13, says to dye penetrant inspect the tubes and welds for cracks. Is this what we should do at the organizational maintenance level, Windy?

SP6 R.S.

Dear Specialist R.S.,
Nosir-e-e-e! The dye penetrant deal is for your support outfit, after they remove the mounts from the bird.

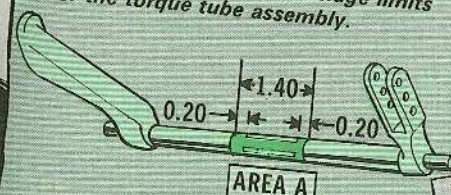
ONLY A VISUAL CHECK ON MOUNTS



IF YOU SUSPECT THEY'RE BAD, CALL ON YOUR SUPPORT FOR MORE THOROUGH INSPECTION!

TORQUE TUBE TALE

Dear Windy,
Fig 5-18, page 5-47, TM 55-1520-228-20 (Oct 72) gives damage limits for the torque tube assembly.



Area A in this figure is to be FREE of dents. Does this mean we should replace the tube assembly for any damage to that area, no matter how small?

SP6 J.J.

WOT HAPPENED TO HERMAN?



Dear Specialist J.J.,
It sure does. NO rework is allowed in this area. Any visible twisting or denting of the slotted portion of the tube means that it's been subjected to excessive loads and should be replaced.

Windy

PROPER STACK UP

Dear Windy.
There seems to be a difference of opinion in our outfit—and that's putting it mildly—about the type of hardware used on the Seminole exhaust stacks.

WOW!
SO THAT'S WHATCHA CALL REALLY STACKED, HUH, WINDY?

TM 55-1510-201-20 (Jan 69) calls for a flat washer, lock washer and nut. But the 140-150 in-lb torque for the self-locking nut is not enough to compress the lock washer. Do we have the right hardware stack up here, Windy?

SP6 H.M.

Dear Specialist H.M.,
No! The U-8 maintenance and parts manuals are not up-to-snuff... there'll be some changes made.

Install the exhaust stacks like so:
Put anti-seize compound on the studs.

Insert the stack and add lock washer, MS35335, NSN 5310-00-514-6674 and high temperature nut, AN315CSR, NSN 5310-00-286-6025.

THEN... TORQUE THE NUT AND YOU'VE GOT IT MADE IN THE SHADE!

54

Communications WD-1 WIRE WIND-UP

Winding up a field problem with a lot of telephone talking involved?
Hold it!

Before you wind up all that WD-1 field wire do some eyeballing, feeling and testing.

After you've gathered in that wire, use a clean cloth to wipe away caked dirt or mud.



CLEAN WITH CLOTH

Then, look for breaks and frays along the wire. If you're not sure what you see, feel for wire damage.

Splice when you have to by using the U1R field wire splice or use the splicing procedures in FM 24-20 (Feb 70).



USE U1R FIELD WIRE SPLICE

And, before you put the wire away until the next time you need it, test it for resistance and continuity.

As long as the insulation resistance is not less than 800 megohms each 1/2-mile (400 megohms for 1 mile) of wire, and there are no more than 4 splices each 1/2-mile, the wire is class A. More splices makes the wire class B—for training only.

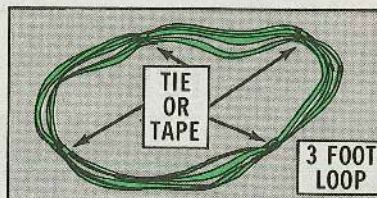
If the resistance is less than 800 megohms, turn the wire in for replacement.

To get it ready for turn-in:

—Loop the wire in 3-ft dia coil.

—Tie it or tape it together.

—Have the wire inspected and tagged.



3 FOOT LOOP

NSN'S THAT'LL KEEP YOU IN WIRE AND REELS WHEN YOU NEED 'EM ARE...

NOMENCLATURE

	NSN
DR-8 reel only	8130-00-407-7859
DR-8 reel with wire (1/4 mi.)	6145-00-226-8812
RL-159 reel only	8130-00-174-0812
RL-159 reel with wire (1 mi.)	6145-00-243-8466
MX-306A wire dispenser (1/2 mi.)	6145-00-160-7795

55

PARTS FOR A HANDSET

HAW! LET'S
PLAY HIDE
'N' SEEK!

GREAT IDEA!

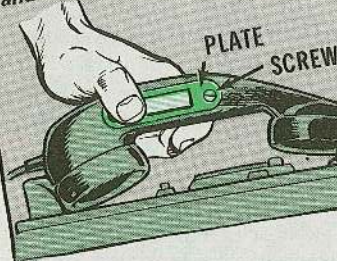
TEE
HEE

HEY!
TALK
SWITCH
DIDN'T
WORK!

...PARTS MISSING
AN' I CAN'T
FIND THEIR
NSN'S!

Dear Half-Mast,
On the H-60/PT handset, there's a
plate and screws which hold the push-
to-talk switch in place. Where can I
find the stock numbers for the plate
and screws?

SGT G.L.R.



Dear Sergeant G.L.R.,
NSN 5305-00-754-4526 is for the
screw which is described in TM 11-
5965-224-14P (Mar 75). However, the
plate, under Part No. SM-C-207921,
doesn't have a stock number.

YOU CAN ORDER
IT BY EXCEPTION
DATA.



BLANKET FOR YOUR BATTERY

Dear Editor,

I've found by putting dry cell
batteries in an accessory bag, NSN
5820-00-086-7138, before storing
the batteries in the refrigerator keeps
out moisture.

Without protection, batteries, like
the BA-30, -399 and -505, get damp
inside after being refrigerated. This
moisture leads to damage and a
shorter battery life.

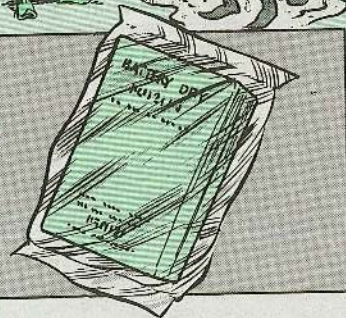
SGT Harvey Ames
Kent, WA

(Ed Note: Sounds good.)

SAY...
WHA HAPPEN
TO YOU?



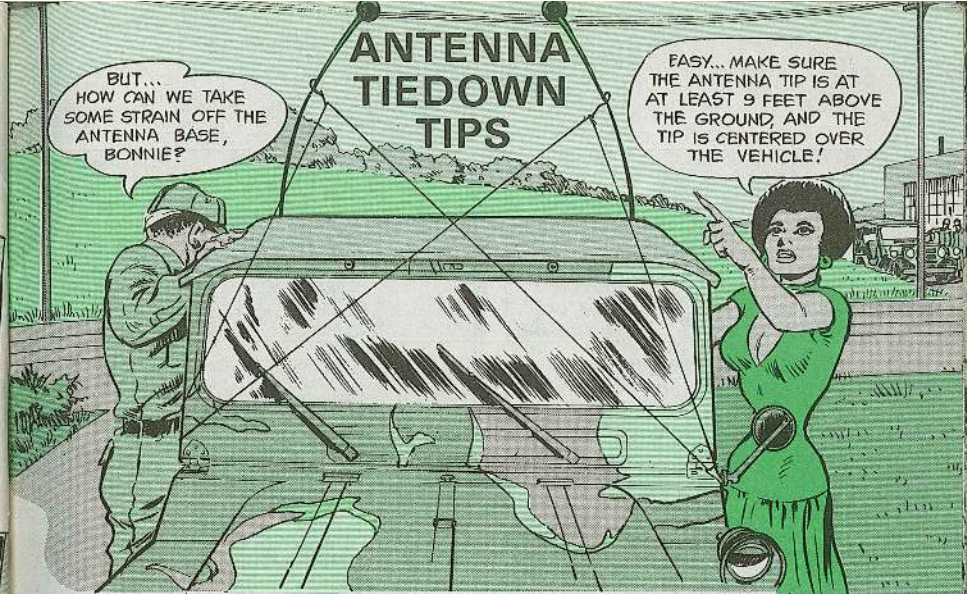
I SPENT THE NIGHT
IN THE REFRIGERATOR...
NAKED!!



ANTENNA TIEDOWN TIPS

BUT...
HOW CAN WE TAKE
SOME STRAIN OFF THE
ANTENNA BASE,
BONNIE?

EASY... MAKE SURE
THE ANTENNA TIP IS AT
AT LEAST 9 FEET ABOVE
THE GROUND, AND THE
TIP IS CENTERED OVER
THE VEHICLE!



Keeping your AS-1729 or AT-912 antenna tied down when you're on the
go will save a lot of headaches and antennas.

SO, HERE'S WHAT
TO DO WHEN YOU'RE
READY TO MOVE...

GREAT TIPS,
BONNIE!... WISH
YOU'D STOPPED
BY SOONER!

- Use your tiedown kit NSN 5820-00-908-6416, making the rope into an inverted V.
- Tie each end of the rope at a handy place on each side of the vehicle.
- To keep the AS-1729 tip cap NSN 5820-00-437-2353 in place, wrap it with tape.
- Do the same thing when you're using the tip cap NSN 5985-00-930-7223 on the MS-118 antenna section.
- And, while you're eyeing the tiedown, make sure the bottom of the antenna at the spring clears the top of the vehicle. You could wear a hole in the canvas top.



COVER FOR CONNECTOR

GOTTA FIND A COVER FOR J2...
'FORE DUST GETS US!

PSSST!
HERE I AM!

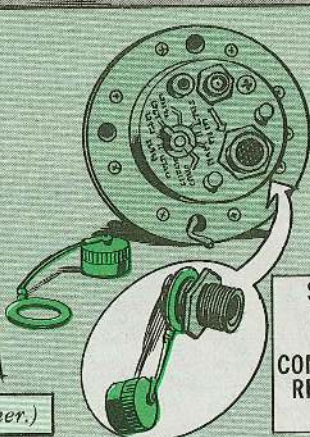
Dear Editor,

Trying to come up with a plastic dust cover for the MX-6707 antenna matching unit's J2 connector has been tough. So, we latched onto a cover assembly NSN 5935-00-823-0752 that's listed on page C-11 of Ch 1 to TM 11-5820-401-12 (Aug 72).

By securing the cover assembly to the J2 connector's retaining nut, the cover can hang loose when the cable is connected.

SFC John J. Prill
Ft. Bragg, NC

(Ed Note: Looks like a winner.)



SECURE
COVER
TO J2
CONNECTOR'S
RETAINING
NUT

HEAD OFF VOLT JOLT



Your electronics gear can get zapped by power surges when the power comes on after a temporary loss.

So, when you're hit with a power loss, don't forget to turn all switches off on your gear, like radio set, teletypewriter or shelter equipment.

Then, wait until the power comes on and the voltage value has settled down before turning on your equipment.

You may have to make alinements and adjustments to get communications back to normal, but it beats damaged circuits.



COMBAT

SUPPORT

LONGER Poncho LIFE

Your lightweight poncho is real handy for protecting you from the weather.

It's about 1½ pounds lighter than older ponchos and has a special waterproof coated fabric. You've got to give this special fabric special care.

Wash it only by hand using a mild soap or detergent. Rinse it well. If there's only surface dirt on it, a wipe with a clean cloth will do.



Never throw it in a washing machine. The spin cycle will force



NO!

water through the weave and separate the coating from the fabric.

Air-dry a wet poncho as soon as possible. It's best to dry it thoroughly



before you fold it. If you must fold a wet poncho, unfold it and dry it as soon as possible.

Never use tape to attach the poncho to your pistol belt, load carrying equipment or other clothing. Any type



NO!

of tape (gummed paper, adhesive or cellophane) can separate the coating from the fabric. Fold and attach the poncho as TM 10-276 says.

HEY--
MY PONCHO
IS LEAKIN'...

MINE
TOO!

DITTO!

HEY,
CONNIE--
GOT ROOM
FER US UNDER
YOUR PONCHO?

A LITTLE
SPECIAL
CARE WILL
GIVE YOUR
LIGHT-
WEIGHT
PONCHO
A
LONGER
LIFE!

LC-1...

DOES IT ALL!

HEY--WOW! NOW
I KNOW WHAT THEY MEAN
BY: "ALICE DOESN'T LIVE
HERE ANYMORE!"

HE'S KILLED
ALICE BY NOT
DOING REG'LAR
PM ON HER!

Your nylon All Purpose Lightweight Individual Carrying Equipment—ALICE or LC-1 is the latest of its kind to come down the pike.

It replaces the M1956 cotton and M1967 nylon carrying equipment. It makes your load carrying job easier and more comfortable.

KEEP IT CLEAN

Use a flat stick or dull instrument to scrape caked-on or dried-in mud or dirt from ALICE. Never use anything sharp for this job. It'll cut the fabric or webbing for sure.

Wipe dirt away with a soft brush or cloth.

Dip the equipment—any part that's dirty—up 'n' down several times vigorously in a bucket of warm soapy water. NSN 7930-00-252-6797 (50-lb bag) or NSN 7930-00-929-1221 (25-lb drum) is a mild detergent that'll do the job no matter how hard or salty the water.

Scrub soiled spots with a white or colorfast cloth.

Dip it again.

Now, rinse thoroughly with clean warm water until all the detergent or soap is gone.

Stretch the fabric back to its original shape.

Dry it in shade or indoors. Like cool it, man. Never dry ALICE in direct sunlight, with direct heat or open flames.

Never use chlorine bleach, yellow GI soap, cleaning fluid or dye for cleaning.

Never use any kind of washer or dryer to wash or dry ALICE.

Keep an eagle eye out for wear points: Any place metal or plastic rubs against fabric.

Watch for loose or broken stitching.

Keep dirt, leaves, rocks, gravel and other junk out of the pockets.

ADAPTABILITY IS THE KEY TO ALICE.
WHAT PARTS YOU USE DEPENDS
ON YOUR MISSION!

HERE'RE THE NEWEST PARTS
THAT MAKES ALICE WORK FOR YOU...

FIGHTING LOAD - CARRIERS (1 each except as noted)

NOMENCLATURE

NSN 8465-00-

BELT, Individual Equipment
(medium)

001-6488

or

BELT, Individual Equipment
(large)

001-6487

CARRIER, Intrenching tool

001-6474

CASE, Field First Aid
Dressing/ Unmounted
Magnetic Compass

935-6814

CASE, Small Arms Ammunition,
30-Round (2)

001-6482

COVER, Canteen (quart)

860-0256

SUSPENDERS, Individual Equipment,
Belt

001-6471

61

PS MORE

EXISTENCE LOAD-CARRIERS (1 each except as noted)

NOMENCLATURE

NSN 8465-00-

COVER, Field Pack,
Camouflage



001-6478

FRAME, Field Pack, Ground
Troops, w/all Straps



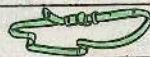
001-6475

STRAP, Lower Back



269-0480

SHELF, Cargo Support



001-6476

STRAP, Cargo Tie-down (2)



001-6477

STRAP, Waist



269-0481

STRAP, Shoulder, Left Hand, W/quick release



269-0482*

STRAP, Shoulder, Right Hand W/O quick release
*Order separately for medium pack



269-0483*

PACK, Field, Large, W/liners
W/O liners



001-6481

8465-01-019-9103



PACK, Field, Medium, W/liners
W/O liners

001-6480

8465-01-019-9102

LINER, Field Pack,



	Height, in	Circumference, in	
Size 1	17 $\frac{3}{4}$	21 $\frac{1}{2}$ (3)	935-6857
Size 2	27	39 (for med size)	935-6858
Size 3	30	50 $\frac{1}{2}$ (for lge size)	258-2432

YOUR FIELD
PACK LINERS
ARE GREAT!

... BUT THEY REQUIRE
LOTS OF TLC! SO,
READ ON...

IF YOU ARE
EVER SHORT OF
TLC, CONNIE...
SEE
ME!

CARE OF LINERS

The liners are made of the same waterproof, coated fabric as your poncho. Remember, you can use inflated liners as flotation bladders in an emergency. So take care of them, and they'll return the favor.

Keep the liners clean 'n' dry. Never stow 'em in the pockets if they're dirty or damp. Clean 'em with a soft damp cloth. Air-dry 'em in the shade. Never dry liners in a machine—not even on the spin-dry cycle. Never dry in direct heat or open flame. Hot, direct sun cracks the liners, too.

If the damp cloth doesn't clean the liners, handwash 'em gently in detergent or mild soap. Never machine-wash the liners. Rinse thoroughly.

Fold the liners when they're dry. If they do get wet or damp when folded, be sure to unfold and dry 'em the first chance you get.

Never pack any items with sharp, hard corners or edges in the waterproof liners—or in the pockets with the liners—because they'll punch or wear holes in the fabric. Use these waterproof liners only for items that need this special kind of protection.

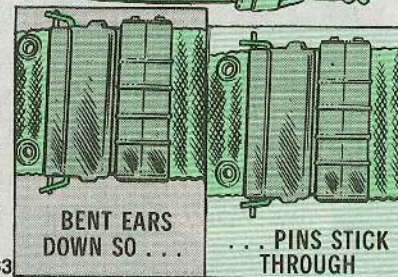
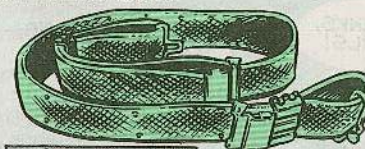
Never use any kind of tape to secure the liners. It'll peel the coating off when it's removed.

Wipe off any grease, oil, acid, food, or insect repellent as soon as possible.

INDIVIDUAL EQUIPMENT BELT

Some clinch buckles have come unlocked because the projecting hinge pins on the adjusting clamp are not sticking far enough thru the holes in the ears. When the belt gets caught on underbrush or other objects, it comes unlocked. The pins drop out, get lost and can't be replaced.

So, set the belt on edge on a medium hard surface. Use a shoe, rock or other object to bend the ears down so you see those hinge pins sticking thru real good.



BENT EARS
DOWN SO ...

... PINS STICK
THROUGH

HERE ARE
NSN'S FOR
COMMONLY
NEEDED REPAIR
PARTS...

REPAIR PARTS

CLINCH BUCKLE: For medium or large belts—NSN 5340-01-016-1941

PLASTIC FASTENER: For small arms ammunition case—NSN 5340-00-926-0002-753-5573

SNAP HOOK: For Suspenders, Equipment Belt — NSN 5340-01-022-8584 (Not yet on AMDF).

...AND HERE'S
A HANDY LIST
OF SOME NSN'S
FOR ITEMS YOU
MAY NEED!

Limit your repair work to minor hand sewing or taping damaged, broken, or loose stitching... and replacing keepers. TM 10-8400-201-23 (Jun 70) and TC 10-19 (Jul 76) are your ALICE PM guides.

THANKS,
GIRLS!

RIGHT ON!
ALICE WILL
LIVE HERE
FOR A LONG
TIME—NOW!

AS REQUIRED ITEMS

NOMENCLATURE

CASE, Maintenance Equipment, Small Arms	NSN 8465-00-926-6768
CASE, Shotgun Ammunition	261-6944
COVER, Water Canteen, collapsible	927-7485
COVER, Water Canteen, cold climate	753-6490
RIFLE BUTT Pocket and Strap Assembly	782-2779
SHEATH, Machette, for 18-in blade	257-4321
SHEATH, Machette, with sharpener	926-4932

Connie's ★ POST ★ SCRIPTS

Refueling M880 Trucks

Your M880 1½-ton truck has a 1½-in gas filler neck. It's too small for some refueling nozzles. You need to convert your 1½-in nozzles to 1-in nozzles with these parts:

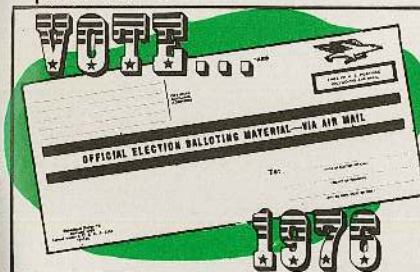
Nozzle, 1 inch, NSN 4930-00-360-0611, \$19.60

Coupling, quick-disconnect, 1 inch male to 1 inch female, NSN 4940-00-360-0710, \$7.63

Coupling, quick-disconnect, 1 inch to 1½ inch female, NSN 4730-00-889-2382, \$13.30

The Book You Need

You're up to here in maintenance. You need help. Then you need FM 29-2 (Aug 75), Organizational Maintenance Operations. Take a DA Form 17 and order a copy from the Baltimore pubs center.



U.S. GOVERNMENT PRINTING OFFICE: 1976-657-631/16

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

CONNIE, I GOT A
MAINTENANCE PROBLEM...
AND HERE IT IS!!

!!☆*☆!!

Voltage Regulating Box

The box assembly listed on page 206 of TM 9-2300-378-20P/1 under NSN 2920-00-907-9565 is not a throw-away item. The Source, Maintenance and Recoverability (SMR) code is being changed to PA000 to show it's repairable.

TM 9-2350-215-20 has no repair info in the maintenance instructions or MAC, but parts are available for this assembly.

Use the parts listed on pages 206 and 207 of the -20P/1 TM to fix it.

Property Book Initials

Paragraph 2-7c of AR 710-2 says only the property book officer initials postings to the property book. That's straight. No delegation is allowed. Anytime AR 710-2 refers to the posting individual's initials, that means the property book officer's only.

¾-Ton Wheel Stud

Change Stud, Wheel Hub, right hand on page 122 of TM 9-2320-212-20P to NSN 5306-00-499-9203. The number in the book gets you the wrong part.

AN/MPQ-4A Radar

Page B-22 of TM 11-5840-208-20 (Dec 71) calls for the use of TOOL KIT TK-105/G. This is wrong. What you need is the TK-101/G.

WANTED:

FOR
HOARDING PARTS



KRAFT T. HYDEM
alias: CHAIRMAN of the HOARD

SET HIM STRAIGHT . . .
BEFORE YOUR SUPPLY PIPELINE
RUNS DRY!!

1. Move those REPAIRABLES
to SUPPORT for OVERHAUL!
2. Send the COMPLETE ASSEMBLY!
Removing small PARTS or
MODULES runs up the TAB!!