

Issue 357

PS

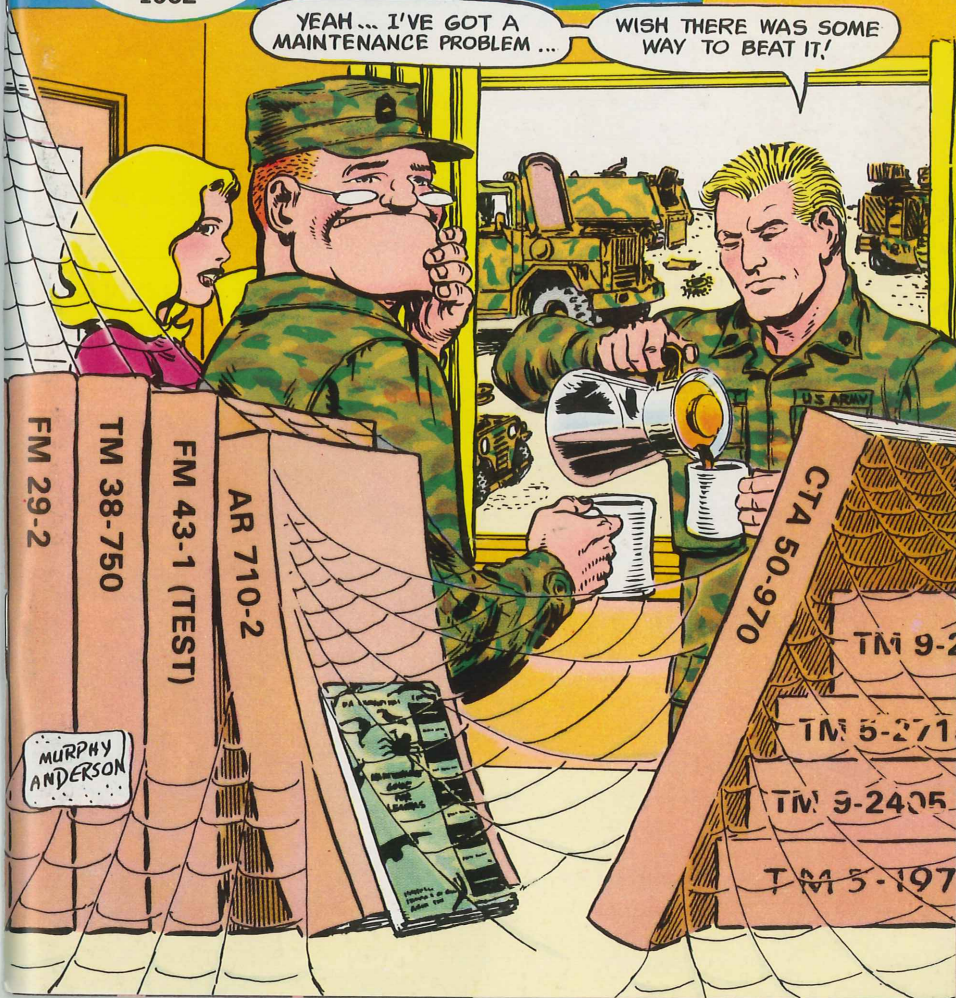
August  
1982

# THE PREVENTIVE MAINTENANCE MONTHLY

Pass  
this copy  
along to  
a buddy!

YEAH... I'VE GOT A  
MAINTENANCE PROBLEM ...

WISH THERE WAS SOME  
WAY TO BEAT IT!





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.

ISSUE NO. 357 AUGUST 1982

### TROOP SUPPORT

Maint Pubs & Forms	1	Battery Charger	57
NMCS/ANMCS Requests	8	T & P Units	58
AAL's	10	Disconnect	59
DA Form 2408-13	11	Couplings	60
EIR's/EIR Digests	29	Fuel Tank Repair	60
Mil Std Engines	54	ROPS	60
M2 Burner Unit	56	M17/M17A1 Masks	61
Shelter Repair	56	M258A1 Decon	64
Small Generators	57	BDU's	64

### FIREPOWER

M113-Series	12	M110, M578 Vehicles	17
M845 Projectile	17	M109 Howitzers	18

### GROUND MOBILITY

Oil Sampling Valves	20	Brake Fluid Tip	23
Alternator Cover	21	Gama Goat PM	24
Tire Bead Breaker	22	M880-Series	26

### AIR MOBILITY

Storage Rack	37	Black Hawk Engine	43
Safety Messages	37	First Aid Kit	43
CH-47	38	AN/PVS-5 Goggles	44-45
UH-1 Hoist	40		

### COMMUNICATIONS

Radio Remedies	46	RL-31 Reel	51
TMDE	48	U-184 Adapter	51
Painting		TT-76	52
Commo Gear	50	SB-3614	52
Radio Batteries	51	AN/GRC-103	53
		TA-838 Telephone	53

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, Supt. 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.

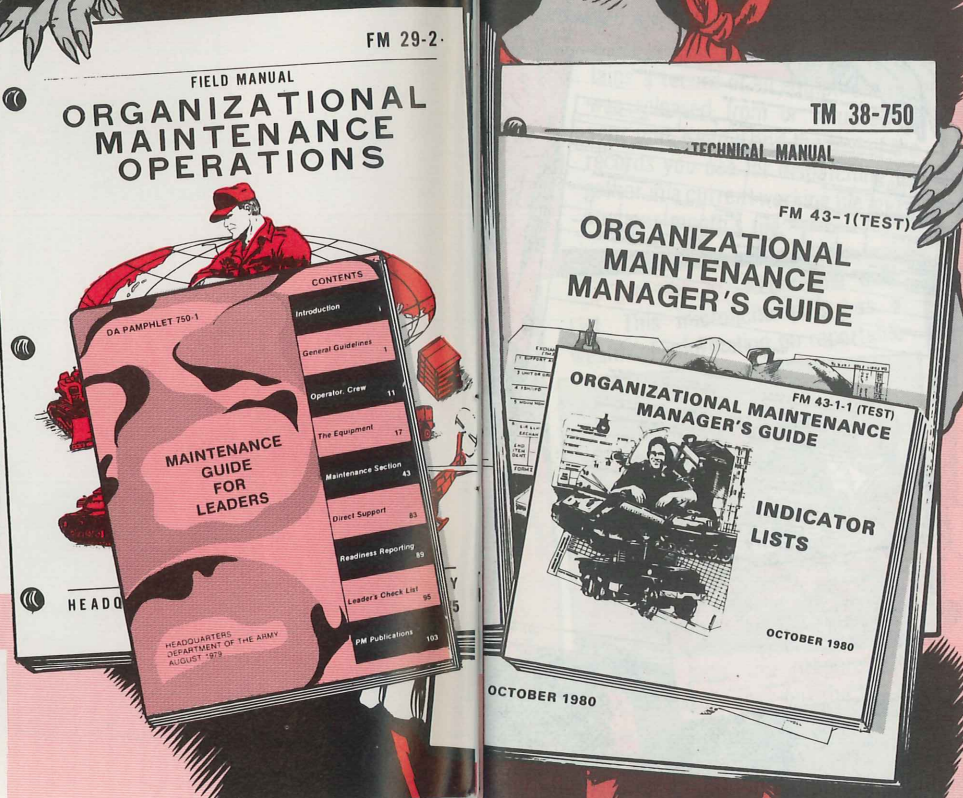
Maintenance Operations...

# YOU're the BOSS!

You've just been put in charge of maintenance for your unit's equipment. Whether it's motor maintenance, commo, weapons or some other area, the problems will generally be the same. So...

YOU'VE GOT TO  
BE IN THE KNOW  
TO RUN THE  
SHOW...

...AND YOU CAN  
DO THAT BY USING  
THE RIGHT  
PUBS!!



Start out by boning up on FM 29-2, Organizational Maintenance Operations. It has all the basics you need to help you run your maintenance setup.

You'll also want copies of the new manuals: FM 43-1 (TEST), Organizational Maintenance Manager's Guide, and FM 43-1-1 (TEST), Indicator Lists. They're aimed at the people who run the maintenance business at company and battalion levels.

Your next step is to get a copy of TM 38-750—the Army's "bible" for maintenance management records. It



lays out the equipment records system form-by-form with step-by-step instructions for filling them out.

Check the appendixes in the TM to find out which pieces of equipment you need to keep records on.

The required forms record the past, present and future of almost every piece of equipment your unit operates.



- **Policy and Precedence Records.** Copies of your SOP, policy and procedure statements and actions you want to use to set future procedures should be kept in one file.

• **Equipment Operator Qualification Record** (DA Form 348). Every operator in your organization who's qualified on an item of equipment should have an up-to-date DA Form 348 as well as the SF 46 license. The DA Form 348 shows what equipment the operator has qualified on and what kind of driving record he or she has.

- **Maintenance Requests** (DA Form 2407). Set up a file for organizational copies of DA Form 2407 you use to request support maintenance



and MWO work and other uses covered by TM 38-750.

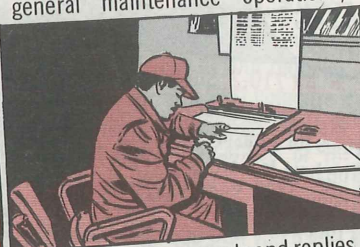
This file should also include property issue and turn-in slips, labor time tickets (when required) and other maintenance control forms and records.

- **Exchange Tag** (DA Form 2402). This tag is used for Direct Exchange (DX) items and for supporting EIR and warranty claims exhibits. It may also be used as a receipt tag for items being calibrated and other jobs required by your local SOP.

HERE'RE  
SOME OTHER  
FORMS AND  
RECORDS YOU  
NEED TO KEEP  
ON HAND...

[illegible]

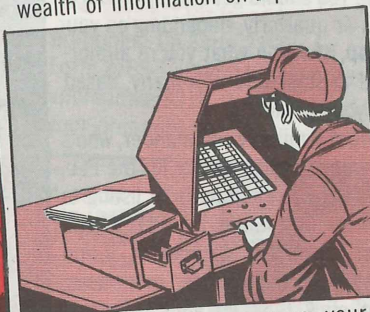
- **General Equipment Records.** Make a file to hold paperwork on general maintenance operations,



such as routine requests and replies, housekeeping type info and admin material.

- **Organizational Control Record** (DA Form 2401). DA Form 2401 is the official dispatch record. It contains a record of all equipment that was released from or returned to your unit. Keep it and the rest of the records you use for dispatching together in a current working file and a previous month's file.

- **SB 700-20**, Reportable Item List. This microfiche pub has a wealth of information on reportable

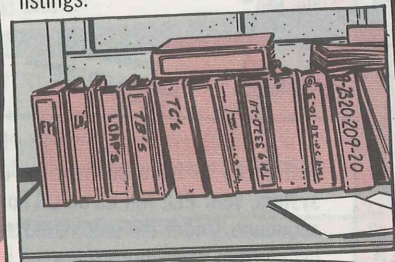


items to help you prepare your status reports. Toss out the old set when the new one arrives.

- **Vehicle Reference Paperwork.** Cards, indexes, equipment lists and similar records used locally to keep up with your equipment should go in a reference working file or file system.

You need 2 vehicle reference files—one for technical material and one for everything else. These files hold reports, pubs, letters, messages and other documents that contain information and procedures for equipment or motor pool operations.

- **Reference Publications.** Keep copies of all the pubs you need on your equipment. Appendixes A of FM 29-2 and FM 43-1 (TEST) have good listings.



ALSO KEEP COPIES OF DA  
AND COMMAND MESSAGES, LOCAL  
DIRECTIVES AND MANUFACTURER-  
TYPE MATERIAL YOU NEED  
FOR EASY REFERENCE!

GOTCHA,  
BONNIE!



## Repair Parts Supply

IF A REPAIR PARTS SPECIALIST WORKS FOR YOU, HERE ARE A FEW MORE PUBS, FORMS AND RECORDS YOU NEED TO KNOW ABOUT...

• **AR 710-2**, Supply Policy Below the Wholesale Level. It gives the rules for a basic supply organization. The how-to's are in DA Pam 710-2-1, Using Unit Supply System-Manual Procedures.

If you're under an automated system like DLOGS or DS4, you also need the user manual for that system—TM 38-L22-15-2 for DLOGS and TM 38-L32-11 for DS4.

• **CTA 50-970**, Expendable/Durable Items. This handy pub is your authority to order all sorts of expendable and durable items—except medical, ammo, repair parts or heraldic items.

• **Prescribed Load List**. The PLL lists the repair parts your unit is authorized to have on hand or on order. If you're under the manual system, your PLL will be on DA Form 2063-R with stock numbers in NIIN sequence. Under the automated system, you should get a PLL printout or listing from your support once a month or quarterly, depending on your setup, showing what you're authorized to stock and how many, based on your demands.

Your company commander, who's the approving authority for the PLL, also uses the printouts or listing to change or update the PLL to suit your needs and equipment. If you keep your old lists for references, just stick them in your reference publication file.

PLL

• **Document Register** (DA Form 2064). The document register is one of the most important records you have to maintain. Every supply action your repair parts specialist takes goes on DA Form 2064.

Periodically, you should get a reconciliation printout from support showing the status of your requests. Have your PLL specialist compare it with the document register and take action to followup, cancel or re-request, if necessary. Keep the printout until the next one arrives.

Under DLOGS and DS4 you'll also get Demand Summary Listings that show what and how many items you've requested. You'll also get Change Lists which the company commander uses to add, change or delete items to/from the PLL. Keep them with the document register, too.



• **Record of Demands**—Title Insert (DA Form 3318). The 3318 (optional for some automated systems) gives a running count of all the parts requested by your unit. Keep them in a visible file folder or visible file cabinet. When a card is filled, put the new one on top of the old one.

• **Nonstocked Item File** (DA Form 3318). Keep a separate DA Form 3318 on file for items you need that haven't qualified on the PLL.

If your support is automated, your demand for non-stocked items are maintained by computer. If an item qualifies for stockage based on demands, it'll appear on the PLL Change List.

• **Request for Issue and Turn-in** (DA Form 2765 and 2765-1). Keep at least 2 preprinted DA Form 2765's for each item on your PLL as well as a stack of DA Form 2765-1's. Until the preprints are used, keep them in the visible file with the appropriate 3318. If your support is automated and you don't keep 3318's, tuck your preprints in a sequence file in NIIN order.

IF YOUR UNIT'S UNDER THE COMBAT PLL/ASL PROGRAM...

...YOUR PLL CLERK ALSO NEEDS DA CIR 700-81-2 AND THE DA PAM 710-2-SERIES, MANDATORY PARTS LISTS, FOR YOUR TOE.



• **Cannibalization.** To get an item from the can point, fill out a DA Form 2765 and take it to your DSU. They'll record the demand and send you to the can point. Enter the action on your DA Form 3318 and your document register as you would a regular request.

• **Due-In Status File.** You need one due-in-status file. Due-in records are keyed to your document register and (if your support is automated) to your unit's reconciliation listing.



This file contains all status cards received (in document number sequence) for each request. When you get a status card from support, update your document register accordingly and file the card. As the items come in, your specialist pulls the cards and trashcans them.

OPEN AN ACCOUNT WITH YOUR LOCAL SSSC!...

...AND BE SURE YOU HAVE A LIST OF ITEMS YOUR QSS HANDLES!

• **Self-Service Supply Center (SSSC).** The SSSC is the supply source for housekeeping items such as expendable and durable items listed in CTA 50-970. Except for some common hardware items, the SSSC is not a source for repair parts. After you open an account with your SSSC, you may get a plastic "credit card" that keeps up with your shopping. SSSC also has a stock list and a form to use as your want list.

• **Quick Supply Store (QSS).** You should have a list of the items your local QSS handles and the form used as your "shopping list".

## INSTALLATION SUPPLY & SERVICES DIVISION, D.I.O.

SELF SERVICE SUPPLY CENTER  
FORT CARP, INDIANAPOLIS, IN 46204



SELF-SERVICE

CATALOG

## Storage

Repair parts need a special storage place. Protect them from weather, damage and theft. But keep them easy to locate. To help you keep up with your parts, label your storage areas according to use or size and location.



Record the location of the parts on your DA Form 3318 or printout and make sure anyone who handles the parts and tool storage understands your system.

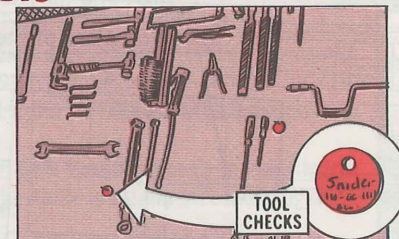
Any unit authorized to keep a PLL is also authorized storage bins or cabinets to contain the items. You decide where they'll be placed.

## Tools

Each mechanic is issued a tool kit on hand receipt. Keep tools under lock



and key when they're not in use. Control your small tools by mounting them on a toolboard. Make sure the toolboard is in a secure place.



You can also keep tabs on your small tools by using a checkout system. Have your mechanics sign for each tool they take out. Or, assign metal tags to each mechanic and hang their tags on the hooks of tools they check out.

## Training

If you could use some more training, check DA Pamphlet 351-4, US Army Formal Schools Catalog. It has several good courses for anybody heading up a maintenance shop. For example, the Ordnance School at Aberdeen Proving Ground offers the NCO Basic and the NCO Advanced courses.

Check with your own post or command. The course you need to put you on top of your maintenance operations may be right there on post.



For NMCS/ANMCS Requests...

# 3 Codes to Go!

For most coded items and actions, a single code goes.

But, Not Mission Capable Supply (NMCS) and Anticipated Not Mission Capable Supply (ANMCS) requests are so important you need 3 codes for them—plus all your usual entries.

ALONG WITH ALL YOUR USUAL ENTRIES...

... NMCS/ANMCS REQUESTS MUST HAVE THESE 3 BLOCKS FILLED IN...

**G in first place of the document serial number**

**W/ESDC**

**999 for overseas or CONUS units alerted for deployment; otherwise, E for ANMCS, N for NMCS**

ALWAYS PULL A "FINAL INSPECTION" OF YOUR NMCS/ANMCS REQUESTS FOR THESE 3 CODES...

- The letter **G** in the first place of Block 12 (card column 40) on your request form. That's the first place of your document serial number. Your local computers key in on that code.

- The end item or system Weapons/Equipment System Designator Code (W/ESDC) in the second and third place of Block 18 (card columns 55-56). Only items with an assigned W/ESDC qualify for NMCS/ANMCS requests. No code means no special request.

But there's an exception there. Some gear with no W/ESDC can really kill your readiness. If you have an item like that, get with your CO. As long as the gear has an Equipment Readiness Code (ERC) of A, your CO can OK the use of W/ESDC MY for it. (MY only applies to items that carry an ERC A, but have no assigned W/ESDC.)

The W/ESDC goes on all requests for parts and components of end items with those codes, though—not just NMCS/ANMCS requests. Appendix C of AR 725-50 and Appendix E of DA Pam 710-2-1 list the W/ESDC's. If the 2 disagree, go with AR 725-50.

- Beware! The Weapons Systems/End Item Identification Code in the fourth and fifth places of the MATCAT code on the AMDF is a different code altogether. Do not use it as your W/ESDC.

- **999** in Block 21 (card columns 62-64) on NMCS requests for overseas units that need REALLY hurry-up service or CONUS units alerted for deployment within 30 days. Para 2-12a of DA Pam 710-2-1 has more on that. Otherwise, put **E** for ANMCS or **N** for NMCS in Block 21 (card column 62). Non-Army computers use this block to identify NMCS/ANMCS requests.

NMCS/ANMCS REQUESTS COST A LITTLE MORE-- IN WORK AND CODES-- BUT THEY'RE WORTH IT!

CHECK YOUR LOCAL SUPPLY SYSTEM PUB OR PARA 2-12 OF DA PAM 710-2-1 FOR MORE INFO ON FILLING OUT AND HANDLING NMCS/ANMCS REQUESTS!



# Good Info-- But NOT Authority

YEAH--  
WE WANTA  
SERVE!

YOU'LL FIND  
MANY ITEMS  
COVERED BY  
ONE OF THESE  
CTA's...

- CTA 50-970, Expendable Items (Except: Medical, Class V (Ammo); Repair Parts and Heraldic Items).

Some of the newer -10 TM's tell you which AAL items are authorized by MTOE/TDA and which by CTA. They do not tell you which CTA, though.

Newer AAL's tell you what authorizes the AAL items

10

**x ⊗ x Status Symbol Sign-Off x ⊗ x**

SFC G.G.B.

No. Authority to downgrade a red-X to a circled-red-X for a one-time test flight is granted specifically for that purpose. This authority is normally restricted to the CO, maintenance officer and test pilots. This is explained in TM 38-750, Para 10-6.

5. Windy

Authority to downgrade a red-X normally rests with the CO, maintenance officer and test pilots



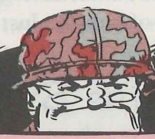
# Fan Drive Pulley Change



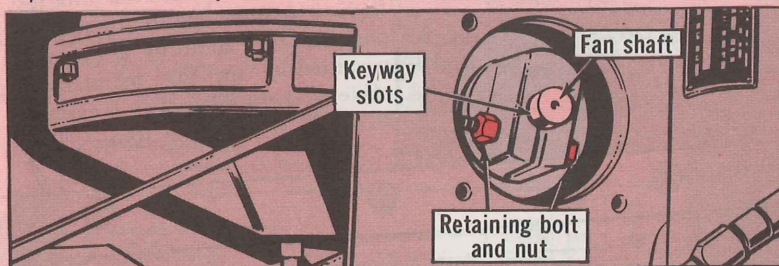
A change in the way you install the fan drive pulley will help prevent damage to your M113A2-type vehicle.

The wrong torque on the retaining bolt and the wrong positioning of the machine key can cause the pulley to fail.

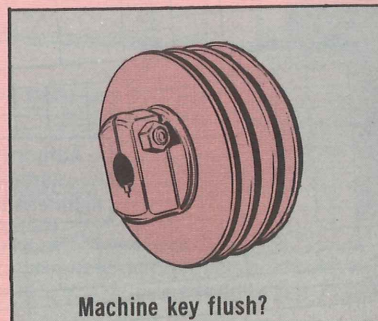
HERE'S WHAT TO DO NOW...



- Install the pulley, NSN 3020-01-060-2546, on the fan shaft. Then put the machine key into the keyway slots.



- Install the pulley retaining bolt, but don't tighten it.
- Put on the fan belts and align the pulley on the shaft so the grooves of the pulley are lined up with the grooves of the idler pulley and the fan drive pulley.
- Make sure the machine key is flush with the visible end of the pulley.
- Tighten the retaining bolt to 25-30 lb-ft.



Machine key flush?

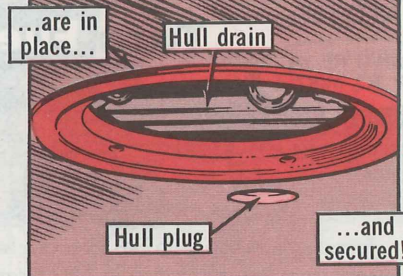
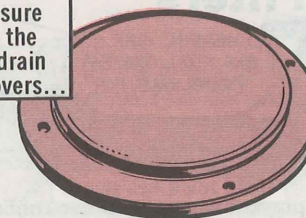
# Hull Access Drain Covers



You can go a long way toward keeping your vehicle's engine cool just by making sure the hull access drain covers are in place and secured.

For that engine to get the air circulation it needs, those covers must be in place.

Make sure the drain covers...



If they're not replaced after a hosedown, for example, and you run the engine, the fan will not only draw air from the vents on top of the hull, it'll draw air, dust and dirt through the open holes.

That junk collects in the engine compartment. It'll stick to anything that has oil, water or grease on it, causing heat to build up.

It'll also cut down the volume of air coming through the radiator. All of this together defeats the cooling system.

That will cause overheating and possible engine damage.

The bottom line is to make sure the hull access drain covers are bolted down tight.



Keep It Greasy...

## Oil to Grease Conversion

HMMM... SIMPLE, WATSON! IT WAS AN M113 WITH LEAKING OIL SEALS THAT PASSED THIS WAY!

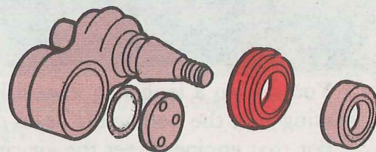
CLEVER, 'OLMES... BUT YOU'D NEVER HAVE DEDUCED THAT IF THEY'D CONVERTED TO GREASE AND GREASE SEALS!

Got leaking seals on your M113-series vehicles with oil-lubed roadwheels and track idlers?

Now would be a good time to convert from oil to grease. Instructions are in TM 9-2300-257-20, Pages 2-268 and 2-269.

Using the wrong seal can cause leaks and loss of lube that'll ruin the bearings and the arms.

Be sure to take out the oil seals and put in new grease seals, NSN 5330-01-035-9832. They work on both the roadwheels and track idlers.



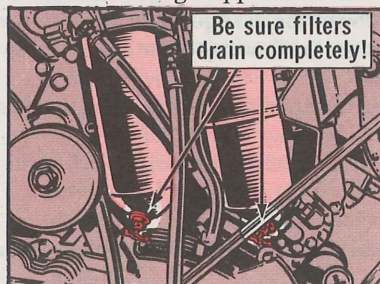
M113 FOV...

## Turn Fuel Filters

WHAT'RE YA UP TO, MIKE?

HEADIN' OFF BIG FUEL SYSTEM PROBLEMS, IKE!

Just a small change in position can help prevent water and other contaminants from being trapped in M113-series vehicle fuel filters.



Be sure filters drain completely!

If the drain cocks on both the primary and secondary fuel filter bowls aren't facing the left side of the vehicle (the drains will be lowest there), contaminants won't completely drain.

Loosen the bowl mounting bolts, then rotate the bowls to the correct position and retighten the bolts.

That's all it takes.

M113 FOV...

## Perils of Pivot Steering

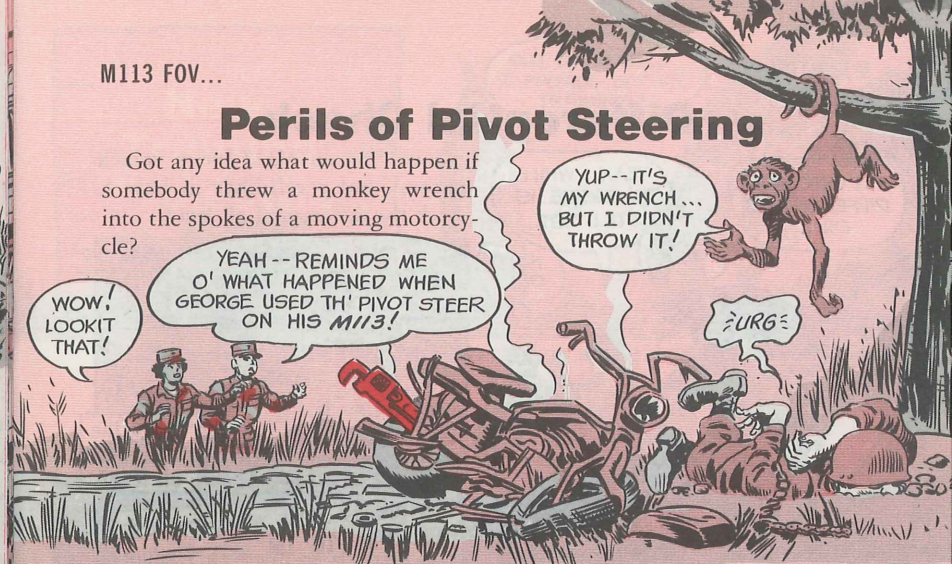
Got any idea what would happen if somebody threw a monkey wrench into the spokes of a moving motorcycle?

WOW! LOOKIT THAT!

YEAH -- REMINDS ME O' WHAT HAPPENED WHEN GEORGE USED TH' PIVOT STEER ON HIS M113!

YUP -- IT'S MY WRENCH... BUT I DIDN'T THROW IT!

URG



A bunch of damage to the cycle and possibly a world of hurt for the rider. That's about the reaction you'll get if you use the pivot steer on your M113-series vehicle at more than 15 MPH or in any drive range other than 1-2.

Things break, usually the U-joints and the transmission case. And, if the carrier overturns, you'll get broken too.

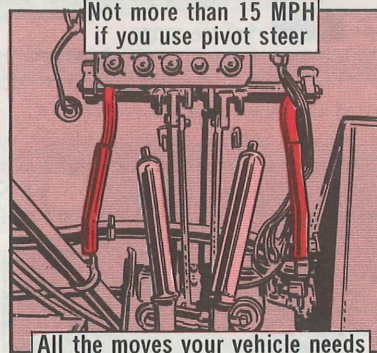
Even at speeds under 15, use of the pivot steer is murder on the U-joints, transmission and differential.

So why do you have a pivot steer anyway?

It was designed for use while your vehicle is "swimming" a stream.

Pivot steer is for "swimming"

Not more than 15 MPH if you use pivot steer



All the moves your vehicle needs to make on dry land can be made by using the steering laterals



Now that doesn't mean rush out and disconnect the pivot steer. Trouble can crop up then, too. If a loose horizontal rod jams the steering laterals, you lose control of the vehicle.

It's simple to operate your vehicle safely and keep a functional pivot steer. Use it only when you're in the water.

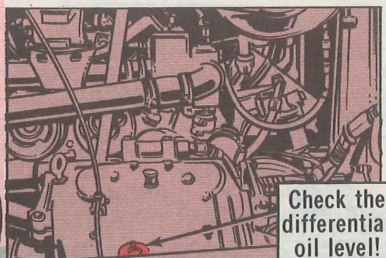
Otherwise, keep your hands off.



M113 FOV...

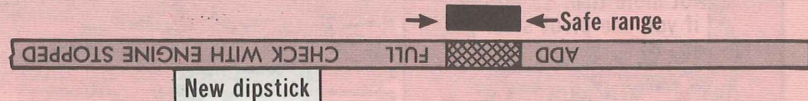
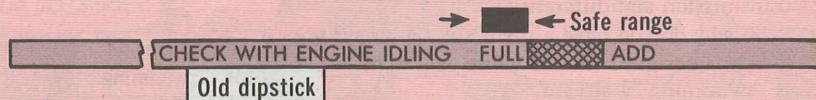
## Differential Check

Some of you M113-series vehicle drivers need a refresher in how to check the differential oil level.



• Always check when the oil is cold. The -10 TM says "before operations" for a good reason. You won't get a true oil level check any other way.

• Be sure to read the dipstick correctly. On the old style modified dipstick, the level can be as high as the letter F indicating the FULL mark, but no higher. Add oil if the level is below the safe range on the dipstick.



On the new type dipstick, the FULL mark is at the top of the safe range. Don't add oil unless the level is below the safe range.

YOU CAN GET THE NEW DIPSTICK WITH NSN 6680-01-075-2856!

M110-Series Howitzers...

## New Training Projectile



The M845 training projectile is now hitting the field. It replaces the M14 projectile and provides better training in handling, loading, ramming and extracting 8-in ammo. It is not to be fired!

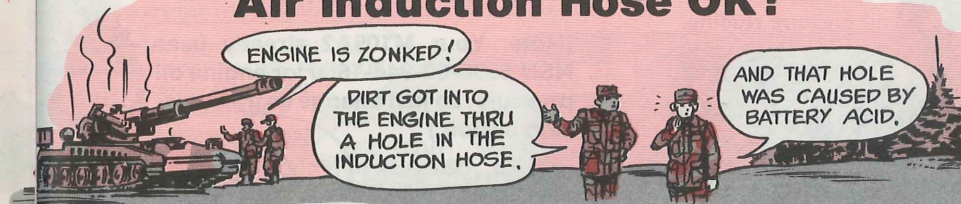
TB 9-2350-304-10 has the scoop.

The M845 is being shipped without its 2 rotating band kits and strap wrench. These will be shipped separately.



M110, M578 Vehicles...

## Air Induction Hose OK?



The next time you mechanics remove the batteries to service the battery box, take the box out, too, and give an eyeball to the air induction hose.

That hose runs right under the battery box. That means battery acid can get to it if the batteries and the box are not kept clean. If the hose is damaged, let your support know pronto.

To keep the hose in one piece, make sure the batteries and the battery box are kept clean.

Then check the hose every 6 months. It's cheap insurance against battery acid burnout and a possible engine failure.

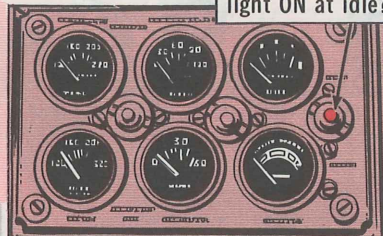




## Oil Pressure Lights

Does the master warning light on your M109A1, A2 or A3 howitzer stay on at idle?

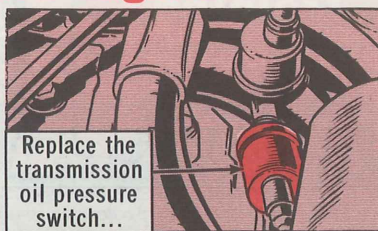
Master warning light ON at idle?



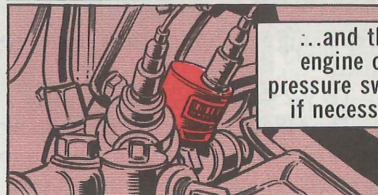
Could be you've got a problem with the oil pressure switches.

The switches, NSN 5930-00-692-9258 and NSN 5930-00-849-8935, close at too high a pressure.

That causes the warning light to burn and gives the driver the wrong oil pressure reading.



Replace the transmission oil pressure switch...



...and the engine oil pressure switch, if necessary

What you need to do is replace those switches with NSN 5930-00-944-1660. A good time to make the switch is your next Q service.

(Note: Your M109A2 already uses NSN 5930-00-944-1660 for engine oil pressure, so just change its transmission switch.)

GREAT! I GOT A MASTER WARNING LIGHT THAT WON'T GO OFF!

SAY, CONNIE... WHAT'S TH' RIGHT LUBE FOR OUR VANE-AXIAL FAN GEARCASE?

HEY, YEAH-- WHAT'S THE RIGHT TORQUE FOR TH' UNIVERSAL CAP SCREWS ANYHOW?

FALL OUT, MEN... CONNIE'S HERE TO HELP WITH ANY MAINTENANCE PROBLEMS Y' GOT!!

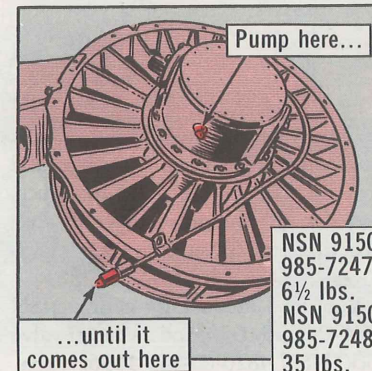
## Fan Gearcase Greasing

Quick quiz: What lube do you use in the vane-axial fan gearcase of an M109-series howitzer?

If you said GIA, you're right. If you said anything else, you're wrong. And, if you're using any other lube—like GAA—your gearcase is headed for failure.

GIA is the right lube because it can withstand the heat generated by the high gearshaft RPM.

How much GIA is enough? You've gotta pump in enough GIA so that it comes out the relief fitting. You can't save a gearcase from failure if you don't use enough grease.



Pump here...

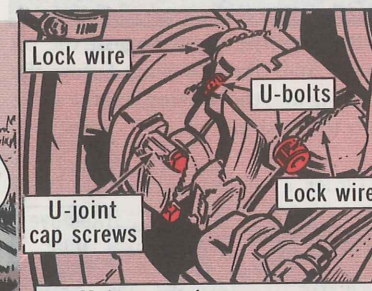
...until it comes out here

NSN 9150-00-985-7247  
6½ lbs.  
NSN 9150-00-985-7248  
35 lbs.

## Universal Joint News

The torque for the universal joint cap screws in TM 9-2350-217-20N (Dec 77) is too high.

Instead of 290-300 lb-ft, the right torque is 81-99 lb-ft. This new torque also goes for the M109A2 manual, TM 9-2350-303-20-1.



Lock wire

U-bolts

U-joint cap screws

Lock wire

Make sure the cap screws and U-bolts on the universal joints are secured with lock wire

A combination of loose screws and bolts, and missing or broken lock wires can make for serious damage to your howitzer and your body.

Torque 'em right and lock wire 'em tight.



GOOD NEWS,  
OL' BUDDY... I'M  
INSTALLING AN  
OIL-SAMPLING VALVE  
ON YA!

## Oil Sampling Valves

GREAT!

If you're still using a syringe and hose on your 2½-, 5- or 10-ton truck, here's how to put on a sampling valve. The valve makes sampling easier.

### 2½-, 5-ton Multifuel Trucks

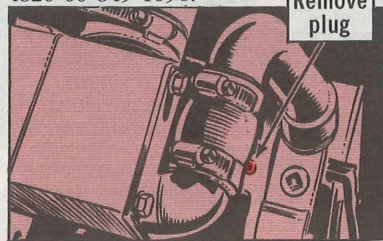
You need a reducing bushing, NSN 4730-00-196-0935, and a shutoff valve cock, NSN 4820-00-845-1096.



Remove the pipe plug in the oil cooler and filter housing. Screw the bushing into the housing and the valve into the bushing.

### 5-ton, TM-260-Series

Order a shutoff valve cock, NSN 4820-00-845-1096.

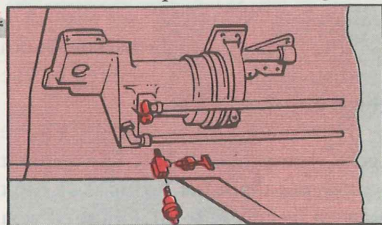


Remove the ¼-in pipe plug in the oil cooler housing. Screw the valve into the housing.

### 10-ton Truck

Get a pipe tee, NSN 4730-00-277-9615, and a shutoff valve cock, NSN 4820-00-845-1096.

Take the oil pressure sending unit



Remove sender, install tee and valve, replace sender

out and screw the tee in. Screw the sending unit and the valve into the tee.

### Tips

Use a pipe thread compound, like NSN 8030-00-616-7694, on all the joints. This will prevent oil leaks.

When you take an oil sample, slip a piece of tubing over the valve outlets. When you get the sample, throw the hose away—do not use it again!

### CAUTION

These fittings and valves have pipe threads—the threaded part is tapered. The more you turn it in, the tighter it gets. If you turn it in



too far, you'll bust something! Just tighten snug. Then run the engine to build up oil pressure. Check for leaks. If needed, tighten a little more—until the leak stops.

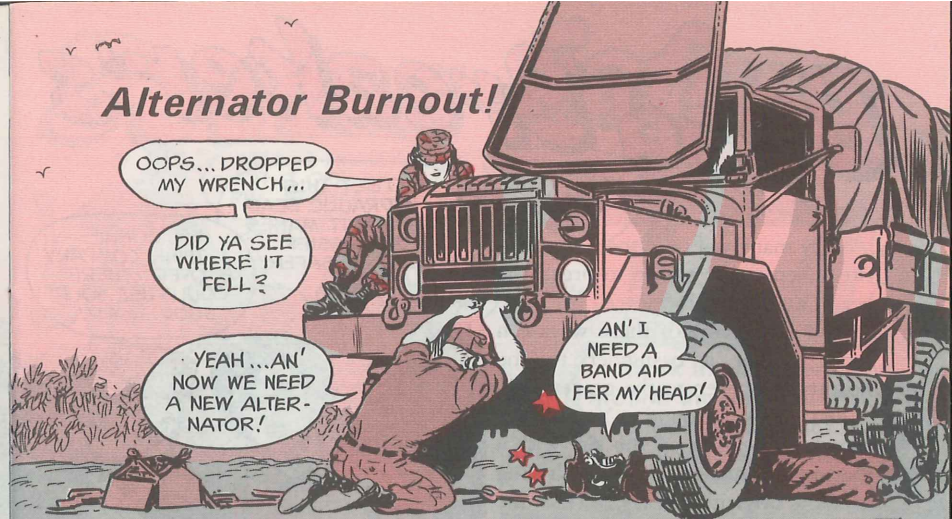
## Alternator Burnout!

OOPS... DROPPED  
MY WRENCH...

DID YA SEE  
WHERE IT  
FELL?

YEAH... AN'  
NOW WE NEED  
A NEW ALTER-  
NATOR!

AN' I  
NEED A  
BAND AID  
FER MY HEAD!



Lift up the hood of a lot of vehicles and you'll see big trouble in the making.

The protective cover's missing from the alternator cable connection! A wrench or some other tool dropped on this connection can cause a short circuit—and one dead alternator.

These covers don't wear out. They're lost. And there's only 1 cover, NSN 2920-01-078-5769, available as a replacement. It's for the Leece-Neve Models 3002AD and 3002AE.

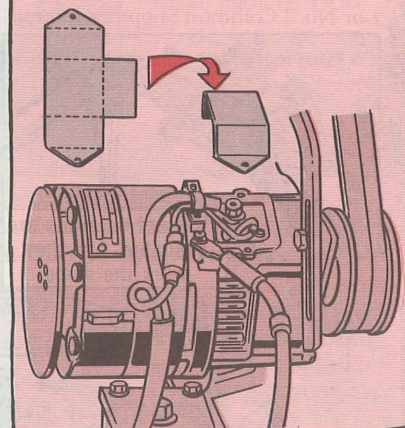
So what do you do if your cover's missing and there's no replacement available? Get your mechanic to make a new one out of sheet metal—heavy enough metal to do the job but light enough to bend without too much trouble.

Shapes and sizes of covers are not the same for all of the different models of alternators. So the terminal cover fabricated for one alternator may have dimensions different from the cover for another alternator.

—Figure the dimensions to fit your alternator.

—Make it high enough for plenty of clearance above the cable connection.

—Bend as shown by the broken lines.





# Bead Breaker's

# Better, Safer

How many ways are there to ruin a tire when you're trying to break the bead loose from the rim?

And how many of these ways can send you or a bystander to the hospital—or even to the graveyard?

Just look around. You'll see somebody beating on the tire with a mattock. Somebody else is driving over the tire with a heavy truck. Some people like to stand the tire and rim against a wall and mash the tire with a forklift. And there're other ways too painful to mention.

What a waste of time, muscle and tires! Not to mention the risk to life and limb!

There is a better way—and the smart people are doing it. They're using the air/hydraulic bead breaker, NSN 4910-01-015-7667, in their No. 1 or No. 2 Common Shop Equipment.

...SO GET THIS AIR/HYDRAULIC BEAD BREAKER... IT MAKES THE JOB EASIER 'N' SAFER!

WOW! GREAT !!

ER, BONNIE-- I THINK COMPANY B OVER THERE COULD USE YOUR GOOD WORD!



It's fast. It's easy. It's safe. It's almost fun. But, best of all, it loosens the tire from the rim without causing damage to either.

You can use this tool in the field, even though you may not take your shop air compressor with you. You just hook up to the compressed air supply of a truck with air brakes or air-over-hydraulic brakes.



Jaw and teeth grip the rim while the breaker tongue pushes the bead away from the rim

## BFS Not for Everything!

YES, THE BRAKE SYSTEM ON YOUR RIG USES BFS-- BUT THE HYDRAULIC SYSTEM DOES NOT!!

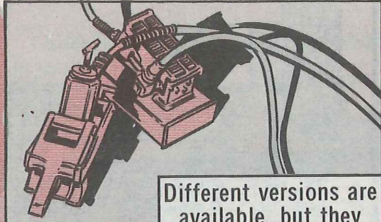


HMMM, UNDERSTOOD! ER... CAN WE USE IT ON OUR MAB'S?

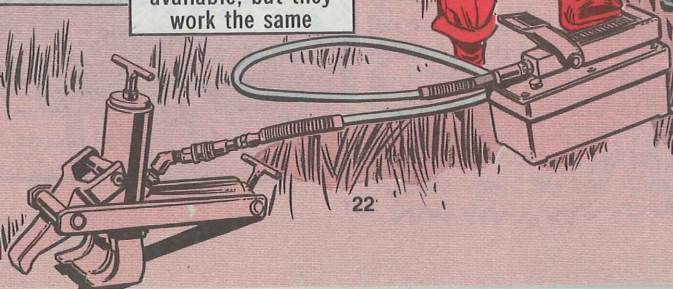


Hold that jug! Silicone brake fluid is not for all hydraulic systems. Only hydraulic systems using polyglycol brake fluid (VV-B-680) can be converted to silicone brake fluid. Serious seal damage may result from using BFS in any other system.

TM 43-0002-87, Brake Fluid Silicone (BFS) Conversion Procedure for Tank Automotive Equipment, says all Army vehicles and equipment using polyglycol brake fluids will convert to silicone brake fluid. The mobile assault bridge/ferry (MAB), Condec Model 2270, has been included in the BFS conversion program.



Different versions are available, but they work the same





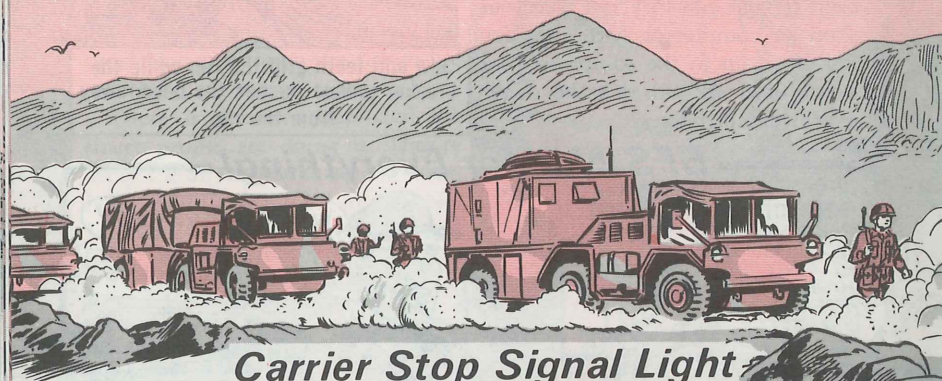
## Easy? No!—Needed? Yes!

If a lube point is hard to reach or is hidden, it stands a good chance of being missed—time after time after time. It may never get lube!

That's what's happening to a lot of Gama Goat brake/clutch pedal shafts. Both clutch and brake operation suffer when the shaft binds. Then, if you try to force the pedals, you'll tear up the shaft support brackets. Everything goes from bad to worse. Getting up in there to replace parts is a bear!

It's a little easier and a lot simpler to keep the shaft lubed in the first place. Your Gama Goat semi-annual lube job is not complete until you go by the

word in LO 9-2320-242-12, Page 2—"BRAKE PEDAL GAA 6", and Page 4, Note 1, 6,000-mile lube, "brake and clutch linkage ... OE/HDO".

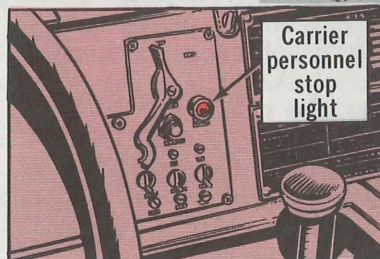


## Carrier Stop Signal Light

Order NSN 6210-00-688-5088 when you need a Gama Goat instrument panel carrier stop signal light.

This gets you the light assembly without wires. The light assembly with wires, NSN 6210-00-295-1909, is not available.

The word on installing the light is in Para 7-9 of TM 9-2320-242-20-3-1.

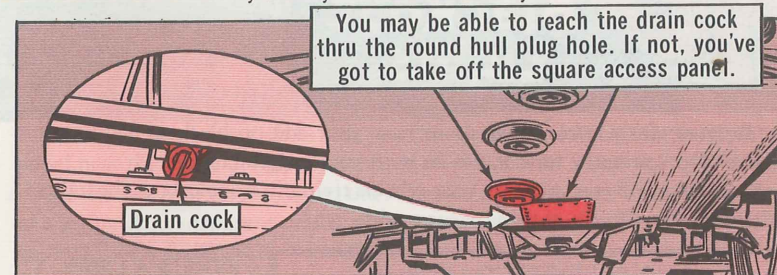


## Update Goat LO

You may not be draining your Gama Goat's air reservoir tank often enough.

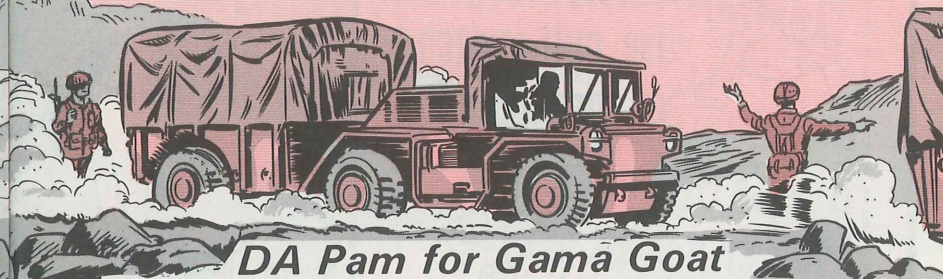
And you may be servicing the engine air cleaner more often than you need to.

LO 9-2320-242-12 says the "air reservoir tank, sealed brake system" needs draining only at 6-month or 6,000-mile intervals. That's not enough! The tank should be drained every 30 days. Make a note in your LO.



And, if you go strictly by the LO, you may be servicing the engine air cleaner when it doesn't need servicing. If the engine's not running, the air cleaner doesn't get dirty, right?

So forget that "month" that goes along with "1,000 miles" for air cleaner service. Just stick to the 1,000-mile interval. Note this in your LO, too. Also, see DA Pam 750-31, Page 32, for more details on air cleaner servicing.



## DA Pam for Gama Goat

Do yourself a favor. If you're a Gama Goat operator, or if you do maintenance on the Goat, make sure you have a copy of the handy-dandy DA Pam 750-31, The M561/M792 Gama Goat, Operation and Preventive Maintenance.

It's got a lot of tips that'll make life easier for you—and better for your Goat. You can tell the current DA Pam 750-31—it's got no date on it. It superseded DA Pam 750-31 (Nov 70). Your pubs clerk can order as many copies as your unit needs.

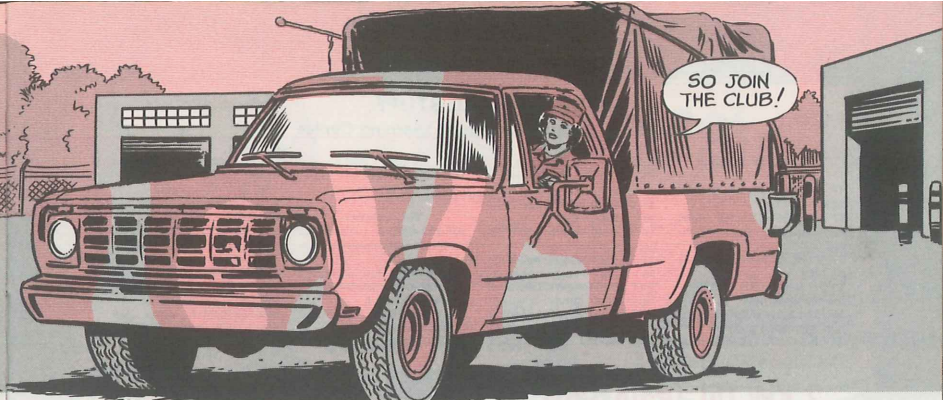


TM-266-Series  
1½-Ton Truck...

# M880

## Blackout Lights

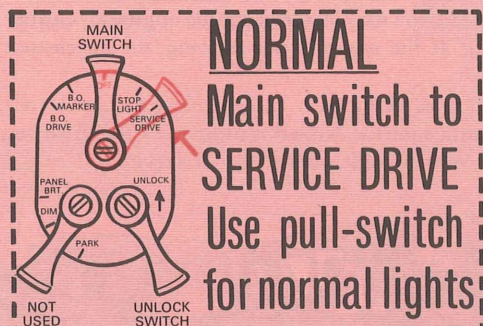
I CAN DO A RUBIC'S CUBE IN 3 MINUTES, BUT THIS'S GOT ME STUMPED!



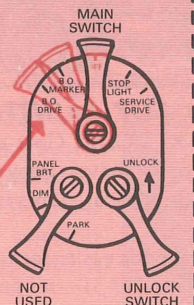
Drivers, are you confused about how your add-on blackout light system works? Do you know how it ties in with your regular lights?

Mechanics, are you spinning your wheels trying to troubleshoot the lights—when, maybe, there's nothing wrong with 'em?

CLIP ON DOTTED LINE



**BLACKOUT**  
Main switch to  
B.O. MARKER  
or B.O. DRIVE  
as required



CENTER ON PLASTIC SHEET

HERE'S A LABEL THAT TELLS THE STORY...



With your local command's OK, you can mount the label on the instrument panel near the blackout light switch—or on the door or wherever the CO says.

Cut the label out on the dotted line. The outside solid line shows the position of a self-stick, transparent plastic sheet you put over the label to mount it. You get 100 sheets under NSN 9330-00-618-7218. They're authorized by Appendix A, CTA 50-970. First, tho, try your SSSC (Self-Service Supply Center). If only larger sheets are available, they can be cut to size.

Remember! Leave the MAIN SWITCH in the SERVICE DRIVE position all of the time—except when you need blackout lights. If you put the switch in the OFF position (straight up), you also cut off your normal lights.

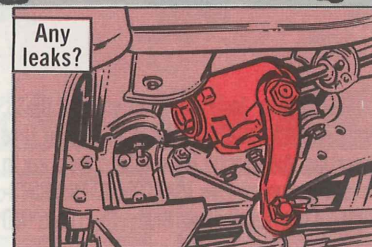
## Steering Gear Chuck Leaks



Check over the steering gear chuck on your M880-series 1½-ton truck for leaks.

It's lubricated and sealed at the factory, so most people forget about it. It may leak, tho, so an occasional "look-see" can head off problems.

If you find any leaks, report 'em. It's a general support repair.





## AUDIO-VISUAL STUFF

Available at Battalion or post Learning Center

### Films, TV Tapes

TF 3-6233 Maint of chemical agent alarm  
TF 10-6255 ...At the silver bars (property accountability)  
TF (VT) 20-6222 Cold weather training  
TVT 9-59 ARTEP for maintenance unit  
MF 38-13110 TMDE calibration and repair support  
TVT 9-54 Intro to shop opera-

tions  
TVT 9-58 TMDE calibration and repair  
TF 44-6179 HAWK AN/TPQ-29 - Intro  
TF 44-6180 HAWK AN/TPQ-29 - Programming  
TF 44-6181 HAWK AN/TPQ-29 - ECM  
TVT 44-131 HAWK Lesson 8: Prep for air move  
TVT 44-132 HAWK Lesson 9: Prep 60-KW gen for air move  
TVT 46-123 UH-60 Black

Hawk preflight - Part I  
TVT 46-124 UH-60 Black Hawk preflight - Part II

### TEC Lessons

101-113-4822-A Advanced soldering techniques for electronics  
621-113-6017-A Construct field cable line CX-1065/G or CX-1606/G Part I  
621-113-6018-A Construct field cable line CX-1065/G or CX-1606/G Part II

621-113-6022-A Trouble-shoot field cable line CX-1065/G or CX-1606/G  
621-113-6025-A PM on TS-27B/TSM  
644-093-7073-A Trouble-shoot Honest John adaption kit, Part I  
644-093-7090-A Storage monitoring LANCE warhead section  
644-093-7224-A Prep DA Form 2409 and DA Form 2408-14

## 3-KW Oil Drain Pipe

The oil drain pipe extension, NSN 2805-01-045-9735, shown on Page 59 of PS Magazine 351, is for 3-KW GED MEP-016A, -021A and -026A models only. Also, the correct magnetic oil drain plug number is 4730-00-788-0441.

## 1.5-KW Gen Set

The throttle control lever—Item 6, Fig 9, TM 5-2805-257-24P—is not a component of the governor replacement kit, NSN 2990-00-832-5674, for your 3-HP Mil Std engine. The lever is a separate repair part, NSN 2910-01-109-3981.

## Camouflage Pub

The camouflage screen system has its own TM. Check out TM 5-1080-200-10. Forget the poop on instruction cards that come overpacked with the sets. The info on them may be out of date.

## New 1352 Address

Make a note for Para 14 of your AR 95-33, Army Aircraft inventory, Status and Flying Time Reporting. All your DA Form 1352 reports are to be sent to: Commander, TSARCOM, ATTN: DRSTS-SPRL, 4300 Goodfellow Blvd., St. Louis, MO 63120.

## Powder Thermometer

Need the NSN for a powder temperature thermometer for your artillery outfit? Use NSN 6685-00-344-4603 for the M1A1 job.

## Filter Element Update

The NSN for the pleated paper filter element on Page 9 of PS 349 has been changed. It's now NSN 4330-00-028-6757. That filter is used in fuel-burning heaters in many vehicles and on the MEP-018A generator.

## M151-Series Seat Belts

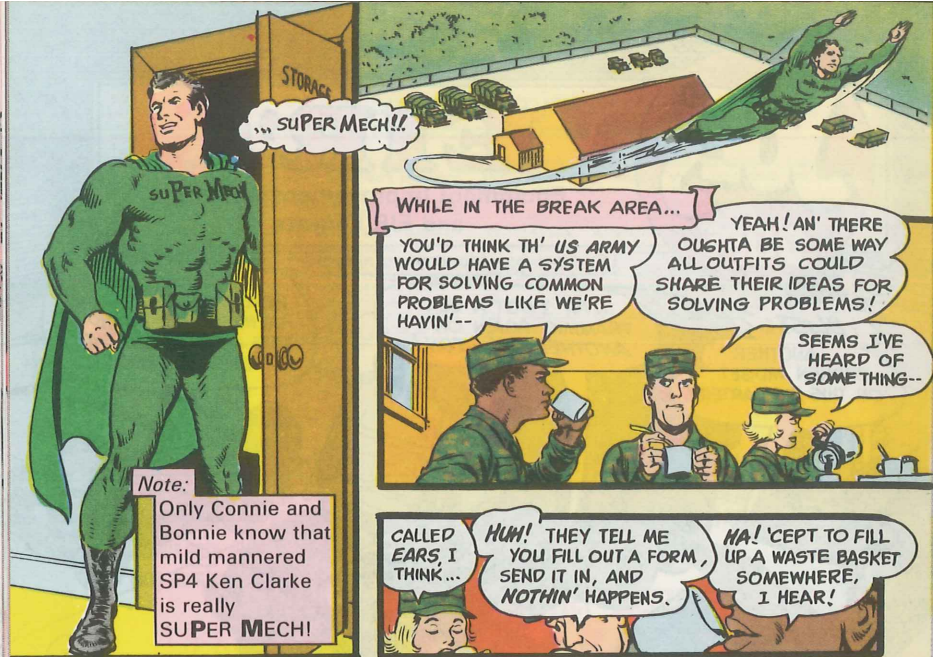
Seat belts have nothing to do with the mission capability of your M151-series ¼-ton truck. TACOM Msg DRSTA-MTA 151705Z Dec 78 and Para 2-10b of TB 43-0001-39-4 (Jan 79) removed the PMCS seat belt inspection—Item 15, Page 2-12, TM 9-2320-218-10.

## Return Unserviceables

Keep the aircraft supply pipeline going. Unserviceable CH-47 rotaty pumps, NSN 4320-00-155-4209, are needed for overhaul. Also in short supply are thermocouple probes, NSN's 6685-00-235-4593 and -4594, used with the Jet-Cal engine analyzer.







... SUPER MECH!!

WHILE IN THE BREAK AREA...

YOU'D THINK TH' US ARMY WOULD HAVE A SYSTEM FOR SOLVING COMMON PROBLEMS LIKE WE'RE HAVIN'--

YEAH! AN' THERE OUGHTA BE SOME WAY ALL OUTFITS COULD SHARE THEIR IDEAS FOR SOLVING PROBLEMS!

SEEMS I'VE HEARD OF SOMETHING--

**Note:**  
Only Connie and Bonnie know that mild mannered SP4 Ken Clarke is really **SUPER MECH**!

CALL EARS, I THINK...

HUH! THEY TELL ME YOU FILL OUT A FORM, SEND IT IN, AND NOTHIN' HAPPENS.

HA! 'CEPT TO FILL UP A WASTE BASKET SOMEWHERE, I HEAR!



**WRONG!**

WH - WHY IT'S... ...BONNIE... AN'...

WOW! SUPER MECH!



GLAD YOU BROUGHT ME HERE, SUPER MECH...

...OBVIOUSLY, THESE TROOPS NEED SOME EDUCATION ABOUT THE WHY AND HOW OF SF 368'S!

WHAT'S AN SF 368?



AN SF 368 IS THE FORM USED BY SOLDIERS ARMYWIDE TO REPORT EQUIPMENT PROBLEMS TO THE HEADSHED...

... AND TO OFFER IDEAS ON HOW TO SOLVE THOSE PROBLEMS!

THAT'S WHY IT'S CALLED AN EIR.\*

\* Equipment Improvement Recommendation

EIR'S PLAY A VITAL ROLE IN HELPING DECIDE WHICH PROBLEMS ARE MOST SERIOUS!

RIGHT, BONNIE... WHETHER YOUR PROBLEM GETS FAST ACTION DEPENDS PARTLY ON HOW COMMON THE PROBLEM IS THROUGHOUT THE ARMY!

THIS IS ONE OF THE FACTORS WEIGHED BY THE HEADSHED!

YES, AN EIR SHOULD BE SUBMITTED EACH AND EVERY TIME THE PROBLEM COMES UP!

THAT HELPS BUILD A CASE FOR FASTER ACTION!

YOUR EIR IS NEVER IGNORED OR TOSSED OUT! YOURS MAY BE JUST THE ONE TO TRIGGER ACTION ON A CASE THAT'S BEEN BUILDING!

WHO IS THIS CRAZY DUDE, ANYHOW?

WHAT HE SAYS MAKES SENSE!

I BELIEVE HIM!

KEEP THE FIRE GOING UNDER A PROBLEM THAT KEEPS COMING UP OVER 'N' OVER! IT'S THE OLD STORY OF THE "SQUEAKY WHEEL GETTING THE GREASE"!

HERE'S A POSTER ON THE SUBJECT THAT YOU CAN PIN UP FOR ALL YOUR MAINTENANCE TYPES TO EYEBALL...



# Joe's Dope Sheet

Some action is needed by You  
To beat an equipment SNAFU!  
The facts on your form  
Will help to inform:  
You may have the One Missing Clue!

THE COMMODITY  
COMMANDS PUT  
OUT DIGESTS OF  
THE INFO SENT  
IN BY TROOPS  
LIKE YOU!

HERE'S A LIST  
OF EIR DIGESTS...

... AND THE PINPOINT  
FORMS FOR ORDERING!!

GET YOUR ORDERS  
IN... SOONEST!

## EIR DIGEST

TB 43-0001-1-Series  
TB 43-0001-2-Series  
TB 43-0001-3-Series  
TB 43-0001-9-Series  
TB 43-0001-11-Series  
TB 43-0001-16-Series  
TB 43-0001-17-Series  
TB 43-0001-18-Series  
TB 43-0001-20-Series  
TB 43-0001-22-Series  
TB 43-0001-23-Series  
TB 43-0001-24-Series  
TB 43-0001-26-Series  
TB 43-0001-27-Series  
TB 43-0001-28-Series  
TB 43-0001-30-Series  
TB 43-0001-32-Series  
TB 43-0001-35-Series  
TB 43-0001-36-Series  
TB 43-0001-39-Series  
TB 43-0001-40-Series  
TB 43-0001-41-Series  
TB 43-0001-42-Series

## EQUIPMENT

Fixed Wing Aircraft  
Rotary Wing Aircraft  
COMSEC  
Electronics Command  
Troop Support Command  
Nike-Hercules  
Chaparral  
HAWK  
Redeye  
Land Combat Support System  
Pershing  
Shillelagh  
TOW  
Lance  
FAAR  
Dragon  
Calibration Standards and Accessories  
Nuclear Weapons Materiel  
Weapons, NBC  
Tank-Automotive  
Commercial Automotive  
Construction Equipment  
Material Handling Equipment

## ORDER ON—

DA 12-31, Block 481  
DA 12-31, Block 482  
DA 12-43, Block 2  
DA 12-34C, Block 314  
DA 12-34C, Block 318  
DA 12-32, Block 599  
DA 12-32, Block 519  
DA 12-32, Block 559  
DA 12-32, Block 619  
DA 12-32, Block 589  
DA 12-32, Block 609  
DA 12-32, Block 639  
DA 12-32, Block 659  
DA 12-32, Block 579  
DA 12-32, Block 529  
DA 12-32, Block 669  
DA 12-34C, Block 319  
DA 12-35, Block 2  
DA 12-34C, Block 313  
DA 12-38, Block 140  
DA 12-38, Block 141  
DA 12-34C, Block 316  
DA 12-34C, Block 317

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.



HERE'S HOW TO  
FILL THE FORM OUT!

Your initials, the  
Julian date for the  
day you fill out  
the form plus a  
slash and the  
number of times  
you've reported  
this problem or  
recommendation.

Block 22 is the  
heart of the EIR.  
Para 12-5b (1) (x)  
of TM 38-750 gives  
you a list of points  
to cover in this  
block. But this is  
your report, so tell  
it in your own  
words.

You fill out Section I only.

See Appendix B of  
TM 38-750 for screening  
point addresses (the  
NMP).

Complete these  
blocks only if you  
have the info. No?  
Leave them blank.

Section II is  
filled out by the  
people in Block 2a.  
You leave it blank.

DO NOT DETACH THIS STUB ON COPIES FORWARDED TO SCREENING AND ACTION POINTS  
Carbon paper not required to complete this side.

### QUALITY DEFICIENCY REPORT (Category II)

#### SECTION I

1a. Item (Originating point)  
CVA 4, 24th Trails  
APO San Francisco 96271

1b. If Name, Duty Phone and Signature  
CVA Thura Trey Whisking

1c. Control No.  
2222/1

7. Manufacturer, Code/Shipper  
C Corp.  
15 Div 0000

8. Date Deficiency Reported  
15 AUG 82

5. National Stock No. (NSN)  
2220-21-01-0001

8. Mfg. Part No.  
0000

6. Nomenclature  
Switch, Ignition and Starter w/wiring

2b. Typed Name, Duty Phone and Signature  
Commander  
Defense Construction Supply Center  
Columbus, OH 43210

11. Item  
☐ New  
☐ Rebuilt/Overhauled

12. Date Manufactured/Received  
01/7000

13. Operating Time  
0000

10. Contract/PO/Document No.  
DAFORD-000000

14. Government Exptl.  
0000

15. Utility  
nd Item  
trails,  
ship,  
ser, etc.)  
ht  
rly

16. Deficient Item Works On/With  
ht  
rly

17. Dollar Value  
A1 - 50

18. Est. Correction Cost  
0000

19. Item Under Warranty  
☐ Yes ☒ No ☐ Unknown

20. Work Unit Code/EIC (Navy and Air Force only)  
0000

21. Action/Disposition  
☒ Holding Exhibit  
☐ Released for Investigation  
☐ Returned to Stock/  
Disposed of

22. Details (Describe as fully as possible, what is wrong, how and why, circumstances prior to difficulty, description of difficulty, cause, action taken including action, recommendations. Identify with related item number. Include and list supporting documents. Continue on separate sheet if necessary.)

23a. To (Action Point)

23b. Typed Name, Duty Phone and Signature

24a. To (Support Point) (Use Items 25 and 26 if more than one)

25a. To (Support Point)

25b. Typed Name, Duty Phone and Signature

26b. Typed Name, Duty Phone and Signature

368-101

STANDARD FORM 368, April 1974  
General Services Administration (FPMR 101-26-7)





FRIEDA, DID YOU EVER COME UP WITH A SOLUTION TO OUR HANGAR STORAGE PROBLEM?

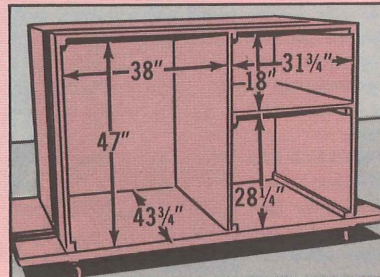
Rack 'em Up!



Dear Editor,

Finding a place to store cowling and components in a hangar jammed with aircraft is always a problem.

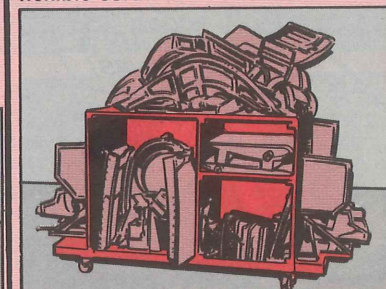
We solved it by making a portable rack with 3 bins, using 3/4-in plywood, 2x4-in studs, and 3 1/2-in casters.



The dimensions of each bin differ to accommodate AH-1, UH-1, OH-6A and OH-58 parts.

Aircraft seats are attached to the sides and rear of the rack by using

hooks. Large cowlings are placed on top of the rack and secured with flexible cord.



No more stumbling over loose cowling any more—not when we wheel up this baby during a Phase Maintenance inspection.

SFC Henry B. Priebe  
SFC Louis W. Jones  
Colorado Army National Guard

(Ed Note—Good going! Looks like a real space saver.)

## Safety-of-Flight Messages

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

UH-60A-82-06 Maint Mandatory, Inspect pilot/co-pilot seat rubbing bar DRSTS-M 291600Z Apr 82

GEN 82-03 Operational, restricts all

rescue hoists from life mission other than Urgent DRSTS-MEA 081445Z Apr 82  
AH-1-82-04 Emergency, Inspect pitch change tubes DRSTS-MEA 152200Z Apr 82  
AH-1-82-05 Rescinds Message AH-1-82-04 and provides additional info DRSTS-

MEA 231900Z Apr 82  
CH-47-82-02 Technical Inspect rotor blade shock absorbers DRSTS-MEC 011630Z Apr 82  
CH-47-82-03 Technical Inspect connecting link clevis fitting DRSTS-MEC 212150Z Apr 82

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



# Noggin Protector

OWW!

CONNIE --  
WE NEED  
SOME  
PROTECTION!

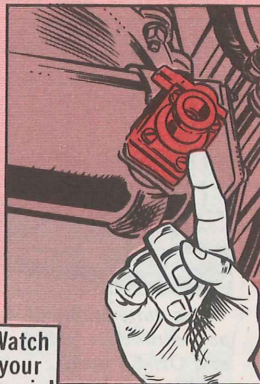
SO, HOP TO IT,  
MECHS!... THE  
NOGGIN YOU  
SAVE MAY BE  
YOURS!

Dear Editor,

Pulling maintenance in the area of the CH-47 aft transmission requires raising the ramp to floor level so you have a flat place to stand.

But watch your noggin! The transmission drain valve is just above eye level and you can walk right into it. So we made up a soft protective cover to prevent injuries.

Watch  
your  
noggin!



To make the cover, make a 4½-in diameter circular cut in 2 pieces of 2-in thick foam rubber. Make a 1¾-in diameter hole thru 1 piece to accommodate the drain valve.

Stack the 2 pieces together and wrap 'em with pressure sensitive tape. Include 2 pieces of ¾-in Velcro tape, 7 inches long—located 180 degrees apart—so you can attach the cover to the transmission.

Glue 2 other pieces of the Velcro tape, each 4 inches long, to the transmission, 4½ inches apart, on line.

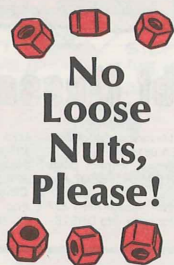
Install the cover over the drain valve by meshing the Velcro tapes together.



The cover works like a charm.

Mr. Paul L. Paitsel  
USATSCH  
Ft Eustis, VA

(Ed Note—Good going!)



No  
Loose  
Nuts,  
Please!

If your Chinook has riveted nuts on a drive shaft flexible plate pack, take a close look at 'em during your inspections, crew chiefs.

Any residue between an adapter and plate means the nut is loose. The result can be a cracked plate, pieces broken off and high-frequency vibrations in flight.

On some drive shafts, pieces of the plate can wind up in an engine, causing minor foreign object damage.



Look for  
residue on  
riveted nut

You can't tighten riveted nuts with a torque wrench. So replace the nuts and bolts on the affected plate pack, using the same hardware listed in TM 55-1520-209-23P—without the rivets.

Then you can use a torque wrench on those nuts.





YOUR AIM  
IS TO BE  
ABLE TO GO  
WHEN THE  
WORD COMES,  
RIGHT?

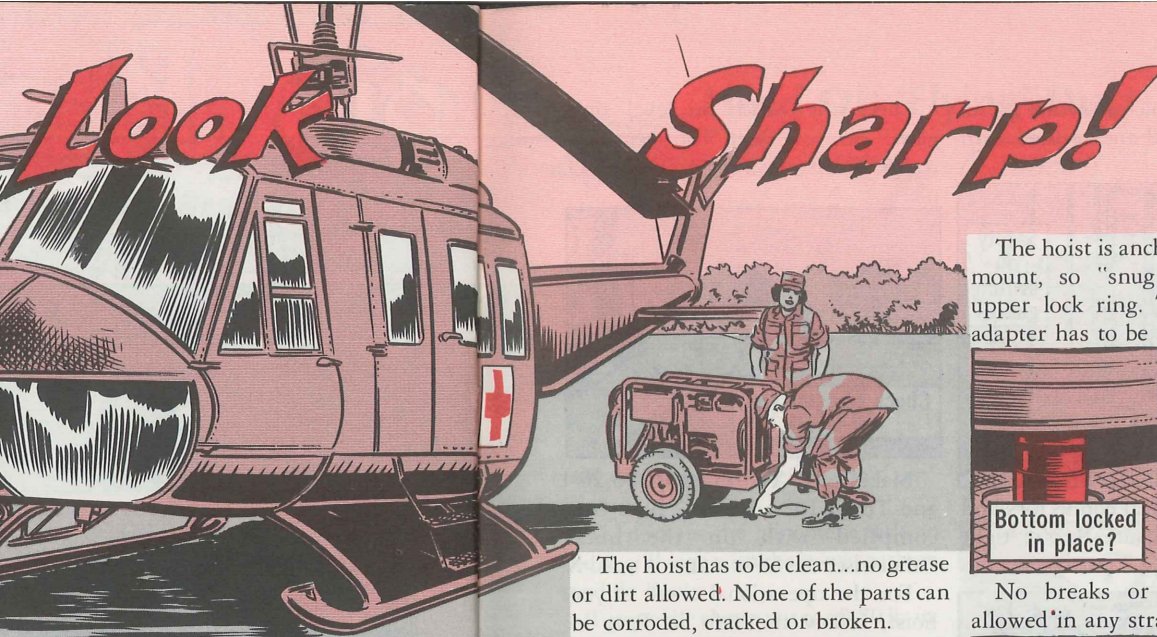
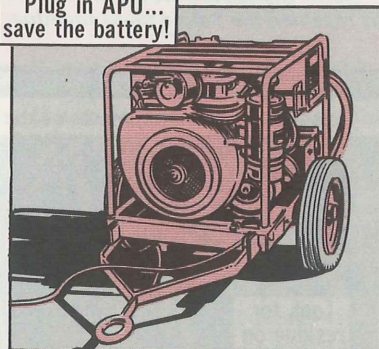
HERE'S  
SOME INFO  
TO HELP  
YOU!

If you're in a dustoff outfit, you may be called upon to use hoist, NSN 1680-01-058-3671, on a rescue mission.

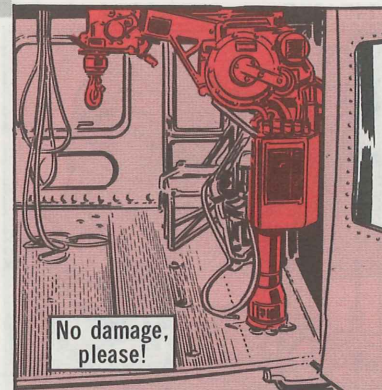
So it's important for UH-1 crew chiefs to inspect and operate the hoist when pulling the Preventive Maintenance Daily.

Plug in an auxiliary power unit.

Plug in APU...  
save the battery!



The hoist has to be clean...no grease or dirt allowed. None of the parts can be corroded, cracked or broken.



No damage,  
please!

The hoist can be used in 4 positions. Just rotate the hoist to match the installed position in the aircraft so the boom swings clear of the cabin. Follow the info in Para 14-145.12 of TM 55-1520-210-23 for the proper star plate alignment. The position switch also has to be safetied.

The hoist is anchored in the bottom mount, so "snug up" the knurled upper lock ring. That quick release adapter has to be tight.

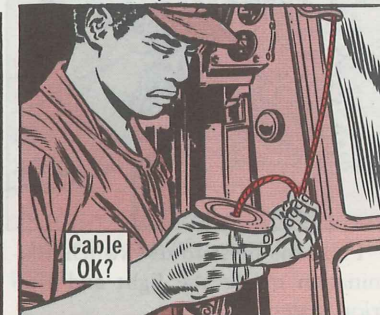


Bottom locked  
in place?



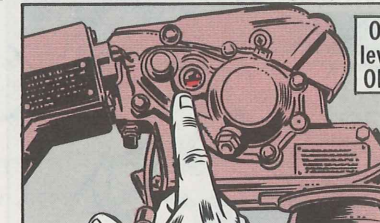
Top  
secure?

No breaks or frayed wires are allowed in any strand of the cable.



Cable  
OK?

Eyeball the sight glass in the boom head. The oil level should be at the FULL mark.



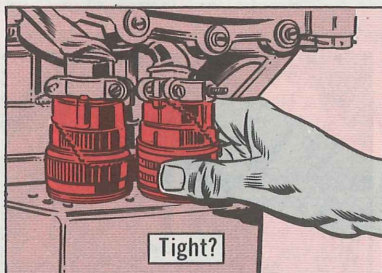
Oil  
level  
OK?



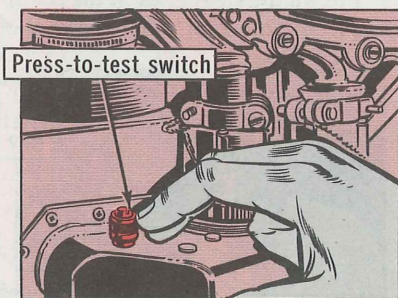
Focus on the cable cut switch guard. It has to be closed and secured with breakaway wire.



Check all electrical connectors and switches to make sure they're tight and undamaged.



Press the press-to-test switch. Illumination means the light and electrical system are OK.



Check the winch oil level sight glass. Be sure you also keep the transmission oil level at the FULL mark.



Make sure TB 55-1680-326-20-1 and TB 55-1680-326-20-2 have been complied with on the hoist. Otherwise, the hoist status is a red-X.

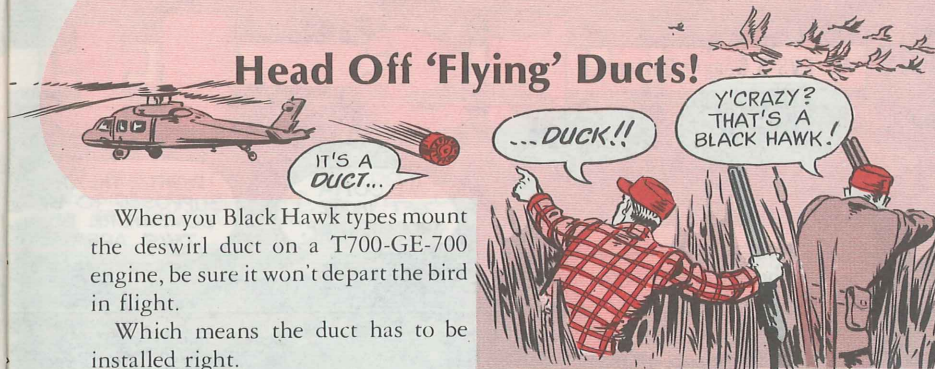
For the operational check of your hoist, follow the info in Para 14-145.10, Page 14-47 of TM 55-1520-



210-23-2. Be sure the cable rewinds properly by viewing the drum thru the opening in the winch.



## Head Off 'Flying' Ducts!



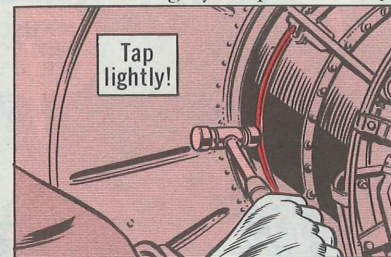
When you Black Hawk types mount the deswirl duct on a T700-GE-700 engine, be sure it won't depart the bird in flight.

Which means the duct has to be installed right.

The words RIGHT ENGINE TOP and LEFT ENGINE TOP—as the case may be—have to be in the "top" position.

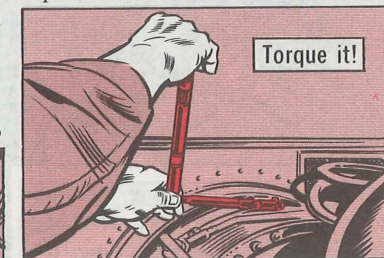
Then, mate the alinement hole in the duct flange with the power turbine module flange.

Torque the clamp nut to 60-70 lb-in. This is a mighty important step



because the self-locking nut doesn't take lock wire.

To seat the clamp, tap it lightly with a plastic hammer.

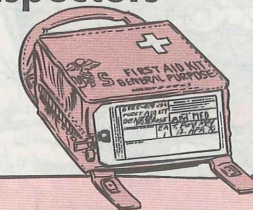


Continue the tapping bit until 2 successive checks with the wrench show no loss of torque on the nut.

That'll keep the deswirl duct in place!

## First Aid Kit Inspectors

Dear Windy,  
Do first aid kits in our aircraft have to be inspected by medical personnel or may non-medics perform these inspections?  
SSG J.J.H.



Dear Sergeant J.J.H.,

Non-medics can inspect 'em, such as TI's, ALSE technicians or other aviation safety personnel. They must be so authorized in writing by the unit commander.



43 THIS INFO IS BEING PUT IN Para 10-7, TM 55-1500-328-25!

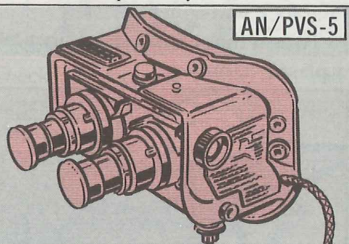


# IS IT LIVE, OR...?

Aviators, all it takes is a little OJT to be sure the batteries you pack for your night vision goggles have some life.

On-the-job testing, that is. It's the only way to be sure those BA-1567's still have the punch you need.

AN/PVS-5



You can't test each one, of course. But since all the batteries in a box of 20 were made at the same time, they should have equal power. So, test one per box like so:

Put one in the goggles. Keep the lens caps on and cover the small pin hole with dark tape. Don't cover the eyepiece lenses.



Keep the lens caps on

WE GOTTA GET THOSE TROOPS, CHIEF!

RIGHT... THEY'RE SUPPOSED TO BE SOMEWHERE IN *THIS* AREA...

OUR NIGHT VISION GOGGLES WILL MAKE SPOTTIN' 'EM A SNAP!

DO YOU SEE 'EM YET, COOPER?

WELL, ER... I... THESE BATTERIES MUST NOT BE TOO FRESH... AND... ER...

HEY! HERE WE ARE!

NO USE... THEY DON'T SEE US...

Turn the goggles on and note the time. Make sure both channels are working. A quick lift of the tape and a peek in the eyepiece will tell you.

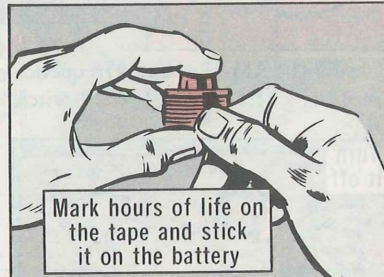
After 8 hours of operation, check 'em again. If either side is dark, the battery's no good. (Provided a good battery lights 'em, of course.)

One bad battery spoils the whole batch of 20—for night work, anyway. Turn in the remainder for new ones.

If the goggles still work after 8 hours, continue the test. Check every 2

hours. When they finally fail, give credit only for last full 2-hour "tour".

Mark the total time on the plastic cover of each battery in the box. When



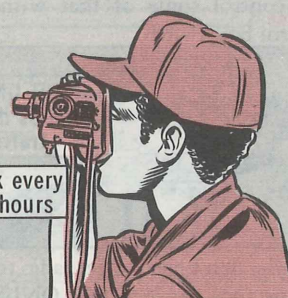
Mark hours of life on the tape and stick it on the battery

you take one for use, mark its time on tape and stick it on the battery.

Keep track of actual use and get a new battery when you've used half the test life. That should insure you a trouble-free (and well-lighted) flight.

Do your testing within a month of intended use. Store the batteries in a refrigerator or other cool place to keep 'em as fresh as possible.

Check every two hours





# Get Commo

The rumble and roar from your tracked vehicle drowning out radio intercom traffic?

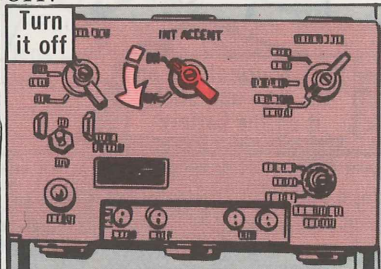
INSTEAD OF STOPPING YOUR VEHICLE EACH TIME YOU'RE CALLED ON THE RADIO, TRY THESE REMEDIES...

HEY-- WHAT'D HE SAY?

DUNNO! GET FRED TO STOP AND I'LL ASK HIM!

## Drop the Accent

Leave the AM-1780 audio frequency amplifier's INT ACCENT switch OFF.



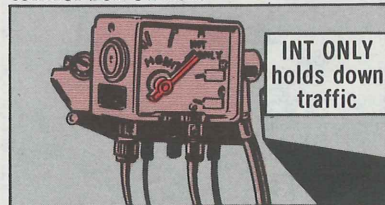
Some manuals, like the Chaparral's TM 9-1425-586-10 and new TM 9-1425-1586-10, say turn it ON. No more, according to the headshed.

The switch doesn't really make the intercom louder. It drops the radio

volume, which makes the intercom seem louder.

Keeping the accent switch OFF helps insure you'll pick up those faint radio transmissions.

Maybe the problem is too much traffic through your CVC helmet. You can control some of that with the control box switch.



If you don't need to get radio traffic for instance, set it to INT ONLY.

# 'Untracked'

BRAYO TWO

...I SAY AGAIN...

## Use Your Head

Picking the right CVC helmet and then wearing it properly can also help you get the word.

First, be sure you have the right size. Liners come in small, medium and

your lips as possible. Move it slightly off-center to prevent overloading and "popping" noises.

You can filter out more distracting noise by leaving the CVC switch in the



large sizes. A snug fit can help hold out distracting vehicle noises.

Then, use the chin strap to snug it even more and hold it in position.

Place the microphone as close to

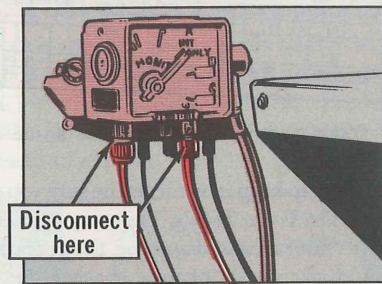


center position. This gives you all intercom and radio traffic, but leaves the 'mike unkeyed. An open mike magnifies the noises around you.

## Make Contact

Keep contacts snug and clean, too. Disconnecting the CVC helmet from the control box when you're through instead of at the breakaway will help keep the connection clean and dry. Store your CVC in a clean and dry place, too.

Finally, if you see a tarnished contact, run a rubber eraser over it. That'll brighten things right up.





New Test Equipment?

# REPORT IT!

SO YOU JUST GOT A NEW PIECE OF TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT?

OK, LET YOUR SUPPORT KNOW ABOUT IT!

Send them a DA Form 2416 for each piece of new TMDE you have. That form tells support to add the TMDE to their list. Give them a DA 2416—with an X in Box C of Block 21—telling them to drop the TMDE you've turned in, too.

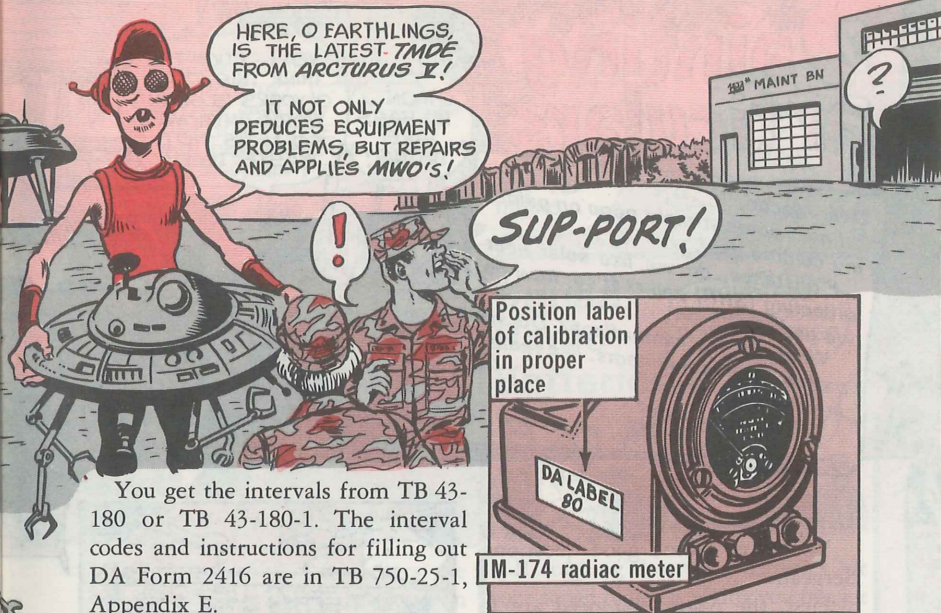
000000 IM-174 METER RADIAC		6665008568037		C	D	M20
1. MFG CODE	2. MODEL NUMBER	3. NOMENCLATURE	4. FEDERAL STOCK NUMBER	5. REP	6. LEV	7. INT
8. SERIAL NUMBER	9. LINE NUMBER	10. OWNER U.I.C.	11. WORK CTR./TEAM	12. SUPPORT U.I.C.	13. DUE DATE	14. DATE
15. CONDITION:		17. PARTS ADJUSTED		19. PARTS REPLACED		
<input type="checkbox"/> A WITHIN TOLERANCE <input type="checkbox"/> B OUT OF TOLERANCE		16. PARTS ADJUSTED		18. REMARKS		
18. REPAIR ACTION		19. PARTS ADJUSTED		20. CHANGE DATA		
<input type="checkbox"/> A REPAIRED BY CALIBR TEAM LAB <input type="checkbox"/> B REPAIRED BY SUPPORT MAINT. <input type="checkbox"/> C NOT REPAIRABLE THIS STATION/TEAM		21. TYPE OF STANDARDS		22. CHANGE DATA		
23. REPAIR M/N		24. INITIALS		25. CALIBR DATE		
26. CALIBR M/N		27. P/N		28. P/N		

Support uses DA Form 2416 to let you know when your equipment needs calibrating

You let support know about added and dropped TMDE with it, too!

Your new TMDE may lose some of its accuracy, so it has to be tested periodically.

To help keep it on target, be sure you put the right interval codes in Block 6 of your DA Form 2416's. That way your equipment can be calibrated on schedule. If it's not calibrated on time, the gear could start giving you bogus info. And you could waste a lot of time chasing the wrong maintenance problems.



You get the intervals from TB 43-180 or TB 43-180-1. The interval codes and instructions for filling out DA Form 2416 are in TB 750-25-1, Appendix E.

Once support gets the word on your new equipment, they'll add it to the TMDE calibration schedule. They'll also keep DA Form 2416's on the new

HERE'S A PROPERLY FILLED OUT COPY OF THE CURRENT DA LABEL 80!



US ARMY CALIBRATED INSTRUMENT (TM 38-750)			
1. DATE CALBR	2. CALBR		
20 Nov 1981	W3Z2BA		
3. CALBR VOID	4. NAME/REPORT NO.		
19 MAR 1982	E.M. Jones		
5. IDENTIFICATION NO.	6. OWNER		
654321	WAXCC		
DA LABEL 80. 1 DEC 77		REPLACES EDITION OF 1 JAN 70. WHICH IS OBSOLETE	

TMDE and use them to let you know when the equipment needs calibrating.

If you have any problems with calibration, see your support or call the calibration headshed. In CONUS, call 746-3320; Europe, 426-8282; Pacific (WESTPAC), Taegu MIL 268-7714/7407. You may get a recording when you call, so have your facts and problem ready to explain.

YOU CAN HANDLE LESS URGENT PROBLEMS BY WRITING TO...



Commander  
US Army Missile Command  
ATTN: DRSMI-M  
Redstone Arsenal, AL 35898



# Painting Particulars

Dear Macon,  
I need some straight poop on painting commo gear.  
F'rinstance, do we use solar heat reflecting (SHR) paint? If so, how do we get it?  
What do we camouflage? Do we pattern paint small items, like radios, in vehicles?  
What's the scoop?

SGT D.G.

Dear Sergeant D.G.,

You've got some good questions, Sergeant.

First, the paints you need are in Table 7 of TB 43-0118, which covers

Table 7. Standard Camouflage Colors by NSN's

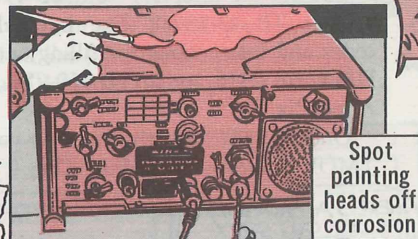
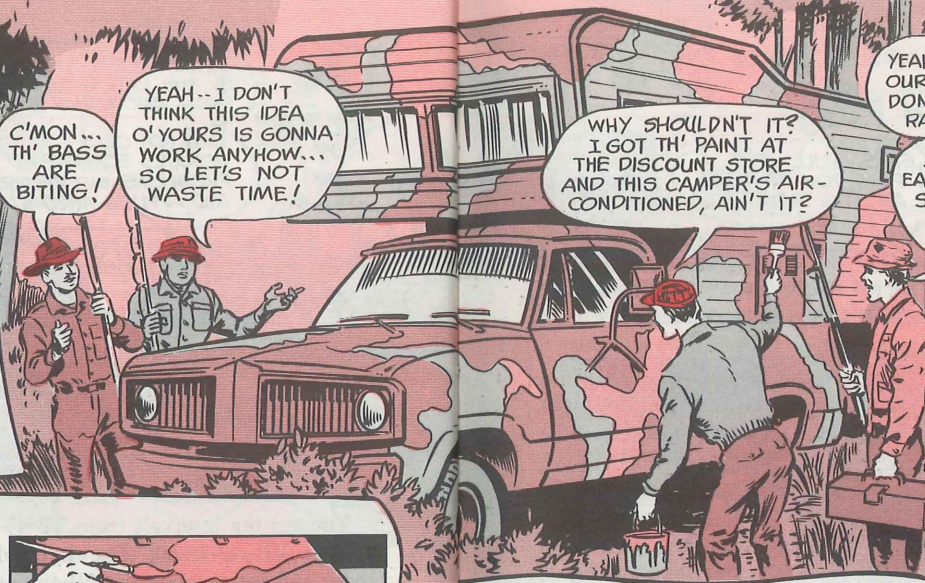
Color	National Stock Number	
	5 Gallons	1 Gallon
Desert sand	8010-00-111-8353	8010-00-111-8004
Sand	8010-00-111-8336	8010-00-111-7998
h yellow	8010-00-111-8130	8010-00-111-7968
h red	8010-00-111-8345	8010-00-111-8003
l drab	8010-00-111-8129	8010-00-111-7943
h brown	8010-00-111-8338	8010-00-111-7998
l drab	8010-00-111-8069	8010-00-111-7940
l green	8010-00-111-8007	8010-00-111-7930
l green	8010-00-111-8042	8010-00-111-7938
Forest green	8010-00-111-8010	8010-00-111-7937
Black	8010-00-111-8356	8010-00-111-8005

These shades are SHR

camouflage. The green shades—forest, dark, light, OD—and the sand are SHR.

'Course, for spot painting, SHR is not vital. But, for touchups and one-coat jobs, you use lusterless forest green.

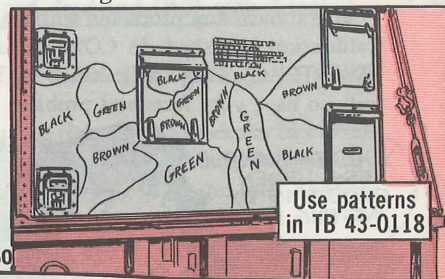
Don't worry if it won't match your current color scheme. In spot painting, the idea is to stop or head off



corrosion. How the paint job looks is secondary.

These SHR paints are not corrosion stoppers, tho, so always use a good primer.

SHR is important when painting your big gear. And, since only some shades have it, everything can't be camouflaged.



Only air-conditioned shelters are pattern painted. Use the patterns in the TB. If you don't have air conditioning, it's the lusterless forest green and a one-tone job.

Don't sweat camouflaging smaller items. If it's not listed in the TB, camouflage is not required.

In general, items smaller than 4 feet x 4 feet x 4 feet are not pattern painted.

Paint won't hide some items, anyway. Like those tall, skinny antenna masts.

Vehicle-mounted commo gear can be included in the pattern for that item, tho. Remember, when the radio is moved, it might not match its new vehicle's pattern.

For more info on painting, see AR 750-58. For a quick answer, call the camouflage hotline at Ft. Belvoir, VA. Dial AUTOVON 354-2654.

Macon

## Squad Radio Batteries



UNDERSTAND HE WAS LOOKIN' FOR BATTERIES FOR OUR AN/PRT-4 AND AN/PRR-9's!

If tracking down the batteries for your squad radios is giving you fits, jot down these numbers.

The AN/PRT-4 radio transmitting set uses a BA-399, NSN 6135-00-926-0845. Your AN/PRR-9 radio receiving set takes a BA-505, NSN 6135-00-926-0844.

## RL-31 Screw

The screw that holds your RL-31 reeling machine axle together is NSN 5305-00-206-9088.

## U-184 Adapter

The U-184 adapter connector that lets you "see" your TA-312 telephone ring is NSN 5805-00-708-2203. The neon light indicator goes on the field wire leading to your set's binding posts.



WHAT'S THE MESSAGE??

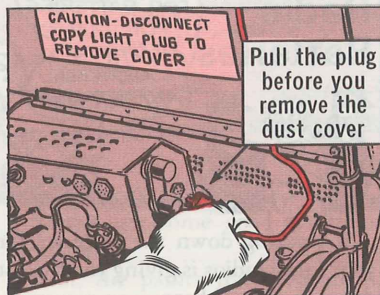
## Pull the Plug

IT SAYS, "PULL THE PLUG, YOU YO-YO'S!" ...AN' IT'S SIGNED "TT-76"!



Before you take the cover from your TT-76 teletypewriter, pull its plug.

If you leave the copy light plug connected to the power supply and terminal unit, you can damage the plug, connector or both.

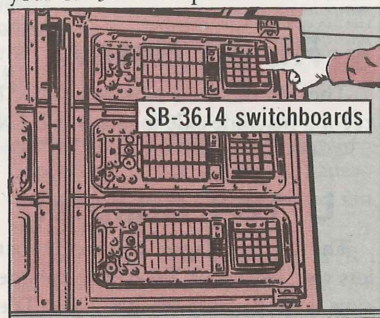


As a reminder, paint or print on tape "Caution—Disconnect Copy Light Plug Before Removing Cover" on the underside of the dust cover. A good, long-lasting tape for the job is NSN 7510-00-582-4772.

Then, give the rest of your set a break. Lift the cover straight up off its rubber mounting grommets when removing it.

## Nip Cable Pinch

Before you close the front panel of your SB-3614 telephone switchboard,

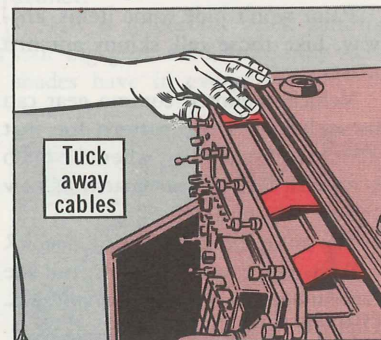


tuck away your flexible cable assemblies.

Those cables will fold and unfold for years. Pinch 'em a few times and you'll

be asking support for new ones.

Keep 'em on the job by being sure they're out of the way when you close the lid. And, never slam the front panel into place.



AN/GRC-103 Radio Set...

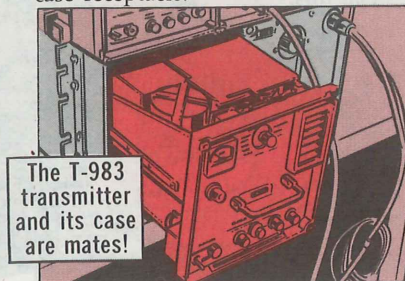
## Fight the Switch

HE'S FROM THE OLD SCHOOL... HE'D RATHER FIGHT THAN SWITCH!



Has a change of T-983 transmitters left your radio set powerless?

Could be just a bad match between the T-983's connector and the radio case receptacle.



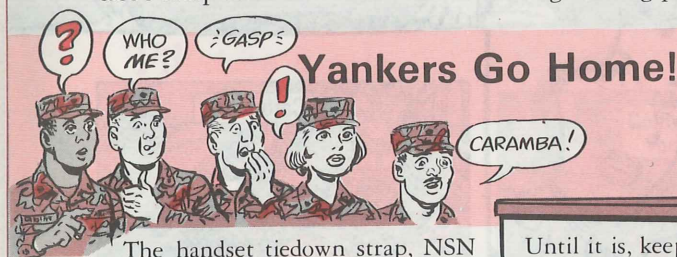
The receptacle is designed to "float" on its mount. This looseness prevents damage when you mate it with the case's receptacle.

So, to make sure you get good contact, your support shop shims the transmitter's receptacle connector so it fits that case. It may not match at all with another case.

Your best bet is to keep the two together. Likewise, you shouldn't take



the float out of the connector by tightening the screws. That could damage mating pins.



The handset tiedown strap, NSN 5975-01-015-1258, on your TA-838 telephone needs a lift. A yank can break it or the lug it fastens to.

Many troops yank the strap loose because the lift-off tab is hard to get a hold of.

A new, easier-to-handle strap will be in the system soon.

Until it is, keep your straps on the job by lifting the tab from the lug.





10-, 20-HP  
Mil Std  
Engines...

# Carb Mixup

Forget all you've heard about matching mismatched Mil Std engine carburetors to 5-, and 10-KW GED generator sets.

Here's the positive ID method for putting the right carb on the right engine...no matter what HP-size is stamped on it.

Hold it! Just matching the right size carb with the right engine won't stop all your generator problems.

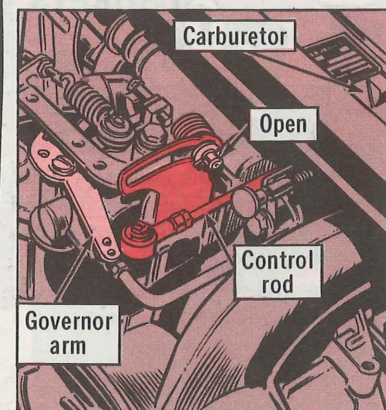
**Every time you switch a Tillotson carb for a Bendix carb (or vice versa) you have to adjust the carburetor control rod.**

If you don't, the engine could "stumble" or conk out when you put on a full load sudden-like.

HERE'S HOW TO MAKE THE CONTROL ROD ADJUSTMENT FOR 10- AND 20-HP MIL STD ENGINES EQUIPPED WITH TILLOTSON CARBURETORS!

?

54



BOY, TILLY, YOU AND I LOOK ALMOST IDENTICAL!

For 20-HP engine

For 10-HP engine

17/16"

1 1/8"

1/8" copper tube vent

TILLOTSON CARBS

# PUZZLE Solved

YOU'RE RIGHT, BUT HERE'S HOW TO TELL US APART...

For 10-HP engine

AND HERE'S A GOOD WAY TO TELL US BENDIX CARBS APART...

...LITTLE BROTHER HAS A COPPER TUBE VENT, BUT I DON'T!

For 20-HP engine

BENDIX (ZENITH) CARBS

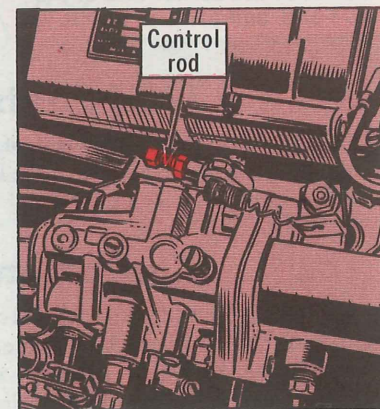
## Tillotson Carbs

Start with the control rod connected to the carb and disconnected from the governor arm. Move the control rod to the fully open throttle position.

Now adjust the length of the rod until the center line of the rod-end ball-joint lines up with the center line of the threaded hole in the governor arm.

Connect the control rod to the governor arm.

Readjust the rod length  $\pm 1/8$  inch for fine tuning if necessary.

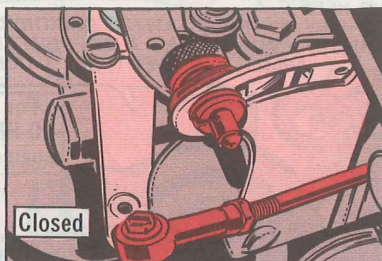


55

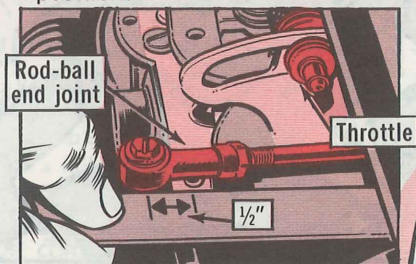


## Bendix (Zenith) Carburetors

Start with the control rod connected to the carb and disconnected from the governor arm.



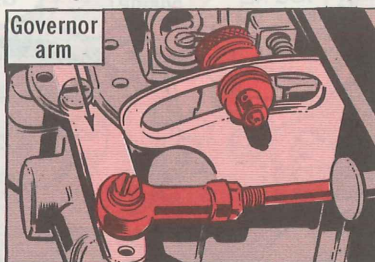
nor arm. Move the control rod to the fully closed throttle position.



Now adjust the length of the rod until the center line of the rod end ball-joint is about  $\frac{1}{2}$

inch from the center line of the threaded hole in the governor arm.

Connect the control rod to the governor arm by moving



the rod and throttle toward the fully open position until you can insert the screw in the governor arm.



## M2 Draining Aid

Try this tip to drain the fuel tank of your M2 burner unit faster, better: After you've pulled the drain plug from the U-tank, tilt the unit and remove the fuel tank filler cap to let air in...and fuel out.

## Equipment Shelters

Para 16c, TB 43-0124, has the word on repairing small punctures in electrical equipment shelter panel skins. Forget about using repair kit, NSN 5410-00-793-2021. It's been dropped from the supply system. All you need for temporary field repairs to the aluminum skins is listed in the TB.

3-, 5-, 10-KW GED Sets...

## Regulator Voltage Zilch?

NO MATTER WHAT I TRY... I CAN'T GET A VOLTAGE BUILDUP! WHY?

PROB'LY A FAULTY OPERATIONAL AMPLIFIER...SEE YOUR DSU!

You're puzzled why your new universal voltage regulator, NSN 6110-00-764-7621, won't produce a voltage buildup on your small GED generator?

You've gone thru the PM troubleshooting poop step-by-step? Still no voltage output? Chances are you received a regulator with a faulty operational amplifier. Your DSU can fix it with a new amplifier, NSN 5962-00-890-0784.



Voltage regulator

## 3-KW Generators

Update your TM 5-6115-271-24P with these 2 numbers for time totalizer meters: NSN 6645-00-762-7452 (Item 23, Fig 9) for the 400-Hz set; and 6645-00-831-6826 (Item 21, Fig 4) for the 60-Hz set.

## 60-KW Generators

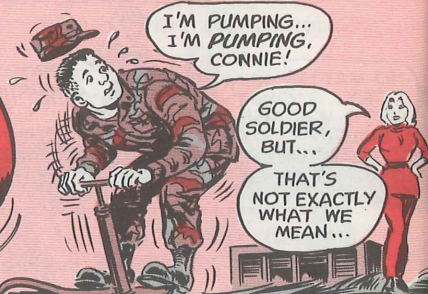
NSN 6240-00-143-3049 is the right number for the white 6-W, 120-V lamp for the control panel assembly on the load bank kit, Item 51, Fig 130, TM 5-6115-545-24P.

## Battery Charger Panel

The circuit breaker covers and pressure relief valve for the Model 4D100 battery charging distribution panel are not listed in TM 5-6130-301-13&P. You can get the covers, tho, with NSN 5925-00-992-8396. NSN 4820-01-095-0017 gets you a relief valve. Order the valve on a DD Form 1348-6. Use RIC S9C.



## Pump Up a Winning NSN

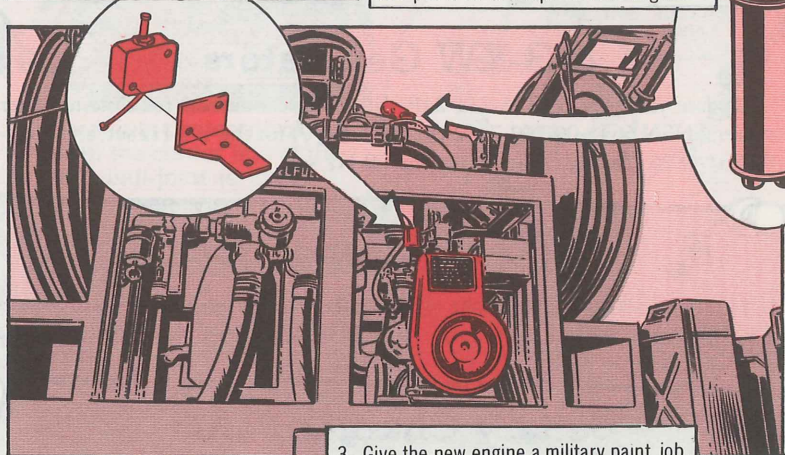


Need a replacement pump engine for a tank and pump unit supported by TM 5-4930-227-14 or TM 10-4930-204-15? Use the right one, NSN 2805-00-722-3922. A Mil-Std engine won't work on those units.

The replacement pump engine is an off-the-shelf commercial model, but it'll do the job. You'll need to make a few changes before you mount the engine, tho. Like these:

1. Remove the push-pull safety ignition switch and its bracket from the old engine and install 'em on the new one.

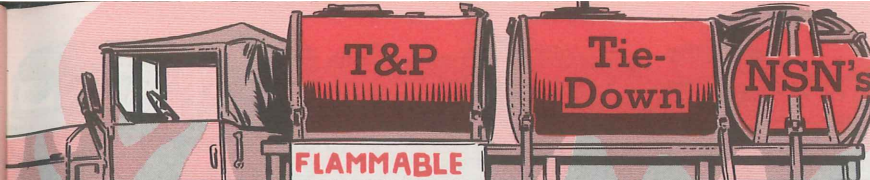
2. Save the old engine's spark-arrester and put it on the replacement engine.



3. Give the new engine a military paint job.

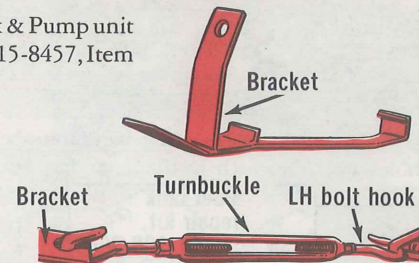
Now, you're ready to mount the engine on your pump.

Hang on to the manufacturer's manuals that came with the new engine. Replacement pubs are hard to get.



Update your PN list for the Tank & Pump unit tiedown assembly, NSN 4930-01-015-8457, Item 55, Fig 10, TM 5-4930-230-23P:

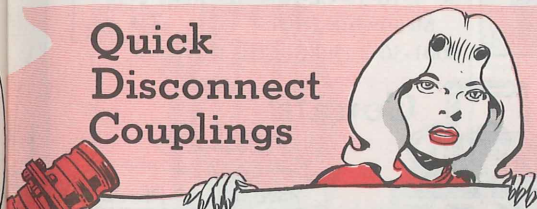
NSN	Item
4930-01-040-7191	Bracket
5340-00-150-4777	Turnbuckle
5306-01-055-3756	LH Bolt Hook



You need 10 of these 7-piece tiedown assemblies for your A-frame type T&P unit.

Use only 8 of them for a rectangular type T&P unit, plus a tiedown assembly, NSN 5340-00-185-6830, for the pumping kit.

## Quick Disconnect Couplings



HERE'RE SOME COUPLING SIZES FOR YOUR FUEL HANDLING CHORES!

	End Size, Male, Inches	End Size, Female, Inches
NSN 4730-00-889-2382	1	1½
00-889-2381	1½	1
00-951-3295	1½	2
00-951-3298	2	1½
00-951-3294	2	3
01-064-0560	2	4
00-951-3297	3	2
00-951-3293	3	4
PN MS49000-19 (96906)	4	2
00-951-3296	4	3
01-079-8234	4	6

## Tank and Pump Unit Parts

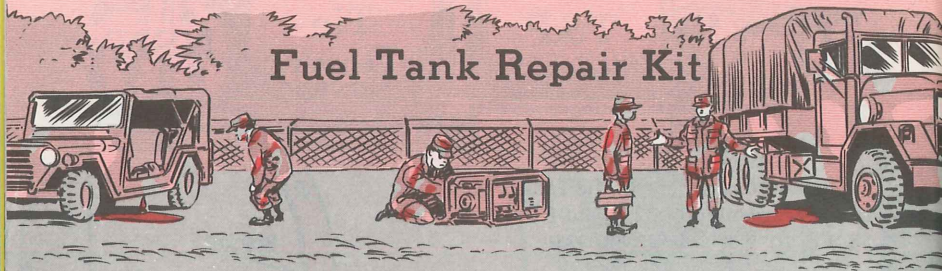
Here're the numbers you need for the rest of the hose assemblies listed on Page 7 of TM 5-4930-230-23P:

Item No.	NSN 4720-01-
1	028-1818
8	071-2871
17	022-6016



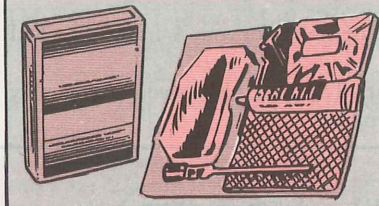


## Fuel Tank Repair Kit



A repair kit for mending fuel tank holes up to an inch in diameter has

**Fuel tank  
repair kit,  
NSN 8040-01-108-6660**



been added to the No. 1 and No. 2 Common shop sets.

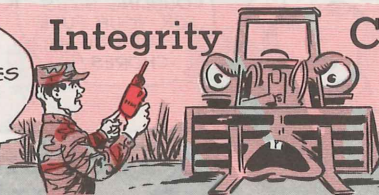
You can use the kit, NSN 8040-01-108-6660, to mend cracks in broken fuel tank welds, too. Instructions are on the box.

You're authorized 1 kit for the No. 1 Common and 2 kits for the No. 2 Common shop set. It will show up in an update of SC 4910-95-CL-A72 and SC 4910-95-CL-A74 in 1983.

Meanwhile, Para 4-14g, TB 43-0001-36-2 (Jul 81) has the word.

OK, BUDDY...  
I'LL DRILL A  
COUPLE O' HOLES  
IN YER ROPS  
AN' MOUNT A  
DANDY NEW  
MIRROR FOR  
YA!

## Integrity Counts!



STOP!  
HAVE YOU NO RESPECT  
FOR MY INTEGRITY?

Never weaken the roll-over protective structure (ROPS) on your rough terrain forklifts, mechs.

**NEVER drill  
holes in ROPS**



Some people have drilled holes in the ROPS to mount mirrors, rotating

beacons for airfields and other special equipment. Bad news!

The structure is made of special steel. If you drill holes in it or weld it, you lose the protection you may need.

Even if the structure gets bent, support can't apply heat to straighten it out because the steel would be weakened. A new structure would have to be installed.

If you have to mount special equipment, use brackets that can be clamped to the structure without damaging it.

## How to Size Up Your Mask

Dear Half-Mast,  
How do we find the size of a M17/M17A1 protective mask? I say the letter on the faceblank is the size. Others say you go by the letter on the inside of the nosecup. Who's right?

SFC M. S. T.

THE SIZE  
IS INSIDE THE  
NOSECUP!

CAN'T BE!!  
IT'S RIGHT HERE  
ON THE FACEBLANK!

HOLD ONE,  
SOLDIERS!...

SEE?



Check the  
size here...



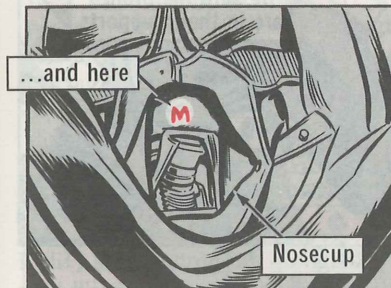
Dear SFC M. S. T.,

You're both half right. You look at both the faceblank and the nosecup to get the size. Here's how it goes:

**SMALL MASK:** An "S" on the top of the faceblank and an "M" on the inside of the nosecup.

**MEDIUM MASK:** An "M" on the faceblank and an "M" on the nosecup.

**LARGE MASK:** An "M" on the faceblank and an "L" on the nosecup.



...and here

Nosecup

It's the same deal on the M24 and M25/M25A1 protective masks except the large size has an "L" stenciled next to the "M" on the faceblank.

Get the right size. Your unit NBC specialist will fit you. The right mask'll make a better seal and a better fit in the eyelens area.

Half-Mast



WE FIND THE DEFENDANTS...

## Mask Murder

**GUILTY OF MASK MURDER THRU ABUSE AND IMPROPER CLEANING!**

EXHIBITS

Olive oil, baby oil, linseed oil, and even spray can oils can put a keen shine on your protective masks, like the M17/M17A1.

Looks nice.

Trouble is, all that oil can break down the rubber, crack it and let bad stuff through.

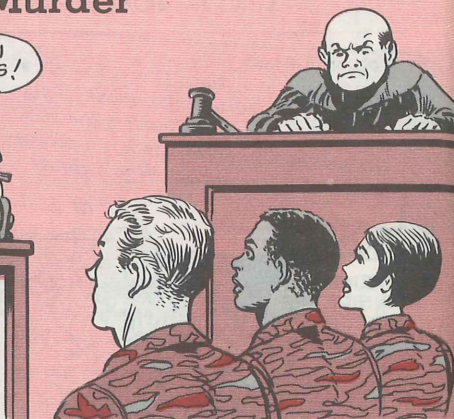
To clean your mask, wipe it with a clean cloth dipped in warm, soapy water...like your TM says. Use soap, NSN 8520-00-228-0598.

To sanitize it, remove filters and eyelens outserts and dip it in warm, soapy water (same soap). Use sodium or calcium hypochlorite and follow the word on sanitizing in your TM's.

When you prepare the mask for washing, there's no need to turn it inside out. Wash it as is. Turning it inside out pulls the nosecup loose, which makes a depot repair job.



Protect the outserts



Outserts can be carelessly scratched or damaged in many ways, most common of which are throwing the mask on the ground and sitting on it when it's in its carrier.

The prongs of the optical inserts for the M17A1 mask can pop out of their supports. The inserts get lost...poke you in the eye when you put the mask on, or poke holes in the mask.

If you use inserts with your M17A1, be sure the prongs are in the supports...and look before you put the mask on.



Rough up the prongs with a file if they keep popping out. That'll help them stay in place.

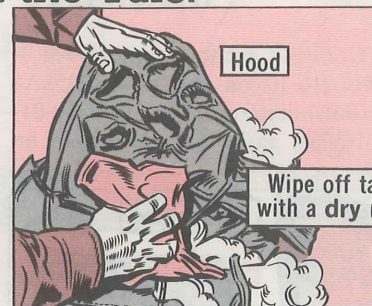
## Don't Wet the Talc!

Dusting your protective mask hood with talcum powder before storage is a good way to keep the hood from sticking together.

But, don't blow the good works when you remove the hood for use.

Wipe off the talc with a clean, dry rag.

If you wipe it with a wet one, you'll make a paste that'll stick the hood to your mask.



## Mask Carrier Check

If your M15-series mask carrier pops open after you've stored your M17/M17A1 protective mask in it, try this:

Push the mask all the way into the carrier...to keep pressure off the flap.

Snap the carrier shut.

If the flap still pops open, get the carrier replaced.

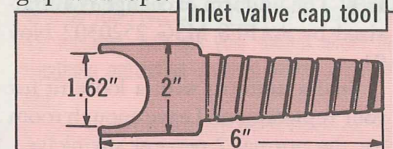


## Inlet Valve Cap Tool



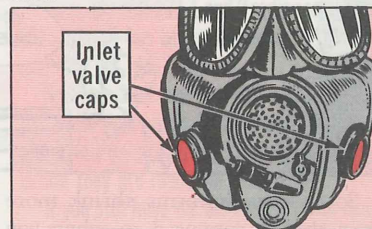
Want a cool tool to remove the inlet valve caps from the M17/M17A1 protective masks that'll save time and thumbs?

Your support can make the tool out of aluminum or steel. A 1/8-in flat aluminum stock works fine. Wrap the grip with tape.



Inlet valve cap tool

Just slip the tool's head under an inlet valve cap. The head's pinchers should clear the cap center. Pull up on the handle. The cap'll slip off easy-like.



Make sure you smooth off the edges of the tool so not to cut the mask.

Keep the tool handy in your NBC room.



## M258A1 Decon Tips

Until you get your copy of TM 3-4240-216-10 on the new M258A1 decontaminating kit, NSN 4230-01-101-3984, go by the instructions on the case.



Decon Kit, NSN 4230-01-101-3984

HERE'RE SOME TIPS THAT AREN'T ON THE CASE THO...

1. Mask up before you use the kit.  
2. If overhead cover is nearby, go for it.

3. You can use the M258A1 decon kit on the mask and face. But keep the decontaminating solution away from your eyes, wounds or mouth. It's poisonous. Use water to wash any toxic agent or decontaminating solution from your eyes or wounds.

4. Use the M258A1 to decontaminate small personal things like your rifle and gloves.

5. Hang on to the empty cases of the new M58A1 training kit, NSN 6910-01-101-1768. Refill kits will be in the system soon.

## BDU Shrinkage Blues



GIVE ME ONE GUESS...

YOU'RE HERE TO TAKE ADVANTAGE OF OUR FREE BDU EXCHANGE OFFER...

RIGHT?

Some new uniforms shrink more than they're supposed to when you wash 'em. A lot more.

If your BDU shrinks so much that you can't wear it, take the defective uniform back to the point of issue.

They'll exchange it for a new one—for free! The uniform exchange is authorized by AAFES MSG 2520302 Nov 81.

Find a uniform with a loose fit for your replacement. Leave enough room for the normal 2 percent shrinkage.



## 2½-Ton Brake Hazard!

Warning! Your 2½-ton truck's brakes may fail because of bad seals and cups in the brake air-hydraulic cylinder. A daily check for brake fluid loss is required. DA Msg DAPE-HRS 291600Z Apr 82 spells out detailed special instructions.

## No OHA for Brake Cylinder

It turns out you don't add OHA to your 2½-ton truck's air-hydraulic brake cylinder even tho LO 9-2320-209-12/1 and PS 356, Page 9, tell you to do so. The plugged air chamber end of the cylinder is for pressure monitoring and does not need lubrication. If you've already added OHA, don't worry—no harm done. Just remove the pipe plug at the rear of the unit. Step on the brake pedal once to blow out the oil. Replace the plug. Look for this change in an upcoming revision of LO 9-2320-209-12/1.

## More on Guns

Some of the heater guns in your aircraft AVUM Number 2 tool sets, made by Clements of Chicago, have asbestos in them. This was pointed out on Page 44 of PS 354. However, gun, NSN 4940-00-785-1162, can continue to be used until it's replaced. Just ask your medics about the breathing protection required when using the gun.

## 5-ton Air Cleaner Element

You won't get an air cleaner element for your gasoline engine 5-ton truck with NSN 2940-00-134-4657 listed in TM 9-2320-211-20P for Item 12, Fig 24. That's an air cleaner element for the M809-series 5-ton diesel trucks. The only way to get the reuseable element used on the gas models is to order the complete air cleaner assembly, NSN 2940-00-740-9304, Item 1, Fig 24, which will cost about 100 bucks.

## CP Cover NSN's

Forget the stock numbers for the chemical protective footwear covers (over-boots) on Page 9 of PS 355. There are only 2 sizes: small, NSN 8430-01-118-8172; and large, NSN 8430-01-021-5978.

## Hold Your -15

Your AN/PDR-27J, L and Q radiac sets' TM 11-6665-209-15 has been superseded by a -10, -20 and -40. But, don't toss it!

None of those new manuals carry the repair parts info that was in C3 to your -15 TM. A -20P and a -40P are planned, but it'll be some time before they are ready for distribution.

If you still have the old book, hold on to it. If you've tossed it and need repair parts info, your local DARGOM Logistics Assistance Office (LAO) can help.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1982—559-009/9

*Would You Stake Your Life <sup>right now</sup> on the Condition of Your Equipment?*



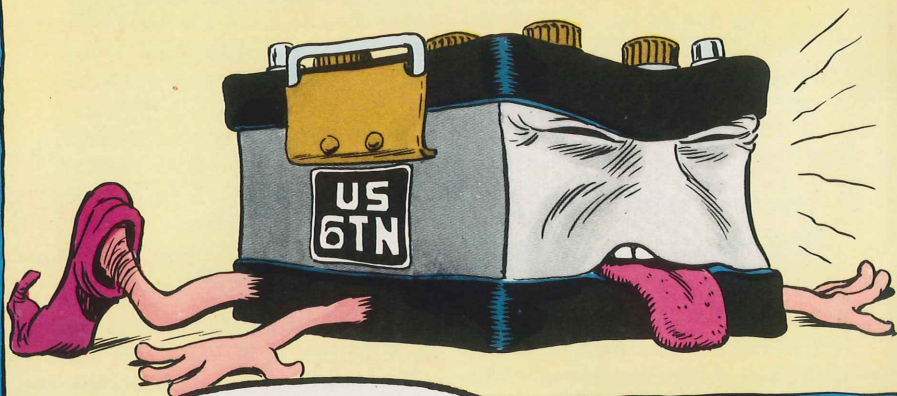
# OVERCHARGING



# KILLS



# BATTERIES



OPERATORS,

# REPORT IT!!

