

Issue 370

PS

September
1983

THE PREVENTIVE MAINTENANCE MONTHLY

WHADDYA
MEAN
A LI'L BIRDIE'S
TRY'N T'TELL
ME
SOMETHIN'?

Chirp-Chirp-Chirp!

YOU'D BETTER
CHECK FOR
LOOSE BELTS...

... BEFORE YOU
WIND UP WITH TROUBLE
IN YOUR COOLING SYSTEM
OR CHARGING SYSTEM!



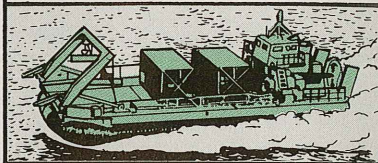
Usage Reports are

WHAT'S SO SPECIAL ABOUT THESE USAGE REPORTS?...

...THEY'RE NOTHING BUT A PAIN-IN-THE NECK!

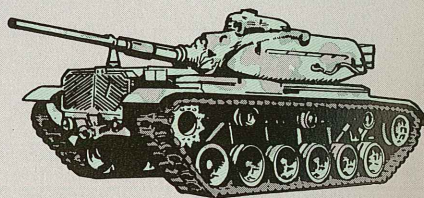
Make out and send in your Usage Reports:

- As of 1 Feb and 1 Aug for floating craft and ammunition-peculiar equipment



The Usage Report on APE will be dropped in the next change to TM 38-750. SMART Message 31 has the word.

- As of 1 Aug for combat vehicles



Your DA Form 2408-9 has more uses than you can count on one hand! But one of the most important, the Usage Report, tells the headshed the number of miles and hours on your vehicles.

Making out a DA Form 2408-9 Usage Report right and on time is crucial. Why?

'Cause that's the info the headshed uses to ask for money to buy replacement gear and POL. It also tells them how well your gear is holding up. So, if your reports go in late and wrong, you can lose out on new equipment!

Not sure about which equipment you report? Check the Usage Column in Appendix E of TM 38-750. Fill out a Usage Report on all equipment with an X under that column.

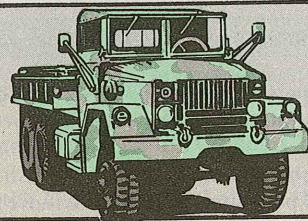
Critical!

IF YOUR REPORTS GO IN LATE AND WRONG, YOU CAN LOSE OUT ON NEW EQUIPMENT!

- As of 1 Oct for nontactical (commercial design) wheeled vehicles



- As of 1 Nov for tactical vehicles



THE
**PREVENTIVE
MAINTENANCE
MONTHLY**

Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties. Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Materiel Readiness Support Activity, Lexington, KY 40511.

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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

MSG Half-Mast
PS Magazine
Lexington, KY
40511

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SUPPLY

Supply Requests...

One Door. Many Keys



BUT CONNIE, WHAT IF I DON'T HAVE THE RIGHT KEY?

THERE'S MORE THAN ONE RIGHT KEY!



FEDERAL SUPPLY SYSTEM

Everybody knows NSN's are the best keys to unlocking the supply system.

But there's more than one key to getting a supply request through! You can order an item with just a Federal Supply Code for the Manufacturer (FSCM) and part number. An NSN that's not on the AMDF will work, too. And—if you're careful and lucky—you can get an item with no NSN or part number.

Course, those "keys" fit a little looser in the lock, so they may take a little longer. But they get there!

Find an item with just an FSCM and part number? Use them! Pull out a DD Form 1348-6—unless you have a pre-punched DA Form 2765 for that item.

Put the FSCM (first) and the part number in Columns 8-22. No dashes or spaces between them! If your FSCM and part number add up to more than 15 digits, move down to Block 1 in the Identification Data Section.

DOCUMENT IDENTIFIER		ROUTING IDENTIFIER		M & S		MANUFACTURER'S CODE * AND PART NUMBER																UNIT OF ISSUE		QUANTITY		DOCUMENT NUMBER																	
FSCM		PART NUMBER																								REQUISITIONER DATE SERIAL																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
						8644333495761																EA0001				WK4ABE33310927																	
DEMAND		SUPPLEMENTARY ADDRESS		SIGNAL		FUND CODE		DISTRIBUTION CODE		PROJECT CODE		PRIORITY		RE-REQUIRED DELIVERY DATE		ADVICE CODE		BLANK																								REJECT CODE (FOR USE BY SUPPLY SOURCE ONLY)	
44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	
R								04				13				2A																											
IDENTIFICATION DATA																																											
1. MANUFACTURER'S CODE & PART NO. (When they exceed Card Columns 8 thru 22)																						2. MANUFACTURER'S NAME																					
3. MANUFACTURER'S CATALOG IDENTIFICATION AND DATE																						4. TECHNICAL ORDER NUMBER																					
5. TECHNICAL MANUAL NUMBER TM 9-2320-240-10P, PG 2-10B, ITEM 1, FIG. 75																						6. NAME OF ITEM REQUESTED EXTENSION, GRILLE SPT, LEFT																					
7. DESCRIPTION OF ITEM REQUESTED																																											
8. END ITEM APPLICATION AND SOURCE OF SUPPLY																																											
8a. MAKE TRUCK, GARGO, 1/4 TON 4x4																						8b. MODEL NUMBER M880																					
9. REMARKS																																											

DD 1

The Weapons/Equipment System Designator Code (W/ESDC)—if one's been assigned to the end item—goes in the Distribution Code block.

In Column 70, tell support where you found the number or part:

70	
A	for a pub reference.
B	for end item identification.
C	for noun description.
D	for drawing or spec number.

The pub or drawing number, noun or identification goes in Columns 71-80.

If the end item model affects the part you need, put the make and

ION-FSN REQUISITION (M)

model of the end item in Block 8b.

For aircraft parts only, give the serial number of the aircraft in Block 8d.

Send the request on.

FILL IN THE UNIT OF ISSUE, QUANTITY, DOCUMENT NUMBER, DEMAND, PRIORITY, AND ADVICE CODE BLOCKS AS USUAL...



Mysterious NSN's

Now and then you may find an NSN that's not on the Army Master Data File (AMDF).



If you find it in an old manual, could be the NSN's no longer good.

Got a hot-off-the-press manual? The NSN just may not have had time to make the AMDF.

Adding or keeping items on the AMDF works like adding and keeping items on your PLL. Could be the NSN's missing because not enough people ordered the item!

Whatever the reason, when you find an NSN, use it! But treat the non-AMDF NSN like a part number. Order the item on a DD Form 1348-6.

Reassure support that the NSN's right—no mistake. Tell 'em where you got the NSN. And write "Not on AMDF" in the Remarks Block.

8A. MODEL NUMBER	8C. SERIES	8E. SERIAL NUMBER
10. REMARKS		
Not on AMDF		
NON-NSN REQUISITION (MANUAL)		

Any other information you find—price, source, end item—helps here, too.

Number Please

A few items seem to slip under the door without an FSCM or part number.

Support's going to need all the help they can get. That means as much of the information in the Identification Data Section of the DD Form 1348-6 as you can track down.

Put the arm on the mechanic—or whoever wants the item—to help you fill in:

- Any letters, words, numbers or markings from the part.
- Manufacturer's name or code.
- Pub reference. (Maybe just a pub that describes that section of the end item or illustrates the part.) No pub? How about a sketch or picture of the part?
- Description of the part: Size, shape and color.
- Where the part fits on the end item.
- The end item—model and type.
- What the part does on the end item.

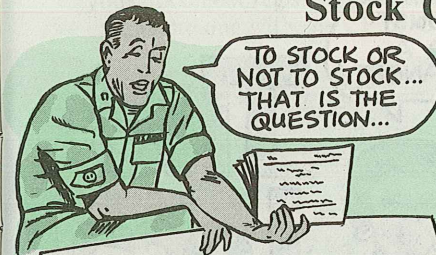
Requests for no-number parts take a while to get results. They go manual—no computer help—all the way. So relax, but don't give up!

In the meantime, fire off a DA Form 2028 to the people who write the pub that *should* carry your part. Tell 'em you need an FSCM and part number or NSN, so your next request'll be easier.

That's it. With a little work, almost any key'll unlock the supply system!

Mandatory Parts List...

Stock QSS Items?



Dear Half-Mast,
When I got our mandatory parts list, I found parts listed that are also on our support's Quick Supply Store list. Do I stock parts on MPL—even if they're on QSS? If so, how do I figure stockage for them?

SFC J. A. C.

Dear Sergeant J. A. C.,
Items listed on your MPL (DA Pam 710-2-series) are just that—mandatory! You stock items on the MPL regardless of their source.

In fact, items on an MPL are supposed to drop from QSS lists. DA Msg, DALO-SMP-U 192022Z Feb 82 had the word on that.

Stock the number of parts listed in the column for your number of end items. But that stockage is a minimum. If your demands say you can stock more than that, go for it. Just be sure your stockage never falls below the MPL level.

Half-Mast

Property Count-Off

Your property book people now have a standard asset system: Continuing Balance System-Expanded (CBS-X).

It gives the Army a constant property inventory and helps the equipment managers decide when to buy and where and how to distribute gear.

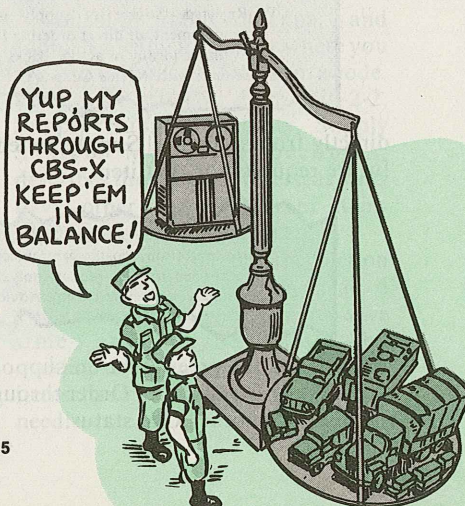
But CBS-X is only as good as the info you feed it. Make a lateral transfer of gear from one property account to another? Tell 'em!

AR 710-3, Asset and Transaction Reporting System, has the details.

Once each quarter you'll get a printout inventory to match against your records. Find an error? Report it right away to the CBS-X hotline

on AUTOVON 242-7830 or Commercial (717) 263-7830.

Keep the inventory straight!



Supply Requests...



About the third time you get a status code that translates into "Whazzit?" or "Forget it!", you wish you could go to a parts store yourself!

Well, you can't. But some of those status codes may be telling you that your supply support can! A couple of status codes, CP and CW, give your support the OK to buy or make the item for you.

CP tells you to tell support, "Go local purchase, fabricate or order

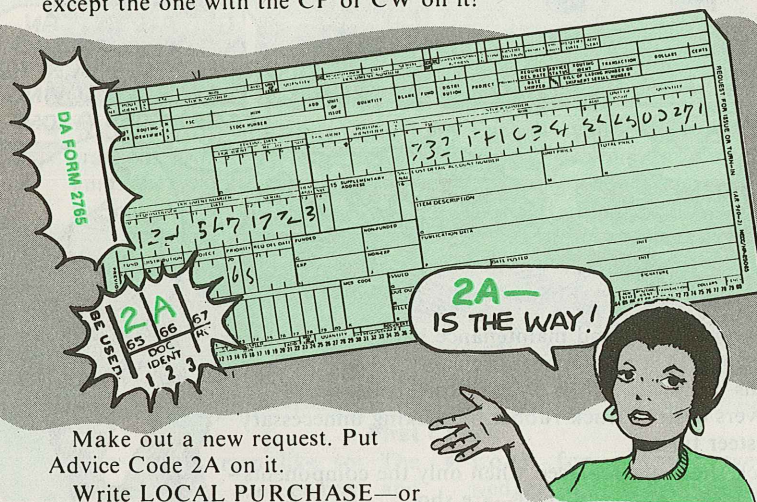
CP Rejected. Source of supply is local manufacturer, fabrication, procurement, or direct ordering from Federal Supply Schedule. If not available locally or activity lacks procurement authority, submit a new request with Advice Code 2A.

directly from a Federal Supply Schedule." And the CP applies to all your future requests for that item.

CW Rejected. Item not available or is a nonmailable item and the transportation costs are uneconomical. Local procurement is authorized for this request only. If item cannot be locally procured, submit a new request using Advice Code 2A.

CW gives the green light on support going local purchase for that one request only. Need more? Order through normal channels. You'll either get the item or another CW status.

When you get a CP or CW status, close out that document number on your document register. Trashcan all the old status cards on the request—except the one with the CP or CW on it!



Make out a new request. Put Advice Code 2A on it.

Write LOCAL PURCHASE—or FABRICATE if that's the way to go—in Block O of the DA Form 2765/2765-1 or the Remarks Block of the DD Form 1348-6. Attach a copy of the CP or CW status card to the new request and drop it on support. No

AMDF Codes

A couple of Acquisition Advice Codes (AAC) on the Army Master Data File (AMDF) also tell you an item will come through local purchase or by fabricating locally.

- L means the item's OKed for local purchase as a normal means of support for everybody.
- K tells CONUS units to ask for local purchase. Overseas units order K-coded items through normal channels.
- I applies to GSA-managed items. Your support orders them directly from your nearest GSA outfit.
- F means the item's to be fabricated (made) or put together locally.

status cards in your supply system? Write CP or CW—whichever you get—status received and the date of that printout on your request.

Your support buys other parts and supplies locally no matter where you are and without the OK from a code. Para 6-4e of DA Pam 710-2-2, Supply Support Activity Supply System Manual Procedures, describes those items. Overseas units have other special lists of items support buys directly.

While those lists and that action belong to support, you're ahead if you know about them. You can save time—and maybe hassle—by making sure your requests for those items have all the info support will need!

Staying on Track with Good PM

ANY TURN YOU CAN MAKE I CAN MAKE TIGHTER! A

GET ALL YOU CAN OUT OF YOUR TRACK. REMEMBER, A LITTLE TLC (TRACK LOVING CARE) GOES A LONG WAY!



It's **your** driving and maintenance habits that make or break track. A lot of tankers are causing Uncle to lose millions of dollars worth of good track each year.

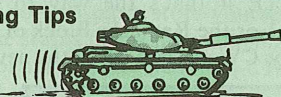
Drivers destroy track rubber by making unnecessary pivot steer turns.

Track shoes are replaced when only the components—center guides, pads and such—are shot.

Slow 'n' steady



Driving Tips



Smooth starts 'n' stops

- Keep your speed slow and steady. High speeds build up heat that weakens pad resistance to tearing and chunking.

- Start and stop your tank smoothly. Quick starts and jerky stops increase wear on the pads.

Smooth long turns

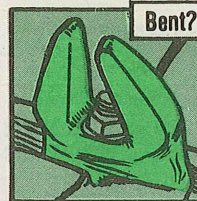
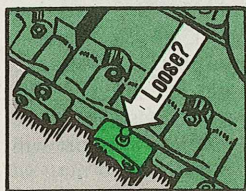
- Turn in smooth, long curves. Pivot steering at any speed wears out lots o' track rubber.

Keep it at a minimum.

Inspections at Halts

When you stop your tank, give your track a quick check. A simple walk-around will do.

- Check for broken, missing or loose end connectors, bolts and wedges. Shiny metal where the bolt touches the end connector means a loose wedge bolt.



- Watch for missing, bent, cracked, broken or loose center guides. Look for shiny metal at the nut.

- Eyeball your track for dead shoes. If you see a sagger—a drooping shoe—replace it now. It could cause a thrown track.

Day's End Check

Give your tank a good going over at the end of the day. A 4-man crew can make a series of 3 checks in about 10 minutes. If you find problems, fix 'em. Then you can run smoothly all day tomorrow.

Drive your tank to a hard level surface and coast to a stop.

Check track for metal, rocks, wire, tin cans and mud. If you see any, remove it. A gunked-up track won't run smoothly.

First Check

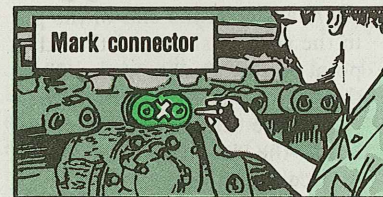
- Place the 4 men like so: The driver starts the engine and warms it up. One crewmember stands in front of the tank to act as a ground guide for the driver. Number 3 man will be the rear ground guide. Number 4 man—the inspector—does the work.
- The inspector watches the track as it passes over the compensating idler, while the driver moves the tank backward. Check the right side first, then the left. If something looks wrong, signal the front ground guide to have the driver stop the tank. Mark the outboard side of the end connector for repair reference.

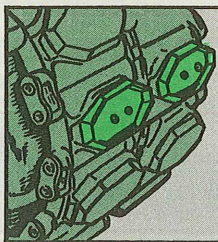
- Look for missing wedges, wedges not seated right, and loose, broken, worn or missing end connectors.
- Borrow your mechanic's end connector wear gage, NSN 4910-00-795-7960. (The gage is part of the special tools shown in the tank's -20P TM.)
- Measure the driven—trailing—end of the end connector. If the gage pin won't touch the end connector, that end connector is worn past acceptable limits. When half or more of the end connectors



Pin touch?

are worn on 1 end, but within wear limits on the other end, the entire track must be reversed. Reversing gives you more mileage from track components, especially the end connectors.



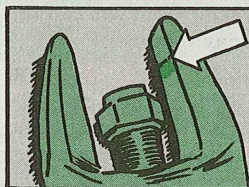


Replace when grouser begins to mark road

- Check for missing or worn track pads on T142 track. No need to replace pads for chunking. Replace 'em only when the grouser begins to mark a paved road.

Second Check

- Keep the front ground guide and driver in the same positions as in the first check.
- The No. 3 and 4 men each observe a front idler. They both watch the center guides as they pass between the compensating idler and the No. 1 roadwheel while the driver moves the tank forward.
- Check for missing, bent, broken, cracked, worn or loose center guides. If either inspector finds any, signal the ground guide to have the driver



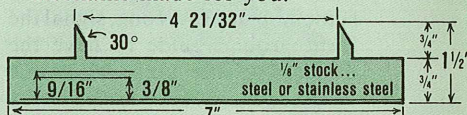
Measure here, 1 inch down from top

Third Check

- The driver and the front ground guide keep their same positions for this check. The inspectors move to the rear of the tank near the drive sprockets. They both watch the track as it passes over the support rollers. Check for dead shoes as the driver moves the tank forward. A dead shoe rides unevenly—1 end or both ends are

lower than the shoes next to it. Dead shoes are caused by worn bushings or broken shoe pins.

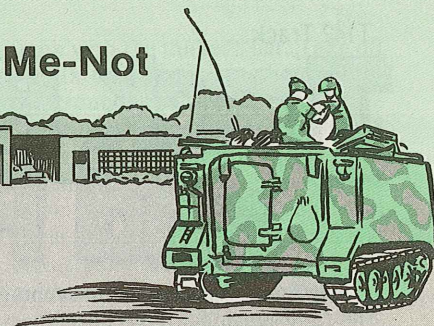
- If you find shoes that look dead but you're not sure, get the track bushing wear gage your mechanic made for you.



Place 1 point of the gage on the chamfer at the end of the pin in the suspect shoe and the other point on the other shoe pin. When the gage won't fit on the pin and stay inside the end connector pin bore, the bushings are bad—replace the shoe.

Combat Vehicles...

Grounding Forget-Me-Not



Just dropped the powerpack into your combat vehicle? Did you remember to hook up the ground straps or cables?

A missing or unconnected ground strap or cable can really mess up your electrical system, especially your generator.

Most combat vehicles have at least one ground strap running from the pack to the hull. A few, like M60-series tanks, have 2 ground cables—at the generator and starter. They are connected to the powerpack quick disconnect, but have no ground strap connected to the hull.

So if your vehicle is missing a cable or strap, order it. Then, keep all of 'em tight at both ends.

You'll also have electrical problems if your batteries are in bad shape. Check 'em out against TM 9-6140-200-14 for lead-acid batteries.

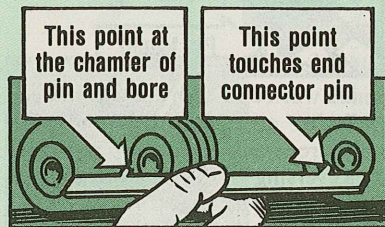
Be sure you've got a matched set with not more than 25 specific gravity points or 0.5 volt difference between batteries.

Parking Brake Maintenance

Need help replacing the parking brake cable on your M48/M60-series tank? Got other problems with the parking brake system and its maintenance? Check out TB 9-2300-420-20-1. It's full of good info that can save you time and money.

Tank AOAP Update

Remove the oil sampling valve from all M48/M60-series tank engines before you turn them in for rebuild. The valves are out of stock, so the engine you receive from depot probably won't have a valve installed. Use the ones you removed to get your engines back on the program. Depots will add the valve during rebuild when valves become available.



This point at the chamfer of pin and bore

This point touches end connector pin

Track Breaking and Repair

Replacing worn parts and keeping the right tension will go a long way toward keeping your tracks tracking.

After you've marked defective parts for repair or replacement, make sure you break track the right way, do the work right and put everything back together again so it'll last.

Move the tank until the bad part is between the compensating idler and the No. 1 roadwheel.

Loosen the locking screw on the



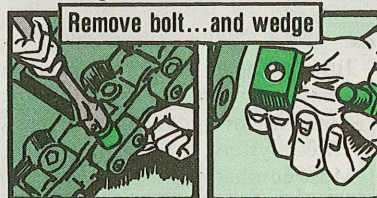
track tension adjusting link. With the track link adjusting wrench, loosen track tension.



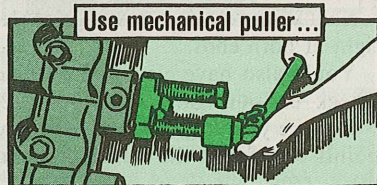
(Note: You don't need to break—disconnect—track to replace an end connector, but you must use the track fixtures. You don't have to

loosen or remove end connectors just to replace a center guide.)

Remove the end connector bolt and wedge.

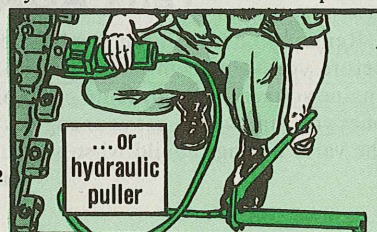


Use the mechanical end connector puller, NSN 5120-01-040-9318. It's



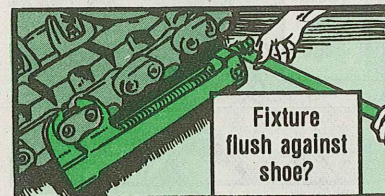
part of your tank's basic issue items. Pull out the end connectors on each side about 1 inch. Don't pull it off completely! The center guide will be all that's holding the track together—and it might not hold.

If you get a stubborn end connector, borrow your mechanic's hydraulic end connector puller,



NSN 5120-01-052-5642. It's a special tool authorized in your tank's -20P TM.

Put one track fixture on each side of the track. Make sure the jaws are flush against the shoe. Tighten the



fixtures until the jaws are firmly clamped on the track shoe pins.

Tighten each fixture alternately $\frac{1}{4}$ to $\frac{1}{2}$ turn until the end connectors can be removed. If you tighten one side too much, you put a lot of stress on the shoe pins. They'll bind in the end connector making it hard to get off.

Next you take off the center guide nut and the center guide.

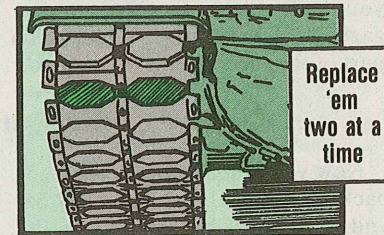


Loosen the fixtures alternately until the track is loose. Support the

track with the tanker's bar. Take off the fixtures and lower the track to the ground.

Track shoes come in sections of 8 shoes—and that's the way some crewmen put 'em on. This wastes track. Replace only the defective shoes. And don't toss out good end connectors, wedges, pads or center guides. You can use 'em again.

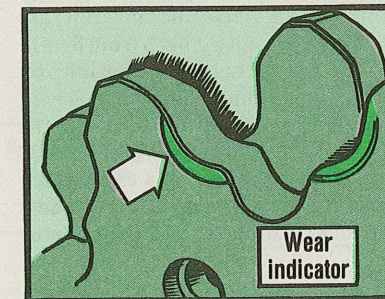
When you replace track shoes, make sure the rubber pads on the 2 shoes on either side are about the



same height. If they're not, the new pads will get chewed up right away.

When you replace pads, always put them on in sets of 2...on the same shoe. Try to match the pads so you end up with about 4 or 5 shoes in a row with pads all about the same height. You may have to juggle some pads around to make it come out right. If you tankers take along some new pads and some used pads, it'll help keep things evened out.

Track Drive Sprockets



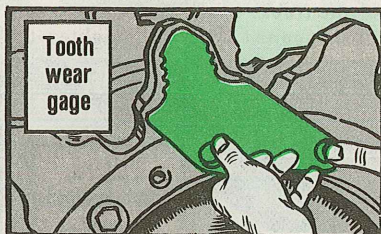
Take a look at the outboard drive sprockets. If they have built-in wear indicators, see if the undercut is worn away. There are undercuts on 2 adjoining teeth. If an undercut is worn on one tooth, both drive sprockets on that side of the tank

have to be reversed. If the undercut is worn down on both teeth, both drive sprockets on that side have to be replaced.

Always replace sprockets in pairs. And make sure both sprockets in the pair are the same thickness. There are both 1 5/8-in and 1 7/8-in thick sprockets in the field. Only 1 7/8-in sprockets are in supply.

If your tank's sprockets don't have the built-in wear indicators, borrow your mechanic's sprocket tooth wear gage, NSN 5120-00-563-7320. (It's a part of the special tools in the tank's

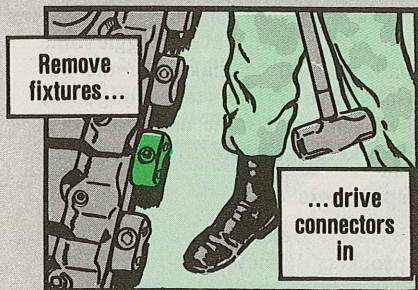
-20P TM.) Set the gage on the sprocket's mounting bolts so the gage is over a tooth.



If the tooth is worn below the undercuts, reverse the pair or replace them.

Getting It Together

Now you're ready to put the track back together. Use the tanker's bar and lift the track back into place. Put on the track fixtures. Tighten them alternately until you can put on the end connectors. If you don't, the fixture jaw can break and flying metal can injure you. Drive them on until they are against the fixtures.



Put the center guide back. Don't tighten it yet...just snug up the nut.

Take the track fixture off. Drive the end connectors the rest of the way on. They may have to be moved in or out on the pins for the wedges

to fit into the pin's notches.

Put in the wedges and the bolts but don't tighten them down. Snug them up like you did the center guide nut.

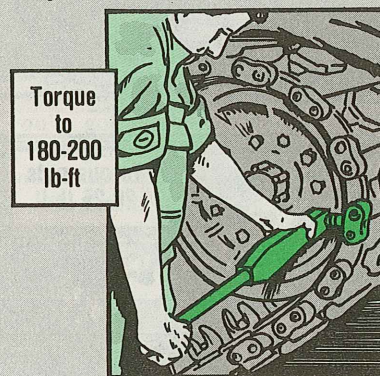
Some tankers tighten the end connectors and center guides at the point of replacement. That's wrong because the wedges won't seat. The track shoes have to be in exactly the right position—at a 16-degree angle—when you tighten the bolt. Otherwise, the wedges will not fit into the notches cut in the pins. The wedges will ride high. The bolts will loosen up right away and track failure starts right away, too.

There's only one place around the entire track where the shoe pins are at the right angle. That's from 8 to 11 o'clock on the compensating idler on the left side, and from 1 to 4 o'clock on the compensating idler on the right side.

The problem is, you can tighten only the 8 and 9 o'clock and 1 and 2 o'clock inboard end connector

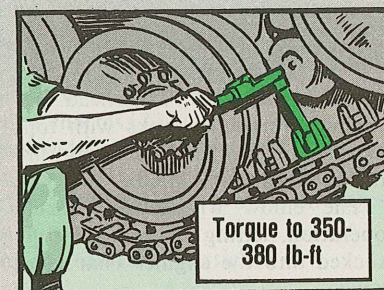
wedge bolts. You can't get a wrench on the others. You'll have to move the tank to get the other bolts in the right position.

Now move the tank backward until the shoe with the end connectors to be tightened is on the compensating idler. Get the torque wrench from your mechanic and torque the bolt to 180-200 lb-ft. Too



much torque is as bad as too little. If you use too much torque, you can twist off a bolt and have to start again. If you use too little, the bolt will loosen up right away.

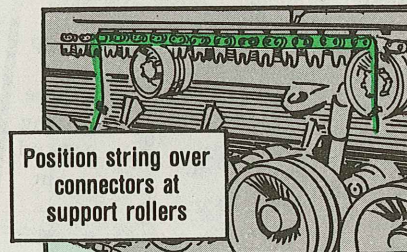
Move the tank forward until the center guide to be tightened is between the No. 1 roadwheel and the compensating idler. Torque the nut to 350-380 lb-ft.



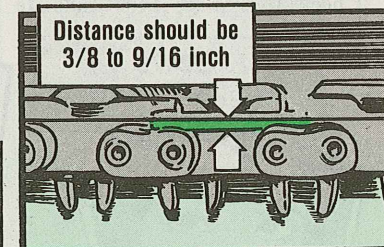
Before you turn in the torque wrench, torque all the new pads or the juggled pads to 260-280 lb-ft.

Track Tension Adjustment

1. Move the tank forward on a hard, level surface and coast to a stop without applying the brakes or steering.
2. Place a string with weights over the end connectors at the No. 1 and No. 2 support rollers. The string has to extend below both rollers.



3. Measure the distance between the string and the end connector midway between the 2 support rollers. The



measurement should be 3/8 to 9/16 inch.

4. After you get the right tension, tighten the adjusting link locking screw.

Elbow Grease for the Elbow

COUGH!
COUGH!
SPUTTER!

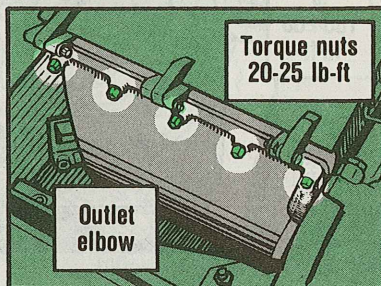
HAVE THEY TIGHTENED
YER ELBOW LATELY?

You mechanics can head off engine damage to tanks with top-loading air cleaners by making sure the outlet elbow is snug.

The elbow will loosen during operation, letting dirt and dust get sucked into the engine. That's bad news.

If the elbow is loose, make sure the mounting nuts are the self-locking type. NSN 5310-00-950-0039 will get you the right ones. Torque the nuts to 20-25 lb-ft. Don't sweat with the nut under the outlet end of the elbow unless you already have the air cleaner off.

Check, too, to see if the studs are



in good shape. If they're not, remove the air cleaner and elbow. Replace the bad studs with screws, NSN 5303-00-725-2317.

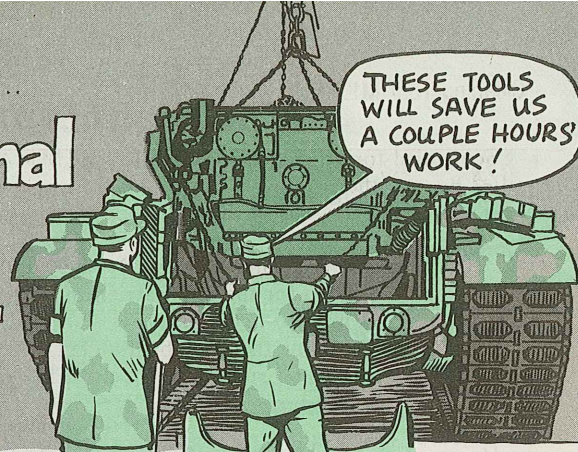
PUT THE ELBOWS
BACK LIKE SO:



- Tighten all the nuts or screws to about 10 lb-ft.
- Start the tightening sequence with the corner nuts on one end of the elbow. Tighten to 20-25 lb-ft.
- Then tighten the 2 center nuts, top and bottom.
- Now tighten the corner nuts on the other end. Torque the remaining nuts starting at one end and alternating from top to bottom.

Using Final Drive Adapter Tools

THESE TOOLS
WILL SAVE US
A COUPLE HOURS'
WORK!



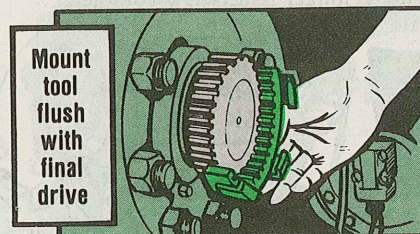
It doesn't take charm to make a final drive adapter hookup tool, but once you've got a couple, they sure work like charms.

Using the tools can save you time, busted knuckles and mashed fingers—in hooking up the final drive adapters when you're installing the powerpack.

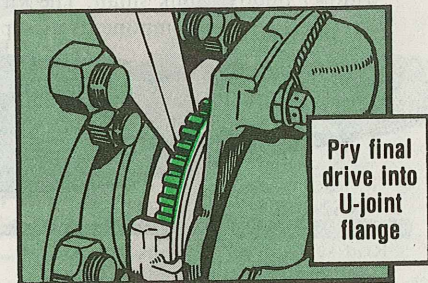
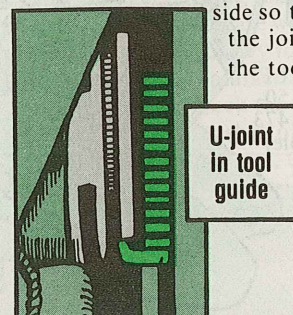
The details on making the tools are in TB 43-0001-39-6 (Jul 81) on Pages 2-3 thru 2-11. Write PS if you need a copy!

Here're a few tips that'll make using the tools a bit easier:

- Install the tools so the opening points up and 1 or 2 teeth off level toward the back.
- Once the pack is in place, use a pry bar or rope to turn the universal



- While slowly lowering the pack, align the universal joint on each side so the lip of the joint enters the tool guides.



joints so the splines will match up. (Don't use your hands—they could get mashed.)

- Slide or pry the final drive adapters into the universal joint flanges. When the adapters are fully engaged, the tools will fall free.
- Using the welded-on chain, retrieve the tools for use next time.

Cleaning Your M16A1...

The Right Stuff

Scheduled for a firing mission with your M16A1 rifle? Be sure the cleaning gear you need for use when you're through firing is in the buttstock accessories case.

You also need pipe cleaners, NSN 9920-00-292-9946, for the bolt carrier and other hard-to-reach parts.

Some troops substitute cotton tips and such for pipe cleaners.

The cotton leaves lint, which mixes with lube and carbon.

The mix hardens. In the bolt carrier, the lint mix blocks the gas port. That shuts you down. Get the items you need from your armorer or supply clerk.

Cleaning Kit

Next time you ask your supply clerk for an M16A1 rifle cleaning kit, think small. The kit is no longer issued as a complete unit. You get the components as separate items.

Case, small arms accessories
NSN 1005-00-403-5804

Handle, cleaning rod,
NSN 1005-01-113-0321

Rod section, (3 sections per rod)
NSN 1005-00-050-6357

Rod tip swab holder,
NSN 1005-00-937-2250

Brush, tooth, NSN 1005-00-494-6602

Brush, bore,
NSN 1005-00-903-1296

Brush, chamber,
NSN 1005-00-999-1435

.5-oz.
bottle CLP,
NSN 9150-
01-102-1473
(refillable)

HERE'S
WHAT TO
ASK FOR...

Doff Your Muzzle Cap

Muzzle caps for M16A1 rifles are great for keeping rain, mud, dust and dirt out of barrels.

If conditions in the field demand it, keep them on.

Take them off, and keep them off, when you're under cover or when the rifles are stored. The covers make the barrels sweat and rust.

In the field, clean and lube your rifle every 24 hours when you use the cap. Rust starts that soon.

SURE IS
WET OUT
THERE,
MA!

TAKE
OFF YOUR
MUZZLE
CAP
WHEN
YOU COME
IN HERE,
JUNIOR!

M2 QR Pin Pointer

DEPRESS
PLUNGER
TO PULL PIN!

To remove the quick release pin of the M2 machine gun's M19 blank firing attachment, you must first depress the plunger.

The plunger (spring-loaded ball bearings) does not release with a pull of the QR pin. If you try to force it out by yanking, hammering, etc., you'll damage or wreck the plunger, the rings or the outer shell of the pin.

So, depress the plunger, then pull the QR pin.

GROUND MOBILITY

Trailers, Semitrailers...

Double-Check the Connections!

CAN'T YOU
EVEN SLOW DOWN
GOIN' THROUGH
MALIBU ???...

...I MEAN... FIRST
YOU RACED THRU
YER CONNECTION
CHECK...

... NOW THIS!
IT'S A GOOD
THING THAT
TRAILER IS
EMPTY!

Hooking up a trailer or semitrailer to your truck may be second nature to you, just like tying your shoes.

But no matter how easy it is, you can make a mistake that may lead to a serious accident—especially if you hurry.

For safety's sake, always double-check the 3 connections—mechanical, air and electrical—before you move out.

Trailers



Make sure
safety pin
is in place

MECHANICAL CONNECTION. Make sure the pintle lock is secure and the safety pin is properly installed. The pin must pass through the hole in both the pintle hook and the pintle hook latch. If all's well, the pintle hook won't move or open when pulled upward.

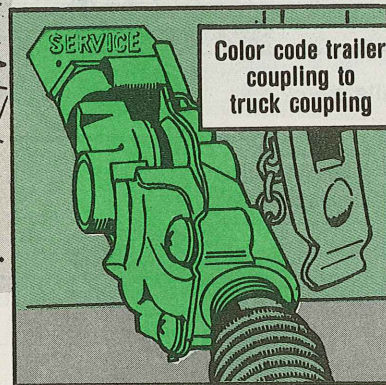
AIR CONNECTION. Some

trailers have only one brake air hose. It must be hooked up to your truck's SERVICE air coupling.

Others also have an air line that hooks up to the EMERGENCY coupling on your truck.

All connections must be tight.

If you hook the hoses to the wrong couplings, you'll lock the trailer brakes. This can burn 'em out and tear up the tires.



Color code trailer
coupling to
truck coupling

Also, you can use a touch of paint to help match the couplings. Color code the hose coupling and the matching coupling on your truck—

TO HELP IDENTIFY THE
COUPLINGS, MAKE SURE YOUR
TRUCK HAS THE RIGHT
AIR COUPLING PLATES!

ID Plate	2½-ton Truck	5-ton Truck
EMERGENCY	NSN 9905-00-774-4284	NSN 9905-00-999-7369
SERVICE	NSN 9905-00-740-9721	NSN 9905-00-999-7370

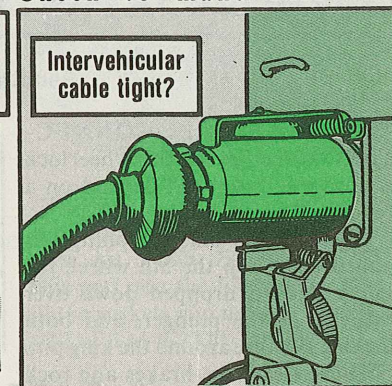
red for EMERGENCY, yellow for the SERVICE.

Before you make with the paint, tho, get your commander's OK.

If your trailer has only the service air hose, stencil this reminder on the trailer's draw bar: **CONNECT TO SERVICE AIR ONLY.**

One more thing. Don't forget to release the parking brake.

ELECTRICAL CONNECTION. Check to make sure the



Intervehicular
cable tight?

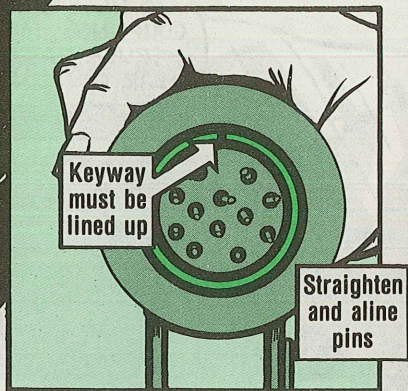
intervehicular cable is connected right and tight.

The plug's keyway must be lined up with the key in the receptacle.

**DON'T FORCE
THE PLUGS...
AND CHECK FOR
BENT PINS!**

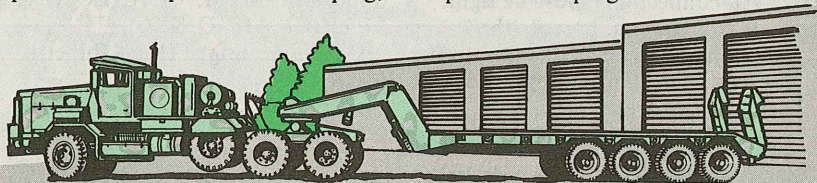
Never force the plug into the receptacle. It's made to go in one way only.

Test the lights. If they don't work, check the plug for bent or distorted pins. If needed, straighten 'em out with needlenose pliers. If any of the pins have been pushed into the plug,



use the pliers to gently pull 'em back out even with the others.

Make sure dirt's not plugging up the receptacle and that the cover snaps onto the plug.



Semitrailers

MECHANICAL CONNECTION. Make sure the 5th wheel lock is engaged. You can't depend on a "clicking" noise.

Check to see that the plunger is pulled back into the 5th wheel, the safety latch is dropped down over the end of the plunger, and both locking jaws are around the king pin.

Then release the brakes and rock your truck to test. If the trailer rocks, too, you've got a good hookup.

Double-check the air and electrical connections as above.



Fuel Filters...

Have You Heard the One About...

**FUEL
FILTERS!**



From Texas comes the story of the man who buys a new car every time the ash trays get full. Now that's funny!

From the far-flung reaches of the Army comes another story: People are using new fuel filters every time the elements get dirty. Now that's not funny at all! That's a tragedy!

Most of the time the only problem is a clogged filter element. There's no need to pitch the complete assembly.

That's the difference between a 100-buck filter assembly that's used

on multifuel engines, and 8 bucks for the elements and gaskets.

Deuce-and-a-half trucks and most M39A2-series 5-ton trucks use the same primary filter. It's not in TM 9-2320-211-20P, but you'll find it in Fig 34 of TM 9-2320-209-20P. Here's what you can get for your primary filter:

Nut NSN 2910-00-791-3352

**Gasket set
NSN 5330-00-678-3298**

**Element
NSN 2910-00-790-2300**

**Engine-mounted
fuel filter kit**

Secondary and final filters on 2½-ton and 5-ton multifuel trucks use parts kit, NSN 2910-00-134-7835. This gets you the filter element and all the gaskets you need. It's on Page 2-32 of TM 9-2320-211-20P.

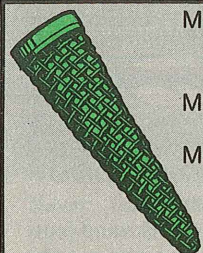
M809-Series 5-Ton Trucks

There's only one fuel filter on M809-series trucks. Instead of replacing the complete filter, NSN 4930-00-477-8276, get element assembly, NSN 2910-00-152-2033. That's the element and the gaskets.

Fuel Tanker Nozzle Parts

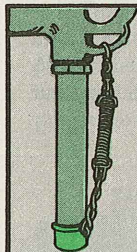
Missing nozzle strainers or dust caps on your fuel dispensing tanker can't keep dirt out of fuel systems. Dirt'll clog filters, damage engines, and run up repair bills. Here are the screens used with common fuel tankers:

Strainers



- M131A4C, M131A5C Semitrailers
- 1½-in Nozzle Strainer, NSN 4930-00-954-1317
 - 2½-in Nozzle Strainer, NSN 2910-01-104-8967
- M969, M970 Semitrailers, M49-series Trucks
- 1½-in Nozzle Strainer, NSN 4930-01-115-6741
- M559 Goer
- 1½-in Nozzle Strainer, NSN 4930-01-115-6741
 - 2-in Nozzle Strainer, NSN 4730-01-083-1160
 - 2½-in Nozzle Strainer, NSN 2910-01-104-8967

Dust Caps



Dust cap assemblies can be used on any nozzle of that size. Pick the one you need:

- 1½-in Nozzle Cap, NSN 5340-00-115-3060
- 2-in Nozzle Cap, NSN 4930-01-094-6548
- 2½-in Nozzle Cap, NSN 5320-00-720-8866

You can get any part of the dust cap assembly:

- Hook, chain NSN 4030-00-803-0272
- Chain NSN 4930-00-120-9602
- Spring, compression NSN 5360-00-522-2247

Need Tachograph Help?

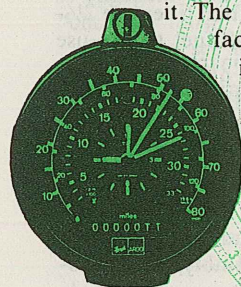
Figuring out how to read the charts for your trucks' tachographs can be a real mind-bender.

These instruments record speedometer, tachometer, odometer and clock readings all at the same time. Don't worry, tho, help is available, if you need it.

The tachograph manufacturer offers written instruction in reading the charts. Just drop a line to...

VDO-ARGO Instruments Inc.
PO Box 2997
Winchester, VA 22601

Or call (commercial) (703) 665-0200, Mr. Scott or Mr. Conaboy. They'll also be glad to give your support a listing of factory service stations.



M915, M916 Trucks...

Dual Purpose Deck Plate

You protect both your equipment and yourself when you add a deck plate, FSCM 34623, PN M-C207-20069.



First, you reduce the chance that the electric cable and air hoses will tangle in the propeller shaft.

You also lengthen the catwalk, making it safer when hooking up to some trailers. You don't have to stand on the frame and risk slipping or falling, especially when the frame's wet or icy.

The cost of the plate is about \$140.

For installation, you need 4 J-bolts, FSCM 34623, PN MA25-21241; 4 washers, NSN 5310-01-119-1024; and 4 nuts, NSN 5310-01-119-3668.

Order the non-NSN items on DD Form 1348-6. OCONUS units use an RIC of S9C. CONUS units must write "Request local purchase" in the Remarks Block of the form.

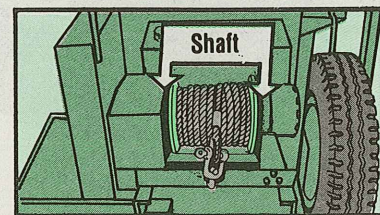
M916, M920 Trucks...

Protect Winch Shaft Seals

Rust on the winch shaft can damage the shaft seals.

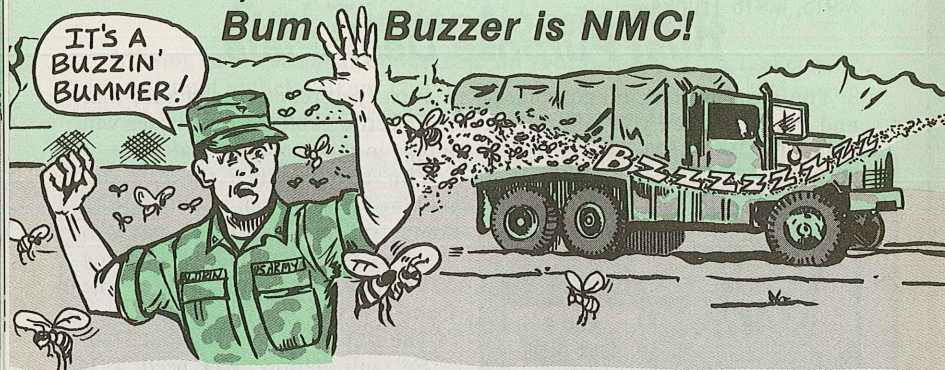
The shaft rusts because it's exposed. Then, when the winch is used, the rusty shaft tears up the seals. This happens mostly on the M916's because the winch is not used as much and builds up rust.

Head off rust and seal damage by putting some GAA on the shaft to protect it from rust. If the shaft's already rusty, use OE/HDO 30 to break down the rust, before using GAA.



Air and Air/Hydraulic Brakes...

Bum Buzzer is NMC!



Your vehicle is "not mission capable" if its brake air pressure warning buzzer doesn't work.

That's the word in TACOM Message DRSTA-MTC 101900Z Feb 83. Make a note for your PMCS table.

The warning buzzer will alert the operator if a sudden air loss occurs or continued break application has depleted the air supply below safe limits.

During operations the operator should observe air gages frequently to insure air pressure remains within safe limits.

Tires...

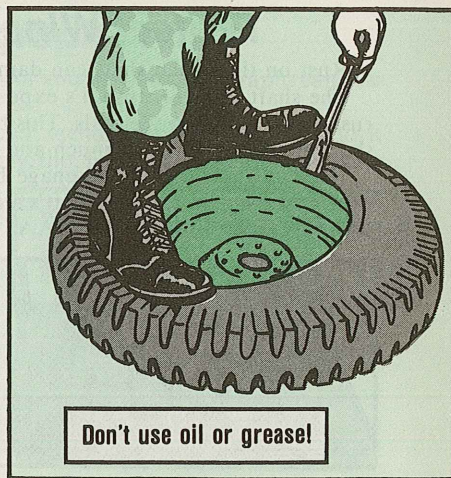
Mounting and Demounting Tip

Oil or grease may make mounting and demounting tires easier. Problem is, petroleum products cause rubber to rot. Para 2-16 of TM 9-2610-200-20 says don't use either one.

Instead, use rubber lubricant. It works as good as oil or grease and won't damage your tires. It's listed in Table 3-4 of the TM:

NSN 2640-00-256-	Quantity
5526	1 quart
5527	2 gallon
5529	5 gallon

It may be available at your Self-Service Supply Center (SSSC).



M880-Series Trucks...

Those Blinkety-Blinkety Lights!

If your blackout-equipped M880 truck is plagued with lights that flicker off and on, chances are you have a bum switch!

If the light switch supplied with the lighting kit, NSN 2540-01-062-0838, is bad, replace it. You can exchange it by sending in the warranty card that came with the kit.

Good switches have the number DC2750-1 stamped on the dull black switch body.



When You Overrev...

The Shaft Hits the Pan

Some M809-series 5-ton truckers are causing damage to their engine oil pan when operating the front winch.

Overrevving the engine can cause the front winch drive shaft to flex—or even break—and the shaft hits the oil pan. One oil pan gone!

Never rev your engine higher than 1,200 RPM's. Page 4-89 of TM 9-2320-260-10-1 has the word.

M880 Tie Rods

Tie rods on M880-series 1¼-ton trucks are organizational level responsibility, as shown in the TM 9-2320-266-20 Maintenance Allocation Chart. Repair parts now in TM 9-2320-266-34P will be showing up in the -20P.

PUBS

GOOD PM

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

Miscellaneous

C2, AR 340-2 May Maintenance and disposition of records in TOE units
DA Form 3161 May Request for Issue or Turn-In

DA Poster 750-77 Jun TAMMS/Supply Crossroads
LO 6-3005-253-12 Jun Grader, road, motorized; Huber Model F1500M and Huber Model F1500MW

LO 9-2320-282-12 Jun Truck, 10-Ton, M1001, M1013, M1014, M1002
Pam 310-99 Mar (fiche) Index of obsolete forms/publications

Pam 350-100 Apr Extension training materials MOS catalog

Pam 710-2-36 May (fiche) Combat PLL and ASL mandatory parts list: TOE 17-004H000 Company: HHC, AD

Pam 710-2-41 Mar (fiche) Combat PLL and ASL mandatory parts list: TOE 37-004H000 Company: HHC, ID (mech)

Pam 710-2-42 Mar (fiche) Combat PLL and ASL mandatory parts list: TOE 44-326H000 Company: HHB, Air Defense Artillery Battalion, Chaparral/Vulcan, SP

Pam 710-2-47 Mar (fiche) Combat PLL and ASL mandatory parts list: TOE 11-036H000 Company: HCC, Signal Bn

Technical Manuals

TM 5-3895-356-14&P Jun Distributor, bituminous material, Etnyre Model D-60

TM 5-4610-215-24 Jun WPU, Reverse Osmosis, 600 GPH

TM 5-6115-603-12 Dec Generator Set, 60KW

TM 5-6115-603-24P Dec Generator Set, GTED, 60KW

TM 9-1425-473-24P Apr TOW/Cobra

TM 9-1425-525-L Jun LOAP Improved HAWK

TM 9-1440-531-24P Jun Improved HAWK

TM 9-1450-585-20P Jun Chaparral carrier

TM 9-2320-282-10-HR Jun Hand receipt, truck, M1001, M1013, M1014, and M1002

TM 9-2320-282-20 Jun Truck, 10-Ton, M1001, M1013, M1014, M1002

TM 9-2330-272-14&P Jul Semi-trailer, tank: fuel; 5,000 gallon, M131A4, M131A4C, M131A5, M131A5C

TM 9-2330-357-14&P Jun Semi-trailer, XM860, XM860A1

C3, TM 9-2350-304-10 Jun M110A2 Howitzer

C3, TM 9-2350-304-20 Jun M110A2 Howitzer

TM 9-4935-452-24P Jun TOW2 Field Test Set, AN/TSM-140B

TM 9-4935-453-24P Jun Shop Equipment, Bradley Fighting Vehicle, TOW Subsystem

TM 9-4935-474-24P-1 May Test Set, Bradley Fighting Vehicle, TOW Subsystem

TM 9-4935-480-24P Jun AN/TSM-114 Dragon

TM 9-6920-450-12 May TOW 2 Training Set

TM 9-6920-450-24P Jun Training Set, M70E2, TOW 2

TM 11-1520-240-20P Apr CH-47D

TM 11-2330-633-13&P May Cable Reel Trailer, V-528/T

TM 11-5800-213-L Jun LOAP for C-E equipment

TM 11-5805-294-12 Sep Manual Telephone Switchboard, SB-993/GT

C1, TM 11-5805-384-12 Aug TA-341 telephone set

TM 11-5805-585-14-1 Apr Telephone Term set, AN/TCC-73(V)1, AN/TCC-73(V)2, AN/TCC-73A(V)1, and AN/TCC-73A(V)2

TM 11-5805-694-23P Jun Multiplexer Set, AN/FCC-97 thru AN/FCC-97(V)4

TM 11-5805-729-20P Jun Call Director set, AN/GCC-21A

TM 11-5821-318-20P Jun Receiver-Transmitter, RT-1354/ ARC-186(V)

TM 11-5841-283-12 Aug AN/ APR-39 radar signal detecting set

TM 11-5855-247-24P-1 Jun AN/TAS-4 infrared night vision sight

TM 11-5855-249-23P Jun AN/VVS-2 driver's night vision viewers

TM 11-5855-357-23P Jun OE-254 antenna group

TM 11-5855-358-14 Feb OE-222 antenna group

C5, TM 55-1520-209-23P-1 Apr CH-47A,B,C

C3, TM 55-1520-210-PM Apr UH-1H/V and EH-1H/X

C13, TM 55-1520-220-10 May UH-1C/M

C5, TM 55-1520-220-CL May UH-1C/M

C3, TM 55-1520-221-23-2 Mar AH-1G, AH-10

C16, TM 55-1520-227-23-2 Apr CH-47B,C

C31, TM 55-1520-235-10 May OH-58C

C6, TM 55-1520-236-10 May AH-1S (prod), (ECAS), AH-1S (mod)

C12, TM 55-1520-236-23-1 May AH-1S (prod), (ECAS), AH-1S (mod)

C5, TM 55-1520-239-23-1 Mar AH-1S (mod)

TM 55-1520-240-23-1 May CH-47D

TM 55-1520-240-23-2 May CH-47D

TM 55-1520-240-23-3 May CH-47D

TM 55-1520-240-23-4 May CH-47D

TM 55-1520-240-23-6 May CH-47D

TM 55-1520-240-23-8 May CH-47D

TM 55-1520-240-23P-1 May CH-47D

TM 55-1520-240-23P-2 May CH-47D

TM 55-1520-240-23P-3 May CH-47D

TM 55-1520-240-T-1 May CH-47D

TM 55-1520-240-T-2 May CH-47D

TM 55-1520-240-T-3 May CH-47D

C3, TM 55-1730-202-14 Jun Jack, hydraulic, tripod, Type B-5

C2, TM 55-1730-216-14 Jun Mobile servicing unit, Model MSU-1

C1, TM 55-2840-229-23P Jul Engine, gas turbine (T53-L-11C,D) (T53-L-13B)

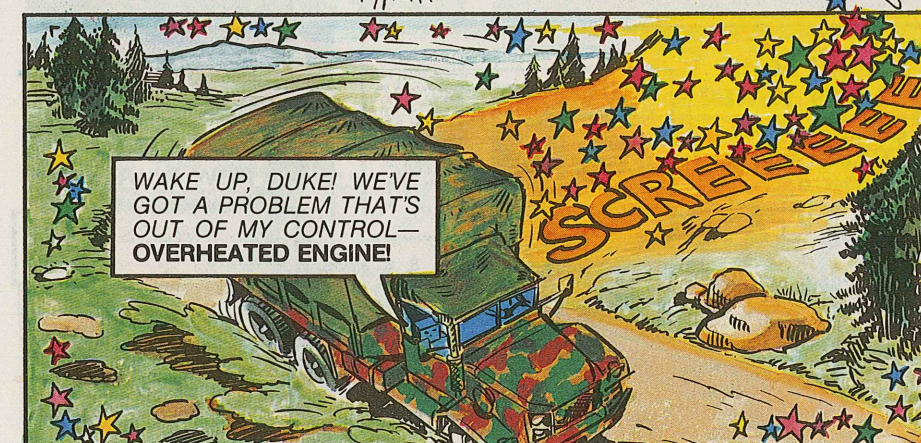
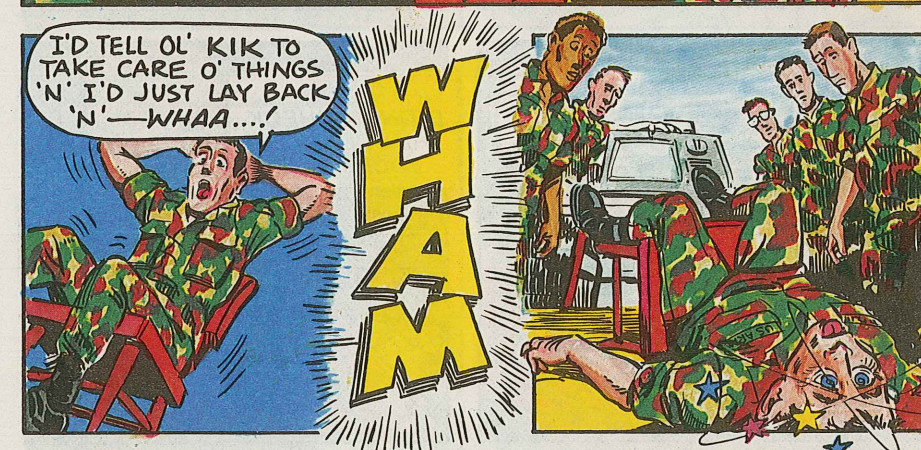
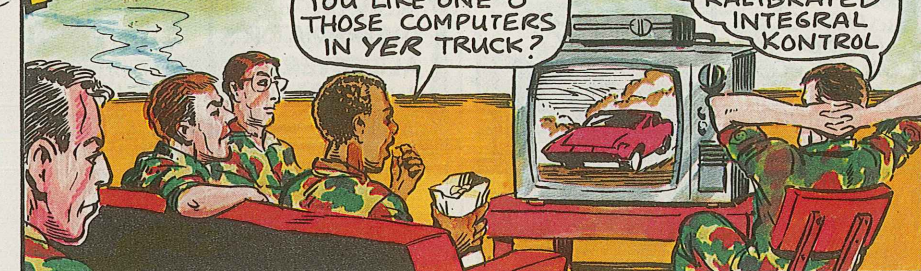
TM 55-2840-254-23-1 Apr T-55-L-712

TM 55-2840-254-23-2 Apr T-55-L-712

TM 55-2840-254-23-3 Apr T-55-L-712

TM 55-2840-254-23-4 Apr T-55-L-712

PLIGHT RIGHTER





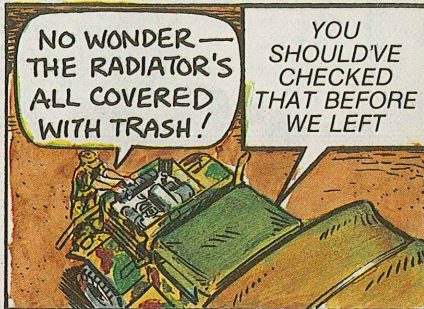
WHAT'S THIS, KIK —
FALLIN' DOWN ON THE JOB?

NO, YOU
FELL DOWN
ON THE JOB—
YOUR
PM JOB!



OH, OH —
TEMP GAGE'S
PEGGIN'
OUT!

NO WONDER —
THE RADIATOR'S
ALL COVERED
WITH TRASH!



YOU
SHOULD'VE
CHECKED
THAT BEFORE
WE LEFT

I'D BETTER
ANALYZE THIS
BABY LATER...
COULD HAVE
BAD RINGS



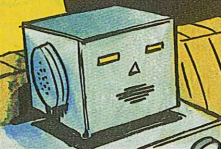
UH... FACT IS
I FORGOT
TO CHECK
BEFORE WE LEFT,
LUCKY THO —
WE GOT
EXTRA OIL
IN THE BACK!

LET'S GET YOU
PROGRAMMED
FOR PMCS...

OIL LEVEL OVER
ADD?...

COOLANT OK?...

COOLANT LEAKS?



'TIS NOW

IT'LL HOLD
FOR A
WHILE...

JUST THAT
LITTLE
ONE.



DOWN THE
ROAD...

OH M'GOSH —
MORE
TROUBLE!



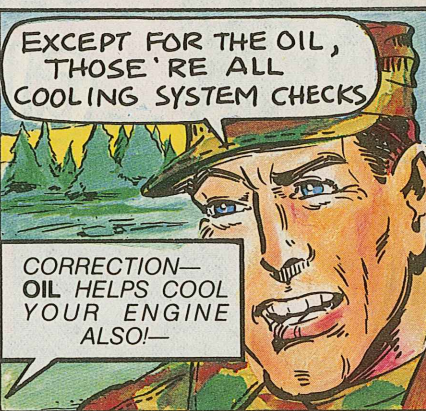
WHAT? YOU
DIDN'T CHECK
THE COOLANT IN
YOUR PMCS?

WORSE —
I DIDN'T
SPOT THIS
LEAKY HOSE
EITHER!



...AND CHECK FAN
BELTS FOR WEAR
AND TIGHTNESS...

THEY'RE
OK



EXCEPT FOR THE OIL,
THOSE 'RE ALL
COOLING SYSTEM CHECKS

CORRECTION —
OIL HELPS COOL
YOUR ENGINE
ALSO! —



I GOT SOME
CLEAN WATER
OUTTA THAT
CREEK BACK
THERE.

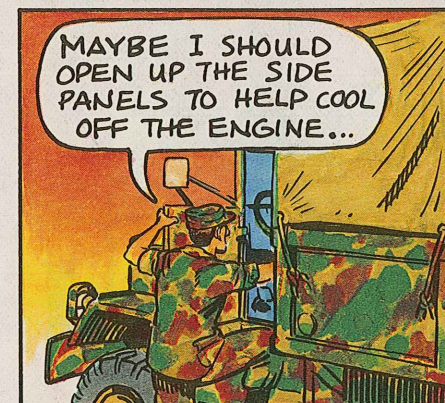
YOU'LL * RUN YOUR-
SELF RAGGED WITH
THAT LITTLE CAN...
MAYBE NEXT TIME
YOU'LL PULL YOUR
PMCS BY THE BOOK!



ON THE MOVE
AGAIN...

OH, OH, KIK
NOW WHAT?

OIL PRESSURE'S
DOWN...



MAYBE I SHOULD
OPEN UP THE SIDE
PANELS TO HELP COOL
OFF THE ENGINE...



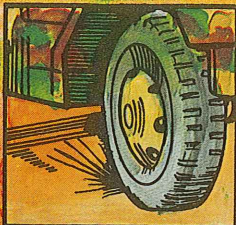
NO DICE, DUKE... YOU'LL SCREW-
UP THE DESIGNED AIR FLOW...

DURING OPERATION,
HERE'RE SOME TROUBLE-
MAKERS TO KEEP AN EAR
COCKED FOR —

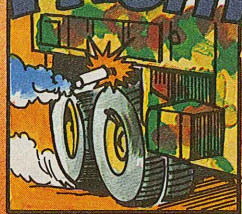
THERE ARE 13 BASIC
SOUNDS YOU SHOULD
BE ABLE TO IDENTIFY...

Hssssssss

Air leak—A tire or something in the brake air system (split hose, hose connection).

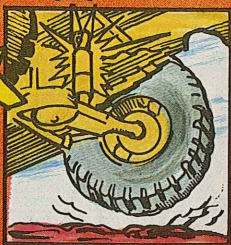


Thump-Thump

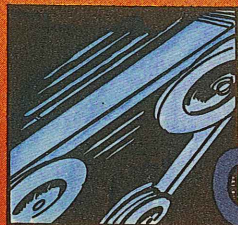


Clonk-Clonk

Broken spring; broken hanger allowing exhaust pipe, muffler or tailpipe to bang against frame.



Bad shock absorbers or shock bushings, worn universal joints.



Chirp-Chirp

Loose or worn V-belt or dry bearing (U-joint bearing, for instance).

Snick-Snick

Electrical short—loose or bare wire arcing.



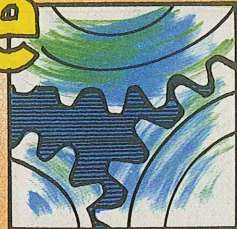
Worn brake shoe—rivets cutting into drum.

Sque-e-e-al



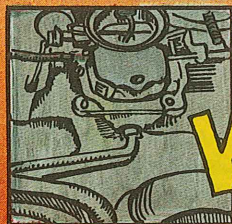
Whin-n-ne

Dry or worn gears—especially differential, transfer or transmission

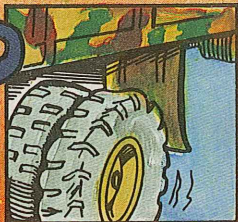


Slap-Slap

Flat tire on dual wheel or a badly cut tire.



Whistle



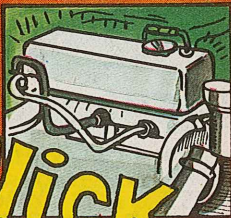
Leak around intake manifold—vacuum leak.



Leak around exhaust manifold or in exhaust pipe, bad muffler.

Futt-Futt

Bad intake or exhaust valve clearances.



Click-Click-Click

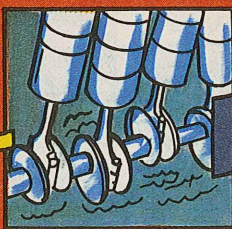


Fuf-f-f-f-f

Overheated or leaking cooling system hose, spewing radiator cap.

R-r-r-r-r

Loose crankshaft or



connecting rod bearings.

LATER...

YOU'RE DOIN' GREAT, KIK! BETTER STEP IT UP THO... SKY'S TURNIN' BLACK... STORM COMIN' UP!

SOMETHING'S WRONG—ENGINE POWER'S DROPPING OFF...

UH-OH...THE RED FLAG'S UP IN THE AIR CLEANER RESTRICTION INDICATOR!

...AND THAT BLACK CLOUD IS EXHAUST SMOKE!

NO SWEAT — JUST KNOCK THE DUST OUTTA THE AIR CLEANER ELEMENT!

DID YOU CHECK THE ELEMENT FOR HOLES?...DID YOU INSTALL IT SO DIRT WON'T GO AROUND IT?

YEAH, YEAH — AND I'LL GET IT WASHED WHEN WE GET BACK, OK?

LATER...

WHILE YOU'RE FILLING THE RADIATOR AGAIN, I'LL THINK OF A FEW MORE THINGS YOU'RE SLIPPING-UP ON.

HE'S BEGINNING TO GET ON MY NERVES — I CAN READ MY -IOTM F'RGOSHAKES!

MOST TIMES GO DOWNHILL IN THE SAME GEAR YOU USE GOING UP. 'COURSE, YOU USE YOUR BRAKES IF NEEDED TO CONTROL OVERSPEEDING

D'YA THINK I NEVER DROVE A TRUCK BEFORE?

AND ANOTHER THING...

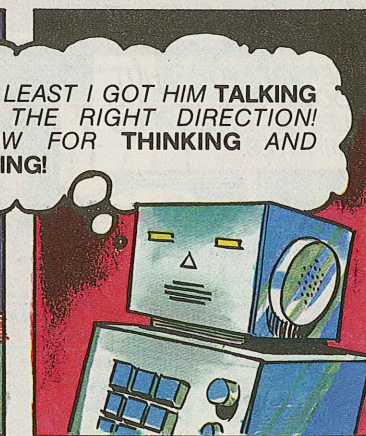
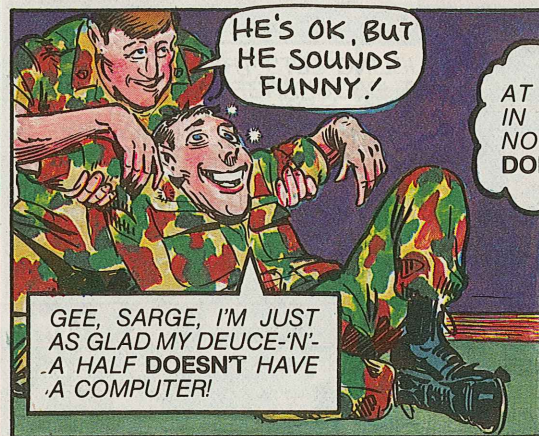
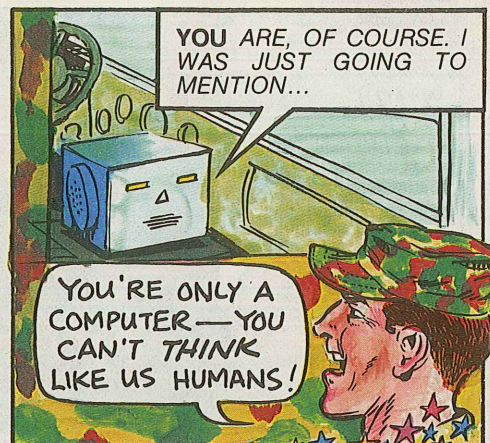
WE MADE IT SOON I'LL BE RID OF HIM!

BEFORE YOU SHUT DOWN THE ENGINE LET IT IDLE FOR 5 MINUTES.

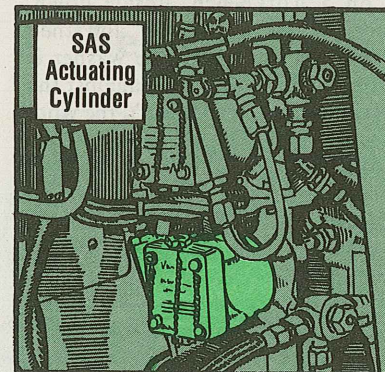
EVERY-BODY KNOWS THAT!

IDLING LETS THE TURBOCHARGER SLOW DOWN WHILE IT'S STILL GETTING LUBE— SAVES BEARINGS.

ENUFF ALREADY!



When you Chinook mechs need to change a faulty SAS actuating

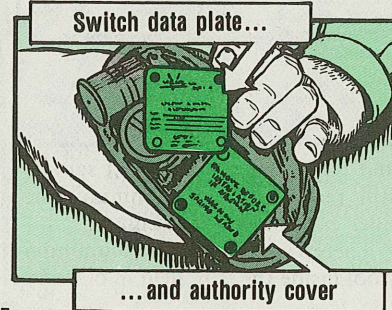


cylinder in the pitch, roll or yaw control system, remember this: The replacement looks identical but it's not!

And if you install the new cylinder the way it comes from tech supply, the pilot won't get full control movement.

That's because there is an internal difference in each cylinder cover. The "authority" cover regulates a different piston stroke for each system.

So, convert the one cylinder listed in Fig 225 of TM 55-1520-209-23P that is usable in all 3 systems. You have to remove the cover from the old cylinder and install it on the new one. Just follow the conversion details in Paras 7-132 thru 7-144 of TM 55-1520-227-23-3.



Change the Wool!



When the oil lab says you have high aluminum wear in a Huey or Cobra tail rotor driveshaft gearbox, you may be asked to flush, reservice,

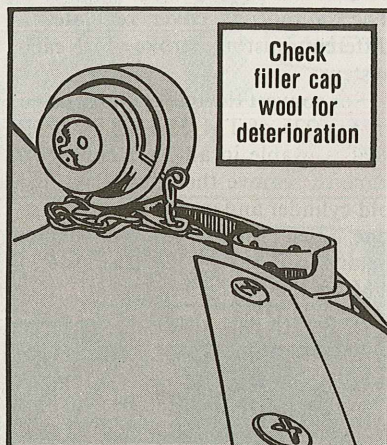
a washer and retaining ring. In time, the wool goes bad and flakes off into the oil to give you a high reading.

It's easy to check out the cap. Lay it on a workbench, upside down. Press in on the washer and then release the pressure. The washer is supposed to spring back against the retaining ring. If it doesn't, the wool is worn out.

So remove the washer and retaining ring. Rub the wool between your fingers and notice how it crumbles... no wonder the oil was contaminated!

Toss out the old wool and clean out the cap. Put in enough new wool, NSN 5350-00-286-4851, to place the spacer under tension and insert the ring. The complete inspection and repair info is in Para 6-193c of TM 55-1520-210-23-1.

Change the oil in the gearbox, fly the bird, and send another sample to the oil lab. Chances are the gearbox is A-OK.



and try it again. If the next sample still reads high in aluminum, the filler cap could be the culprit.

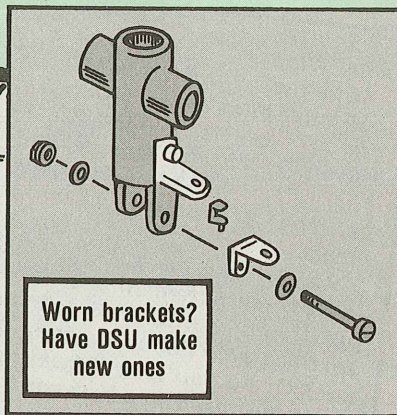
There's a bunch of aluminum wool inside the cap, held in place by

Ogle Angle Brackets

Focus on the Huey tail rotor servo, mechs, during Phase Maintenance. Some cases of elongated bolt holes in the angle brackets have cropped up.

Worn brackets, PN 205-076-230-1 and PN 205-076-118-1 listed in Fig 368, TM 55-1520-210-23P, should be replaced, and an EIR submitted to TSARCOM.

There is no stock number for a



replacement bracket. However, your sheetmetal shop can make it by following the details in Figs D-215 and D-216 of TM 55-1520-210-23.

The Right Form



Dear Windy,

The 400-hr retirement entry for the UH-1 oil cooler turbine bearings leaves us up in the air!

Some troops list it on the DA Form 2408-18; others on the DA Form 2408-16.

What's the down-to-earth answer, Windy?

SSG G. W. B.

Dear Sergeant G. W. B.,

The bearings are not listed as a special inspection in TM 55-1520-210-23, so they don't go on the -18.

The bearings also are not listed in TB 55-1500-307-24, on components requiring historical data—but they will be! So use the -16.

Windy

Point of Measurement

Dear Windy,

When we're rigging the OH-58 collective pitch control, View A in Fig 11-1 of TM 55-1520-228-23 leaves much to be desired. There's a 0.062-in difference between 2 possible measurements.

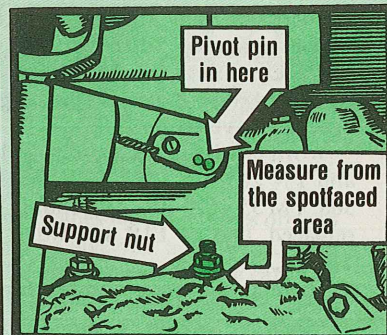
Do you take the 1.98 ± 0.060 inches measurement from the pivot pin centerline to the spotface area under the support nut? Or do you take it from the pin to the raised area between the nuts?

SGT J. J. B.

Dear Sergeant J. J. B.

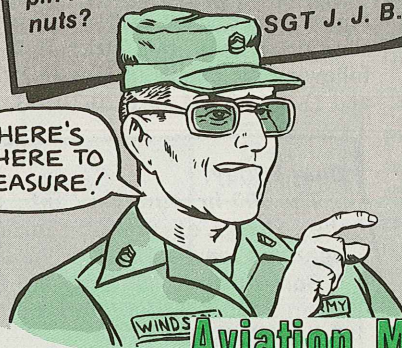
Take your measurement from the pin to the spotfaced area under the nut.

The head hangar will clarify the



drawing in a change to the tech manual.

HERE'S WHERE TO MEASURE!



Aviation Messages

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

AH-1-83-05 SOF Technical, Inspection to remove main rotor blades with oversized patches 022115Z May 83.
AH-1-83-06 SOF Maint Mandatory, Redefines retirement life of components on Kaman main rotor blade 171538Z May 83.
UH-1-83-10 SOF Maint Mandatory, Inspection for main rotor blades which have oversized patches 022115Z May 83.
UH-60-83-05 SOF Maint Mandatory, External load hook

ups 091400Z May 83.
UH-60-83-06 SOF Maint Mandatory, Inspection of stabilator assembly 102100Z May 83.
CH-47-83-03 Maint Mandatory, Inspection of dynamic self tuning absorber assembly 031431Z May 83.
CH-47-83-04 SOF Technical, Inspection of upper flight controls 042200Z May 83.
CH-47-83-05 SOF Technical, Inspection of combiner transmission support fitting 191530Z May 83.
CH-54-83-02 SOF Technical, Inspection of tail rotor gear box support fitting assembly 032000Z May 83.
OV-1-83-01 Maint Mandatory,

Inspection of wing attachment bolts 171551Z May 83.
MIN-GEN-83 MEA-02 Requirements to comply with FAA Airworthiness Directives on the U-8F 262030Z May 83.
MIM-GEN-83-MEA-01 C32 to TM 55-1500-204-25/1 181800Z May 83.
MIM-UH-60A-MEA-83-09 Installation instructions for crew chief/gunner's window security device 231745Z May 83.
MIM-UH-60A-83-MEA-10 Removal of rubber boots from the main rotor control rod bearings and the main rotor damper bearings and change to the recurring inspection of the bearing 271945Z May 83.

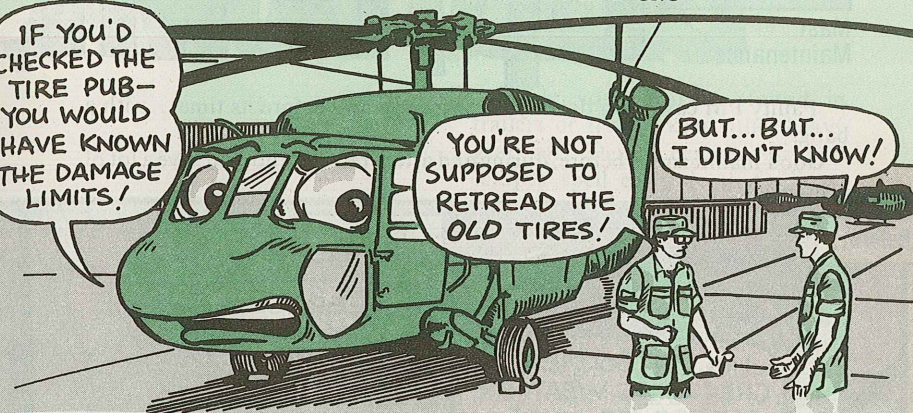
Cat 1 EIR Phone:
 AUTOVON 693-2066
 (24 hours)

Take Bead on Tire Pub

IF YOU'D CHECKED THE TIRE PUB—YOU WOULD HAVE KNOWN THE DAMAGE LIMITS!

YOU'RE NOT SUPPOSED TO RETREAD THE OLD TIRES!

BUT... BUT... I DIDN'T KNOW!



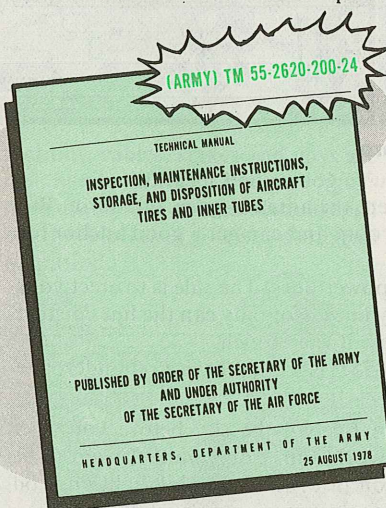
Sequence 2.11 in TM 55-1520-237-PMS-1 has some damage limits for your Black Hawk main landing gear tires. For example, you're allowed a cut in the sidewalls that is not deeper than 4/32 inch.

For other damage limits, tho, you need to eyeball TM 55-2620-200-24 on maintenance of aircraft tires and tubes.

Table 3-1 in the pub tells you how to measure a cut in the tread to see if you can keep the tire in service.

If you have other tire damage, check the pub to see if it's acceptable.

NOTE: Starting with Serial No. 81-23569, all UH-60A's are equipped with B F Goodrich retreadable tires NSN 2620-01-137-3398. You can use this heavier tire on all Black Hawks, but only in pairs. Never mix old and new tires on the same bird. Old tires are easy to spot: they're marked **Do Not Retread** on the sidewall.



UH-60A Shaft Check

The special inspection of the Black Hawk engine output shaft, NSN 2835-01-123-7648, has been extended to 30 flight-hours. Eyeball the other output shaft, NSN 2835-01-093-4763, every 10 hours. This info, and more, is in TSARCOM Msg DRSTS-MEA 112000Z Feb 83.

COMMO

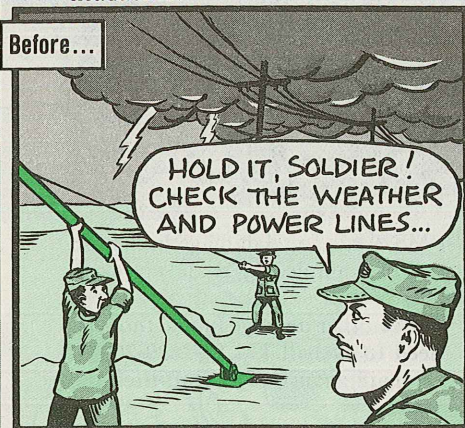
Mast Maintenance...

Up, Down,

All Around

Faulty PM can bring down your mast antenna before its time... with a bang.

Good maintenance before, during and after erection, tho, can save a lot of headaches.



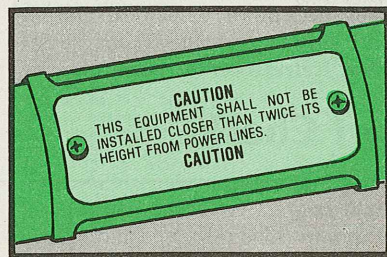
Before

Before you do anything, be sure you've got a good location.

Your mission plays a big part in where the antenna goes, of course. But you'll also want to be sure you've got room and can get a good anchor for your guy stakes.

You'll also want to stay away from power lines. The rule is to erect your mast at least double its height from any lines. Not only can the lines distort your signal, but could electrify the mast if they touch.

A warning label, NSN 9905-00-511-8751, is available as a reminder. See SB 11-614.



Eyeball the sky before you start work, too. You wouldn't want to be on or around that big lightning rod during a storm or high winds.

Take an inventory of your gear before starting. Make sure all



sections, cables, stakes and guys are on hand. Check out the guys carefully. Frays or breaks could spell big trouble if they give way during an operation.



While your gear is stowed in trailers or trucks, keep other heavy gear off. Dents, bends, cuts and scrapes spell early death for mast gear. Fragile cables and connectors are easy victims.

Before heading to the field, lay in a supply of material to wrap around guy wires to mark their location. Those skinny cables become hard to see at night. Some double-timing troop could break a neck or a mast by running into a wire.

During

Don't try to set any speed records when you put up your mast. Take it up by the book.

Some antennas, like the AN/GRC-103 radio's AS-1852, invite the quick-job artist to put up the first few sections by hand. A slip, or some horseplay, can send 'em right down again. A big repair bill is likely if the launcher top plate breaks.

Other troops see a quick way to get their tall friend down, too. Just loosen the guys and let it drop. Scratch one mast and whatever or whoever it hits.

Walking it down by hand is no safer. The weight can easily get away from you, especially if the wind hits it. Bring it down the same way it went up—by the book.

While the mast's up, be sure guy wires stay well-anchored and snug. Wind can grab a dish antenna or reflector. Without firm anchors, your mast goes flying.

But, never overtighten guys. The force could pull down the mast.

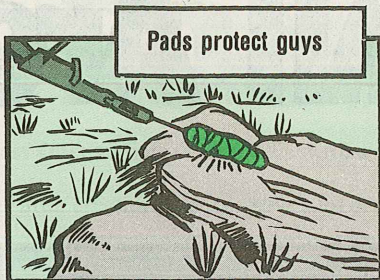
Protect any guy wires that run over sharpies such as rocks, fences or trees. Put padding over the wire where it hits the sharp surface.

After guys are fastened properly, loop extra cable and tape it to the taut wire. That keeps it out of the way.

Safety also means keeping your feet on the ground.

On the AS-1852, for instance, you can save a couple of climbs up the launcher by having an assistant tilt it toward you while you attach the reflector and adapter cable. (Connect the coax before you open the reflector.) Use the same "trick" when removing 'em.

Another trip-saver is to install the white guys' attachment ring and the white guy cables from the ground while the launcher is down.



After

When your antenna is safely on the ground, continue good PM.

Clean all components before stowing them away. That means stowing them carefully in racks or bags until the next time you use them.

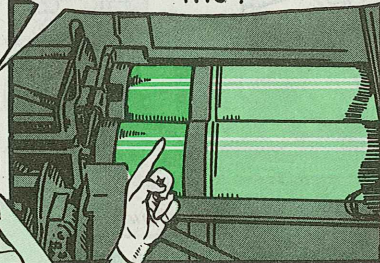
A word on canvas items. Keep 'em clean and dry. Mildew and fungus shorten canvas life.

If you find rust or corrosion on metal surfaces,

take a wire brush or steel wool to it.

When the affected area's clean, spot paint it.

KEEP PAINT COATINGS THIN ON COUPLING AREA, THO!



Antennas...

Too Close for Comfort?

You can add range and RC-292 antennas plenty of room.

Room from power lines, of course. Your pubs tell you that. To keep from blowing out a radio set—or worse, a troop or two—set up your antenna's height from a power line. That will also head off signal interference.

Another commo killer, tho, is lashing your mast to a tree. Some troops do it as a quick way to hoist an antenna. Keeps 'em from pounding guy stakes or getting a buddy to help 'em put the thing up the right way. Trouble is, it also kills the signal. And, if that tree is wet, it can shortstop your radio frequency power and reflect it to the set.

That's trouble.

Finally, keep 'em away from each other. Setting up 2 RC-292 antenna heads on 1 "T" support saves time, all right. It also lets your signals cross, which louses up your commo.

Let antennas keep their distance. Use the handy charts in your AN VRC-12-series radio operator pubs to find out just how far.

WOULDN'T IT BE EASIER TO TIE THIS TO ONE OF THOSE TREES BACK THERE?

NO WAY! TREES CAN KILL THE SIGNAL!... OR WORSE...

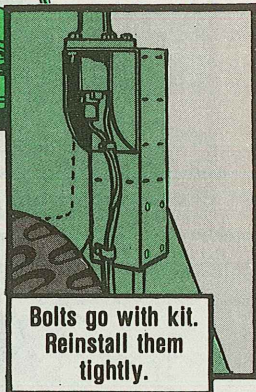
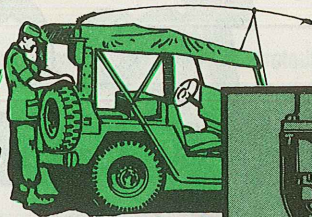
CAUTION

DO NOT OPERATE TOO CLOSE TO OTHER RADIO SETS. THE FOLLOWING CHART SPECIFIES THE MINIMUM DISTANCE YOUR ANTENNA MUST BE FROM ANOTHER ANTENNA WHILE OPERATING AT DIFFERENT FREQUENCY SEPARATIONS. IN VEHICLES, ANTENNAS ARE AUTHORIZED INSTALLED CLOSER THAN 5 FT (10 MHz/5 MHz SEPARATION. MINIMUM.)

Minimum antenna distance separation (whip antenna, RC-292, OE-254)

Minimum frequency separation required	Between AN/VRC-12 series radio on HIGH power	Between AN/VRC-12 series radios on LOW power
10 MHz	5ft./1.5m.	5ft./1.5m.
7 MHz	60ft./18.3m.	10ft./3.0m.
4 MHz	150ft./45.7m.	50ft./15.2m.
2 MHz	400ft./121.9m.	200ft./61.0m.
1 MHz	800ft./243.8m.	350ft./106.7m.

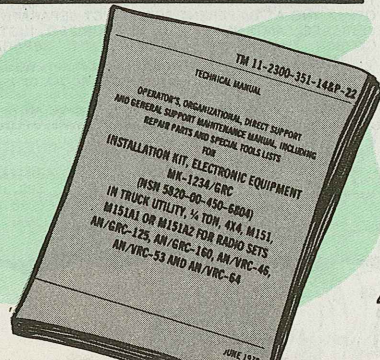
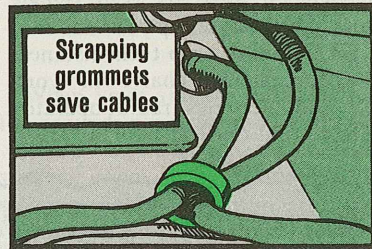
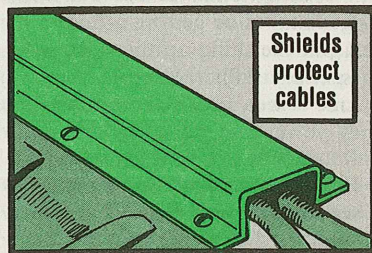
Kits Stay Together



When it's time to move a commo installation kit from one vehicle to another, take all the parts.

Hardware, cables, mounts—they all go. Leave anything behind and you'll likely be short when you mount the kit again. Your PM comes up short, too.

For instance, without radio or antenna bracket reinforcement braces, nuts and bolts can tear through vehicle metal.



Just the momentum your whip antenna builds up on rough roads will do the trick. You need all the bolts, and they should be tight. If not, the whole bracket can work loose.

No cable shields? Commo cables that run across cargo beds can be crushed or cut.

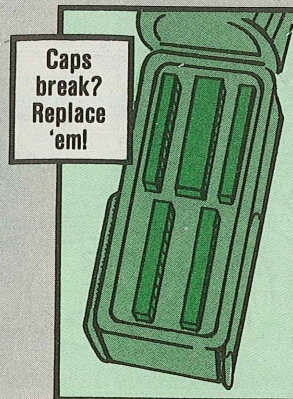
Grommets protect your cables, too. Take 'em along.

Don't forget cable strapping. Without it, cables can be snagged and broken. That snag can also break connectors. Bulk strapping is NSN 5820-00-783-9035.

Course, some nuts and bolts get rusty and break off or refuse to loosen. Head off that problem with a preventive plastic coating. A quart can is NSN 8030-00-145-0151. Appendix A, CTA 50-970 OK's it.

If you need replacement parts, or if you're not sure you have everything, check the installation kit TM. The pubs available are in DA Pam 310-1 under the TM 11-2300 series.

Pair-26 PM Coverup



A big coverup is your best bet when it's PM time on your cable assemblies.

Not to hide anything, of course—to protect it. Contact pins, for starters. When the plastic caps in your contact assemblies are damaged, pins get bent or broken during hookup.

No more buying new cables or connectors, now. Your org shop can replace just the caps. They get a replacement kit with NSN 5999-01-073-5507. That'll bring enough caps to repair 10 connectors.

Cover up the receptacle, too, when the cable's not connected. If you need the rope that holds the cover, check your Quick Supply Store (QSS). No go? Then, order a reel of it with NSN 4010-00-222-4482. That brings 1,000 feet of cord.

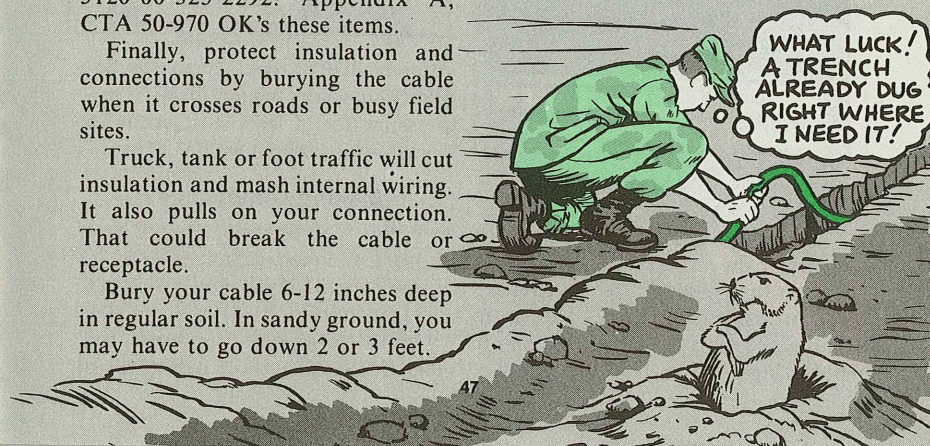
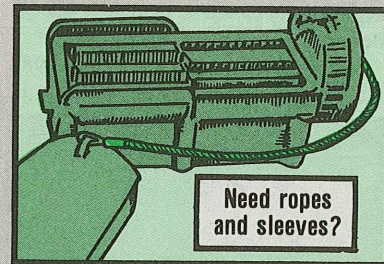
A swaging sleeve is NSN 4030-00-431-5536.

A tool to crimp the sleeve is NSN 5120-00-323-2292. Appendix A, CTA 50-970 OK's these items.

Finally, protect insulation and connections by burying the cable when it crosses roads or busy field sites.

Truck, tank or foot traffic will cut insulation and mash internal wiring. It also pulls on your connection. That could break the cable or receptacle.

Bury your cable 6-12 inches deep in regular soil. In sandy ground, you may have to go down 2 or 3 feet.



AN/GRC-103 Radio Set...

Stay Cool and Connected

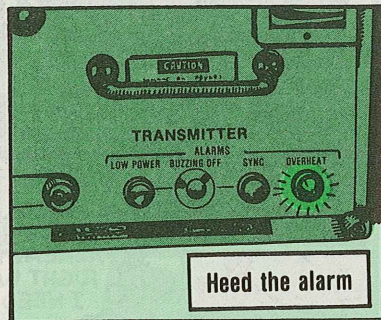
GRRR...I CAN'T KEEP THIS THING FROM OVER-HEATING!

WHY DON'T WE GET SPARKS...HE'S A COOL KINDA GUY!

DID I HEAR MY NAME MENTIONED?

Your Angry-103 needs clean air and connector care to do its job. It depends on you for both.

An overheat alarm on the T-983 transmitter's front panel lights and



buzzes to let you know when dust or dirt is making things too hot.

Those are your clues to clean or change the filter. Mashing the button that kills the alarm just hides the problem and can lead to radio failure. Same goes for removing the filter to get more air to the set. That

gives dirt and dust a clear shot at the radio innards.

Your best bet is to change filters. Do it weekly, at least, and more

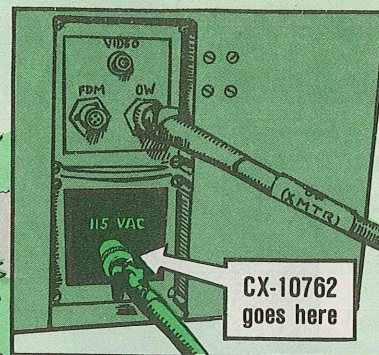


often in dusty areas. Clean the dirty filters in soapy water or with low-pressure air. Clean dust from the transmitter case as well.

Making Connections

Before you operate, be sure your radio is hooked to an antenna or dummy load. If it's not, you'll KO the transmitter.

Make the right connections, too. The CX-10762 power cable will fit



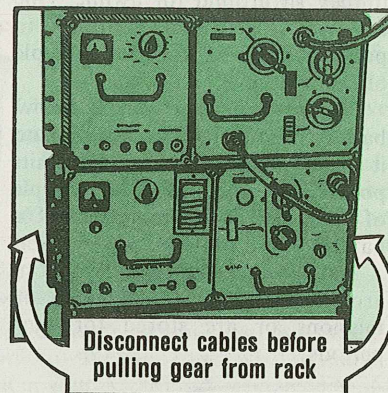
on the order wire jack with a little muscle. That can damage the T-983's 5TR1A5 amplifier monitor panel.

Use some tape, NSN 7510-00-550-7126, to mark both the cable and 115 VAC receptacle. That'll head off trouble.

Course, making a rough connection can break the receptacle anyway. Always match up the key

and keyway before twisting the cable into place.

Finally, some connections need undoing. Like, the ones on the back of equipment cases being removed from commo racks. If you forget to unhook 'em, you'll tear up cables, connectors or both.



MD-522 Modem...

'Tis Better in Receive

Leaving your radio teletypewriter set's modem in SEND when you're through transmitting will make you a popular guy...with the enemy. (If you're remoting, the same goes for the switch on your remote box.)

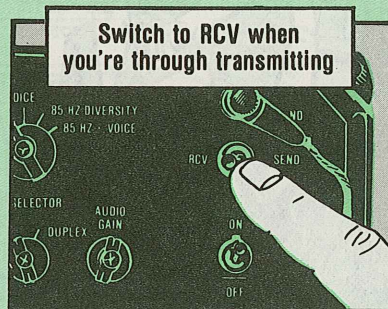
For starters, you stand a good chance of overheating your equipment and putting your set out of business.

Second, you've made it easier for him to pinpoint your location. That continuous signal you send gives his direction-finding gear all the clues it needs.

Finally, you're closing off the net in whatever frequency you transmit

on. Nobody can send or receive as long as you "rule" the airwaves.

Best bet? Switch to RCV when your traffic is gone. At least you'll know who your friends are.



BA-4386 Warmup

Think you got a batch of bum BA-4386 batteries from supply?

Try a 2-minute warmup before you give up on 'em.

Magnesium batteries form a chemical film over the internal plates if they sit around for awhile. One easy way to get rid of that film is to put the battery to work for a couple of minutes.

So any time you put a "new" battery in your backpack radio and it won't transmit or transmits poorly, key your radio for a couple of minutes. You might save a battery...and some bucks.

The same goes for batteries that sit around your comms shack between missions or are stored for long periods.

OUT YOU GO,
YOU BUM!



GIMMEE A
BREAK, MAN!
A 2-MINUTE
WARMUP IS
ALL I ASK!

'Course, if you're in the field, don't get in the way of an important message. Do your 2-minute drill into a dummy load or on a clear channel.

TURN 'EM IN!
DON'T BURY 'EM!



BA-4386 Turn-In

Been burying bum BA-4386 batteries? Hold one! Those magnesium dry cells can pollute ground water.

Check with your support for the proper turn-in procedure. Batteries should wind up at the local PDO.

Battery Box Blues?

THIS NEW, IMPROVED BOX REPLACES BOTH THE PLAIN AND 'A' MODELS OF THE OLD BOX. AND IT COSTS LESS TOO!



Tired of waiting for that CY-6314 battery box to come in and make your AN/PRC-74 radio set whole again?

Forget it—and order a CY-7773 box with NSN 6140-01-082-3768.

'Course, you *can* wait until Apr 84 when the headshed expects to have more of the -6314.

But if you can't wait, tell your PLL clerk to cancel your request for the -6314. Then send in a request for the new one.

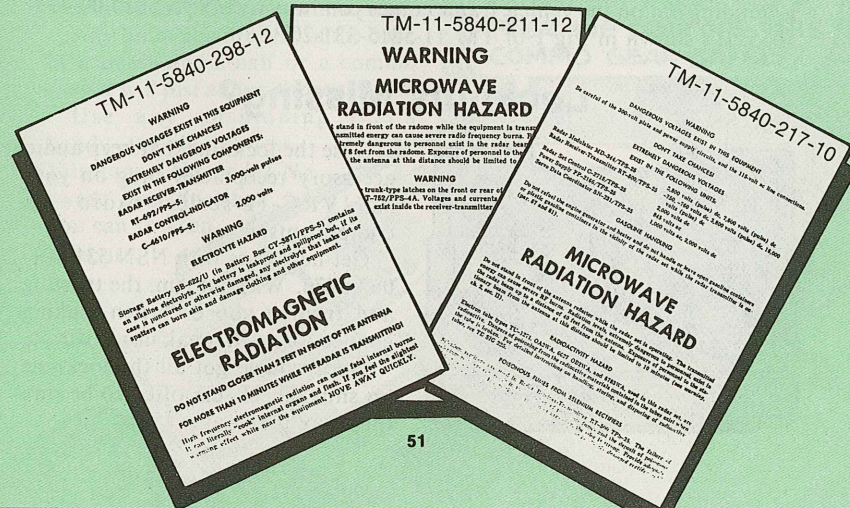
What's Cookin'?

You are, if you get out in front of your radar set while it does its thing.

You wouldn't stick your hand in a microwave oven to see what develops. So, why put your whole carcass in front of your AN/PPS-4, -5, AN/TPS-25, etc., during maintenance or a mission?

Read and heed the warnings in your gear's TM. A Topsy-25, f'rinstance, can cook your innards at 40 feet.

So give these long-range radars room. And, don't start 'em up inside a building where they can radiate your buddy during a PM session.



Forget H-250 Parts

Looking for repair parts to fix your H-250 handset or M-80 microphone?

Stop the hunt. Those items are not repairable, so Uncle doesn't stock parts. 'Course, you might be able to scrounge a good part from a bad set.

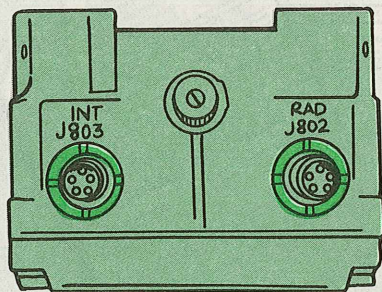
Wondering about other commo accessories? Eyeball the Recoverability Code (RC) on the Army Master Data File. A "Z" means no repair.

AN/GRC-106 Whip Protection



An insulating guard to keep your big AM's whip antenna from grounding out on the vehicle frame comes your way with NSN 5820-00-493-3055. It's shown in Fig 1 of TM 11-5815-331-20P.

Locknuts Missing?

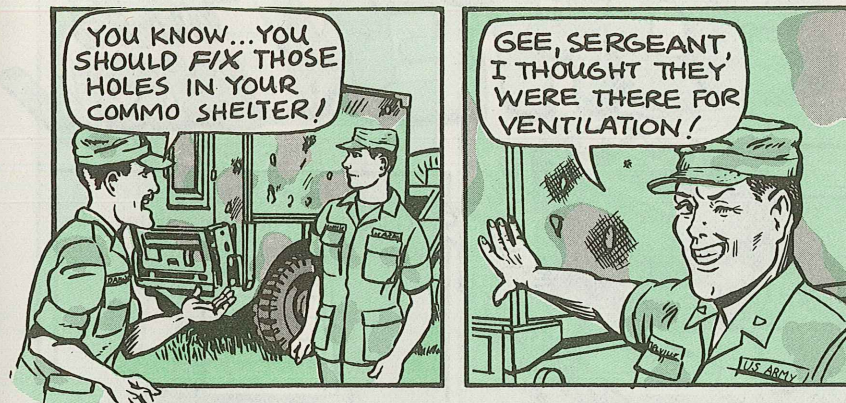


Lose the locknuts that keep audio accessory receptacles snug on your AN/VRC-12-series radio set components?

Get new ones with NSN 5310-01-062-6473. Without 'em, the twisting and turning you do when making connections will break inside wiring.

Once you've got all the locknuts on snug, check 'em often to be sure they stay that way.

Skinned Up?



A hole in the skin of your commo shelter is more than an eyesore. It can let in a lot of water.

It can also zap electromagnetic interference (EMI) protection provided on some shelters.

The moral? Patch holes ASAP. A new pub, TB 43-0124, tells you how.

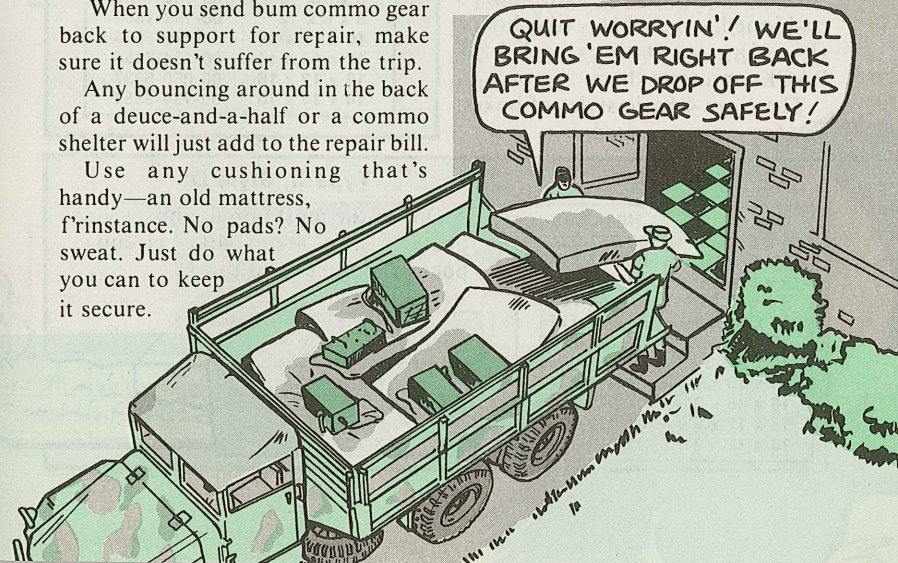
Materials needed include sealant (for small punctures), NSN 8040-00-828-7385; duct tape, NSN 5640-00-103-2254; and electrically conductive tape (for EMI shelters), FSCM 04552-PN ECCOSHIELD PST-C.

Pack It In—Carefully

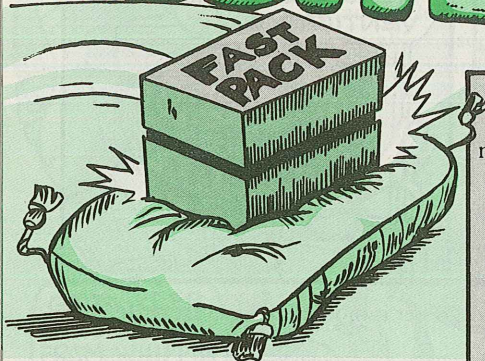
When you send bum commo gear back to support for repair, make sure it doesn't suffer from the trip.

Any bouncing around in the back of a deuce-and-a-half or a commo shelter will just add to the repair bill.

Use any cushioning that's handy—an old mattress, f'rinstance. No pads? No sweat. Just do what you can to keep it secure.



SOFTEN THE BLOW



Just delivering the goods is not good enough. You have to deliver them in good shape.

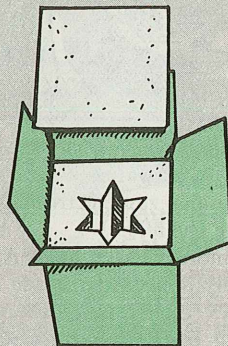
That's where FAST PACK containers come in. They insure that your repairables don't pick up other "problems" on the trip to support.

Using one of Uncle Sam's cushioned, reusable, fiberboard shipping containers—FAST PACK—protects them.

There are 4 basic styles of boxes, one for most any need.

Type I, Style A

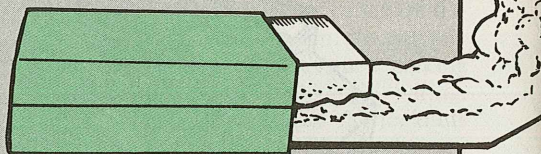
Good for delicate items like meters, gages and instruments:



Size	NSN 8115-
6 x 6 x 10	00-192-1603
8 x 8 x 12	00-192-1604
10 x 10 x 12	00-192-1605
12 x 12 x 14	00-134-3655
12 x 12 x 18	00-050-5237
14 x 14 x 16	00-134-3656

Type II, Style D

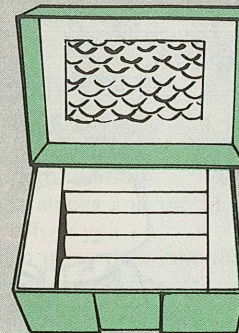
One of the most popular boxes, it protects flat items like circuit boards, modules and tubes:



Size	NSN 8115-
6 x 5 x 2½	00-787-2142
6 x 5 x 3½	00-787-2147
9 x 6 x 2½	00-101-7647
9 x 6 x 3½	00-101-7638
10 x 10 x 3½	01-057-1244
12 x 8 x 2½	00-787-2146
12 x 8 x 3½	00-787-2148
13 x 13 x 3½	01-057-1243
16 x 16 x 3½	01-057-1245
18 x 12 x 2½	01-019-4085
18 x 12 x 3½	01-019-4084

Type III, Style G

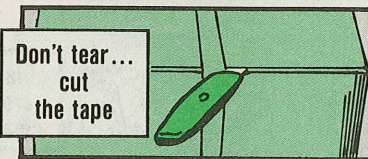
For bigger items like receiver-transmitters, amplifiers and power supplies:



Size	NSN 8115-
30 x 16 x 14	00-516-0242
32 x 12 x 14	00-519-1825
24 x 14 x 14	00-550-3558
20 x 14 x 7	00-516-0251
25 x 14 x 14	00-550-3574
32 x 18 x 16	01-015-1315
24 x 18 x 16	01-015-1312
34 x 24 x 18	01-015-1314
26 x 9 x 9	01-015-1313

When you're on the receiving end, hold on to the original or FAST PACK container. That can save you time, trouble and money when you have to repack the gear.

Open it carefully. Instead of



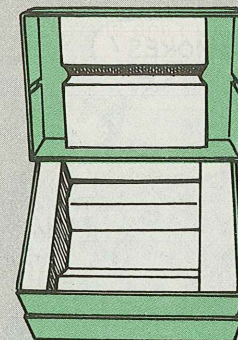
Don't tear...
cut
the tape

tearing the tape off, cut it with a thin-bladed knife.

Then, when you reseal it for shipping, tape over the old tape. Use

Type IV, Style B

For shipping items like regulators, transformers and voltmeters:



Size	NSN 8115-
20 x 14 x 14	01-010-8956
22 x 16 x 16	01-006-7257

2 strips of ¾-in tape, NSN 8135-00-802-8311. Overlap the tape 2 inches, top and bottom.

Finally, when taping your new or old box, be careful not to cover up any printing or any mailing instruction.

SUPPLY
AUTHORITY
FOR FAST PACK
ITEMS IS
CTA 50-970,
APPENDIX A



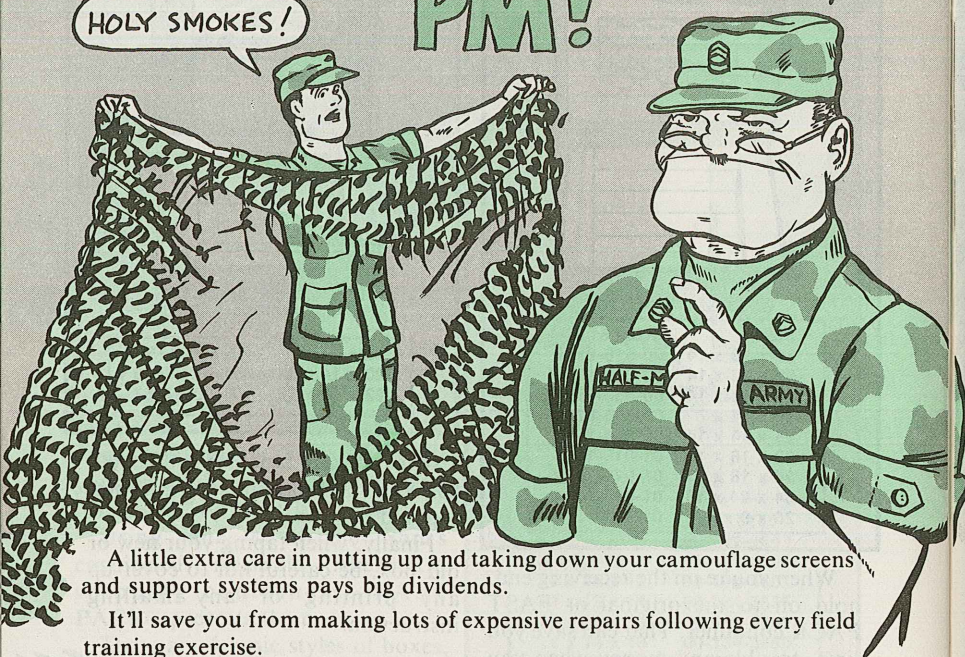
TROOP SUPPORT

Camouflage Screen Systems...

INVEST in a Little PM!

HOLY SMOKES!

HEAT AND
SCREENS
DON'T MIX!

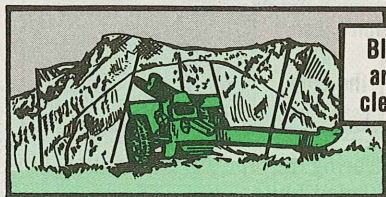


A little extra care in putting up and taking down your camouflage screens and support systems pays big dividends.

It'll save you from making lots of expensive repairs following every field training exercise.

Heat is murder on camouflage screens, so keep them away from any hot surface, such as a heater or exhaust.

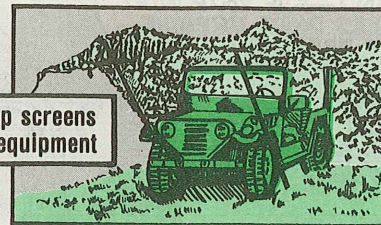
You artillery types need to make sure screens are out of the blast area



before firing. They're no match for powerful back blasts.

Never spread screens directly over equipment. Sharp corners,

Keep screens
off equipment



armament, bumpers, antennas, exhaust stacks and the like will rip them before you know it.

When using the aluminum stakes to tighten screens, be sure they catch

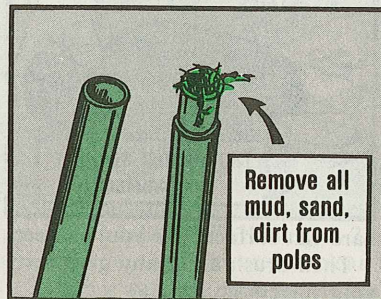
Hook
edge cord
to stake



only the edge cord and not part of the screen material.

Keep the aluminum poles smooth by filing off any nicks or burrs. They'll go together easier and won't snag the screens.

Also, make mating the poles a lot



easier by removing all mud, sand, dirt and other crud from the ends.

Bare spots on the poles need to be spot painted. Prepare the poles for

painting according to TM 5-1080-200-10. You can get a gallon of forest green paint with NSN 8010-00-111-7937.

The poles aren't made for heavy lifting jobs...and don't use them as

Poles are not pry bars!



pry bars. They're for holding up screens—period!

Before striking a screen, clear the ground underneath of all stones, stubble and sharp sticks. They'll tear it for sure when you fold it for storage.

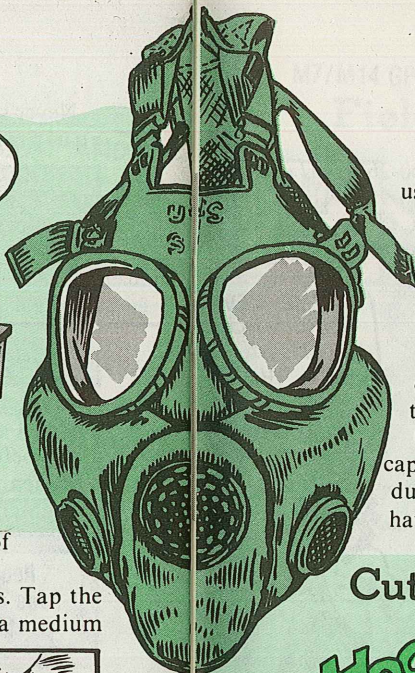
Keep screens clean by washing them with a mild detergent in a barrel of water.

It's important to mend rips or tears as soon as they occur...to keep them from getting larger and making a screen unserviceable.

Repair procedures—as well as the word on how to use and care for the screens—are in TM 5-1080-200-10 with C2.

This manual also has the parts necessary to keep the screens in top-notch shape, including repair kits, pins, garnish, cord, poles and spreaders.

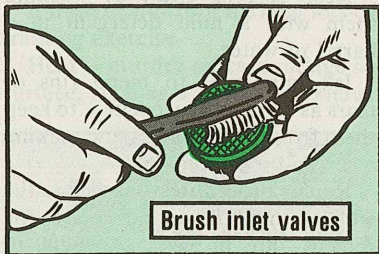
Check Inlet Valves First



Dirt and smoke can clog your M17-series protective mask. Trapped particles in your mask make it hard for you to breathe. But hold one before you throw away the filters

Never just automatically change your mask's filter elements because of a breathing problem. Your trouble could be clogged inlet valves.

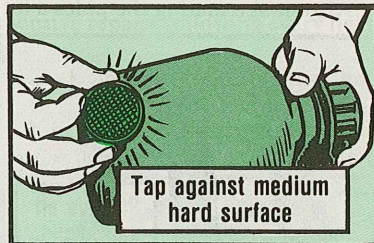
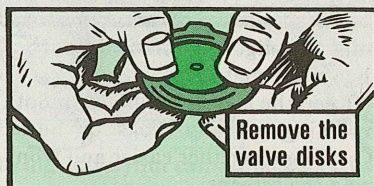
Brush the inlet valves with a bristled brush, like an M16A1 rifle



toothbrush (NSN 1005-00-494-6602). Be careful, too much pressure in brushing may separate the black matting from the inlet valve cap. Never bang the valves against a hard object to shake loose dust and grit.

That'll damage the sides of the inlet valve cap.

Remove the valve disks. Tap the inside (disk side) against a medium



hard flat surface, like your canteen.

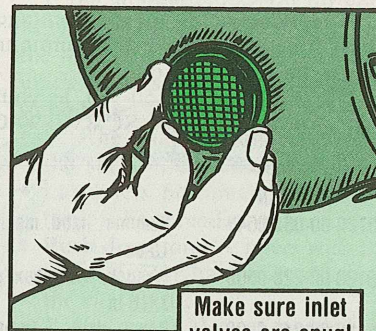
Then brush away any gunk with your fingers.

If this doesn't make you breathe easier, check your filter elements for a build-up of dust and dirt. If there are traces of this, change 'em.

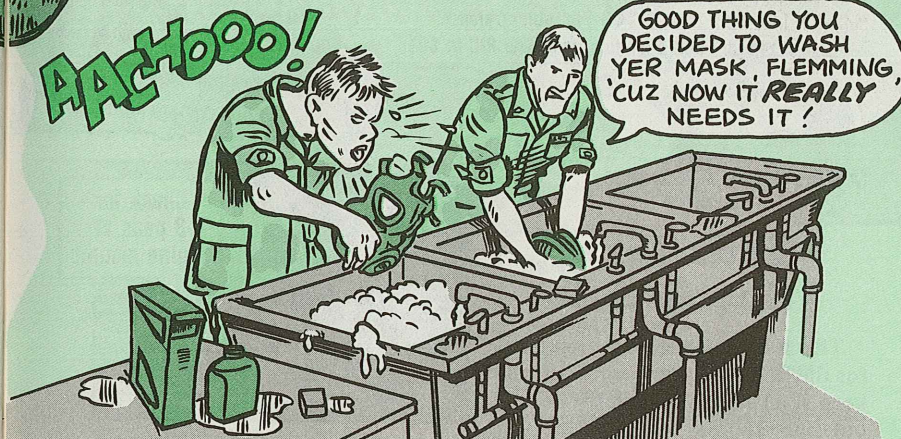
Valve Caps

Before you use your protective mask, be sure the inlet valves (caps) are in place and snug. The louvers should point down and out.

The caps are needed to channel bad air through the filters, which remove CB and RC agents. The caps also keep out dirt and dust. If your mask doesn't have the caps, see your NBC NCO quick-like.



Cut No Corners When Cleaning



Short cuts are out when it comes to cleaning your M17-Series protective mask. TM 3-4240-279-10, Page 3-22, para 7b and Page 3-30, para 3-7c have the word on the right way to clean and sanitize.

You first wash the mask to get rid of any gunk or dirt. Then you sanitize it. Rinse the mask twice, after washing and after sanitizing, to remove all of the cleaning and sanitizing agents.

Page 3-32 of the -10 says you can use .5 gram tube per canteen of calcium-hypochlorite when cleaning your mask.

Tentage Repair Kit

Add these items to your tentage repair kit, NSN 8340-00-262-5767. They'll help you repair the aluminum frame tent, NSN 8340-00-951-6419, when the rivets pop off.

Use App A, CTA 50-970, as your authority for the items until they're added to the kit when SC 8340-90-CL-P01 is revised.

NSN	Item	Quantity
5120-00-061-8543	Hammer, hand, machinist's, ball peen, 16-oz	1
5120-00-228-9505	Wrench, comb box/open end; 7/16-in	1
5120-00-240-8898	Punch, drift, 1/8-in pt, 5/16-in dia; 8-in lg	2
5120-00-293-0149	Tweezers, craftsman, cross locking	2
5305-00-068-0501	Screw, hex hd 1/4-20 unc; 5/8-in lg	50
5310-00-761-6882	Nut, plain, hex 1/4-20 UNC	50
5310-00-582-5965	Washer, lock 1/4-in dia	50
M45952/1-C6-18 (FSCM 81349)	Pin, quick release*	10

* Use DD Form 1348-6 for this item. The RIC is S91.



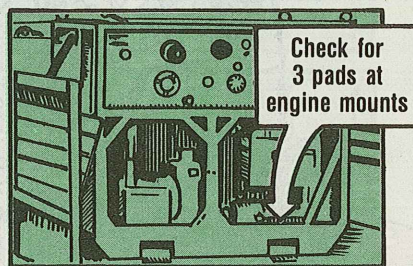
M12A1 Decon Apparatus...

Pads Take Shock Out

The 3 engine shock mount pads for the M12A1's pump unit can help keep it operating longer by taking out the shocks and making the pulleys a lot easier to align.

They're worthless, tho, if they're still in the tool box. Some M12A1's never had the metal shipping straps removed and the pads installed.

Check your apparatus now. If the pads aren't installed, look in the tool box. If they're in the box, put 'em on.

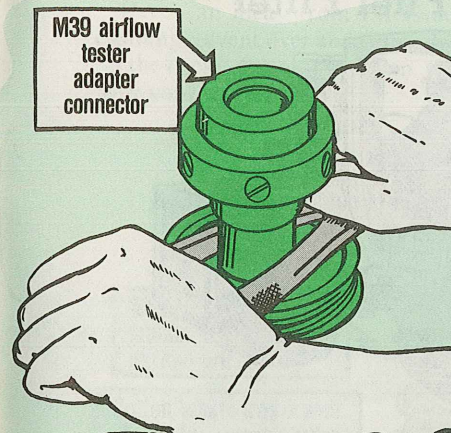


Para 4-1c of TM 3-4230-209-12 has the instructions.

If your pads are missing, or if the ones already installed are worn out (cut, torn, ragged), let your DS unit know. They'll make some new ones for you.

M7/M14 GPFU...

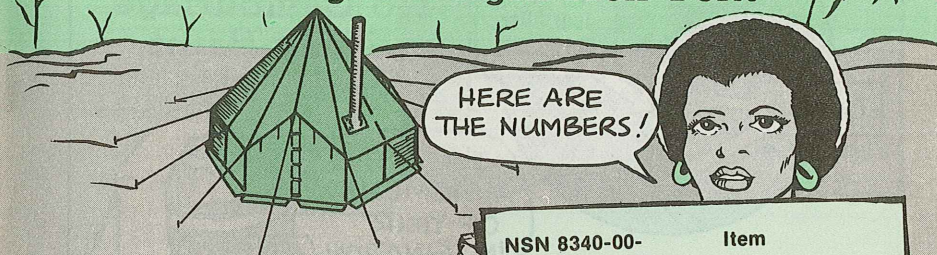
Field Fix for M39 Airflow Tester



If the adapter connector for your M39 airflow tester won't thread onto the M7 or M14 gas particulate filter unit's air hose inlet adapter, here's some help:

- Set the adaptor connector on a flat surface, O-ring down.
- Lay pliers or similar tool across top of the threaded cap.
- Push down on the pliers with the heels of your hands. This'll bend the cap a little bit.
- Try to thread the connector onto the air hose inlet adapter. If it won't thread, bend the cap some more.

M1950 Light Weight Hex Tent



Use NSN 8340-01-026-6095 to get a complete lightweight hex tent. This number brings you the extendable pole and pins and everything needed to erect the tent.

When you need repair parts, request components by these numbers. It'll save a heap of money on smaller packages and handling.

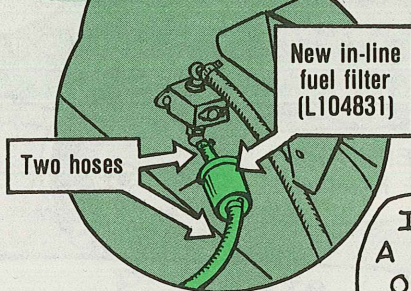
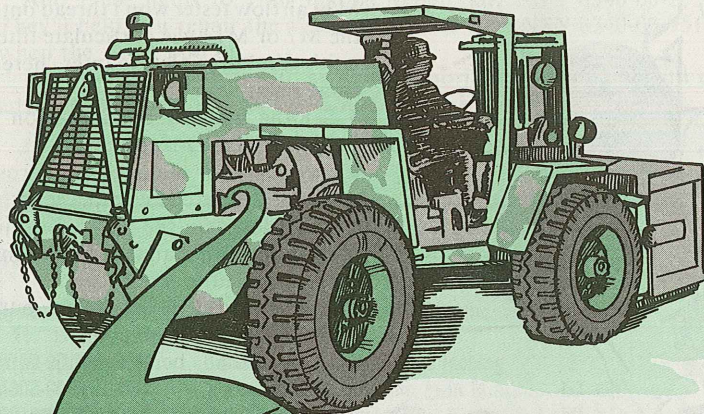
If you need just a tent, cover and liner, use NSN 8340-00-269-1374.

For more info on this and other tents, see TM 10-8340-222-10.

NSN 8340-00-	Item
262-3700	liner
241-8435	cover
252-6911	sock line, 19 feet
252-6910	sock line, 35 feet
252-2304	sock line, 30 feet
252-6912	intermediate eave line 12 1/2 feet
252-6913	sock line, 21 1/2 feet
262-3658	corner eave line, yellow, 12 1/2 feet
252-2299	sock line, 19 inches
205-2759	slip
188-8413	pole, 5 to 9 feet telescopic
261-9749	pin, 9 inches aluminum

4,000-lb RTFL...

New In-Line Fuel Filter



New in-line
fuel filter
(L104831)

Two hoses

No Camouflage Spray Paint

I'M JUST
A PIGMENT
OF YOUR
IMAGINATION!



A new 75-micron in-line fuel filter has replaced filters used in earlier production 4,000-lb RTFL's. PN L36257 gets a kit that includes the filter (L104831), 2 hoses (L104714), and installation instructions.

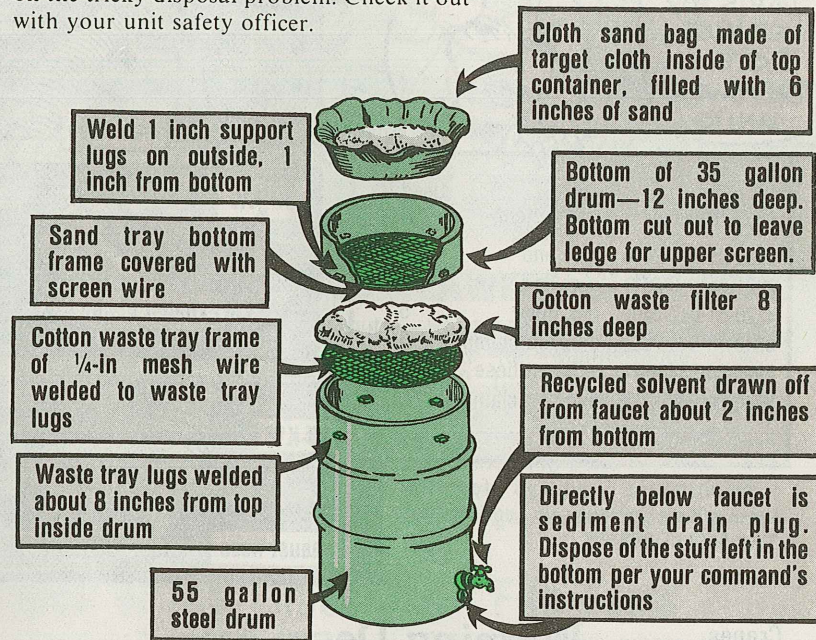
FSCM 10988 covers all PN's. Order on DD Form 1348-6 and tell support to use S9C for these non-NSN repair parts.

The new filter replaces NSN 2910-01-103-9150, Item 2, Fig 21, TM 10-3930-638-24&P.

Forget about ordering camouflage paints in spray cans. They're not available, and the Army has no plans to buy any. They're too expensive and wasteful for touch-up work.

Conservation's the Word

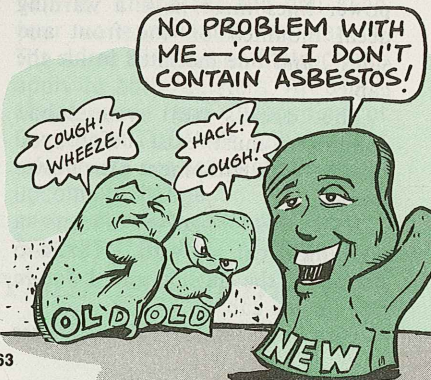
Here's an idea—from PS Issue 78 (1959)—that lets you recycle your cleaning solvent over and over again. It not only saves solvent, it cuts down on the tricky disposal problem. Check it out with your unit safety officer.



New Heat-Protective Gloves

You can now get heat-protective gloves that are not made of health-hazardous asbestos. Use them for lighting up an immersion heater, for example. NSN 8415-01-092-3910 gets you a pair of the new gloves for a little more than 6 bucks. One size fits all.

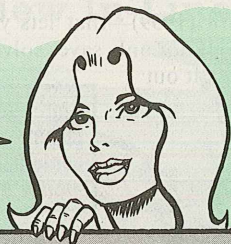
You can also get a machine gunner's mitten that's free of asbestos. Use NSN 8415-01-092-0039 to get it.



5-, 10-KW Generator Sets...

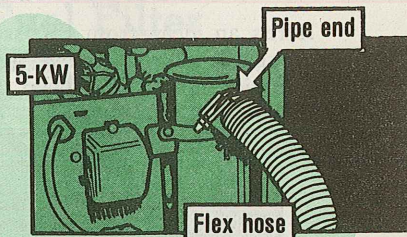
PU Exhaust System Parts

HERE'RE
THE REPAIR
PARTS FOR
EXHAUST
SYSTEMS
ON POWER
UNITS:



NSN	Item	Used On, KW
2990-01-015-2910	pipe end	5
2901-01-015-2911	pipe end	5
4720-01-017-0402	flex hose	5
5340-00-940-7332	exhaust clamp	5
2990-00-934-7878	exhaust hose	10
5340-00-940-7332	exhaust clamp	10

Note these numbers for the appropriate generator sections of TM 5-6115-365-15.



Cranes...

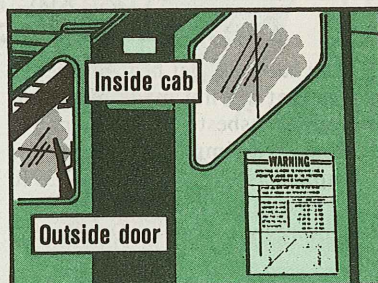
Warning Decal Kit

All cranes operated near overhead power lines must have a warning decal mounted on the front and sides...and one mounted inside the cab.

The decals tell you what conditions must exist before you operate your equipment near power lines.

NSN 7690-00-267-5778 gets a warning decal set with 3 18x24-in decals for the outside and 1 4x8-in size for the cab.

Para 4i of TB 385-101 authorizes



the kit and tells you how to mount the decals on camouflaged equipment.



TM 38-750: 4 for 1

The interim changes to TM 38-750 are all good—one way or another. Interim Change 1 died in March, but it's back as Interim Change 4 (8 Apr 83). Interim Change 4 republished the info in Interim Change 1 and extended the dates on Interim Changes 2 and 3. Interim Change 2 is good through 14 Jul 84, and Interim Change 3 is good through 24 Sep 84.

Sign of the Times

You know the DA Form 2408-20, Oil Analysis Log, records oil samples and lab results or action taken on the results. You post samples when they're taken and post the lab results or action later. So when do you sign the entry? Sign in Column 8 when you post the lab results or other info in Column 7. Your signature says everything's done on that entry.

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

Award Circular

Ready to shoot for the Army Award for Maintenance Excellence? Then get a copy of DA Circular 750-83-1, Chief of Staff, Army Award for Maintenance Excellence (15 June 83). It has the word on this year's competition and will get you started on the right foot!

File Facts

Confused about where to file your expendable/durable document registers? Keep 'em in File No. 1416-15. That's the file you keep your nonexpendable register in. The same disposition instructions apply to both registers. AR 340-2, Maintenance and Disposition of Records in TOE Units, will add that info to its file instructions in an upcoming change.

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