

Issue 236

PS

1972 Series

July

# THE PREVENTIVE MAINTENANCE MONTHLY

WHEN I TOLD 'EM  
WE'RE CRITICAL ON  
ROTOR BLADES... THEY SAID  
"TURN IN YR **UNSERVICEABLE**  
(REPAIRABLE) ONES..."  
SOME EXCUSE, HUH?

1222 AVN BN.  
"THROUGH THESE PORTALS  
PASS THE COOLEST  
SNAKE JOCKIES"

SEYMOUR, IF YOU  
WANT THE SUPPLY  
SYSTEM TO WORK  
YOU GOTTA KEEP  
IT PRIMED!

TECH  
SUPPLY

W. CHUCK KEDNER



THE GUYS BACK AT SUPPORT DO A FIRST-RATE JOB OF GETTING PARTS BACK IN SUPPLY, VIA THE OVERHAUL ROUTE.

# TLC

...ALL THE WAY

BUT THE OVERHAUL TYPES AREN'T MIRACLE WORKERS. THEY NEED YOUR HELP.

SOME PARTS ARRIVE WITH SO MUCH RUST AND CORROSION THAT THEY CAN'T BE REPAIRED.

BROKEN AND DENTED PARTS HAVE TO BE SCRAPPED. SOB.

MATERIALS AND SUPPLIES ARE LISTED IN SB 38-100 (JUL 70), TB 750-126 (OCT 70). TELLS YOU HOW TO TAG AND IDENTIFY AIRCRAFT COMPONENTS.

INCLUDE ALL THE NECESSARY TM38-750 FORMS. SECTION III OF TM38-230-1 (JAN 68) HAS SOME GOOD GENERAL POOP ON PACKAGING.

SO WHEN YOU REMOVE A PART FROM YOUR EQUIPMENT, SEND IT WITH TENDER LOVIN' CARE.

PRESERVE THE PART FROM THE WEATHER. PACKAGE AND IDENTIFY IT CORRECTLY TO PREVENT DAMAGE AND LOSS OF INFORMATION DURING SHIPMENT.

PS

THE PREVENTIVE MAINTENANCE MONTHLY

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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,  
Fort Knox, Ky.  
40121

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GROUND MOBILITY

FIREPOWER

AIR MOBILITY

COMMUNICATIONS

COMBAT SUPPORT





GROUND MOBILITY

## TM-260-SERIES 5-TON TRUCKS ...

THREE HANDS ON THE STEERING WHEEL? YES, THAT'S A GOOD WAY TO STAY HAPPY AND HEALTHY WHEN YOU'RE SITTING BEHIND THE WHEEL OF A NEW 5-TON DIESEL JOB.

HEY! GIMME BACK THAT STEERING WHEEL. YE'R DISMANTLING GOV'T PROPERTY.

ONLY WHEN YOU'VE ABSORBED ALL THIS VALUABLE SUPPLEMENTAL INFO ABOUT YOUR M809-SERIES TRUCK.

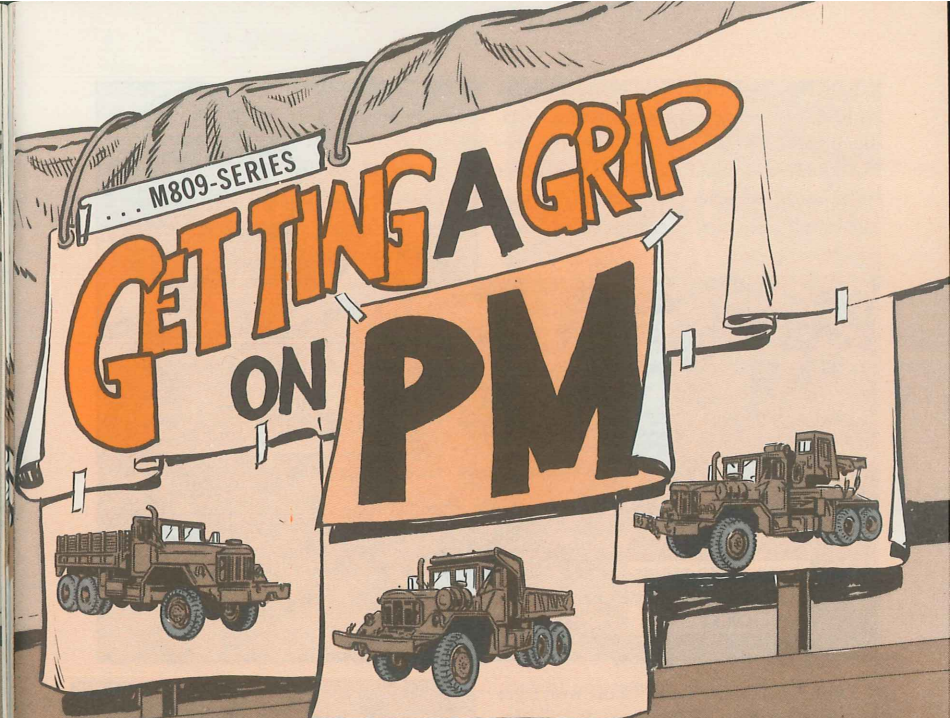
### WHAT'S THIS "260" BIT?

There're 12 different trucks in this gang. You can call 'em the "M809-Series", but we're hangin' the "TM-260-Series" tag on 'em so you'll think of the pubs that go with 'em—

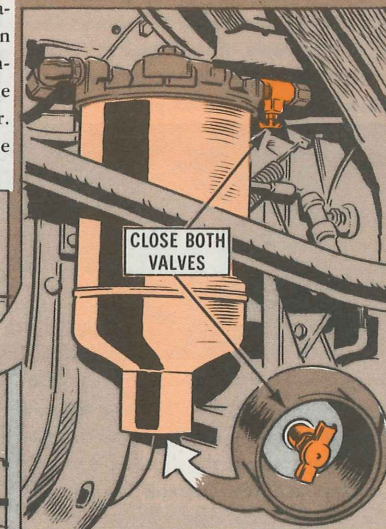
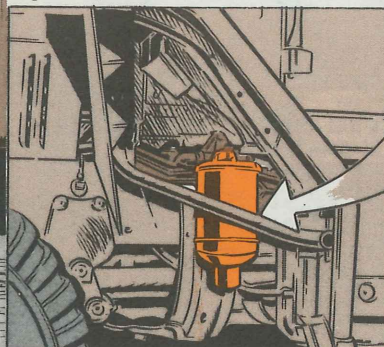
- TM 9-2320-260-10 (Jan 72), your guide to happy, carefree driving
- LO 9-2320-260-12 (Oct 71), the what, where 'n' when of lubrication
- TM 9-2320-260-ESC (Jul 71), how your truck stands on go (green), so-so (amber) or no-go (red).

### SHARPEN YOUR SPURS

When you're going through Table 3-1, Preventive Maintenance Checks And Services, in your -10 TM, keep these extra pointers in mind:



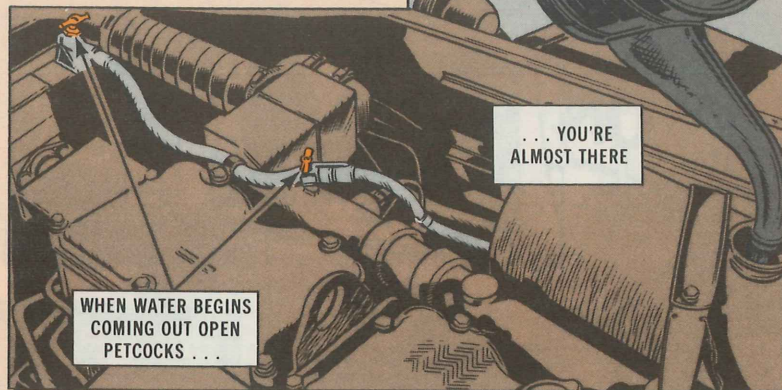
Item No. 4—Fuel Filter/Water Separator: You've got to open 2 valves when you're draining that fuel filter—the draincock on the bottom of the filter and the petcock on the line going into the filter. When you're done, remember to close the top valve, too.



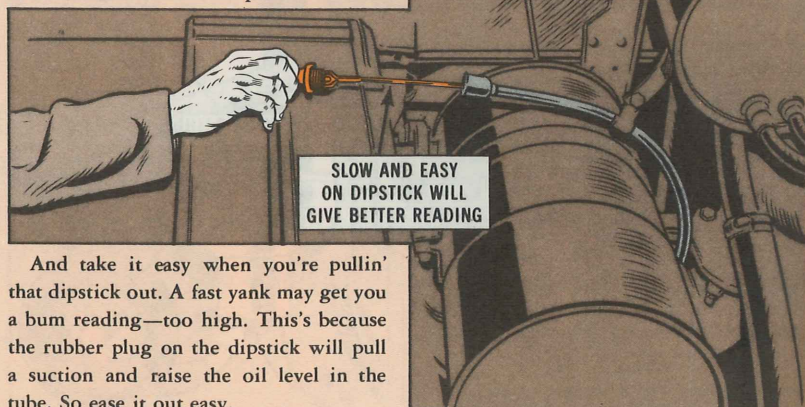
CLOSE BOTH VALVES



Item No. 6—Surge Tank: If your coolant is low (below half-way in the surge tank), open the 2 petcocks on the vent lines before adding coolant. Then, when water runs out of the petcocks, close 'em and go on filling until the level's up to half-way in the surge tank.



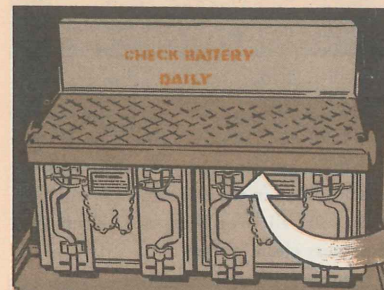
Item No. 7—Oil Level: You won't get the best reading on your crankcase dipstick unless you wait for 15 minutes after engine shutdown. Like it says in Note 2 in your LO, it takes this long for the oil to drain back into the oil pan.



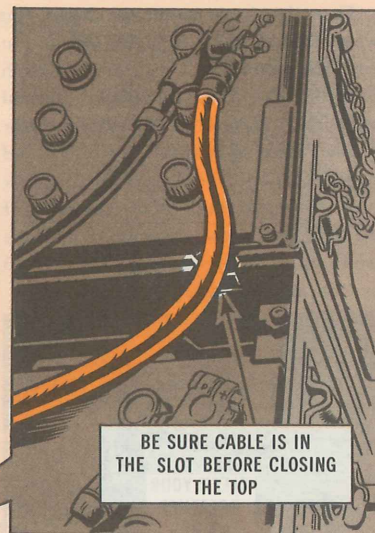
And take it easy when you're pullin' that dipstick out. A fast yank may get you a bum reading—too high. This's because the rubber plug on the dipstick will pull a suction and raise the oil level in the tube. So ease it out easy.

4

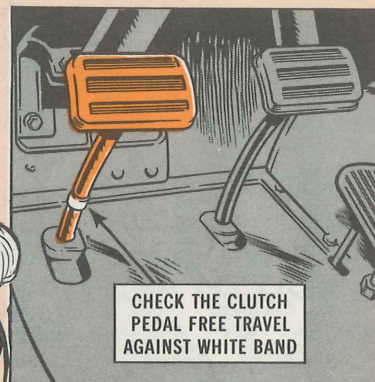
Item No. 9—Batteries: After you've checked your batteries—all 4 of 'em—and their cables, be careful setting the battery box cover/step back on. Eyeball the cables that run across the battery boxes. The cables should fit back out of the way so they won't get mangled when somebody uses the step. (See the decal under the step.)



Item No. 13—Engine: Trouble starting? Could be an air leak somewhere in the fuel line between your fuel pump and fuel tank. Get your mechanic to check it out.



Item No. 15—Clutch: Some guys say they've had trouble with the clutch getting out of adjustment. Better check it close. It takes only a second or so to check your free travel, especially if you've got a white paint band around the clutch pedal shaft at that 2-in point. If your free travel's not between 1½ to 2 inches, holler for a mechanic.

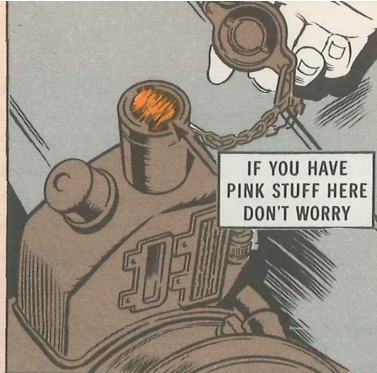


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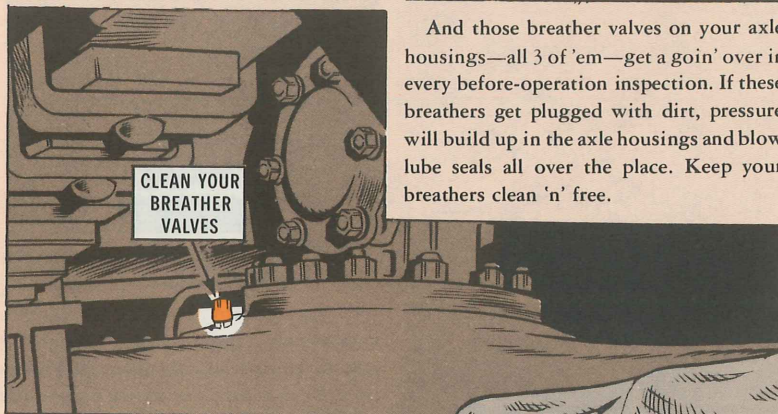


Then there're a couple of checks you won't find in Table 3-1. But they are in your LO (also in the Lubrication Chart in your -10 TM). The "D" (daily) interval means they're special for you—the operator.

Like "Steering System Reservoir Fill and Level". Don't get shook up if you find pink stuff (hydraulic fluid) in the reservoir. If the fluid level's low, just add OE until the level's up in the sight glass. That's OE 10 or OES, depending on the temperature.



And those breather valves on your axle housings—all 3 of 'em—get a goin' over in every before-operation inspection. If these breathers get plugged with dirt, pressure will build up in the axle housings and blow lube seals all over the place. Keep your breathers clean 'n' free.



**FIRE UP!**

**HOLD IT!**  
USUALLY YOU GO BY THE BOOK... PARA 2-8 IN YOUR -10 TM TO START YOUR TRUCK. BUT HERE'RE SOME TIPS THAT'LL COME IN HANDY.

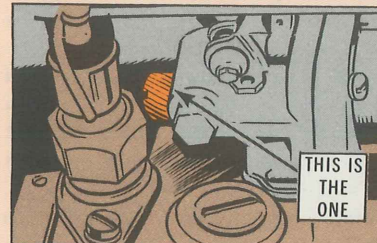
- Never keep the starter turning over for more than 10 seconds. If your engine doesn't take ahold, let your starter rest for 10 to 15 seconds and then try again. Three tries are enough. Try something else.

- You may need a tow-start. Or, if the weather's cold, your engine preheater might do the trick. Or you've got worse trouble and it'll need a mechanic to hunt it down.

6

## TOW-STARTING

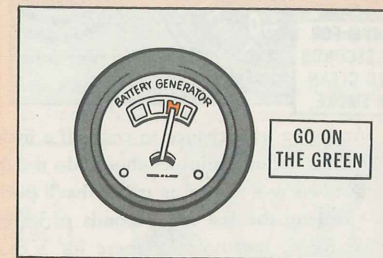
Everything you always wanted to know about tow-starting this truck is in paragraph 2-11 in your -10 TM.



Remember, after you get your truck started, turn the fuel shutoff valve override screw back out so the solenoid can

take over operating the fuel valve.

But wait until your Bat-Gen indicator is in the green—when your batteries are back up to charged. If you back out the screw too soon, your engine will stall.



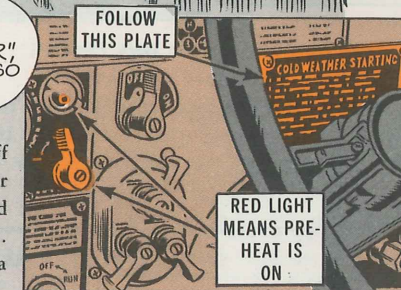
## HOT BREATH OF LIFE

**HARD STARTING IN COLD WEATHER?? GO TO THIS "COLD WEATHER" INSTRUCTION PLATE. ALSO PARA 2-8C IN YOUR -10 TM.**

And, f'rgoshakes, remember to turn off that preheater switch when you've got your engine running smooth. If that little red light is on, your preheater switch is ON. Turn it off—or your glow plug's in for a short life.

Just as bad—or worse—you'll run down your batteries if you go off and leave your truck with that preheater switch ON.

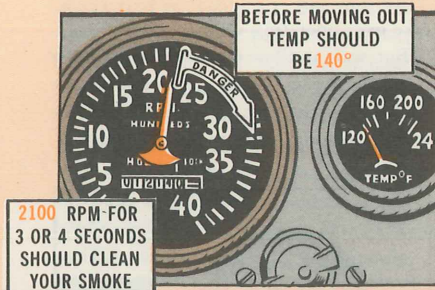
Turn it off—**off**—OFF!



7



## WARMUP 'N' SHUTDOWN



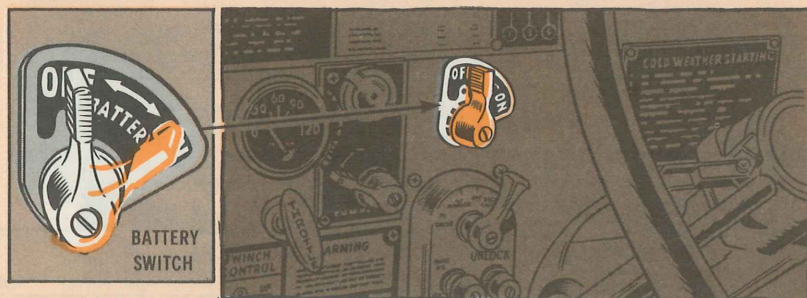
Some people just can't get a good start in the morning without a cup o' hot coffee. That's the way your truck feels about getting a good warmup before hittin' the road. So make sure your temperature gage is up to 140° before you move out.

OK, maybe it's just too doggoned cold out to let your engine get up to 140°. In that case, keep your mill running at high idle for 5 minutes—perkin' smooth on all 6—before you head out.

And give 'er a chance to cool off a little before you shut down. Idling at 800-1000 RPM for about 5 minutes should do the trick.

But here're a few more tricks that'll put a real polish on your shutdown:

- During the last few seconds of idling, jack up your RPM to the limit. That's 2100 RPM. Just hold 'er there for 3 or 4 seconds. If your exhaust is smoky, you should see it clear up. This's great for cleaning the carbon 'n' stuff out of your cylinders.



- Be sure you stick to para 2-9a(5) ... don't turn the battery switch OFF until your engine has stopped turning over.

Know why? As long as your engine's turning over, the alternator's turning over, too. If you turn the battery switch OFF before the alternator stops, there's a nasty little thing called "transient voltage" that can screw up lamps and solid state electrical components.

## PLATES ARE WRONG

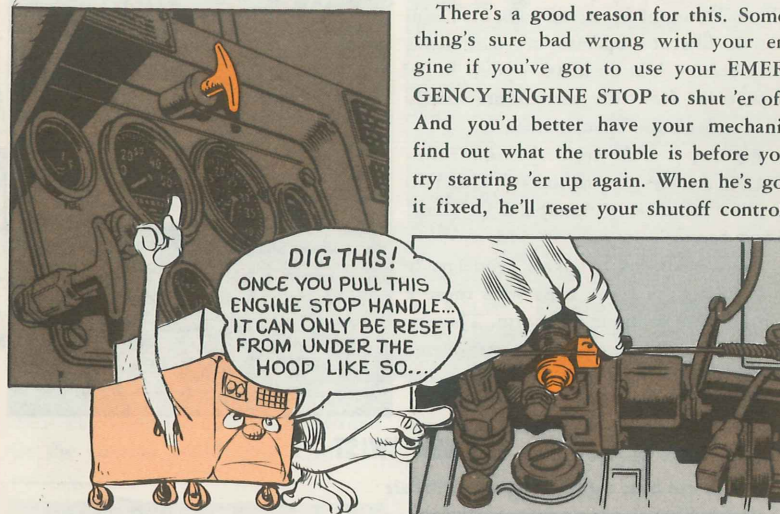
Do not go by the data plate on your instrument panel for TIRE INFLATION PRESSURES. The right poop's on page 1-22 in your -10 TM.

## SURPRISE!

You may be in for a surprise if you ever have to use that EMERGENCY ENGINE STOP.

You won't be able to start your engine again—until the shutoff control on the fuel pump is reset.

There's a good reason for this. Something's sure bad wrong with your engine if you've got to use your EMERGENCY ENGINE STOP to shut 'er off. And you'd better have your mechanic find out what the trouble is before you try starting 'er up again. When he's got it fixed, he'll reset your shutoff control.



## EVERYBODY WINS

Let's go back to Table 3-1 in your -10 TM. Most of the stuff is just plain "checks". This means you look, you feel, you listen, you smell—and you report anything that seems wrong.



Unless somebody in authority says you can make those repairs and adjustments, leave 'em alone.

You'll keep yourself out of hot water.

Your mechanic will get the problem while it's still a little one.

Your truck will like it better, too.

## MAINTENANCE MEAT

Besides the -10 TM, ESC TM and LO, there're these 260-series pubs that you organizational maintenance types have to chew on:

TM 9-2320-260-20 (Jun 70),  
maintenance manual

TM 9-2320-260-20P (Jun 70),  
repair parts and special tools

TB 9-2320-260-20/1 (Feb 70),  
time schedule guide

And don't forget TB 9-2300-295-15/3 (May 71), vehicle deficiencies during the warranty period.

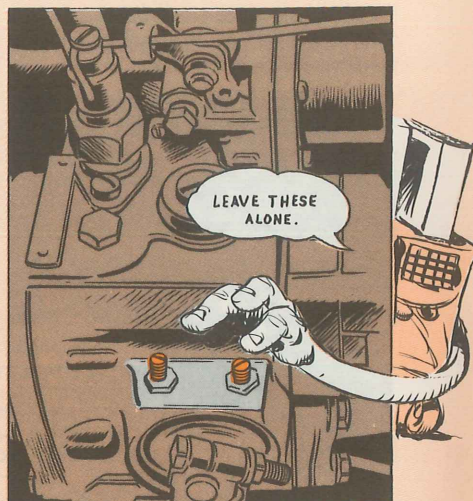


## FILTER SERVICE IN -10 TM

There's one part in that -10 operator's TM you mechanics sure don't want to miss. That's paragraph 3-9e, Fuel Filter/Water Separator Service. Except for draining the filter, the operator keeps his hands off that baby. Like the MAC in your -20 TM says, other fuel filter services are strictly "2"—organizational maintenance.

Right up your alley is the dope on "Priming the fuel system" in the -10 TM. You won't find it in paragraph 2-38 ("Fuel Filter Service") in your -20 TM.

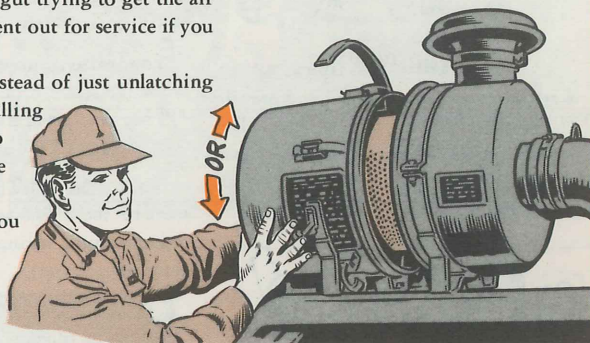
And speaking of "hands off", you'll really foul things up if you mess with those 2 screws next to the throttle arm. These're not—repeat NOT—for idle adjustment. Your support uses 'em to calibrate the fuel pump. Hands off!



## NEW TWIST

You can bust a gut trying to get the air cleaner filter element out for service if you don't know how.

It's different. Instead of just unlatching the housing and pulling it off, you've got to give it a 90-degree twist before it'll come off. Then you take the filter element out.



## LOOKING FOR LEAKS

So a driver reports his truck won't start—and you're trying to figure out why.

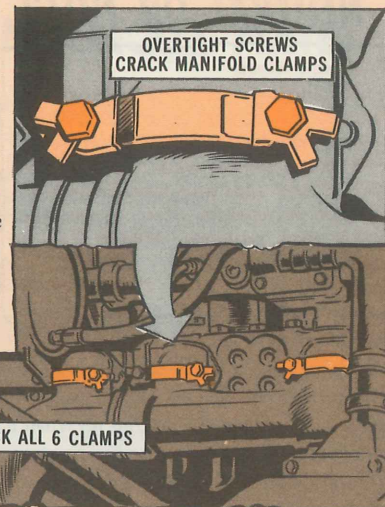
It could be a leak in the fuel line between the fuel pump and fuel tank—air's being sucked into the line.

There're up to a couple of dozen fuel line connections, depending on which model truck you've got. So you'll just have to check 'em one-by-one. Look for fuel leaks from loose or broken connections. Tighten or replace 'em.

## EYE-CATCHERS

When you've got any of those TM-260-Series 5-tonners in for a periodic service, take a special look at . . .

• Exhaust manifold clamps: You may find 'em cracked or even broken. If so, it's probably because the mounting screws were torqued down too much. With heat and expansion, the pressure busts the clamps. The mounting screws should get only 25 lb-ft torque.



• Front spring U-bolts: If they're loose, the truck could wind up with a busted axle. Or the steering could go out with no warning.

• No pioneer tool rack on M816 or M819 wrecker: That's right—none is authorized. You keep your pioneer tools in your wrecker's tool boxes.



Check the lower spring seat for signs of fastener looseness or axle shifting. This could mean the alignment pins on the axle have sheared. Get 'em replaced quick!

As a last check, put your torque wrench on those U-bolt nuts and give 'em 350-400 lb-ft torque to make sure they're tight.

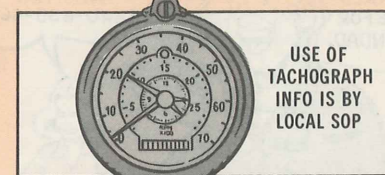
• Steering gear housing mounting bolts. Loose bolts lead to torn up gears. Keep 'em tight—260-280 lb-ft torque.

• Crane boom cylinder locking plate on M816 wrecker: Some have showed up with a bad weld. Find a bum one? Get it fixed.

## TACHOGRAPH -YES? NO?

Now about that tachograph on the M818 tractor truck.

Unless your own command wants to make some use of the tachograph info, you forget about all that tachograph poop in paragraph 2-216 in your -20 TM. That critter is splittin' the scene—anyway. It won't be on later-production vehicles.



But if you do need new charts for the tachograph, you can get a package of 100 under FSN 7530-415-6286. This replaced that other FSN you see in the TM.



## NEUTRAL OR NOT?

Dear Half-Mast,

Old faithful TM 9-2320-211-10 says to keep your transmission in neutral when you park a 5-ton truck. Now along comes new TM 9-2320-260-10 and says you place the transmission in reverse after everything is off and stopped. Which TM is right?

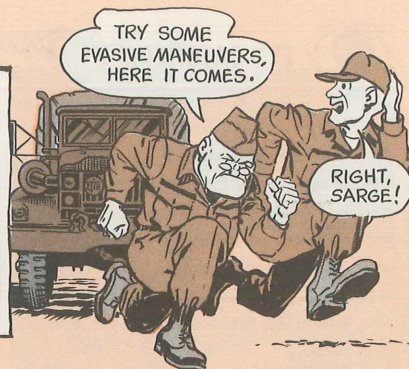
CW4 J. N. T.

Dear Mr. J. N. T.,

Both are—for the vehicles each deals with.

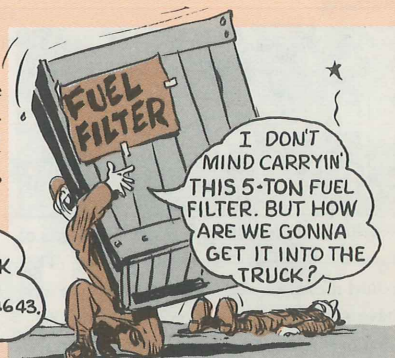
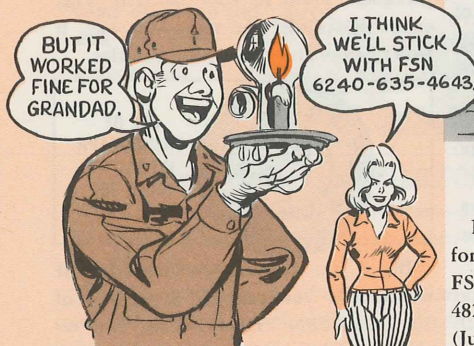
Good old TM -211-10 says to park in neutral because those good old multifuels have a bad old habit of starting up when parked in gear—all it takes is a gentle bump from another vehicle.

But the new TM-260-series 5-ton trucks have an electrical fuel shutoff that keeps fuel from leaving the tank when the switch is cut off. You might call it an anti-AWOL switch. Putting the vehicle in reverse helps you make sure the vehicle stays put—it adds holding ability.



## BEACON BULB

Does your wrecker or other vehicle have a 24-volt rotating light, FSN 6220-947-7570 (amber) or FSN 6220-947-7621 (blue)? When you need a new lamp, order FSN 6240-635-4643. RIC is S9G.



## 5-TON FUEL FILTER

Do you need a new fuel filter element for your TM-260-series 5-ton truck? It's FSN 2910-152-2033. Pay no mind to FSN 4820-752-9040 in TM 9-2320-260-20P (Jun 70), unless you want a drain cock.

## 5-TON WRECKER PLATES



1. Throttle—no FSN, no Part Number (order by "exception data", giving complete description of plate)

2. Boom—FSN 9905-197-1741

3. Hoist—FSN 2590-933-4635

4. Crowd—FSN 9905-197-1748

5. Swing—FSN 9905-197-1743

6. Oil Hydraulic System—FSN 9905-197-1745

7. Crane Capacity—FSN 9905-197-1746

8. Caution—FSN 9905-197-1744

9. Operation Data—Part No. 10900024 for gasoline-engine wrecker (order by "exception data"); FSN 9905-197-5869 for diesel-engine or multifuel-engine wrecker.

10. Warning—FSN 2590-933-4636

11. Sub Zero etc.—FSN 9905-197-1742

ROUTING IDENTIFIER CODE FOR ORDERING THESE PLATES IS AKZ.





## ADJUST CLUTCH EASIER, FASTER

Dear Editor,

Clutch adjustment for proper pedal free-travel can be tough when an M35A2 (or other M44A2-series) 2½-ton truck is equipped with the front-mounted winch. This is because you have to work around the winch power-takeoff flange when you try to adjust the clutch control rod according to TM 9-2320-209-20 (Apr 65), para 150.

So, instead of turning the adjustable yoke on the control rod to adjust, I unhook the other end of the rod from the clutch control lever and then turn the rod into the yoke.

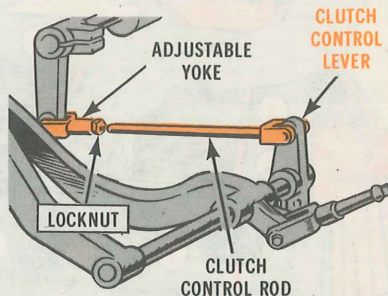
Of course, you have to loosen the yoke locknut to turn the rod and then tighten the nut back down after making the adjustment. And you hook the rod back up to the control lever.

This way, a mechanic can make adjustments on 4 trucks in the time it would take doing just one by the book.

Fred Hamblin Jr.  
Ft Knox, KY

(Ed Note—I'm sure a lot of guys with scarred knuckles and frayed nerves will want to give this a try.)

REMOVE CLUTCH CONTROL ROD AT LEVER END. LOOSEN LOCKNUT. TURN CONTROL ROD INTO ADJUSTABLE YOKE. HOOK ROD BACK UP TO CLUTCH CONTROL LEVER. TIGHTEN LOCKNUT ONTO ADJUSTABLE YOKE.



## NEW NUT FOR 2½-TON

Here's the word: That prop shaft nut—Item 1, Figure 93, TM 9-2320-209-20P (Jan 65)—now comes under FSN 5310-062-4954. It's better than the old job, FSN 5310-275-2049, now listed in your -20P TM. Torque on the new nut is 60-65 lb-ft.

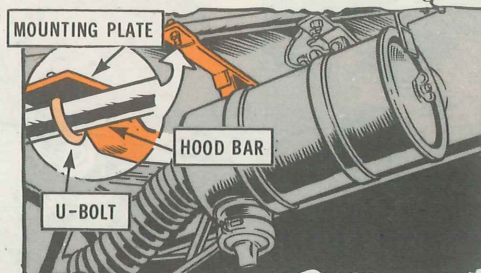
14

## M715 U-BOLT SWITCH

If your 1¼-ton TM-244 series truck has a Donaldson air cleaner (one hung from under the hood), this is for you:

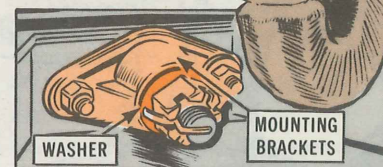
The mounting U-bolt on the "snorkel" end will poke a hole in your radiator hose if you leave it as originally issued.

Head this off by (1) reversing the U-bolt so the open end points up, and (2) hanging the mounting plate on top of the hood bar.



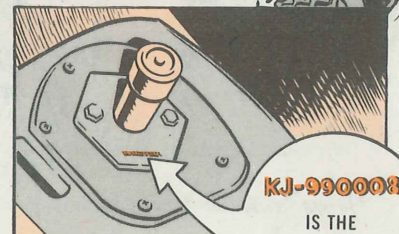
## PINTLE ADJUSTMENT

Make a note—until the poop comes out in TM 9-2320-209-20 and TM 9-2320-211-20. Towing pintle adjustment for M44-series 2½-ton and M39-series 5-ton trucks is .003-to-.017-in between the plain washer and mounting bracket. The pintle should be loose enough to turn freely but tight enough so there's no shucking (end play) back and forth.



## STICKY STARTER PEDAL?

Must be some guys never got the word. They're still fightin' with those old starter pedals on the M715 and other TM-244-series 1¼-ton vehicles. Make sure you've got the right one—FSN 2920-168-2339, listed on page 62, TM 9-2320-244-20P (Nov 71). The part number, 990008, is stamped right on it.



IS THE  
RIGHT ONE





BE YOUR OWN INSPECTOR . . .

# M60 MACHINE GUN



Your M60 machine gun is a lightweight fighter with a real punch. Weighing in at only 23 pounds, it has fixed headspace and comes with 2 barrels for quick changes.

First clear your weapon so nobody gets hurt while you give it the hairy eyeball.

Wind up this drill by flipping the safety to F and easing the cocking handle forward as you pull the trigger.



(Pulling the trigger and letting the bolt slam forward by itself is hard on the bolt locking lugs.)

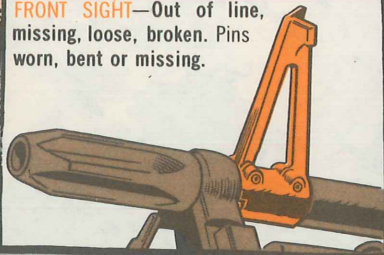
Once you're sure the gun is empty, look it over while you ask yourself the kind of questions inspectors ask.

Correct all the weak points you can and get help from your armorer for those you can't correct.

The conditions in **bold type** are more serious than the others and must be corrected to make your weapon combat ready.



**FRONT SIGHT**—Out of line, missing, loose, broken. Pins worn, bent or missing.

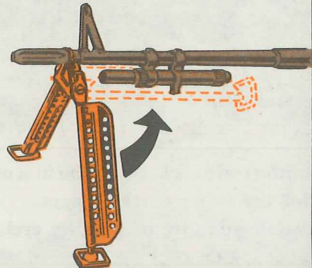


**SLING**—Missing, torn, clamps weak.



**SLING SWIVELS**—Missing, loose, twisted, stuck.

**BIPOD**—Legs won't lock in both stowed and working positions. Feet won't lock securely in all 4 positions. Pads missing, cracked, loose.

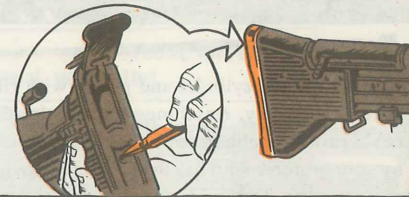


**RUBBER COATING**—Soft, gummy, retains fingerprints, oily, split, not bonded to surface.

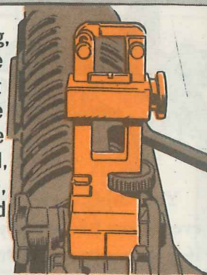


Defects are often caused by using gasoline or some solvent to clean the rubber.

**GUN SHOULDER STOCK**—Rivets loose, missing. Stock can be pulled off without releasing latch. Shoulder rest won't open or close all the way, dirt in hinge, operation not smooth.



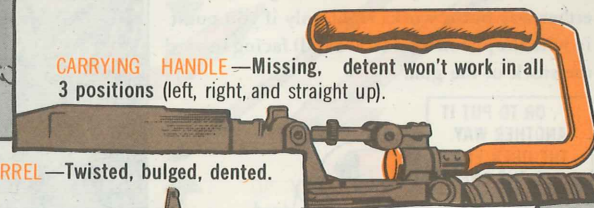
**REAR SIGHT**—Missing, broken, bent, range plate markings not clear. Slide release sticks, range plate screw missing, burred, knobs missing, loose, zero index marks hard to see.



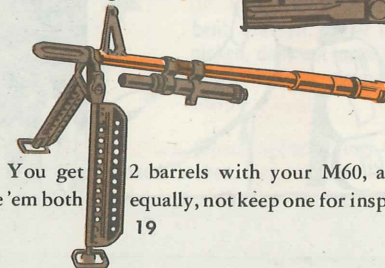
**PISTOL GRIP**—Cracked, broken.



**CARRYING HANDLE**—Missing, detent won't work in all 3 positions (left, right, and straight up).



**BARREL**—Twisted, bulged, dented.

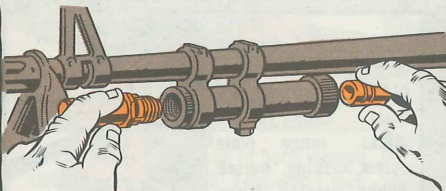


**NOTE:** You get 2 barrels with your M60, and you need to use 'em both equally, not keep one for inspections.



## GAS CYLINDER ASSEMBLY

Clean the gas cylinder and piston with rifle bore cleaner only. Anything sharp or abrasive could ruin it. Stubborn carbon can be removed by your armorer who has the carbon removing compound to do it with.

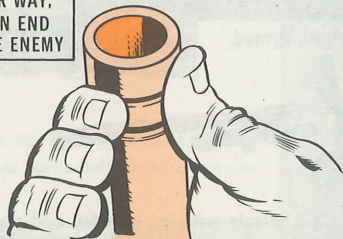


You don't have to clean the gas cylinder every time you clean your weapon. Do it only if your weapon acts sluggish or you get a short recoil or the piston will not move under its own weight. Taking the cylinder apart too often cuts down on its life.

After some use your gas piston turns brown and then black. Leave this color be because you can only mess things up if you try to scrape it off. Use no oil on the piston except in hot, humid, climates. However, you lube the gas cylinder if the gun is not to be used for a time.

You can put the piston into the gas cylinder either way but it works right only if you put it in with the piston head (solid end) facing toward the stock of the gun.

... OR TO PUT IT ANOTHER WAY, THE OPEN END FACES THE ENEMY



**BARREL LOCKING LEVER**—Missing, broken, loose, won't lock and release.

**BORE & CHAMBER**—Fouled with carbon and metal, worn, pitted.

**GAS CYLINDER NUT**—Missing, loose, split, threads stripped, burred.

**GAS CYLINDER PLUG**—Locking wire broken.

**SAFETY PLUNGER AND SPRING**—Won't engage safety lever.

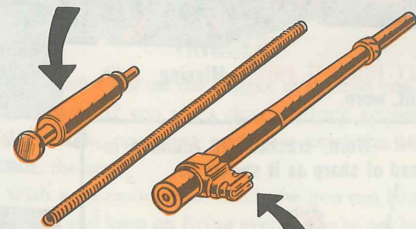
**BARREL LOCKING SOCKET**—Cracked, burred, eroded.



## BUFFER AND OPERATING ROD

**BUFFER**—Springs weak, body cracked, dented, plunger head worn, cracked.

Never oil the buffer or dunk it in solvent. If it's not working right, replace it but don't try to repair it. The new hydraulic buffer is never disassembled. Replace if leaking.



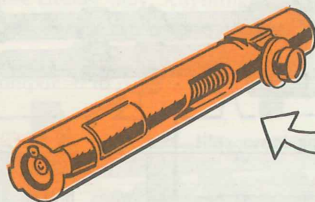
**OPERATING ROD ASSEMBLY**—Broken, bent, cracked. Roller missing or rough, nicked, does not move freely. Sear notch worn, burred, rounded. (Should be sharp.)

**DRIVING SPRING** (Operating Rod Spring)—Worn, kinked, broken. (Flat places on the spring are a sign of rapid wear.)



## BOLT ASSEMBLY

**BOLT ASSEMBLY**—Cracked, sliding surfaces worn, burred, lugs chipped, recesses filled with carbon.



Do not take the ejector apart. If locking lugs are chipped, ask your armorer to stone 'em smooth.

**BOLT PLUG PIN**—Missing.



**FIRING PIN**—Tip flattened or sharply pointed, broken, bent, spools burred, cracked.



**FIRING PIN SPRING**—Missing, broken, kinked, flat surfaces.

**CAM ROLLER**—Frozen, sticking, cracked, broken, burred.



## FEED COVER ASSEMBLY

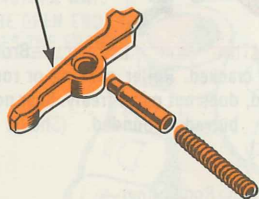
**FEED CAM**—Bent, channel cracked, burred, return spring missing.

You'll damage the feed cam if you slam the cover down with the bolt forward.



**BELT HOLDING PAWL**—Missing, split, bent, worn.

**SEAR**—Worn, cracked, lip rounded instead of sharp as it should be.



**SEAR PLUNGER & SPRING**—Missing, bent.

**LEAF SPRING LOCK**—Cracked or weak, installed wrong.



**NOTE:** This part will not work right if you straighten the bend the manufacturer put in it. The only right way to install it is with the point of the V down.

## OTHER PARTS

**FOREARM ASSEMBLY**—Bent, dented, retaining springs broken or deformed.



If the serial number is 77605 or below it should be followed by the letter **R** to show MWO 9-1000-232-30/1 (Jul 65) has been applied.



**RECEIVER**—Cracks, loose rivets, burred.

If the gun has been dry-fired a lot it may have burrs on the receiver in the area where the bolt roller meets the feed tray. Get your armorer to stone off the burrs and then make sure you ease the bolt gently forward when there's no round in the chamber.



**COCKING HANDLE**—Retainer spring frozen.

## TRIGGER

You pull back on the trigger quick and you let go of it quick. If you try a slow, delicate squeeze you wear out the operating rod's sear notch by crashing it into the sear.

With a worn-out sear notch the gun can become a runaway and keep on firing even if you're not holding down on the trigger.

To stop a runaway, open the cover. Best of all, be fast on the trigger and then it won't happen in the first place.

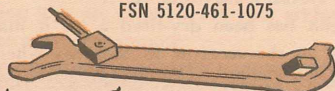
**REAMER**—No use throwing the entire combination tool away just because the reamer is broken. Your support can put on a new reamer.





## TOOLS AND CLEANING EQUIPMENT

Combination tool  
FSN 5120-461-1075



Bore cleaning brush  
FSN 1005-556-4174



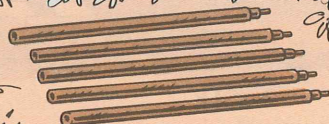
Handle assembly  
FSN 1005-793-6761



Chamber cleaning brush  
FSN 1005-690-3115



Cleaning rod sections (M6 gets 5 sections)  
FSN 1005-726-6109



Receiver cleaning brush  
FSN 1005-350-4100



Swab holder section  
FSN 1005-726-6110



Carrying case  
FSN 1005-791-5420



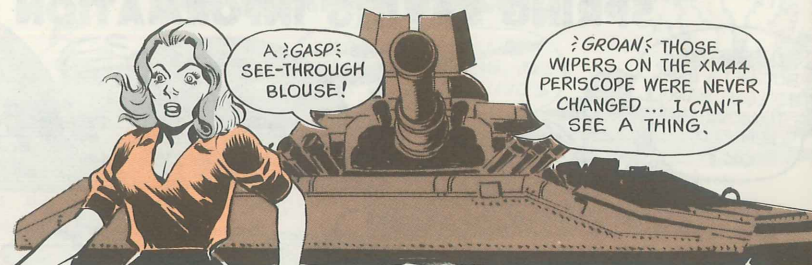
Ruptured cartridge extractor  
FSN 4933-652-9950



Asbestos mitten  
FSN 8415-266-8843



## SEEING'S WHAT IT'S ALL ABOUT!



Funny thing about the wiper for the XM44 series periscope in your M551 Sheridan. It doesn't do too much wiping, 'specially in vehicles with serial numbers below 1200. Here's how to get a clean sweep with these new parts:

1. Take off the old assembly from the upper arm in the housing.

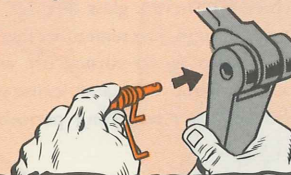


2. Remove the wiper blade. Hang on to it if it's still in good shape. If not, get a new one. Toss the rest of the assembly parts.

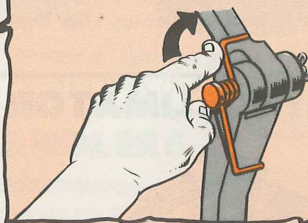
3. Put the clevis end of the new arm over the upper arm in the housing.



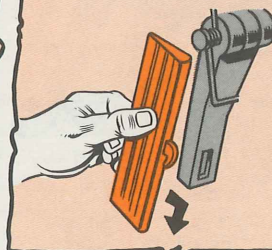
4. Slide the torsion spring on the shoulder pin and push the shoulder pin through holes in both arms.



5. Load the spring by putting the short end across the top of the upper arm and the long end across the top of the lower arm.



6. Add the wiper blade and your gunner's all set for a "see thru" view in any clime... at any time.



Speaking of wiping, now's the time to apply MWO 9-2350-230-20/2 (Dec 71). It smooths out the wiper movement on the M47 periscope.



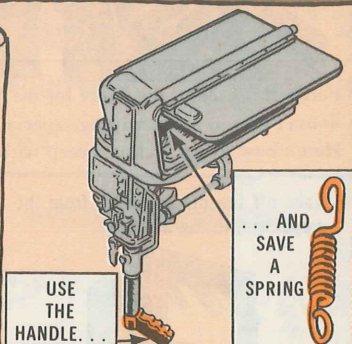
## M60-SERIES TANK . . . SPRING SAVING INFORMATION

IMPRESSIVE,  
BUT LET'S USE  
THE "LEGIT" HANDLE  
TO MOVE THE  
SHIELD,  
OK?

Opening and closing the shield on your M119 periscope mount has gotta be an inside job if you want to keep the zing in the spring.

Use the shield operating handle (inside the tank at the TC position), to move the shield.

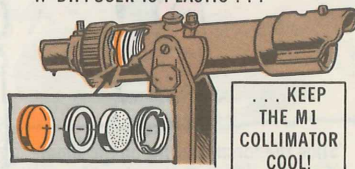
If you try to open or close the shield by pulling on it from the outside of the tank, you'll likely break the spring, FSN 1240-991-8430.



## M1 COLLIMATOR LIGHT CHANGE

The light diffuser in the reticle cell assembly of your M1 collimator is a right handy gadget. Only thing, it can't take the heat for a long period because it's made out of plastic which warps or burns through.

IF DIFFUSER IS PLASTIC . . .



This won't apply to the new production M1's which will have a glass diffuser.

For now, though, just remember that the reticle light has to be turned off when you're not using the collimator, 'cause your light diffuser can't take long periods of heat.

26

## M2 AIMING CIRCLE

CHECK YOUR COMPASS  
REFERENCE READING. YOU  
JUST TOOK OUT BRAVO'S  
LATRINE.

The reinforcing coils on your M51 instrument light cord might be steel or brass. If the coil closest to the lamp bracket is steel the compass needle in your M2 aiming circle will be deflected.

To avoid a false reading:

① KEEP THE RETICLE  
LIGHT DETACHED  
DURING DAYLIGHT  
HOURS.

② USE IT AT NIGHT ONLY AFTER  
YOU'VE GOTTEN YOUR NORTH  
REFERENCE COMPASS READING.

If a check with a magnet shows your instrument light has steel coils, send the light back to direct support for repair. TB 750-951-1 (Nov 71) has the word.

## AMMO HANDLERS

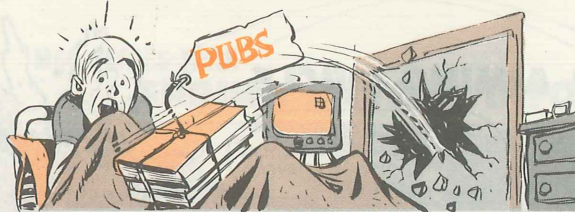
KEEPING YOUR  
AMMO PROPERLY  
IDENTIFIED IS  
A MUST, RIGHT?

Well, do yourself a big favor. Carry a felt-tip ink marker in your pocket when you're checking your basic load ammo. That way, in just seconds, you can easily touch-up faded letters, lot numbers, etc., on ammo and ammo containers.

A waterproof, indelible ink marker is best. You'll find markers listed on pages 3-155 and 3-156 in SB 700-50 (Mar 71). They may also be on your Self-Service Supply Center shopping list.







#### TECHNICAL MANUALS

TM 3-1040-214-12 Feb M3 Disperser, Riot Control Agent  
 TM 5-3431-229-13 Feb Welding Shop, Trailer Mid Libby Mdl  
 TM 5-3805-250-20P Feb Loader, Scoop 2½ Cu Yd J.I. Case Mdl MW24  
 TM 5-3895-329-20P Feb Mixer, Rotary Tiller DED Corp. Mdl B2-1171  
 TM 5-4120-292-14 Jan Air Conditioner, 36,000/60,000 BTU/HR GED Mdl 76ED51-124  
 TM 5-4320-258-20P Feb Pump, POL GED 6in x 1,120 GPM Barnes Mdl U567CCG  
 TM 5-4520-235-13 Feb Space Heater, Oil Fired: 70,000 BTU Preway Mdl  
 TM 9-1005-233-24 Feb M73-Series Machine Guns  
 TM 9-1400-500-ESC/1 Mar Hawk  
 TM 9-1400-500-24P Mar Hawk  
 TM 9-1410-585-24 Feb Chaparral  
 TM 9-1425-485-20 Feb Lance  
 TM 9-1430-250-14P-8-1 Mar Nike-Herc  
 TM 9-1430-253-14P-2-1 Feb Nike-Herc  
 TM 9-1430-254-14P-1 Feb Nike-Herc  
 TM 9-1440-585-20P Mar Chaparral  
 TM 9-2320-206-10 Feb 10-Ton Truck M123 M123C M123A1C M123E2 M125  
 TM 9-2320-206-20P Dec 10 Ton Truck M123 M123C M123A1C M123E2 M125  
 TM 9-2330-212-20P Feb Trailer M261, M261A1 M260, M260A1, M406, M406A1, M406E1, M406E2, M359, M359A1, M382, M382A1, M383, M259, M259A1, M259A1C, M259C, M424, M424A1, M424E1, M428, M428A1, M428E1, M262, M262A1, M262A1C, M262A2, M258, M258A1, M582, M583, M564, M564A1, M564A2  
 TM 9-2330-228-24P Feb Semitrailer, Van, Electronic, 3 Ton M348A1 KM433 KM433E1 KM433E2 and KM433E3  
 TM 9-2330-269-24P Jan 1½-Ton Trailer, M580 & M581  
 TM 9-4940-253-14P-1 Feb Nike-Herc  
 TM 10-4520-201-14 Feb Heater, Duct-Type, Portable, Gas, 250,000-BTU, Mdl's PHDT-250, VB 67-GFC3, H250, VB-3077 CS-61 and VB-3077 CS-62

TM 10-4520-201-24P Mar Heater, Duct-Type, Port, Gas 250,000 BTU, Models PHDT-250, VB67-GFC3, H-250, VB-3077 CS-61 and VB-3077CS62  
 TM 11-5815-334-ESC-2 Feb ESC for TT Sets AN/GRC-122, -122A, -122B  
 TM 11-5820-289-20P Apr Radio Set AN/GRC-10  
 TM 11-5820-334-20P Mar Radio R-392/URR  
 TM 11-5820-461-12 C3 Feb Radio Sets AN/GRC-50-Series  
 TM 11-5820-726-20P Feb Radio Term AN/TRC-129A  
 TM 11-5821-217-20P Apr Radio Sets AN/ARC-73 and AN/ARC-73A  
 TM 11-5895-532-ESC Mar Interrogator Set AN/TPX-46-Series  
 TM 55-1510-201-PMP Feb U-8D, F, G and RU-8D  
 TM 55-1510-201-20 C6 Mar U-8D, G, F, RU-8D  
 TM 55-1510-203-20P C1 Mar U-6A, RU-6A  
 TM 55-1510-204-20P Feb OV-1A, B, C, D  
 TM 55-1520-217-20PMD/1 Feb CH-54A  
 TM 55-1520-217-20PMI/1 Feb CH-54A  
 TM 55-1520-217-20PMI/2 Feb CH-54B  
 TM 55-1520-217-20PMP/1 Feb CH-54A  
 TM 55-1520-217-20PMP/2 Feb CH-54B  
 TM 55-1520-217-20P-1 Mar CH-54A, B  
 TM 55-1520-217-20P-2 Mar CH-54A, B  
 TM 55-2840-229-20P Jan T-53-L-5-Series Engines

#### LUBRICATION ORDERS

LO 3-1040-210-12 Mar Compressor Unit, Recip, Power-Drwn, Flamethrower, 3½ CFM; AN-M4  
 LO 5-2805-213-12 Feb Engine, Gas: 14 HP Mdl A042  
 LO 5-2805-256-12 Feb Engine, Gas, 1½ HP Mil Std Mdl's 1A08-1, 1A08-2, 1A08-3

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Jun 71), and Ch 4 (Feb 72), TM's, TB's, etc.; DA Pam 310-6 (Jul 71) and Ch 2 (Jan 72), SC's and SM's; DA Pam 310-7 (Oct 71), MWO's; and DA Pam 310-9 (Nov 71), COMSEC Pubs.

LO 5-4310-341-12 Feb 15 CFM GED Air Compressor, 3,500 PSI; Mdl P4R15G-J w/Eng MVH4D  
 LO 5-4930-228-12 Feb Tank and Pump Unit Mdl 1800  
 LO 9-2350-238-12 Feb M578 Recovery Veh  
 LO 10-3930-620-12 Feb Forklift Truck: Elec, 6,000 Lbs MHE-214  
 LO 10-3930-627-12-1 Jan Forklift Truck: GED, 4,000-Lb MHE-221 w/Eng FS-162  
 LO 55-2815-206-12 Feb Engine, Diesel, Marine Mdl's 6071A, 6071A3, 6072A, 6072A4

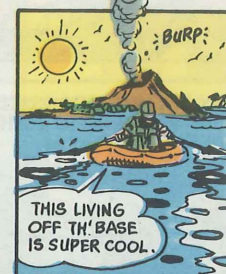
#### MODIFICATION WORK ORDERS

9-2300-224-30/35 Apr M577 Command Post Carrier  
 9-2350-238-30/2 Jan Recovery Veh M578  
 9-2350-247-30/1 Mar M548 Carrier  
 9-4935-465-30-1-1 Apr Shillelagh 11-6625-1635-40/1 Mar MK 1004/ARC-134  
 55-1500-210-30/39 Feb CH-47  
 55-1500-210-40/3 Feb CH-47  
 55-1520-228-20/2 Mar OH-58A

#### MISCELLANEOUS

AR 750-51 Mar Maintenance Assistance and Instruction Team (MAIT)  
 DA Cir 750-37-7 Apr Digital Subscriber Terminal Equip AN/FYA-71 (V)1 thru AN/FYA-71(V)6 Sample Data  
 SC 5180-95-CL-A59 Feb TK, Missile Maint Organiz, Adjust and Aligne  
 SC 5180-95-CL-A60 Jan Missile Maint, Organiz 5180-231-7690  
 SC 6230-97-CL-E04 Jan Light Set, Chart, Field, Portable, Cmd Post FSN 6730-299-6474  
 SC 6675-97-CL-E45 Feb Survey Control Sect, Trk Mtd  
 TB 55-1500-307-25 C1 Mar Aircraft Components Reag Maint Data  
 TB 55-1520-228-20-7 Apr OH-58A  
 TB 55-1615-250-30-2 Apr CH-54B

## JOE'S ROTOR-ROUTER DOPE



PANORAMIC VIEW OF BETA BASE, 8235TH AVN. MAINT. GROUP, PROVISIONAL.

OK, WHERE'RE THE GOODIES I REQUISITIONED?



WHATDAYA MEAN? THAT CH-54 DIDN'T BRING THOSE ROTOR BLADES I ORDERED!

DON'T BUG ME, SEYMOUR.



THE WORD IS OUT... BREAD IS TIGHT! RESULT: SUPPLY CAN'T DELIVER THE WORLD ANYMORE.



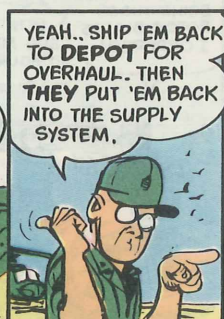
LISTEN, I REMEMBER "IN-COUNTRY" WE GOT ANYTHING WE WANTED! ZAPPO! THAT QUICK...



## MWO of The MONTH

Cool off Huey and Huey Cobra hot refueling problems with the new closed circuit spillproof refueling receiver. Apply MWO 55-1500-206-20/3 (Aug 71) on UH-1C/D/H/M, AH-1G and TH-1G choppers to prevent runovers and spills.





RUMBLE

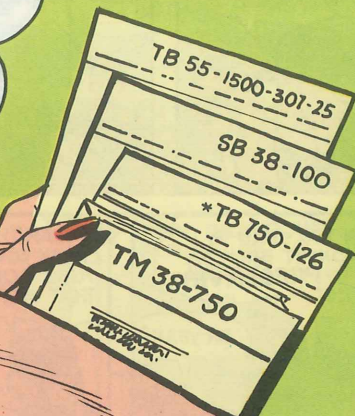






Dope She

TO GET THOSE UNSERVICEABLE (REPAIRABLE) AIRCRAFT PARTS RETURNED SO THEY CAN BE OVERHAULED AND PUT BACK INTO THE SUPPLY SYSTEM, HIT THESE HIGH SPOTS.



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

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





TAKE ENGINES, ROTORS, TRANSMISSIONS... ALL THAT STUFF.



...THEY ALL COME IN CONTAINERS, RIGHT?.. WELL, KEEP THOSE TO SEND THE PARTS BACK IN.



WHY?  
IF THEY SENT IT IN AN EXPENSIVE CONTAINER, IT SHOULD GO BACK IN ONE. THOSE ITEMS COST LOTSA BREAD.



WHEN YOU SEND A COMPONENT BACK, YA GOT TO **PRESERVE** IT FIRST.

OH YEAH?



YEAH! CHECK YOUR PUBS FOR THAT INFO.

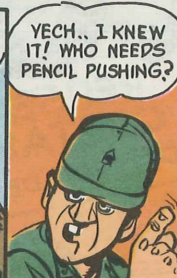


THEN, YOU **PACK** IT IN ITS PROPER CONTAINER. THE PUBS CLUE YOU ON THAT INFO TOO.

OH...



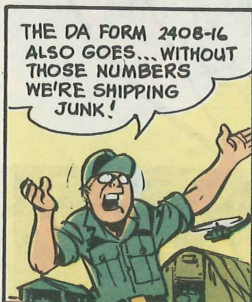
AND INCLUDE ALL PAPER WORK! DA 2410, DA 2408-5, TAGS OR LABELS **COMPLETELY FILLED OUT**.



YECH... I KNEW IT! WHO NEEDS PENCIL PUSHING?



HOW DO THEY KNOW HOW MUCH FLYING TIME WAS LOGGED ON THAT PART?



THE DA FORM 2408-16 ALSO GOES... WITHOUT THOSE NUMBERS WE'RE SHIPPING JUNK!



AFTER ALL THAT WORK!



YEAH... WITH NO DOCUMENTATION, A LOT OF GOOD STUFF GETS **DUMPED!** HOW DOES THAT GRAB YOU?



YOU GUYS WITH ME?



OK, YOU AIR TYPES, HEAR THIS WORD! REPAIRABLE PARTS WILL BE INSPECTED BEFORE DECLARED SCRAP.



ALL PARTS DECLARED REPAIRABLE WILL **NOT** BE STRIPPED OR DAMAGED SO THEY END UP AS JUNK.

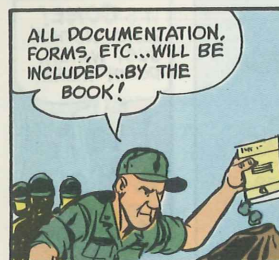


ALL REPAIRABLE PARTS WILL BE **PRESERVED** FOR SHIPPING BY THE BOOK!



THEN, PACKED AND PADDED...BY THE **BOOK!**

SEE PACKING AND SHIPPING INSTRUCTIONS IN YOUR AIRCRAFT'S MANUALS.



ALL DOCUMENTATION, FORMS, ETC... WILL BE INCLUDED...BY THE BOOK!



IN KEEPING WITH THE NEW ARMY... ANY QUESTIONS?

NO?

HOP TO IT!



THAT'S SOME LOAD YOU GOT FOR US.

YEAH... REPAIR PARTS FEED SUPPLY!



THAT WRAPS IT UP.



TIME PASSES



HEY-HEY... LOOKIT... ALL THAT STUFF I ORDERED. IT'S COMIN' THROUGH.

YOU'D BETTER GET IT INSTALLED.



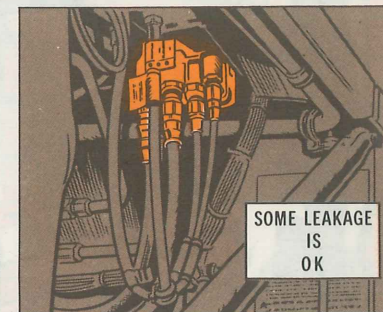


If there's one point a mech and TI ought to agree on when eyeing an aircraft hydraulic system it's the fact that servos will leak.

Focus in on the HueyCobra hydraulic system, for example.

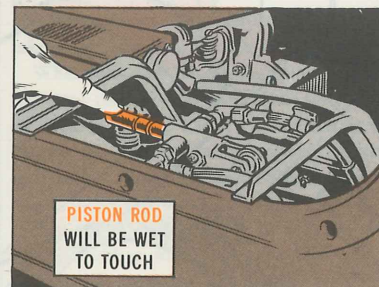
The main rotor collective, cyclic and the tail-rotor-control servo cylinders are under 1500-PSI pressure during operation. A worn or nicked O-ring will leak under that high pressure, which is why you may find the servo cylinder piston wet with hydraulic fluid.

bird has not been flown for a few days. The system is not pressurized. O-rings are not forced snugly into the grooves to form a complete seal, so . . . leaks!



Which is why TM 55-1520-221-20 (Sep 71) gives you the allowable static and dynamic leakage rates for servo actuators, pumps, valves, fittings—the whole shebang.

So-o-o-o, before you ground your bird for maintenance, eye Table 6-1 in the organizational maintenance pub. You may not have to push up your unit's NORS or NORM.



Even with new seals installed the piston will be wet to the touch when the

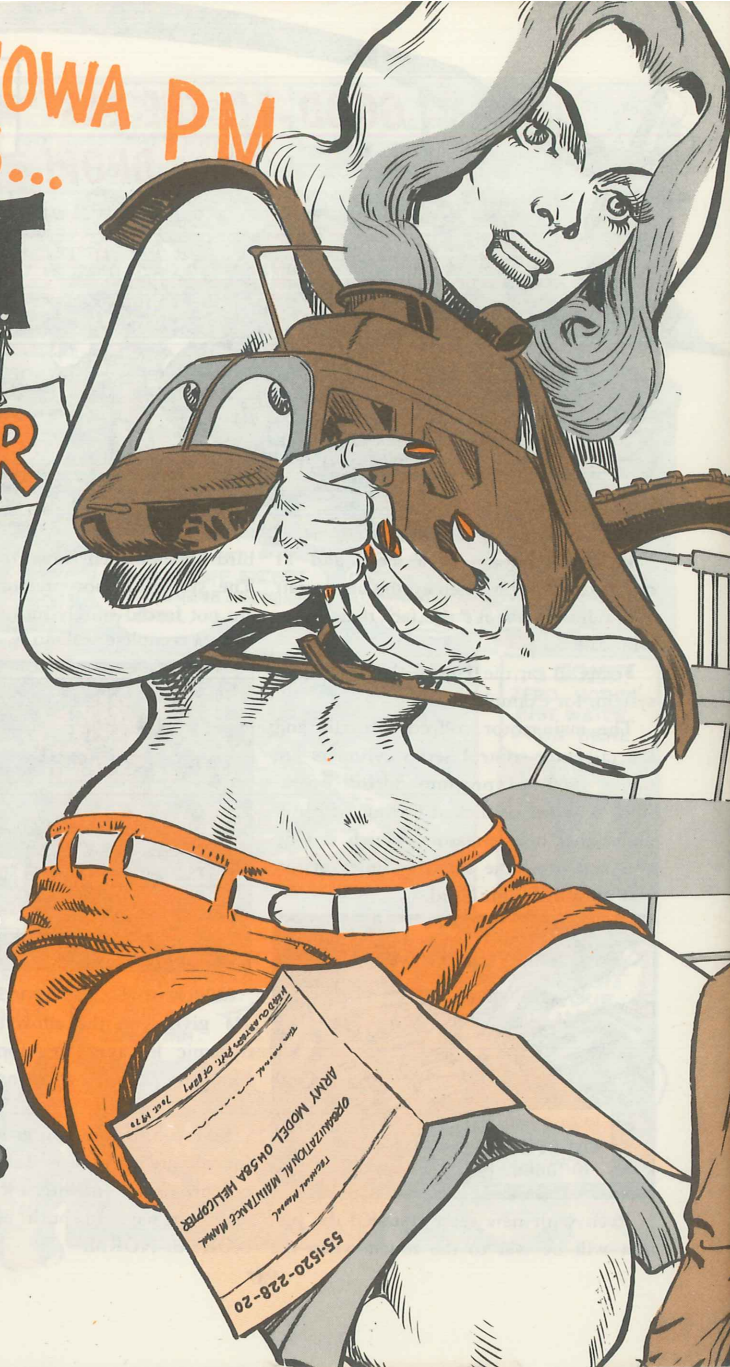


KIOWA PM  
IS...

AT

YOUR

ENGINEERS

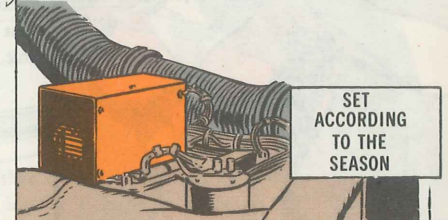


YOU'VE COME A  
LONG WAY, BIRD MECH,  
LEARNING WHAT MAKES  
YOUR BABY TICK. BUT  
NEVER CALL ON YOUR  
MEMORY WHEN IT COMES  
TO PULLING COMPLEX  
MAINTENANCE... FOLLOW  
THE BOOK... IT HAS  
THE LATEST WORD.

## NO OVERCHARGE, PLEASE!

Setting the voltage regulator also has a bearing on the health of the battery. If it's set too high the battery will overheat and boil over.

Set the voltage regulator according to the season. Chap 12, para 2-16e, of the Kiowa maintenance pub has the temperature ranges and voltage settings.



## CHANGING STARTER GENERATOR?

If the starter generator needs brushes, take it off and turn it over to your support.

When you put on another starter generator, coat the drive-shaft splines with a film of grease, MIL-G-23827. The shaft is constantly driving or being driven. Without lubrication you'll get rapid spline wear and maybe failure of the shaft.

Tap the V-band clamp in several places with a rubber mallet to aline and seat the clamp. To prevent the clamp bolt from breaking, tap the clamp again before you make with the final torque.







## EASY DOES IT

Take the tail rotor drive shaft. When you're replacing a bearing due to loss of lubricant, indicated by roughness or seizure, you have to put the new one back just so. Otherwise, you'll ruin the bearing, collar, hanger—even the shaft.



Start with the largest shim and work your way down to the smaller shims, following the bearing fitting limits and the coupling bolt nut torque info in the pub.

That set-up will give you the right amount of shims so that the bearing will aline properly with the shaft during the ground run-in.



Put the shaft in your bird according to the poop in Chap 7 of TM 55-1520-228-20 (Oct 70).

Shim the bearing into the hanger in your hand, before you put it on the shaft.

An improved hanger, FSN 3130-173-2303, is in the works. It has a stud and spring set up. No shims needed. An improved bearing, FSN 3110-168-1471, with a new seal is also in the works.

## NO SOLVENT, PLEASE!

If, during inspections, you find that some lube has worked out of a drive-shaft bearing, don't sweat it. The bearing is probably OK. Never wipe off the excess from that permanently lubed bearing.

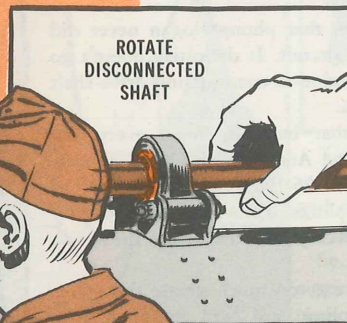
### BEARING AND SHAFT ALINED?



The expelled grease acts as a seal so never use a water pressure spray on the bearing or hanger. Moisture under the bearing collar can corrode the drive shaft and ruin the bearing.

A good way to check an installed bearing is to disconnect and rotate the drive shaft by hand. If the rolling elements come to a definite stop—then jump, with a corresponding increase in roughness, the bearing has had it.

### ROTATE DISCONNECTED SHAFT



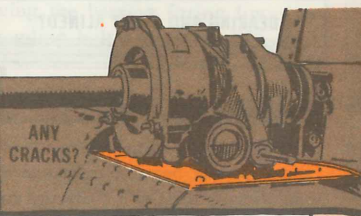
You can make the same check on an uninstalled bearing by holding the inner race and slowly rotating the outer race.



## GEAR BOX FLUSH?

When you place the gear box in position, eye the mounting area on the tail boom to make sure that the aft 2 washers and forward aluminum angle are bonded in place. If any of those parts are missing you won't be able to mount the gear box on a level surface. The result will be cracks in the tail boom mounting surface.

So, fabricate a 1/2-in plate according to the directions in TM 55-1520-228-20 (Oct 70).



## EASY ON THE LUBE

It was wrong-way Murphy who said, "If a little bit of grease is good, a whole lot is better."

'Course, that phony slogan never did apply to aircraft. It definitely doesn't go for the engine-to-transmission drive-shaft couplings.

Pack that baby by hand every 300 hours using Anderol 786. One 6-oz tube, FSN 9150-926-1969, will take care of both couplings. Spread a 0.20-0.30 inch coating evenly over the top of the spline teeth.

If you use too much grease the drive-shaft-coupling seal will rupture. You know what that means—a lot of extra sweat and elbow grease to stop the leak!

GREASE HERE

COMES THE TIME WHEN YOU HAVE TO REPLACE THE KIOWA TAIL-ROTOR GEAR BOX, FOCUS IN ON THE ORGANIZATIONAL MAINTENANCE PUB.

## LOOK SHARP

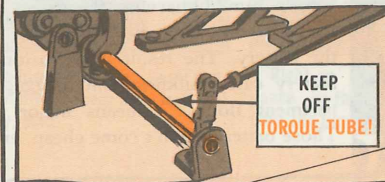
When you eye the tail rotor gear box sight gage during the Daily, the sight gage indicator ball may give you a phony reading.



The indicator ball can become hard to see due to fungus growth. Fungus grows in water, so, that condition means you want to drain and flush the gear box, right now. Water in the gear box will give you a bearing failure.

## WATCH YOUR STEP

When working around the rotor head keep your brogans off the torque tube or your bird will end up NORS. Those parts are not stocked at organizational maintenance level.



'Course, excessive contact of the rod assembly with the governor minimum and maximum RPM stop will also damage the torque tube.

So, follow the power governor (N2) rigging poop in the engine pub to the letter.



## CLEAN AND WAX BLADES

IF THE MAIN ROTOR ON YOUR BABY GOES SNAP, CRACKLE AND POP, ON THE COASTDOWN, DON'T SWEAT IT.

The blades lose centrifugal force around 100 RPM, and the sound you hear is the slight movement of the blades back into the grips, amplified by the blades.

Those blades do need attention, tho, especially in humid salt-laden air.

STOP CORROSION BY WIPING THE BLADES WITH DRY-CLEANING SOLVENT, P-D-680, TYPE 1, OR ALIPHATIC NAPHTHA, TT-N-95, TYPE II. FOLLOW UP WITH A MILD SOAP DETERGENT WASH.

PUT ON AN EVEN COAT OF WAX, MIL-W-18723, BUT DON'T POLISH IT... NO MUSCLE NEEDED.

## USE BATTERY SHOP

Focus in on the battery compartment.

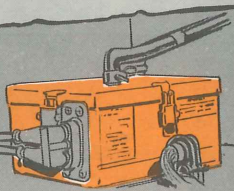
That nickel cadmium battery goes to the battery shop according to the Periodic checklist, for good reason.

If your baby hasn't flown much lately, the battery will be in a low state of charge. The electrolyte level will be low because it's absorbed by the plates—a natural for some eager beaver to come along and add distilled water.

Stop him! Otherwise the excess electrolyte will boil over when the bird charges the battery. The result is corrosion of the battery case, bulkhead and baggage compartment floor ... means major repairs. Those batteries don't come cheap, either.

Your outfit's battery shop will adjust the electrolyte level.

Just see to it that the battery connections are clean and tight. The vent line has to be clear ... a gas explosion is a messy affair.

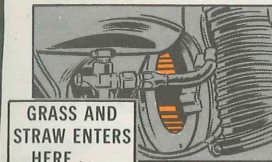


KEEP IT CLEAR

# WANTED

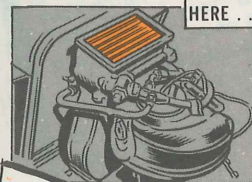
## CLEAN AIR PASSAGES

Any time your bird shows high engine oil temperature readings and you're stumped on what is causing the problem, focus in on the oil cooler.



GRASS AND STRAW ENTERS HERE ...

Grass and straw out in the boonies can enter the oil cooler blower and end up like shredded wheat, blocking the radiator air passages. 'Course, the oil cooler has to be removed for inspection and cleaning.



... CLOGS HERE ...

Some of the straw can even bypass the engine oil cooler and mat in the ducting or on the transmission oil cooler radiator since both coolers share the same ducting.



... AND HERE

To lower transmission oil temperatures, inspect and clean that baby, also.

## NO MURPHY, PLEASE!

Watch your step, bird mechs, when you change the hydraulic pump in the flight control system.

The check valve in the pump will fit in bassackwards, in which case you'll get excessive pressure build up and pump failure in a matter of hours.

Look for an arrow on the valve

## TIP TOP ELEMENTS

When any of the elements in the engine inlet particle separator are damaged the organizational maintenance pub allows you to tape over up to 25, before replacing the filter.



YOU CAN TAPE OVER UP TO 25 ELEMENTS

If any of those elements were accidentally pushed in, tho, never figure them as damaged elements.

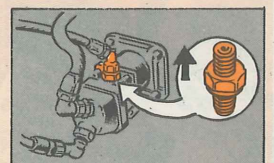
Latch on to a pair of long-nose pliers and gently re-set the element by pulling it back out ... no sweat.



PULL 'EM OUT

Right-on ... pulling maintenance by-the-book. You don't have the time to do the job over.

which must point up for correct installation.





# ONE . . . TWO . . . BUCKLE YOUR . . .

A loose safety belt beating against the OH-58 cabin is a hard lesson for a Green Machine birdmech.

The buckle knocks holes in the fiberglass cabin damaging the honeycomb core, aluminum and fiberglass doublers. Punctures in this structural area are really hitting below the belt!

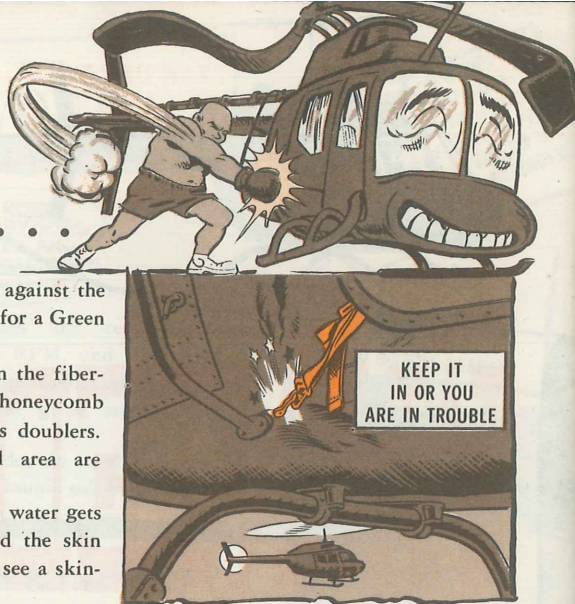
Once the skin is punctured, water gets inside, the core corrodes, and the skin comes unglued. Did you ever see a skinned Kiowabird?

So-o-o-o, your daily preventive maintenance check calls for eyeballing and tugging the safety belt for security. Sequence 2.9, TM 55-1520-228-20PMD (Nov71) means making sure the safety belt's bolted to the cabin floor.

Why not go one step further. When your flight is a doors-off deal, buckle the safety belts and cinch 'em tight in the seats.

Adding this check could save red-Xing your bird, downtime, and a bunch of repair dollars.

Follow the patch-up and repair poop in chap 4 of the maintenance Dash 20 anytime your inspection uncovers a hole in the bird's skin.



THEY'RE ?SOB? GONE!  
FROM ISSUE #1 T'  
NOW... GONE...  
?GROAN?

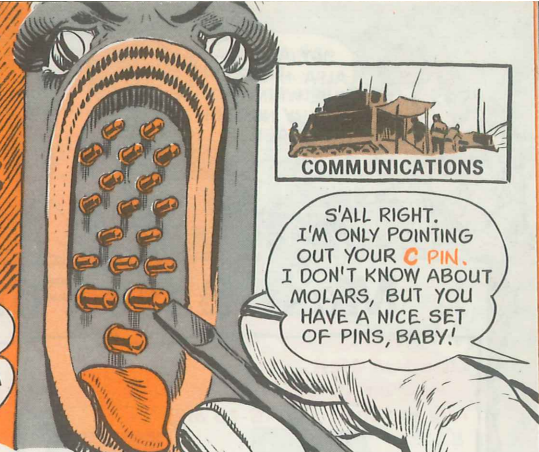


With all the changes going on around the Army these days, lots of guys wonder where their copy of PS Magazine went. Wonder no more. Make sure your unit sends in a DA Form 12-4 down in Block 45 the number of copies of PS your entire unit needs. They'll come every month by Pin-Point Distribution. Also, remind your buddy in the next outfit. That way he won't be borrowing your copy (and never returning it).

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# VR PUNGENT POINTERS

I CAN'T OPEN ANY WIDER... I THINK IT'S A MOLAR.



If the DC radio ground—Pin C—in the RT-524 or RT-246 comes up damaged, your AN/VRC-12 series set won't make the message scene.

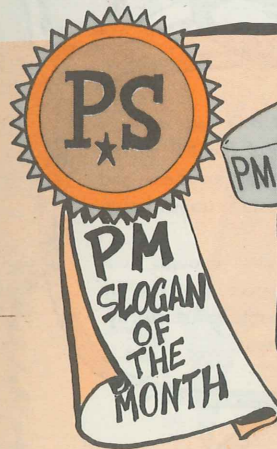
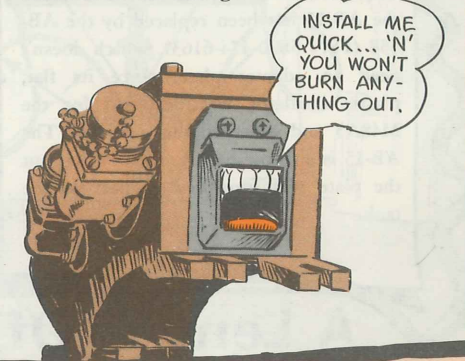
So it pays not to ram your R-T into the MT-1029 mount. Make sure the connections are lined up before you do anything.

And **d-e-f-i-n-i-t-e-l-y** do not push your R-T into the mount while the R-T power is on. Turn it off beforehand.

Current surge could burn out the power resistors and you'll be fresh out of a working set.

Final thought: When you're using the AM-1780/VRC audio frequency amplifier in a tracked VRC-12 setup, you can blow

the 1780 if the set's not off when you start your track engine. If you've got an MX-7778/GRC suppressor installed, this can head off the damage.



CHECK THIS ACTION, FELLAS.

SFC S.J. BOULDREY  
APO SAN FRANCISCO  
96349

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# ANTENNA

## Mast Base For A Tank

*Dear Half-Mast,*

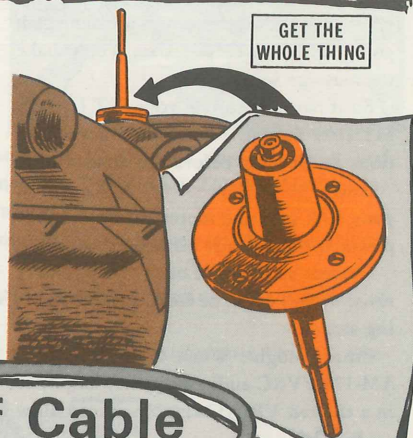
*How do we locate a reducing plate that bolts to the top of our M48A3 turrets and seats the AB-15 mast base?*

ISG V.D.J.

Dear Sergeant V.D.J.,

You don't. There's no FSN, part number, nor whatever for the plate. In fact, the AB-15 has been replaced by the AB-558 (FSN 5820-474-6163), which doesn't need an adapter plate, since its flat, plastic insulator was designed for the M48A3 and other combat vehicles. The AB-15 is a throw-back to the M48A1, but the plate was furnished as part of the tank.

*Half-Mast*



## A Length Of Cable

If you're operating at a fixed radio location and you're not using all your RC-292 transmitter antenna cable, whatdaya do with the surplus?

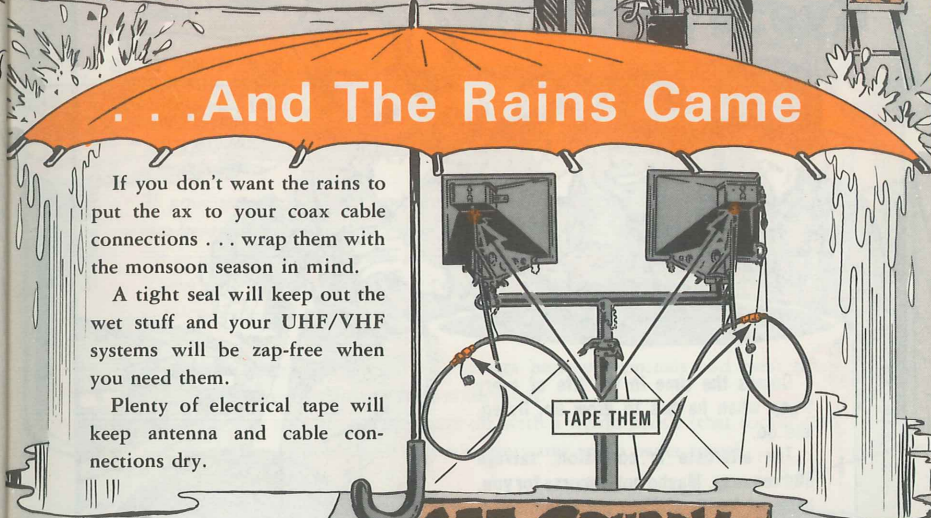
One thing you don't do is roll it up and stow it behind the transmitter or the R-T.

That kind of rolled-up stowage can keep some of the RF energy from reaching the antenna—and you end up losing transmission range.

If you've got enough untravelled floor space, you can lay out the extra cable satisfactorily. If not, try roof space.

# CHATTER

I'M MONITORING THIS NET...  
GET OFF THE AIR!  
OUT...

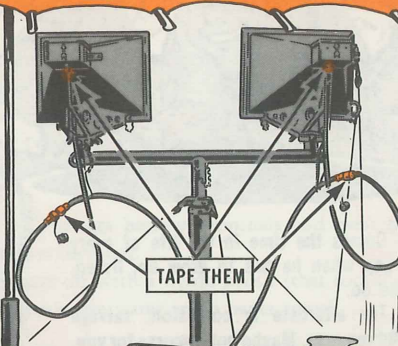


## ...And The Rains Came

If you don't want the rains to put the ax to your coax cable connections . . . wrap them with the monsoon season in mind.

A tight seal will keep out the wet stuff and your UHF/VHF systems will be zap-free when you need them.

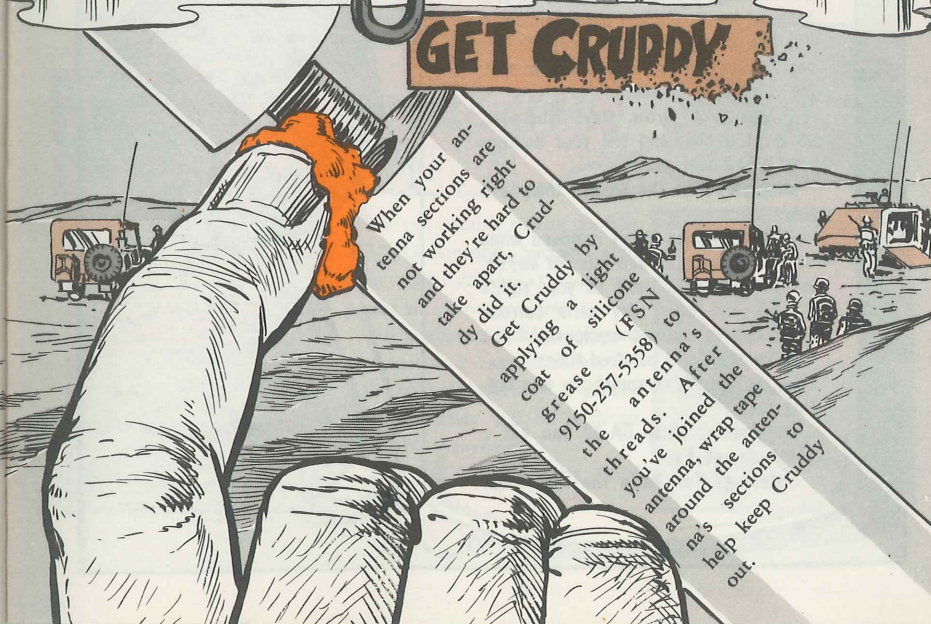
Plenty of electrical tape will keep antenna and cable connections dry.



## GET CRUDDY

When your antenna sections are not working right and they're hard to take apart, Cruddy did it.

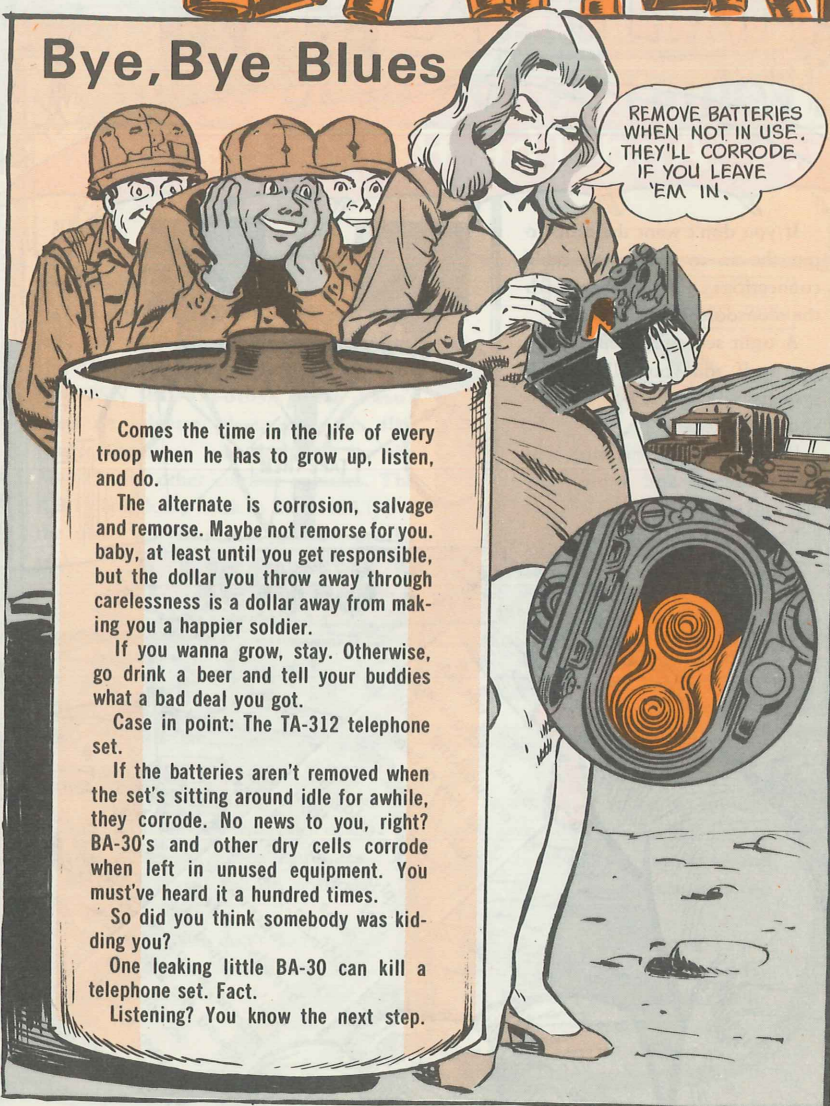
Get Cruddy by applying a light coat of silicone grease (FSN 9150-257-5358) to the antenna's threads. After you've joined the antenna, wrap tape around the antenna's sections to help keep Cruddy out.





# BATTERY

## Bye, Bye Blues



REMOVE BATTERIES  
WHEN NOT IN USE.  
THEY'LL CORRODE  
IF YOU LEAVE  
'EM IN.

Comes the time in the life of every troop when he has to grow up, listen, and do.

The alternate is corrosion, salvage and remorse. Maybe not remorse for you, baby, at least until you get responsible, but the dollar you throw away through carelessness is a dollar away from making you a happier soldier.

If you wanna grow, stay. Otherwise, go drink a beer and tell your buddies what a bad deal you got.

Case in point: The TA-312 telephone set.

If the batteries aren't removed when the set's sitting around idle for awhile, they corrode. No news to you, right? BA-30's and other dry cells corrode when left in unused equipment. You must've heard it a hundred times.

So did you think somebody was kidding you?

One leaking little BA-30 can kill a telephone set. Fact.

Listening? You know the next step.

# TIPS

IT'LL MAKE  
YOUR TEETH  
WHITE, TOO,  
LI'L BATTERY.



## Battery Dust-Off

If your stored BA-1000 and BA-3000-series alkaline batteries are growing white beards whilst waiting to go to work you'd better brush their teeth.

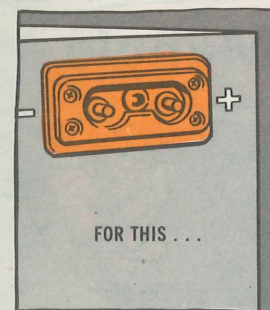
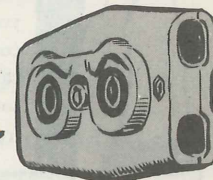
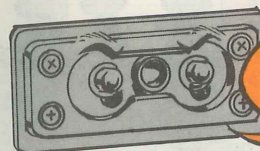
Or at least use a toothbrush on 'em.

There's no mystery about that creeping white powder on the batteries. It's just electrolyte that's exposed to air. The more exposed, the longer the white goop trail.

If you let it go and grow, it'll damage battery terminals and even affect capacity. Might even damage your equipment.

So when you spot it, get the stuff off with a nylon brush (that toothbrush is just fine). If you don't have a brush, use water and a paper towel.

## IN CONNECTION WITH



FOR THIS . . .

Having trouble fitting the BB-433(U) storage battery into your AN/GRQ-16(v) radio repeater set configuration?

No problem. Ask Support to replace the 2 lug terminals on CX-12482/GRQ-16(v) power cable assembly (10 ft) with an ELCON connector.

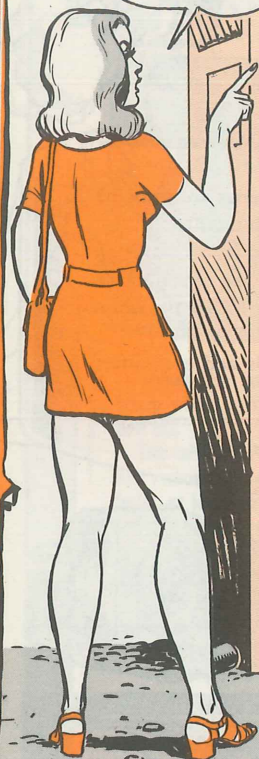
The ELCON goes by FSN 5935-686-0447.



. . . GET THIS  
FSN 5935-686-0447



**THAT  
'EASY' FIX-  
NIX!**



Unless it's an emergency where anything goes, better stay away from those easy-lookin' unauthorized fixes on your communications equipment.

Sure, it looks easy and you're a good man, so you figure you might just as well dig in . . .

Trouble is, it's work that's rated for tackling at a higher echelon than yours. Which means that if you do go in, to make a repair that looks easy, you could be rackin' up plenty of toil and trouble for support.

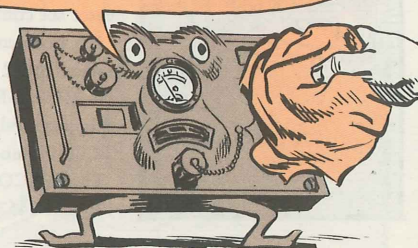
In place of havin' to fix a simple little switch, for example, support may be in for repair work on several items where out-of-echelon fixin' gummed up the works.

So-o-o-o, no matter how enthusiastic you feel when you eyeball any limping communications setup, it's best to steer clear of any repairs the TM doesn't authorize at your level. Call for help from support.

## No Meter Mangle

The Big Push can be a dandy thing—but not when you're cleaning meter faces on test sets and such.

Pressure is taboo when you're wiping off grease, dirt, or fungus with a dampened cloth. Just a little too much push on that glass dial, and you can damage the meter face.



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**TEST**

NO NO NO!  
ANOTHER UNAUTHORIZED  
FIX! SOB!



# SHOP TALK

## Peeper Feature

Your peepers'll be in for a permanent blackout if they're not protected while you're operating the Bench LS-69A test set.

The safety glasses with clip-on lenses provided with your set don't give you enough protection when your set spurts out high intensity flashes.

FSN 4240-482-9036 will get you a pair of formfitting goggles to protect the entire eye area.



I HEAR YOU  
HAVE NEW  
GOGGLES...  
WOW!



COOL,  
HUH?

## TV-7 Tube Tester

MAN!  
LOOKIT THIS  
FUNGUS.



HEY! I  
ONCE SAW  
SOMETHING  
LIKE THAT  
IN A  
SCIENCE  
FLICK!

After using your TV-7(U) tube tester, you'll want to adjust the line voltage under load and return to zero. Failure to do so could blow a fuse when power is applied.

If you're manning your TV-7 in a hot, moist climate, your set can sprout fungus and be plagued with moisture condensation.

To zap the fungus, give your set as much ventilation as possible. Wipe off moisture and fungus from the exterior with a clean cloth.

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BE YOUR OWN INSPECTOR . . .

IF YOU'RE AN OLD HAND AT YOUR TA 312/PT YOU PROBABLY GOT ALL ITS MOODS FIGURED. IF YOU'RE NEW AT IT, PICK UP THESE POINTERS.

THE MORE SERIOUS HANG-UPS ARE IN **BOLD TYPE** FOR EMPHASIS.

# TALKING ABOUT THE TA312/PT

**CORD FOR H-60 HANDSET**—Frayed, cut, torn, insulation damaged.

**RECEPTACLE CONNECTOR U-79/U**—Loose, bent or loose prongs, not making contact, dirty.

**DESIGNATION STRIP**—Scratched, unreadable.

**EXT-INT SWITCH**—Loose, binds, fails to make contact.

**BUZZER VOLUME CONTROL KNOB**—loose, binds.

**PANEL SCREWS**—Loose, missing.

**CIRCUIT SELECTOR SWITCH**—Loose, binds, no contact.

**BATTERY COMPARTMENT COVER**—Broken, corroded.

**BATTERY COMPARTMENT**—Dirty, corroded, fungus.

**BATTERY COMPARTMENT GAS-KET**—Worn, missing.

**BUZZER DIAPHRAGM**—Dented, broken.

**MOISTURE SCREEN**—Missing, dirty, clogged.

**BINDING POSTS**—Dirty, broken, not usable.

**PUSH-TO-TALK SWITCH**—Binds, no contact.

**RECEIVER AND TRANSMITTER CAPS**—Loose.

**RETAINING SPRINGS**—Bent, fail to hold handset.

**LINE SWITCH**—Binds, no contact.

**HANDSET RETAINING BRACKET**—Damaged coating, cracked.

**EXTERNAL BATTERY TERMINALS**—Dirty, broken, not usable.

**GENERATOR HANDLE**—BENT, stiff, broken.

**BATTERY COMPARTMENT LATCH**—Broken, bent.

**TELEPHONE SET CASE CY-1277A/PT**—Frayed, torn, mildewed.

**SLIDE FASTENER**—Broken.

**CARRYING CASE RETAINING STRAP**—Frayed, torn, mildewed, missing.

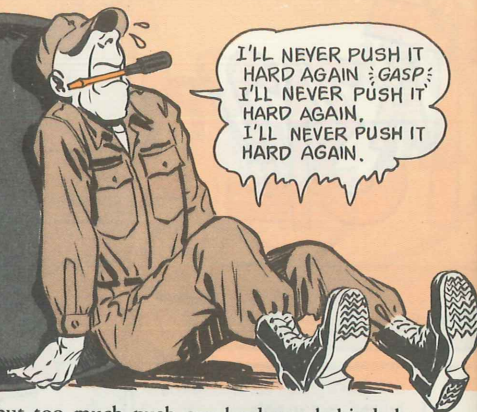
OK, CONNIE, I'LL TELL 'EM ABOUT THE **DE-ICER SCREEN**. THANKS, HON.

THE DE-ICER SCREEN IN YOUR TA 312/PT OR TA 43/PT IS LOCATED RIGHT HERE! YOU CAN ORDER ONE WITH FSN 5805-392-7628 ON PAGE 5, TM 11-5965-224-15P (AUG 63) FOR THE H-60 HANDSET.



LESS  
PUSH?  
FINE

8

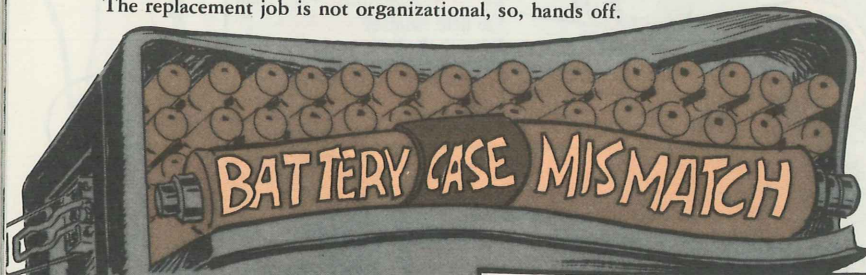


A little push can be a good thing, but too much push can land you behind the eightball.

Like when you push too hard with a screwdriver on the 5 spring-loaded screws on the back of the SB-86/PT switchboard jackfield and keyshelf sections.

This can lock the screw mechanism. Trying to unlock it can take your time and sweat and give you a case of fast frustration. In the end, you'll probably end up with a broken screw, a possibly damaged screw receptacle—and a trip to support for screw and receptacle replacement.

The replacement job is not organizational, so, hands off.



Having trouble mating the SB-22/PT switchboard's battery case retainer with the case contact assembly, FSN 6135-636-8186?

Well, some retainers have mismatched threads and may not have been purged from depot stocks.

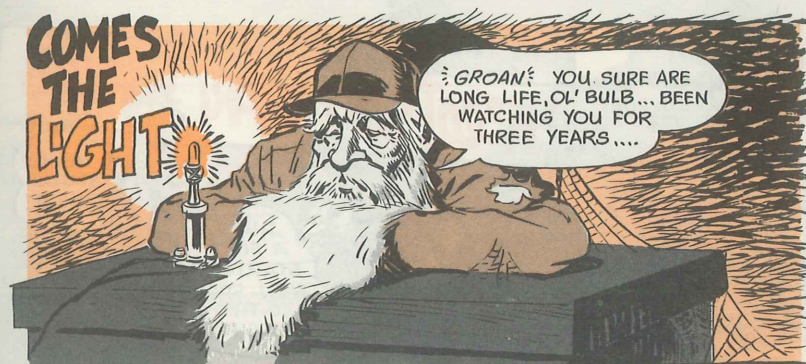
Your move now? Turn in your fouled-thread retainer and order a new one. You go with FSN 6135-284-0249. It's listed on page 2, TM 11-5805-262-20P (Dec 71).

IF YOU CAN'T GET  
IT ALL TOGETHER...



... GET A NEW RETAINER  
FSN 6135-284-0249

COMES  
THE  
LIGHT



About the light in your R-390/URR radio receiver...

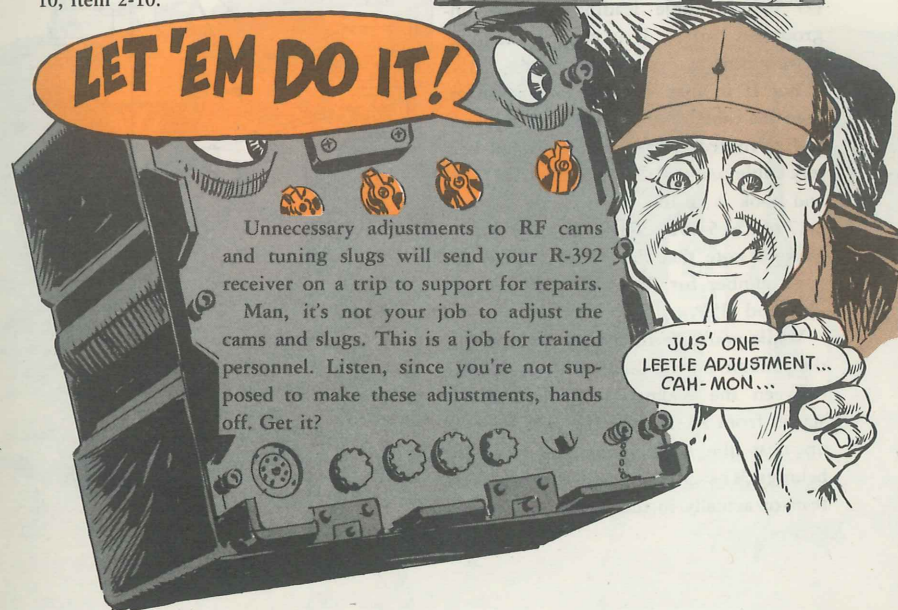
You need incandescent lamp FSN 6240-763-7744 with a rated life of 25,000 hours. This'll save lotsa lamp replacements.

Use it in place of FSN 6240-155-7836, the 1000-hour lamp ordinarily used in the R-390.

Your authority for the 25,000-hour replacement: TB 750-911-4 (Aug 71), page 10, item 2-10.



LET 'EM DO IT!



Unnecessary adjustments to RF cams and tuning slugs will send your R-392 receiver on a trip to support for repairs.

Man, it's not your job to adjust the cams and slugs. This is a job for trained personnel. Listen, since you're not supposed to make these adjustments, hands off. Get it?

JUS' ONE  
LEETLE ADJUSTMENT...  
CAH-MON...





## M320T SOFT START WIRING



Some 20-ton truck mounted M320T cranes/shovels need to have their wiring set right.

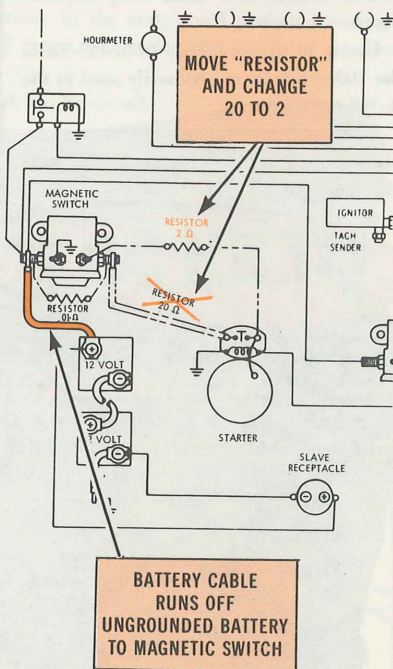
The "soft-start" concept was designed into the crane's starting system. This lets you start the crane's engine easy like without chewing up the starter bendix and gear ring.

The hooker? Some cranes slipped through without this added feature—especially those procured under contract DAAK01-69-C-7411.

To find out whether your cranes have been missed, take a look at the positive (+) battery cable leading off the ungrounded battery. If it runs to the magnetic switch . . . you're OK.

But if it goes directly to the starter, then the cable must be removed, replaced and re-routed. Order a replacement battery cable using P/N 79Z159702 (27315) and hook it up like the diagram on page 1-17 of TM 5-3810-288-12 (Feb 70) shows. Make a note that this P/N replaces the part number for the cable given in the -20P and -35P.

While you're at it, change the value of the resistor on the diagram that's located between the magnetic switch and the starter from 20 ohms to 2 ohms. Move it up near the resistor symbol where it belongs. The 20 ohms is a misprint. The resistor actually in the circuit is 2 ohms.



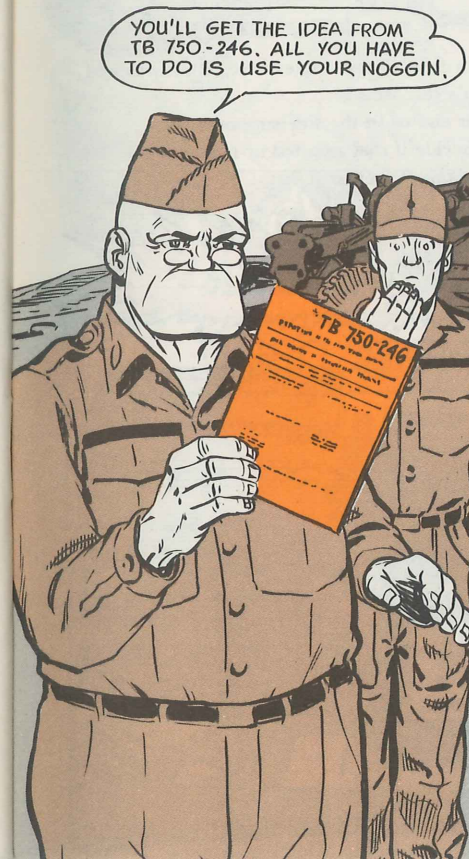
## RIFLES (IN BRACKETS)



Dear Half-Mast,

I'm in the dark on where to mount the rifle bracket, FSN 2590-045-9611, on some construction equipment, like the road grader. TB 750-246 (Aug 69) shows only a few locations. Shed some light, huh?

SP4 P.L.R.

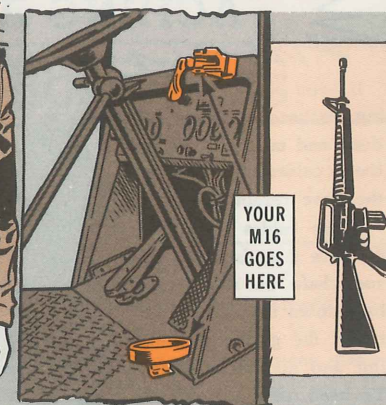


Dear Specialist P.L.R.,

Look at the TB as a guide and you'll see the dawn.

If your equipment isn't shown there, pick your own spot, but remember . . .

The rifle must be within easy reach yet out of the way for the equipment operation. Watch out for safety hazards, too.



You put the same bracket in trucks, but check TB 9-2300-209-20 (Feb 67) for those mounting locations.

Half-Mast



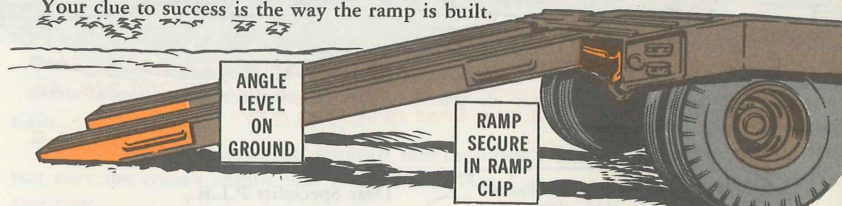
MAKE SURE  
MY FLAT SIDE  
IS ON THE  
GROUND *^mic*!

**GETTIN' LOADED RIGHT**

Don't go for broke with your loading ramps on the M172-series low-bed semi-trailer.

Place 'em wrong and you'll end up with a pile of bent, cracked or twisted wreckage. Place 'em right, and you can handle the load.

Your clue to success is the way the ramp is built.



The bottom end sits flat and solid according to the angle there. It also should be on the same level as the bottom of trailer's rear wheels.

The top end rests solid in the trailer's rear end or in the side support clips.

One thing sure, the ramps are bound to buckle if they're tilted or not secure.

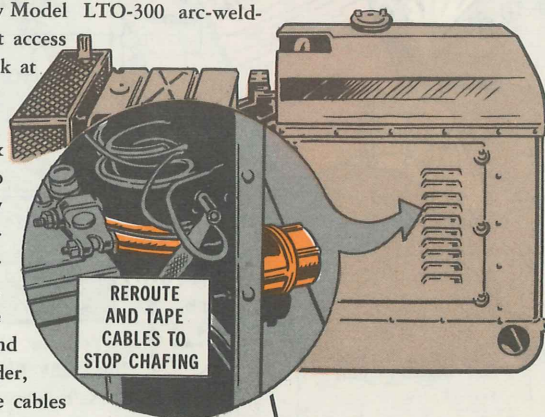
Once a ramp's been damaged, get your support to repair it fast.

For a new ramp use FSN 2510-353-6354.

## ACHING ARC WELDER

If you have a Libby Model LTO-300 arc-welding machine, open the left access door and take a close look at the 2 cables connected to the slave receptacle.

These cables (No. 5 & 6), have a tendency to rub and chafe on the battery hold-down bracket and between the generator housing and air outlet screen. To head off a naked cable that can cause a bad short and possibly blow your welder, reroute and tie or tape the cables to stop any chafing.



## CALLING ROYAL 440



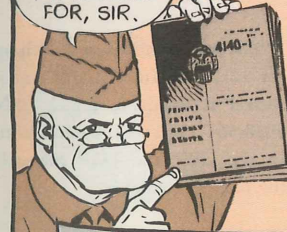
## DGSC TECHNICAL PUBS

*Dear Half-Mast,*

*Can you tell me where I can get pubs for commercial equipment such as ranges, baking ovens, refrigerators, dishwashing machines, etc.?*

LT P.W.K.

THIS IS WHAT  
Y'R LOOKING  
FOR, SIR.



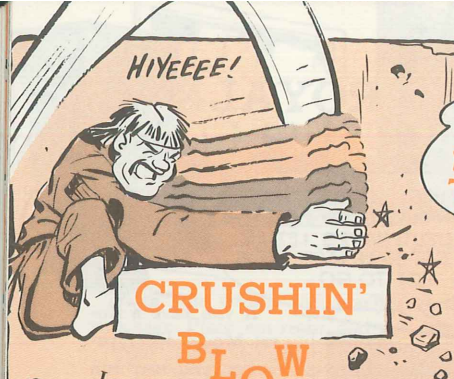
Dear Lieutenant P.W.K.,

Yes. Write to: Commander, Defense General Supply Center, ATTN: DGSC-TD, Richmond, VA 23219. Be sure to include the FSN of your equipment, manufacturer's name, and model number.

If you need pubs for several pieces of kitchen equipment, you'll want to order DGSC Manual 4140.1, which is the index for technical manuals for DGSC managed equipment. You get it from the same address.

*Half-Mast*





## CRUSHIN' BLOW

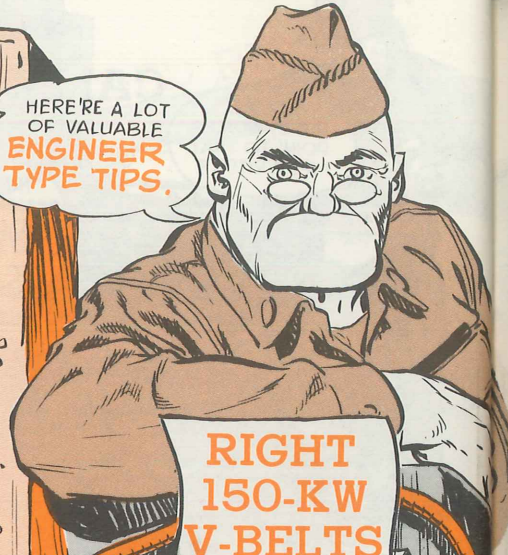
Looking for an air cleaner assembly for your 75TPH Eagle crusher? Use PN SD802F548 (14351) for the assembly or FSN 3820-015-2158 for a full modification kit. FSN 3120-770-9141 appearing in the TM 5-3820-205 parts manual is in error.



## SWITCH BEWITCHED?

No sweat anymore on getting a replacement for the neutral start switch of the RT forklift, Model MLT-6. The TM mix-up with the rotary switch has been cleared. You can request a neutral start switch under FSN 2920-781-1953 and PN 8389470 (19207). It's an authorized TM 10-3930-242-20P item.

HERE'RE A LOT OF VALUABLE ENGINEER TYPE TIPS.



## RIGHT 150-KW V-BELTS

It's FSN 3030-902-2646 for the V-belt set that'll fit your 150-KW generator set (Cummins Model NHRSGA-601-150). The repair parts pubs are being changed to read this way.

I FOUND IT! IT'S UNDER FSN 5930-564-2507...



## MASTER SWITCH FSN

The master ignition switch on the 12½-ton Model 22BM crane-shovel is available under FSN 5930-564-2507. It's slated to go in the -20P and -35P manuals the next go-around.

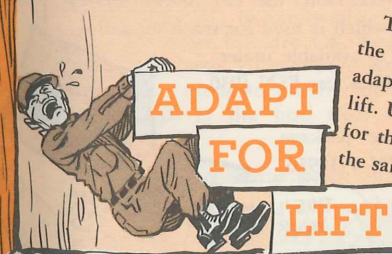


THESE ARE RIGHT OFF THE GRIDDLE.

## NOT SO UPTIGHT!

The right torque on the lock-nut for the rocker arm adjustment of the Cummins JN-6 engine is 25-35 foot pounds. Forget the high torque listings in TM 5-3810-289-12 and the -34 for the 12½-ton crane shovel, and TM 5-3810-232-12 and the -34 for the Models 2380 and 2385 20-ton cranes. They're being corrected.

I HATE TO TORQUE.



## ADAPT FOR LIFT

TM 10-3930-243-20P (Jan 70) has the wrong FSN for the tire valve adapter for your 10,000 lb RT forklift. Use FSN 2640-779-2565, the one for the 6,000-lb lift. They're one and the same.

## THERE'RE

You finding it hard to get an engine oil filter element for your J.I. Case Model 1150 tractor? The element in your parts list with PN A58672 (10988) can be replaced with any element that comes under FSN 2940-986-0276.

## OTHERS

HEY! I FOUND 'EM DOWN HERE, LOOKIT...



## BLUE IS TRUE

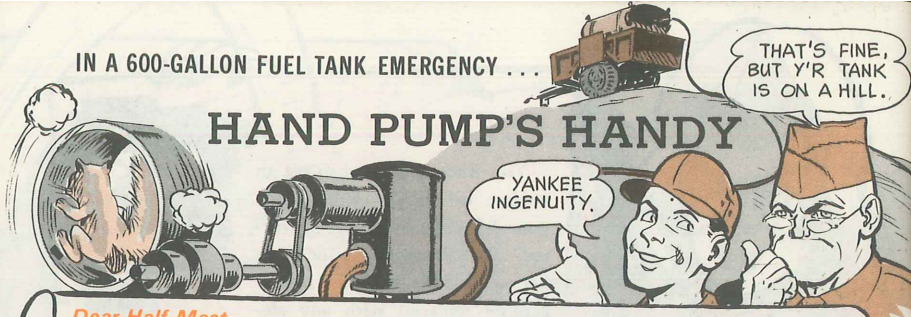
The front brake shoe spring in the 645M scoop loader is due for a color change. The original spring is black; it must be replaced by an improved blue spring. If you're in doubt whether your scoop loader got the new improved shoe spring installed, have your support check it out. The new spring comes under FSN 5360-841-9034. Only the blue spring will be true to you. The black one will only lead to brake failure.





IN A 600-GALLON FUEL TANK EMERGENCY ...

## HAND PUMP'S HANDY



Dear Half-Mast,

*I've known times when a hand-dispensing pump on a trailer-mounted 600-gallon fuel tank would have saved the day ... like when we're in a position that wouldn't permit gravity feed. Trouble is I can't find any info on using a hand pump with the tank. What's the scoop? Which hand pump do I use? Where is it mounted, etc.?*

SGT T. O. M.

Dear Sergeant T. O. M.,

Let's take off on the "where" angle first.

No matter what model tank you have, you screw the hand pump into the top port opposite the usual gravity dispensing end. To do this, you gotta remove the cap (dipstick, plug, adapter or what have you).

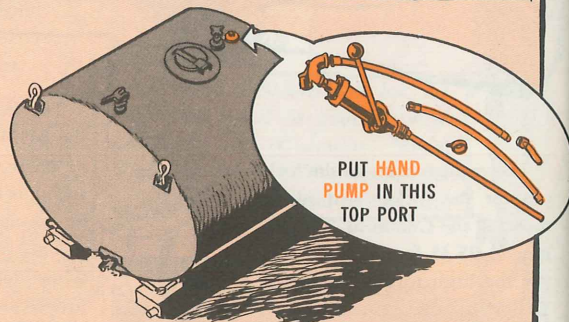
Any of these hand-operated pumps will fit in the opening: FSN 4930-276-0087, 4930-049-7204, 4930-263-9886 or FSN 4930-811-6857. The last one is in the No. 1 and No. 2 common tool kits.

Don't forget, when you're mounting the tank on the 1½-ton M105A1 trailer for hand pump operation, the gravity dispensing end goes on first. This puts the hand-pump port near the tailgate, making it easy to pump the fuel out.

You now can get the word and pictures for trailer mounting and tying down the fuel tank from Ch 2 (May 71) to TM 5-4930-220-12. Don't use TM 10-4930-204-15 (Sep 67) because this manual deals with the tank which is used for truck mounting.

The tank parts kit with the hold-down plates is available under FSN 4930-921-4933. For the tank tiedown assemblies, use FSN 4930-444-7462.

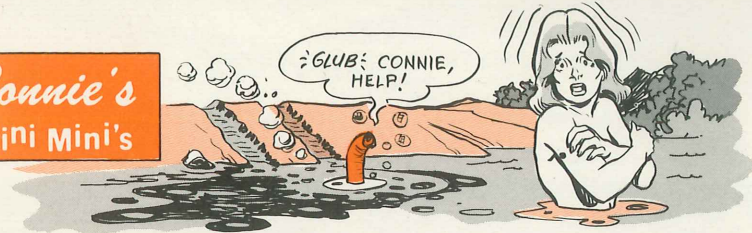
Incidentally, you can get everything in one package, including the tank, with FSN 4930-752-9983, LIN V 19950.



Half-Mast

THIS'LL MAKE YOUR DAY.

Connie's  
Mini Mini's



### Mini-Can Strike Out

Forget about getting MIL-L-5606 hydraulic oil in 8-oz size. This is, FSN 9150-180-6181, was never stocked because of the mini-demand for it. If you've ordered this size can, your request will not be canceled, but will automatically be filled with an equivalent amount in quarts.

### Bad Batch of Lube

Hold one if you've got any 12-oz cans of solid film lubricant, FSN 9150-142-9309, Mil Spec RIAPD-703. The cans in Batch No. 6167 of Contract DSA 600-72-C-1193 supplied by the Drilube Co., are no good. Keep 'em in storage until you get The Word what to do, but don't use 'em. All other batches under this contract are OK for issue and use.

### Hydraulic Oil Caution

An UNgood lot—or batch—of hydraulic oil, OHA, MIL-L-5606, is in the supply system. You can spot the no-good stuff easy. Look for FSN 9150-252-6383 (qt can) and 9150-223-4137 (5-gal drum) DSA 600-71C-1645, Lot 81C, May 71, Pennsylvania Refining Co. All other lots are OK. You'll find the date and lot number—or batch number—stamped on the top of the can. Turn in the bad stuff to your supply source.

☆U.S. GOVERNMENT PRINTING OFFICE: 1972 - 759-038/12

### 5/4 Lug Wrench

FSN 5120-168-2345 gets you a lug wrench for your TM-244-series truck.

### Get Your TM OK?

If your unit didn't get its batch of new operator's manuals for the TM 218-series ¼-ton truck, act fast! Send your DA Form 17 to AG Pubs Center, St. Louis for copies needed. A big batch of these books got damaged in shipment, and yours could have been among 'em. It's TM 9-2320-218-10 (Sep 71).

### Money Counts Too

You can replace your unserviceable fire extinguishers on the gasoline engine water pumps, 50 to 2100 GPM, with the new dry chemical type, FSN 4210-889-2221. This is one-fourth the cost of the old one and has a throw-away cylinder which you can replace with FSN 4210-889-2222.

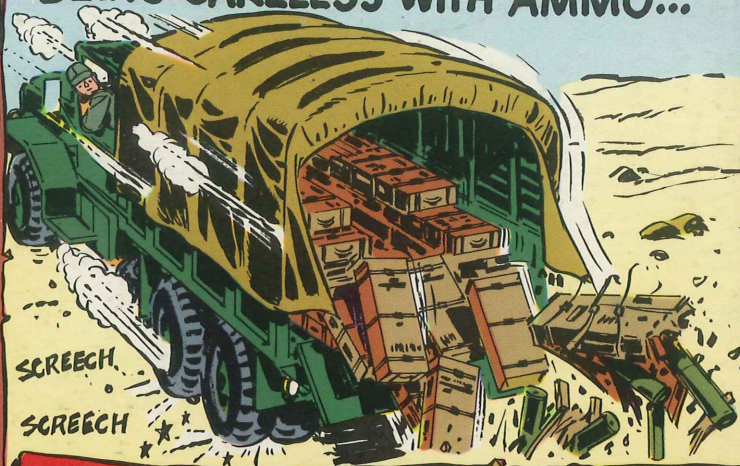
### 2500-Hour Lamp

You need FSN 6240-419-3185 to fetch the 2500-hour lamp for your solid state turn signal control handle. FSN 6240-155-8707 cited on page 65 in PS issue 232 is for a 1000-hour lamp.

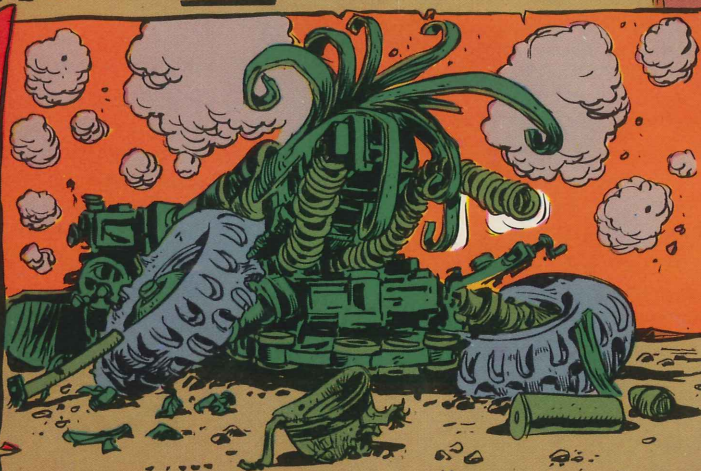
Would You Stake Your Life <sup>right now</sup> on the Condition of Your Equipment?



YOU MIGHT GET BY FOR A WHILE  
BEING CARELESS WITH AMMO...



BUT... IT CAN LEAD TO THIS



HANDLE AMMO WITH CARE