

Issue 321

PS

★
August
1979

THE
PREVENTIVE
MAINTENANCE
MONTHLY



WELL, SARGE, WHEN TH' CONVOY HALTED FOR A BREAK, I THOUGHT I'D GIVE MY PC A REST AN' SAVE SOME FUEL, TOO... SO, I SHUT 'ER DOWN!

SMEDLY STRIKES AG'IN!

!!@!

EV'RY DIVISION'S GOT AT LEAST ONE!

BEATS ME WHY SHE WON'T START NOW...

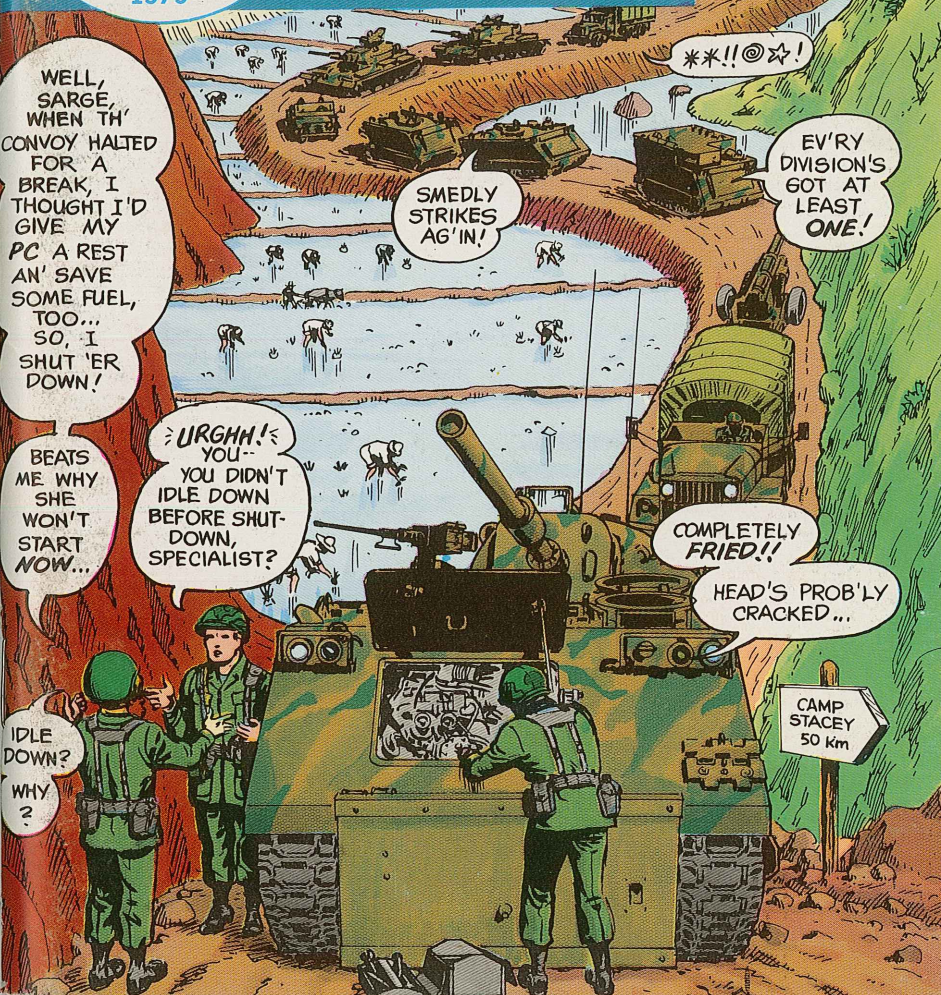
URGH!! YOU-- YOU DIDN'T IDLE DOWN BEFORE SHUT-DOWN, SPECIALIST?

COMPLETELY FRIED!!

HEAD'S PROBL'Y CRACKED...

IDLE DOWN? WHY?

CAMP STACEY
50 km



What if your General spent today with you, watching what **you** do to keep your equipment maintained and ready to go?

Would he see you check the oil and radiator levels and tires before you start up?

How would you drive if your General sat right beside you? Would you "hot-rod" your engine?

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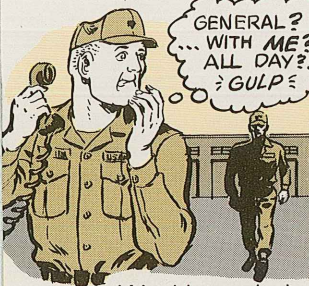
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PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: **MSG Half-Mast PS Magazine Lexington, KY 40511**

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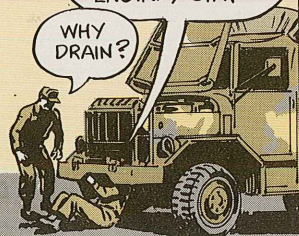
WHAT IF...?



Would you drain the fuel filter for sure that day?

TO GET RID OF ANY WATER OR DIRT THAT MAY KILL MY ENGINE, SIR!

WHY DRAIN?

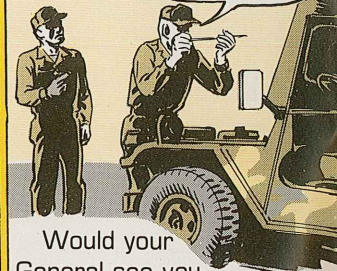


Would he see you (a mechanic) take parts off and put new ones on without testing the old ones to see if they're really bad?



WHY NOT WAIT A FEW DAYS AND ORDER SEVERAL AT A TIME?

NO WAY, SIR! ANOTHER ONE MAY BE NEEDED TODAY OR TOMORROW! GOTTA HAVE IT TO KEEP THE OUTFIT READY!



Would your General see you clean and lube your weapon after firing?



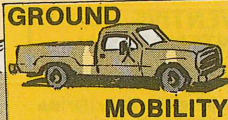
NO SIR! OUT HERE WE TAKE IT EASY... SO'S NOT TO BUST UP ANYTHING!

You could ask the same kind of questions about how you would operate and take care of any other equipment



if your General were at your elbow.





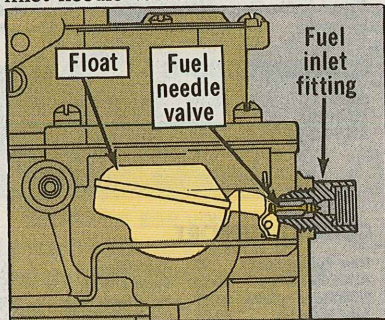
Carburetor Snafu

SAYS HE'S LOOKIN' FER TH' CARBURETOR NEEDLE VALVE!

HE NEEDS A HAYSTACK-- THAT'S WHERE NEEDLES USUALLY ARE!

You've heard the old tune-up tale: The spark plugs won't spark, the distributor won't distribute, the carburetor won't carb, and the pistons etc., etc.

And it's for sure your M880's carburetor won't carb if you take off the fuel inlet valve seat and lose the inlet needle valve.

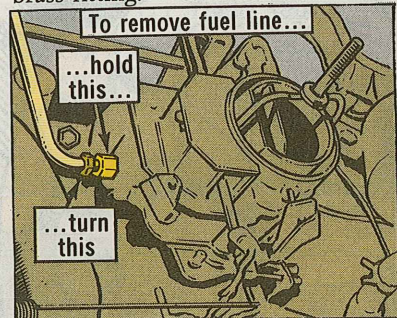


This valve butts up to a lip on the float. When the bowl is full, the lip pushes on the valve to shut off the fuel flow. If you lose that tiny valve, the float won't shut off the fuel. The bowl will run over. You need to fix it but you can't get another needle valve. So you

wind up turning it in to your DSU for repair.

THERE'S NO GOOD REASON FOR TAKING OUT THE FUEL INLET FITTING... LEAVE IT ALONE!

Just be mighty careful when you loosen the fuel line. Hold the inlet fitting with your wrench and loosen the tube fitting. And hold the fitting when you put the fuel line back. That way you won't ruin the threads on the brass fitting.



To Lube or Not to Lube?

THAT IS THE QUESTION, CONNIE...

YEAH... WHAT'S TH' POOP?

The fitting is hard to find...and just as hard to lube.

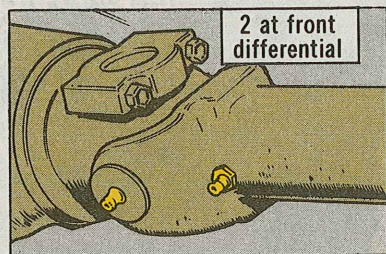
SIMPLE...

The answer is: of course. If there's a lube fitting, it's supposed to be used—for lubing.

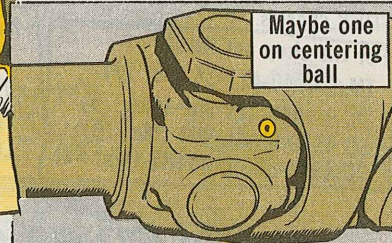
Some 4 x 4 M880-series 1/4-ton trucks have 3 lube fittings on the front prop shaft. Some have only 2. But all 3 were left out of LO 9-2320-266-12 (Apr 77).

You have to hit these lube points with the same lube and at the same time as for the rear prop shaft.

The 2 lube fittings near the front differential are on all 4 x 4 trucks. The

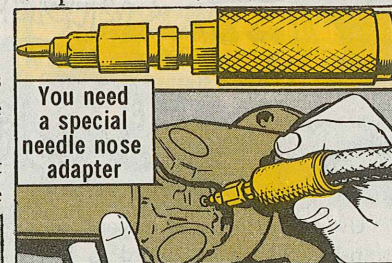


1 in the centering ball is on some—not all. Eyeball the centering ball carefully.



Maybe one on centering ball

You'll need a special needle nose adapter NSN 4930-00-435-7588. It

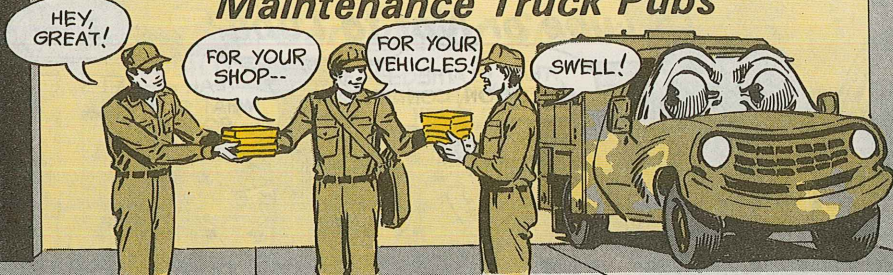


You need a special needle nose adapter

comes with the trailer mounted lube and service unit, NSN 4930-00-935-4451. If your unit doesn't have the lube and service unit, use Appendix A, CTA 50-970 (Jul 74) for your authority. The adapter costs about 10 bucks but that may be cheap. If the centering ball goes out, you lose your truck. DS has to repair it.

M880-Series 1/4-Ton Truck...

Maintenance Truck Pubs



You need 2 different sets of pubs for your Shop Equipment, Contact Maintenance, NSN 4940-01-016-2262, that's carried on the M887 1/4-ton truck chassis.

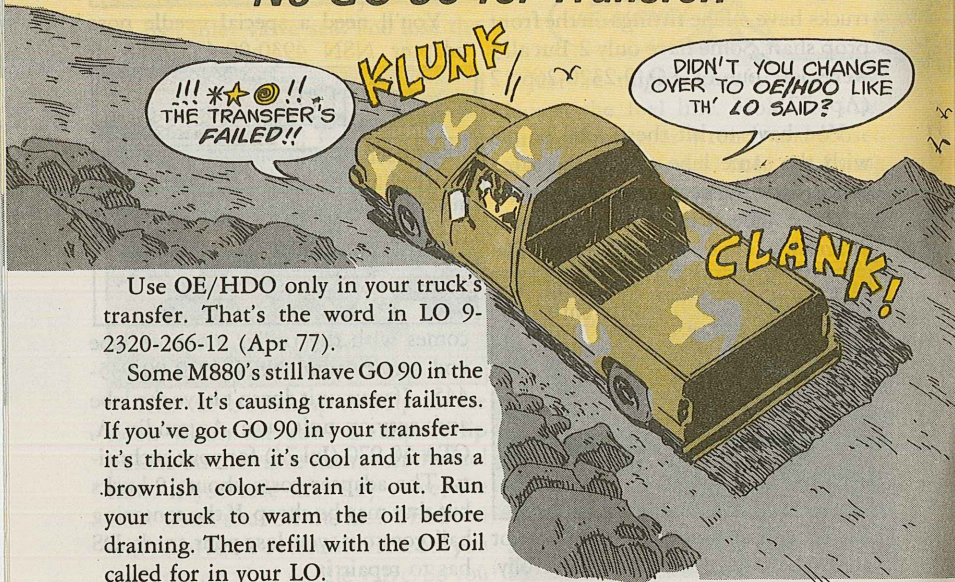
For the shop set itself:

TM 9-4940-421-14 (Oct 77)
 TM 9-4940-421-24P (May 78)
 SC 4940-95-CL-B04 (Mar 79)
 SC 4940-95-CL-B04HR (Mar 79)

For the vehicle:

TM 9-2320-266-10 (Jan 76) w/ch 1-5
 TM 9-2320-266-20 (Jan 76) w/ch 1-4
 TM 9-2320-266-20P (Feb 78) w/ch 1-2
 LO 9-2320-266-12 (Apr 77)

No GO 90 for Transfer!



Use OE/HDO only in your truck's transfer. That's the word in LO 9-2320-266-12 (Apr 77).

Some M880's still have GO 90 in the transfer. It's causing transfer failures. If you've got GO 90 in your transfer—it's thick when it's cool and it has a brownish color—drain it out. Run your truck to warm the oil before draining. Then refill with the OE oil called for in your LO.

M880-Series 1/4-Ton Truck...

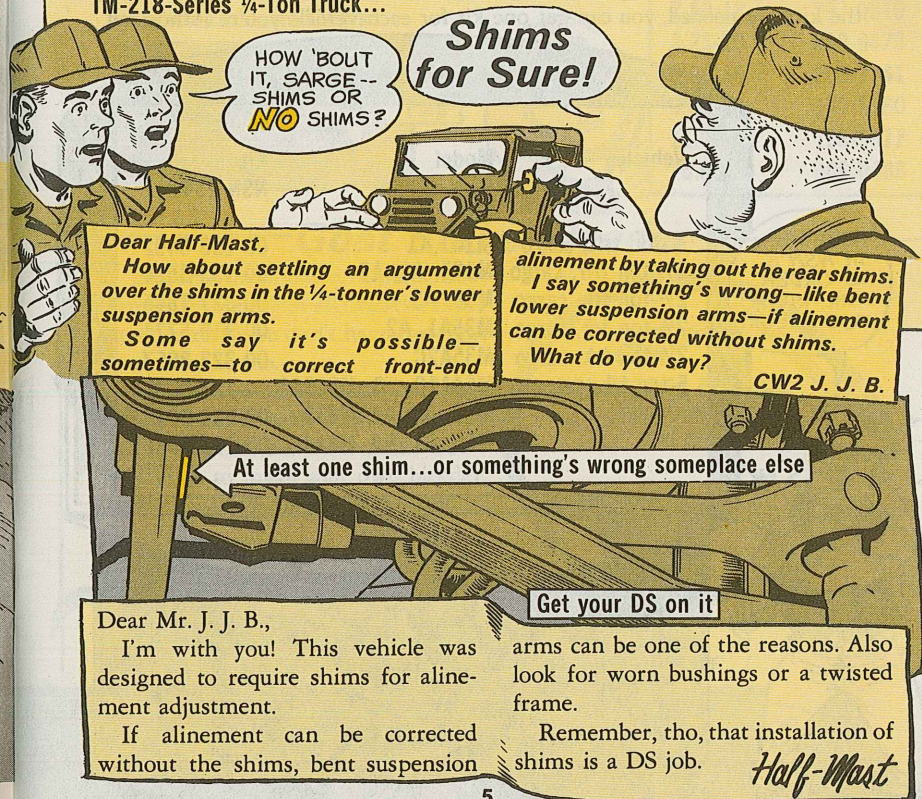
Mirror, Mirror on the Door



When the sheet-metal screws no longer hold the outside mirrors, you'll have to switch to nuts 'n' bolts.

Drill out the holes for 1/4-in screws, NSN 5305-00-071-2242. Use hex nuts, 5310-00-761-6882, and lockwashers, 5310-00-582-5965. This means getting inside the door to mount the arms.

TM-218-Series 1/4-Ton Truck...



Dear Half-Mast,

How about settling an argument over the shims in the 1/4-tonner's lower suspension arms.

Some say it's possible—sometimes—to correct front-end

alignment by taking out the rear shims. I say something's wrong—like bent lower suspension arms—if alignment can be corrected without shims.

What do you say?

CW2 J. J. B.

At least one shim...or something's wrong someplace else

Dear Mr. J. J. B.,

I'm with you! This vehicle was designed to require shims for alignment adjustment.

If alignment can be corrected without the shims, bent suspension

Get your DS on it

arms can be one of the reasons. Also look for worn bushings or a twisted frame.

Remember, tho, that installation of shims is a DS job.

Half-Mast

Bow 'n' Tarp Kits

ONE KIT--
AM' HURRY!

SUPPLY

You've probably noticed...your cargo trucks 'n' trailers are no longer delivered with bows and tarps included in the deal.

That's a policy change you can find in AR 310-34, Change 4 (Jan 79), para 4-56f. Bows and tarps have been grouped into kits. They're authorized by CTA 50-915 (Dec 77) as discretionary items.

Some of the end item pubs list the kits but without NSN's. Once your CO says the kits are needed, you can get one kit for each vehicle you're authorized.

Vehicle	Model	Kit NSN 2540-
3/4-ton trlr, cargo	M101,A1	00-133-3492
1 1/2-ton trlr, cargo	M105, A1, A2	00-133-3524
2 1/2-ton trk, cargo	M36, A2, C	00-327-1845
2 1/2-ton trk, cargo	M35A1, A2	00-319-5724
2 1/2-ton trk, cargo	M35A2C	00-322-8957
5-ton trk, cargo	M54A1C, 2C; M813A1	00-121-9082
	M54, A1, A2; M813	00-121-9077
	M55, A1, A2; M814	00-121-9081

HERE'RE
TH' NSN'S
TO ORDER
THE KITS
YOU NEED...



Hold Your Flaps

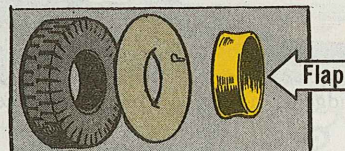
HOLD IT!!

HEY!!!
GIMME BACK
MY FLAP, JACK!!

FLAPJACK?

BUT WE HAD
HAM AND EGGS
FOR BREAKFAST!

Hold onto that tire flap when you turn in a tire. Flaps can be used again if they check out OK. Para 2-14 of TM 9-2610-200-20 (Feb 77) tells you to look for cracks, folds and tears.



HERE
ARE THE
NSN'S FOR
AVAILABLE
NEW
FLAPS...



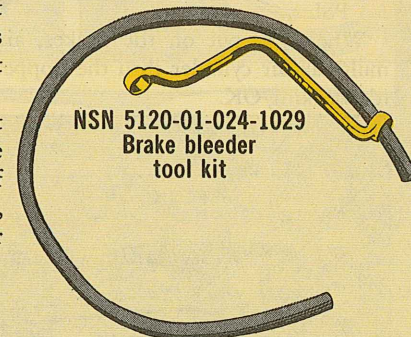
TIRE SIZE	NSN 2640-00-
6.00-9	535-7509
6.50-10	472-8645
7.00-10	799-0577
7.50-15	895-5767
7.50-16	696-0466
7.50-18	797-0510
8.25-20	699-9473
9.00-16	208-7541
9.00-20	147-5160
11.00-20	158-5617
16.00-24	806-0488

Goat Brake Bleeder

Bleeding the brakes on a Gama Goat can spill brake fluid all over the shoes and drums if you don't have the right tools for the job.

NSN 5120-01-024-1029 will get you a brake bleeder tool kit for the M561 and M792 1 1/4-ton trucks. But if you want to make your own bleeder, take a look at page 13 of PS 279 for details.

NSN 5120-01-024-1029
Brake bleeder
tool kit



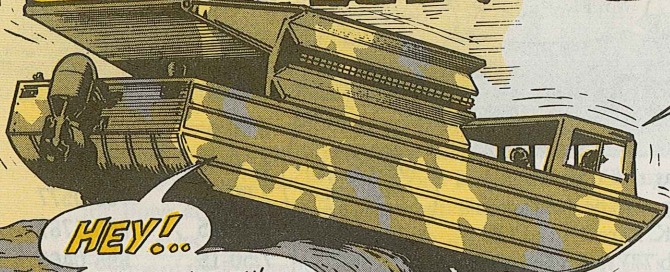
NO MATTER WHICH
BLEEDER YOU DECIDE
TO USE...

... FOLLOW THE POOP
IN Para 2-153 ON PAGES
2-220 AND 2-221, TM 9-
2320-242-20 (Sep '76)!



MOFAB
Hydraulic
Brakes...

AIR SYS TEM CHECK



HEY!...

THIS IS NOT TH' PLACE -- NOR TH' WAY -- WE'RE SUPPOSED TO ESTABLISH OUR BRIDGE CROSSING!

I KNOW... I KNOW

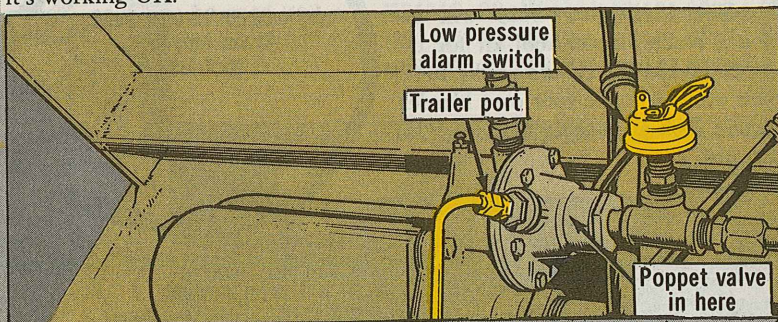
... BUT WHEN DID YOU LAST CHECK TH' POPPET VALVE?

Stopping a mobile floating assault bridge is no big deal if your brake system is working at maxi-power.

But if it's on the blink, your MOFAB'll wind up in the drink—or worse.

Getting the right air boost pressure at the multipak—controlled by the pressure reducing air valve—is the key to good braking. This pressure is 75 ± 3 PSI.

When you put on the brakes, air boost pressure is metered into the multipak air cylinder thru the poppet valve assembly. No sweaty brows if it's working OK.



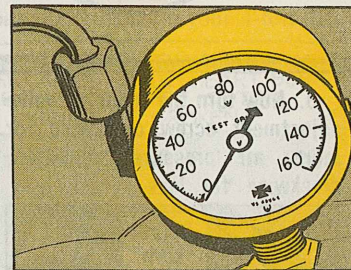
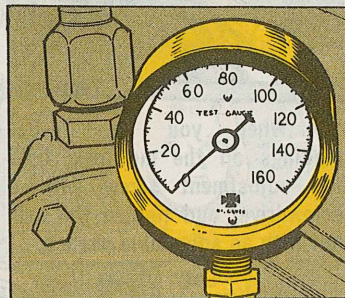
But if a bum poppet valve won't open—or if it only opens a smidgen—you wouldn't get the 75 PSI needed to "grab your MAB."

8



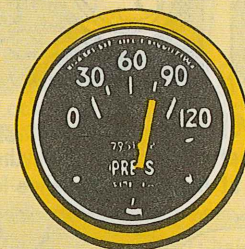
HERE'S HOW TO BE SURE YOU'LL GET THE RIGHT PRESSURE AT THE MULTIPAK...

1. Remove the low pressure alarm switch on the trailer port...and use one of the 0-160 PSI gages from your 1-time, free issue, brake test kit.
2. Unscrew the plug or fitting at the trailer port and put in the other 0-160 PSI gage. (Riveted hull MABs have a plug in the trailer port; the welded hull MABs have a fitting and a 1/4-in line.)



3. Have an operator start the engine...build up pressure to 90 PSI in the cab gage.

Go to
90 PSI



4. Now ask him to step on the brake pedal...and hold it.

9

NOW, YOU SHOULD GET A 75-PSI READING ON BOTH MULTIPAK GAGES!

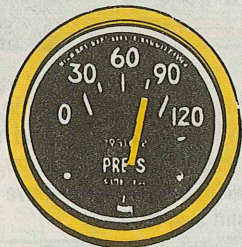


PS MORE

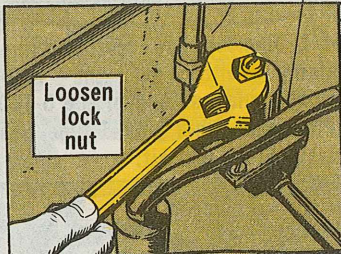
IF BOTH GAGES READ THE SAME BUT THE READINGS ARE MORE--OR LESS-- THAN 75 PSI, ADJUST THE PRESSURE AT THE REDUCING AIR VALVE, LIKE SO...

1. Check the air pressure in the cab.
2. Loosen the pressure reducing air valve adjustment screw lock nut.

It should still read 90-95 PSI

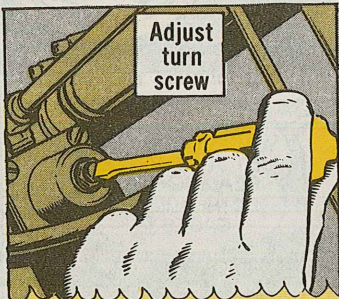


Loosen lock nut

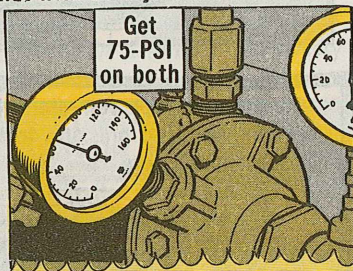


3. Now turn the reducing valve adjustment screw clockwise for more air pressure; counter-clockwise for less.
4. When you get 75-PSI readings on the multipak, hold the adjustment screw with a screwdriver and tighten the lock nut with an adjustable wrench.

Adjust turn screw



Get 75-PSI on both



A reading of less than 75 PSI at the trailer port gage is a clue that the diaphragm or the poppet valve could be on the blink...and calls for repair/replacement at higher maintenance level.

THIS NEW AIR BRAKE SYSTEM POOP WILL BE ADDED TO TM 5-5420-210-12 AND TM 5-5420-204-12.

PS END

M796 General Purpose Trailer...

Pick Up The Pieces

I THINK HE'S READY FER TH' JUNK PILE, CONNIE!

NOT BY A LONG SHOT, SPEC... CHECK TH' FSCM AND TM!

THANKS, CONNIE...

WITH A FEW NEW PARTS...I'LL BE READY AN' RARIN' TO GO!

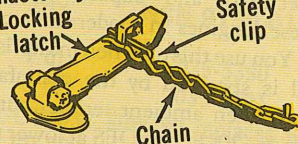


So you keep damaging and losing odd parts 'n' pieces on your 4-ton 4-wheel bolster, eh?

HERE'RE SOME COMMON ITEMS THAT CAUSE UNDUCE HEART BURN BECAUSE THEY'RE OFTEN MISSING OR BROKEN!

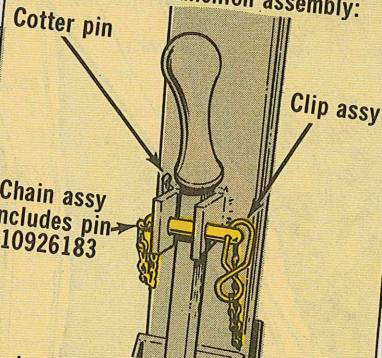
Use FSCM 19207 with the PN's. TM 9-2330-287-14 (Oct 71) is your authority for parts replacement.

- For the access door to the hydraulic brake master cylinder or to the tool box:



Locking latch PN 8328726
Safety clip NSN 5315-00-775-3912
Chain NSN 4010-00-165-6063

- For the stanchion assembly:



Chain assembly PN 10926182
Clip assembly PN 10926184
Cotter pin NSN 5315-00-839-5822

Tube Oil

Multiviscosity oil—that means more than one grade number—is here.

MULTI-GRADE ENGINE OIL-- LIKE YOU USE IN YOUR POV-- IS NOW AVAILABLE THROUGH THE ARMY SUPPLY SYSTEM!

ENGINE OIL

Multiviscosity engine oil, MIL-L-46152, is for commercial-type vehicles used for administrative (post, camp, station) service.

You never use it in tactical or combat vehicles, material handling or construction equipment.

Use it only in passenger cars and light and medium duty trucks, vehicles under manufacturer's warranty (if specified) and supercharged light diesel engines in moderate duty.

You use this oil when multiviscosity oil is specified by the manufacturer and when ambient temperatures are above -20° F. Use OES at lower temps.

Qty	NSN 9150-00-
10W/30	
1 qt	186-6699
5 gal	256-6411
55 gal	186-6703
20W/40	
1 qt	186-6705
5 gal	186-6706
55 gal	186-6709

Update

ALSO, THE ARMY IS NOW USING MULTIGRADE GEAR OIL IN TRUCKS, COMBAT VEHICLES, MATERIAL HANDLING AND CONSTRUCTION EQUIPMENT!

GEAR OIL

Your LO's and -10 TM's are being updated to list the new oils and the NSN's. Until then, here's how it goes:

MIL-L-2105C 75W replaces GOS oil (MIL-L-10324).

Qty	NSN 9150-01-
1 qt	035-5390
5 gal	035-5391
MIL-L-2105C 80W/90 replaces GO 80 and GO 90.	
1 qt	035-5392
5 gal	035-5393
55 gal	035-5394
MIL-L-2105C 85W/140 replaces GO 140 oil.	
5 gal	035-5395
55 gal	035-5396

Lead-Acid Batteries...

Caps On For Charging

Dear Half-Mast,

What is Army policy on battery caps while charging the battery—caps on or caps off?

CW2 J.W.

Dear Mr. J.W.,

The word is caps on.

This's to keep electrolyte from getting on you and everything else around—since the electrolyte does bubble some during charging.

Natch, you make sure the cap vent holes are not plugged. This's to relieve gassing. Check the caps and clean 'em like it shows on page 11, DA Pam 750-34 (May 78), Preventive Maintenance of Lead-Acid Batteries.

Half-Mast

Bits 'N' Kits...

O-Rings...and Other Things

Ever wonder how some units always seem to get high marks on their unit and materiel readiness reports? They never seem to have equipment NORS because they need O-rings, Woodruff keys and other items that can deadline equipment.

Could be their PM-wise mechanics keep a handy supply of repair parts 'n' kits like these:

NSN Nomenclature

- 5330-00-966-8657 Packing assortment (O-rings)
- 5315-00-271-4251 Woodruff key assortment (100)
- 4720-00-200-0632 Upper radiator hose for multi-fuel vehicles (bulk)
- 6145-00-772-0853 Wire, 14-gage for vehicle lights
- 5940-00-186-7144 Battery cable terminal w/eye
- 6145-00-805-3354 Battery cable (bulk)
- 6240-00-824-4676 Lamp, incandescent, 100-W rough service
- 6240-00-782-2052 Lamp same as above, but 75-W

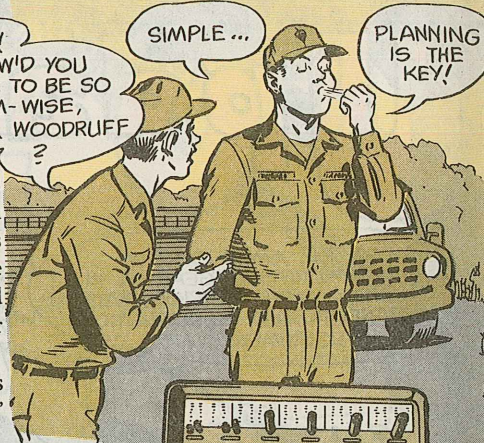
Now that you have the NSNs, check your SSSC and QSS for the items.

No luck? Have your PLL clerk put in a regular supply request for 'em.

GEE! HOW'D YOU GET TO BE SO PM-WISE, SGT. WOODRUFF?

SIMPLE...

PLANNING IS THE KEY!



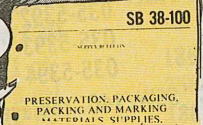
THEY'RE ALL ON THE AMDF!
JUST ORDER 'EM AND...

BE A PM-WISE GUY!



Preservation and Packing

GET ON PIN-POINT DISTRIBUTION FOR THIS HANDY PUB!



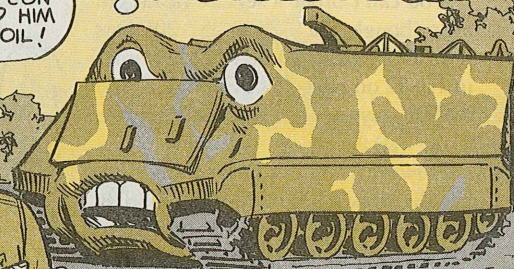
SB 38-100 is a handy pub to have when you're involved in preservation, packing and marking of Army items. It lists scads of supplies you need. It's updated each year, so get on pinpoint distribution for it by filling in Block 15 (Storage of Supplies and Equipment) on DA Form 12-34.

M113A1 Carrier Seal Situation

YOU MEAN YOU USED GREASE TO LUBE HIS ROAD WHEELS AND TRACK IDLERS?

RIGHT! JUST LIKE HIS TM SAYS T'DO IT... I CONVERTED HIM FROM OIL!

YEAH-- BUT THE TM DOESN'T MENTION CHANGING THE SEALS... I'M IN TROUBLE IF HE DOESN'T!!



Seal NSN 5330-01-035-9832 (P/N 12253286) is used if you have converted your wheels and idlers to the use of grease.



NSN 5330-01-035-9832 for grease

The same kind of lube seal can be used for both the road wheels and the track idlers on your M113A1 family of carriers.

So then why are there 2 different kinds of seals?

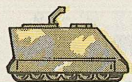
Because one kind, seal NSN 5330-00-679-9879 (P/N 8756298), is used if your wheels and idlers are still lubed by oil.



NSN 5330-00-679-9879 for oil

Using the wrong seal can cause leaks and loss of lube and ruin the bearings or even the arm.

Converting idler wheel and road wheel hubs from oil to grease is covered on pages 2-268 and 2-269 of your TM 9-2300-257-20 (Feb 69). However, nothing is said there about taking out the oil seals and putting in new grease seals when you go to grease. If you have already converted to grease, get the grease seals in.



M113A1 Carrier Headlights



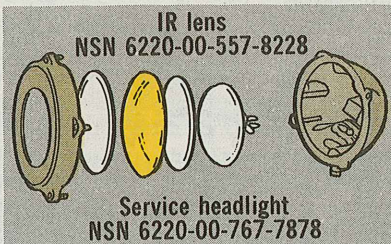
In the dark about getting parts to fix your regular and infrared headlights?

You can't order a service headlight even though TM 9-2300-257-20P lists it as NSN 6220-00-984-5181, Item 1 in Fig 52 on page 37 of Change 2. The AMDF says it's an inactive number. True.

However, you can order the service headlight as NSN 6220-00-767-7878. This NSN has replaced headlamp NSN 6220-00-984-5181 in the -20P TM.

If just the lens is cracked on your IR

headlight, you can order an infrared lens as NSN 6220-00-557-8228.



Any part from an IR headlight will fit on a service headlight and vice versa. Only the lenses are different.

M578 Finger Saver



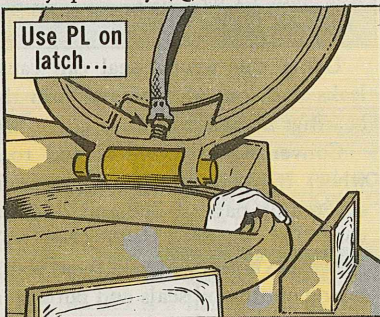
IT SMARTS!

WELL, A LUMP IS BETTER THAN NO FINGERS!



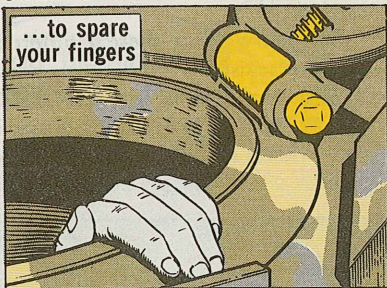
What you don't know might not hurt you but what you don't lube can chop off your fingers.

The hold-open latch for the access cover of the rigger, crane operator and driver must get its ration of PL oil at every quarterly (Q) service.



If you forget this, the latch can get stiff, fail to lock and let the hatch swing shut.

At the best, you can get a bang in the head when the hatch swings forward. At the worst you can lose your fingers if they're in the way when the hatch slams down.



So lube the way your LO 9-2350-238-12 (Jul 77) calls for in Note 18 on page 9, and the localized lubrication view on page 19. Also, check all three covers for broken torsion bars which can let a cover fall on you.



M60A1 (RISE) TM Change



HE SAYS THERE'S A MISTAKE IN HIS TM!

BONNIE, TELL HIM ABOUT PAGE 2-46... NOT T'MENTION ITEM 32 ON PAGE 2-54!

A not-so-funny thing happened to the Preventive Maintenance Checks and Services (PMCS) on your M60A1 (RISE) tank...a mistake got into it. Look on page 2-46 of TM 9-2350-257-10 (Jun 78).

It now reads, "Powerplant warning light or all temperature and pressure gages missing or inoperative."

Get out your stubby little pencil and make that read, "Powerplant warning light or any temperature or pressure gage missing or not reading in the green."

While you have your pencil out, turn to page 2-54 of your -10 TM. In Item 32, far right, it says: "No airflow from outlet hoses."



Skin Savers

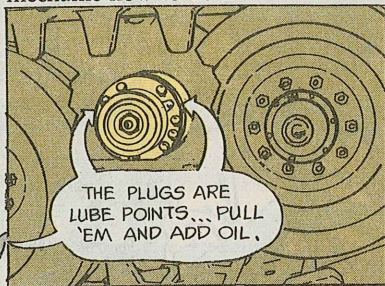
All SP artillery and combat vehicle crews are authorized 2-piece high-temperature resistant Nylon clothing—Nomex—by CTA 50-900 (Oct 78). Chap 7, TM 10-8400-201-23 (Jan 70) has the NSN's, repair and cleaning poop for these shirts 'n' trousers.

Proper Lube Saves Money

It only takes a few minutes and a few pennies worth of lubricating oil to take care of the road wheel arm pivot

bearing on your M109A1 SP howitzer. Page 16, Item 31 of LO 9-2350-217-12N (Jun 78) tells the organizational mechanic how to do it.

USE A HAND OILER FOR THIS JOB.

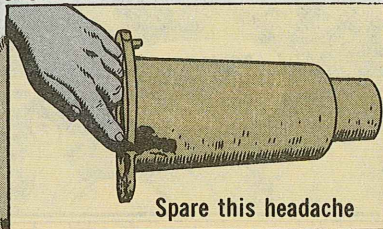


Just because it's only done twice a year, some people figure it doesn't need to be done at all.

That line of reasoning ends up costing a lot in minutes and in money.

Without lube, the bearing housing will freeze and the only way it can be removed is with a cutting torch.

Without proper movement of the road wheel suspension arm, the torsion bar can't wind up the way it should and in time it breaks.



Getting out a broken torsion bar under these circumstances is a multi-hour, multi-thousand dollar job.

So, put in the oil and skip all that toil.

Small Arms and DD Form 314

How many weapons can be placed on one DD Form 314? Just about any number. It's a matter of local SOP.

There is no set number of weapons that go on the form. Using 1 weapon in the nomenclature block, say the M16A1, you can schedule as many M16A1 serial numbers in the remarks block as will fit.

Some unit SOP's limit the number of M16A1's to 10. Ten is about an average day's workload.

Here's a sample of how to schedule weapons on a DD Form 314.

Pencil in date

DD FORM 314		REMARKS	
21-1567895 26-3120190 (13-16 Feb)		22-9756813 27-4958795	
23-3218751 28-6439519 ANNUAL SUPPORT MAINTENANCE PERFORMED 3 Feb 79		24-6596021 29-2401618 (20-22 Apr)	
25-3521981 30-1626348			
DATE RECEIVED	RECEIVED FROM	DISPOSITION	
REGISTRATION NUMBER	ADMINISTRATION NO.	NOMENCLATURE	MODEL
See REMARKS	21-30	Rifle 5.56mm	M16A1
ASSIGNED TO		A Co 2/60th In	
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			

LIST THE SERIAL NUMBERS OF THE WEAPONS IN THE REMARKS BLOCK!

You can list only the amount of weapons you can handle in a day's workload. Remember, the DD Form 314 is for scheduled services performed by a mechanic or armorer...or by a crew member supervised by a mechanic.

Turn 'Em In!

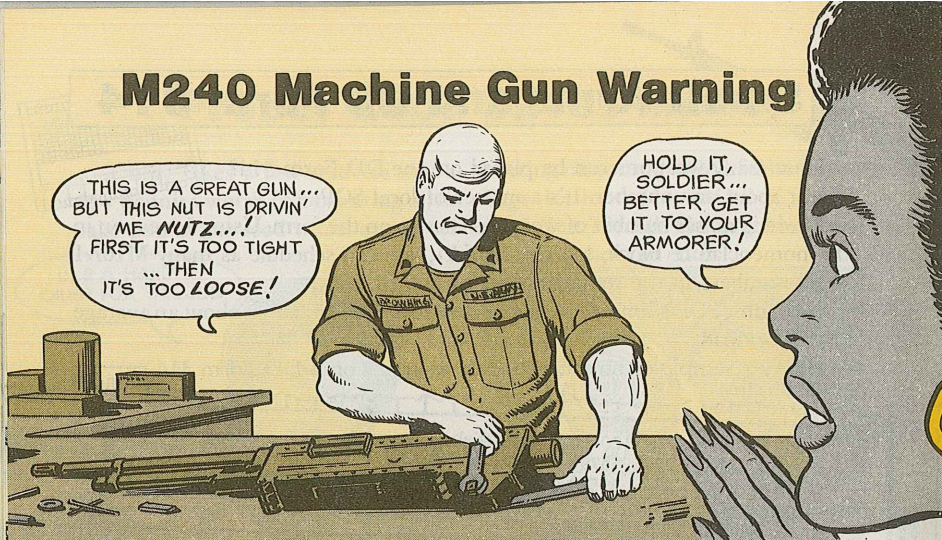
IF YOU HAVE ANY OF THESE EXCESS REPAIRABLES, TURN 'EM IN SOONEST!

NSN 6115-00-725-1790 Generator, DC UH-1H	NSN 2950-00-430-3080 Turbocharger Assy, 60-KW Gen
NSN 1615-01-054-7272 Comb Xmission, CH-47C	NSN 6130-00-971-5677 Charger, Battery
NSN 6130-00-407-0865 Inverter, pwr static,OV-1D,RV-1D	NSN 2915-00-223-7004 Fuel Control T53-L-13B
NSN 4320-00-934-7901 Pump Unit, Cent, MUST System	NSN 2915-01-005-9197 Fuel Control T53-L-703

M240 Machine Gun Warning

THIS IS A GREAT GUN... BUT THIS NUT IS DRIVIN' ME **NUTZ...**! FIRST IT'S TOO TIGHT... THEN IT'S TOO **LOOSE!**

HOLD IT, SOLDIER... BETTER GET IT TO YOUR ARMORER!

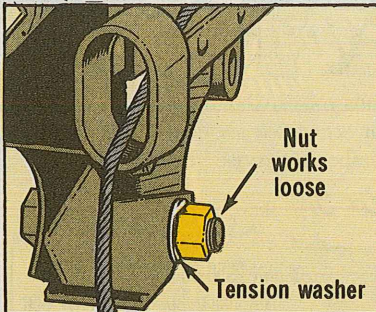


Yep! Your new M240 7.62-MM machine gun will do a good job for you in your M60A3 tank or wherever else you use it.

One thing you need to watch, tho. The trigger and frame assembly nut has a habit of working loose after a little firing.

Do not tighten grip nut to the extent of cracking grips.

BUT, DON'T LEAVE THE NUT SO LOOSE IT'LL VIBRATE OFF! CHECK IT OFTEN DURING FIRING!



Once the nut loosens, the whole trigger and frame assembly starts to come apart.

Check the nut often and make sure it's snug and tight. This doesn't mean you should overdo it.

If it keeps coming loose, the spring tension washers, NSN 5310-01-033-3850, may be losing their grip. Have your armorer take a look at them.

If you've already lost a part, page 9 of the -24P lists them.

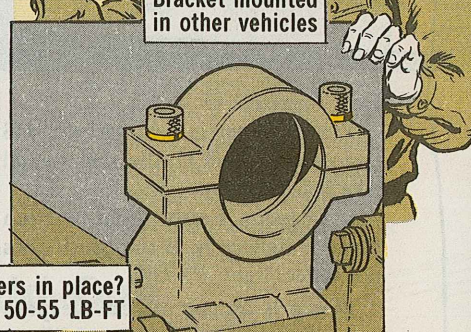
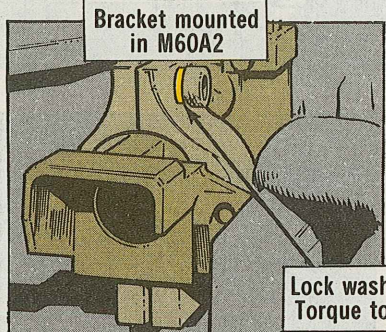
Never force the mounting pins on your M240 machine gun. If they won't slide in easily, lube 'em. Never pound on 'em.

Don't Forget the Lock Washers!

Two plus 2 equals one secure machine gun locked snugly in its mount.

The 2 plus 2's are the screws plus lock washers on the mount bracket assemblies of your M73/73A1 and M219 machine guns. The lock washers must be on the screws, or the screws will work loose and your gun may end up on the floor of your tank.

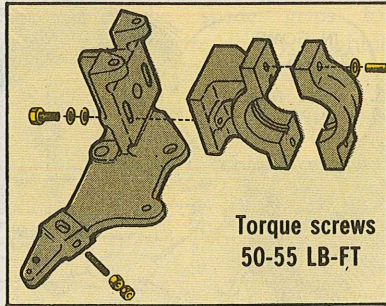
LOOSE SCREWS ALSO AFFECT THE WAY THE GUN WORKS, ACCURACY... AND CREW SAFETY!



Lock washers in place? Torque to 50-55 LB-FT

So what to do? Be sure the 2 screws which hold the retainer to the bracket assembly are installed with lockwashers.

The screws must be torqued to 50-55 lb-ft. Once installed, check the torque each time you install the barrel jacket assembly on the mount.



Turn In Ammo Cans!

Those metal ammunition boxes—which bring you anything from 5.56mm to 20mm cartridges—are accountable items, reusable, and must be turned in. They're not authorized as tool boxes, catch-alls or whatever.



ACCOUNTABLE BOXES ARE...
 M2A1 NSN 8140-00-960-1699
 M19A1 NSN 8140-00-828-2938
 M548 NSN 8140-00-739-0233

Refinishing Shiny Weapons

CAN ANYONE SPARE SOME TOUCH-UP PAINT FOR MY MIGAI?

SORRY, I ONLY GOT ENOUGH TO DO THIS WALL!

CAN'T B' LIEVE MY EARS!

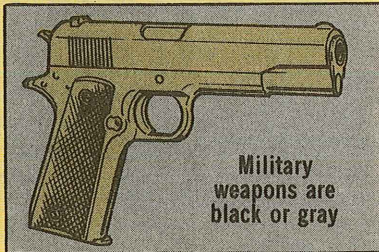
Dear Half-Mast,
How do we get our weapons refinished?
SP4 O. R. G.

Dear Specialist O. R. G.,

Your first step is to contact your DS maintenance unit. Ideally, they should take it from there.

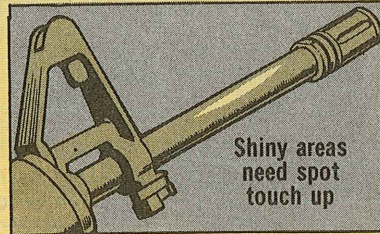
A weapon's finish might be from black to light gray. If the finish does not reflect light, it's OK.

Bluing is on commercial weapons such as pistols and shotguns. Military weapons are finished with phosphate (gray) or black oxide.



Military weapons are black or gray

When the finish on a weapon's surface goes bad, it gets a complete refinishing by general support or depot...usually accompanied by other necessary major repairs. Support determines whether complete refinishing is needed.



Shiny areas need spot touch up

Spot finishing on small, shiny areas is done by direct support (unless, in a rare weapon's TM, the armorer is permitted to spot finish).

In brief, you find the shiny areas. Support repairs them.

IN SOME PLACES, IT MAY TAKE A YEAR OR MORE BEFORE SUPPORT CAN GET TO YOU!

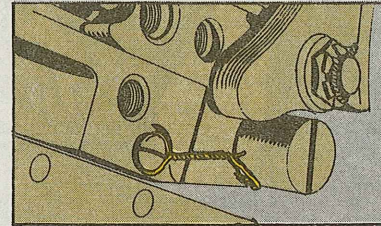
M2 Safety Wire

IT STARTED OUT OK...

YOU BETTER CHECK OUT YOUR TM!

The safety wire for the retracting slide assembly of your M2 machine gun does its job in keeping the slide on the gun...providing you do yours.

Use only wire, NSN 9505-00-804-3814



Install the wire right

If you're a little rusty on safety wire installation, page 21 of TM 9-1010-221-24 (Mar 72) spells it out in words and drawings. You've almost certainly got a copy of the TM in your armorer's shop. Just adapt the information to fit the screws on your M2.

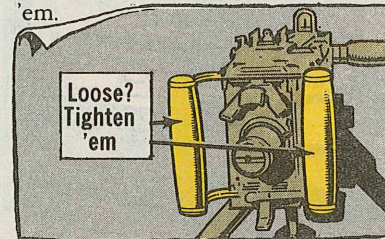
M2 Add-Ons

URGH! IT'S TRYIN' T' GO INTO BUSINESS FOR ITSELF!

DID YOU TIGHTEN TH' SPADE GRIPS LATELY?

A new chore for armorers has been added to Table 2-5, TM 9-1005-213-25, on the M2 machine gun.

Inspect the spade grips for tightness. If they're loose, you tighten 'em.



Reason: When the grips are loose the M2 is hard to control.

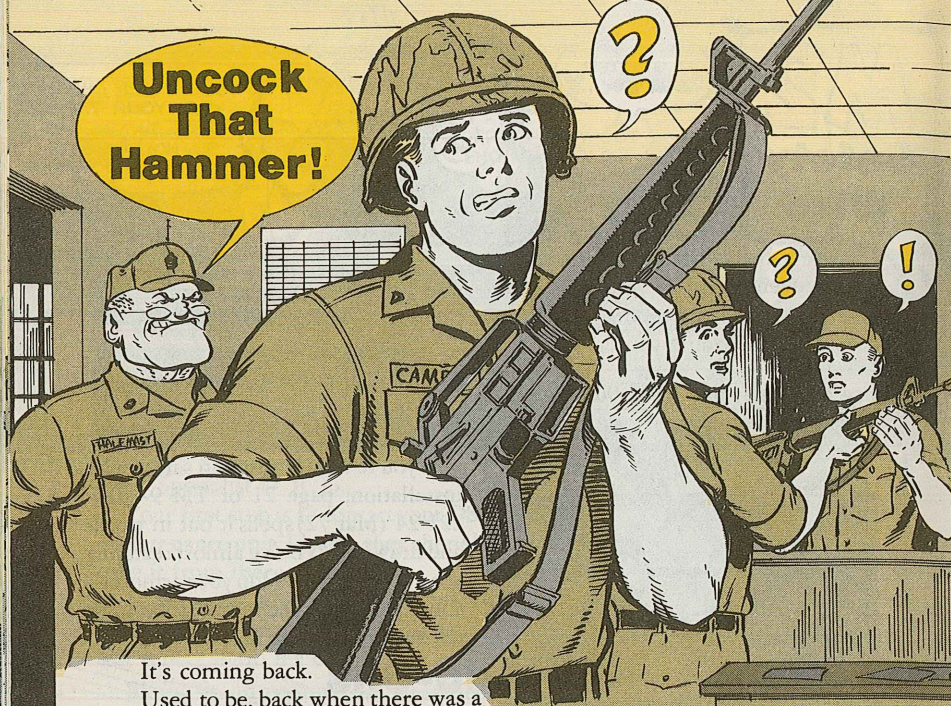
The information will be in an upcoming TM Change. It's also in para 6-2b of TB 43-0001-36-4 (Jan 78).

Get a Glove

Here's a cool aid for crewmen who load or clean a hot gun:

Get asbestos mittens NSN 8415-00-266-8843. The mittens are shown on page 15, Change 3 to TM 9-1005-213-10.

Uncock That Hammer!

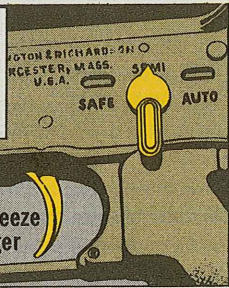


It's coming back.

Used to be, back when there was a -12 manual on the M16A1 rifle, that you released the hammer when you stored the rifle. A paragraph in the TM told you to.

Releasing the hammer takes tension off the spring and thereby saves wear.

To uncock, clear rifle put lever on semi...

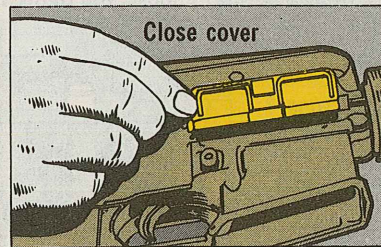


However, the paragraph on releasing the hammer (squeeze trigger) and

closing the ejection port cover wasn't included in the newer -10 TM's...although it's in Ch 4 of TM 9-1005-249-20 for extended storage.

But, it's coming back...and will be added to the -10.

Meanwhile, to save some wear and tear on your rifle, release the hammer and close the ejection port cover when you're through using it.



Keep Your TOW Pin Up

IT'S BONNIE AND HALF-MAST!

GREAT! WE NEED SOME ADVICE!

SOMEONE'S COMIN'...

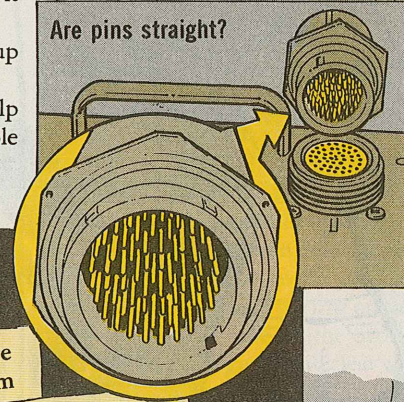


The 2W1 cable connector to the J1 jack on your TOW system M70 console takes some persuasion to get it hooked up at times, right?

Sometimes the persuasion busts up connectors, pins and such, right?

So, take some notes on how to help keep your pins up...on all 2W1 cable connectors and jacks.

Are pins straight?



HERE'S WHAT YOU DO...

• First, eyeball the pins to be sure they're not bent. If they are, get 'em fixed.

• Inspect the jack and the connector for dirt or crud. Keep 'em clean.

• Be sure the key and keyway on connector and jack are lined up before you push the connector in.

THEN, TRY SOME GENTLE PERSUASION!

Line 'em up!



TOW Optical Sight...

WATCH - Don't Lift

CAREFUL,
TOW TYPES...

CARRY THAT OPTICAL
SIGHT CORRECTLY!!

YOU'LL SAVE
THE LATCH!

FOR MY
SORE OPTICS,
THAT'S SOME
SIGHT!

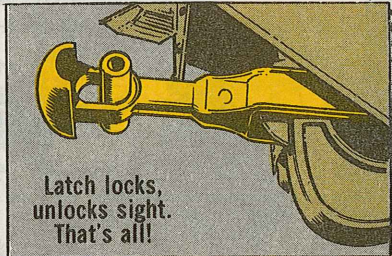
SIGHTS LIKE
THIS YOU
HANDLE
CAREFULLY!



To lock the optical sight to the traversing unit of your TOW missile system, you position the sight and lift up on the latch assembly lever until it locks.

To release the sight, first you support it so it won't fall. Then, squeeze the latch lever and bring it down till the sight's unlocked.

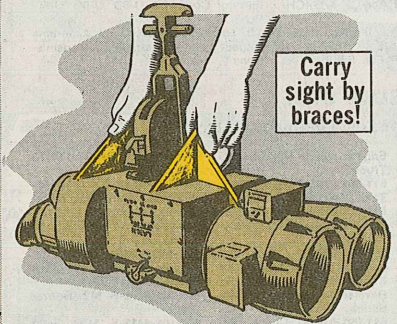
That's all you do with the latch lever.



Latch locks,
unlocks sight.
That's all!

Lift

The latch assembly is not a carrying handle. Used as one, it breaks...as TOW crews have proved over and over again.



Carry
sight by
braces!

When you carry or lift the sight, lift it by the braces on each side of the latch assembly.

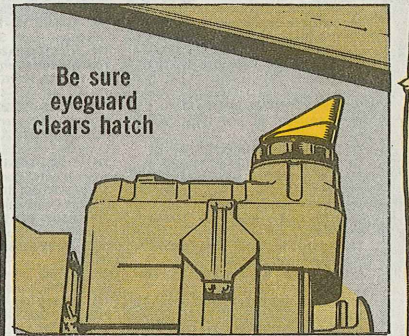
ANOTHER LATCH
ASSEMBLY SAVER...

WHEN YOU
STORE THE
SIGHT, STORE
IT WITH THE
WATCH ASSEMBLY
UP!



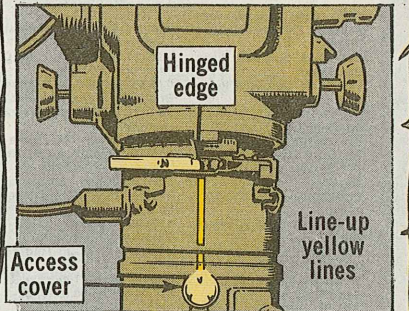
Eye Guard

A caution on the sight's eye guard if your TOW's mounted on an APC: Be sure the guard will clear the hatch before you raise or lower the pedestal.



Be sure
eyeguard
clears hatch

Your pedestal should have a yellow line painted on it between the azimuth lock and the access cover on the pedestal stop. Match up the line on the pedestal with the one at the access cover, and the eye guard will clear the hatch.

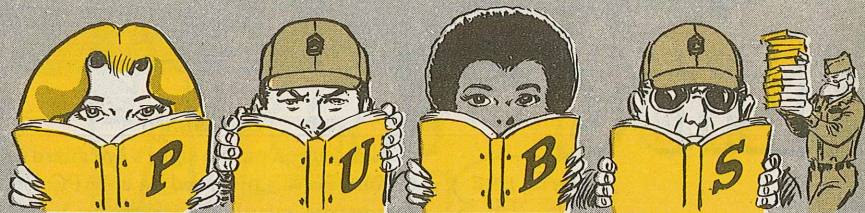


Hinged
edge

Access
cover

Line-up
yellow
lines

If your pedestal's not marked, line up the hinged edge of the pedestal azimuth lock with the top center of the access cover. Then raise or lower the pedestal as necessary.



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 (Dec 78), TM's, TB's, etc. DA Pam 310-5 (Jul 78) and Ch 2 (Jan 79), SC's and SM's and DA Pam (C) 310-9 (Jan 79), COM-SEC pubs.

TECHNICAL MANUALS

TM 3-6910-227-10 Mar Chem Agent Ident 1
 TM 5-5420-203-14-HR Feb AVL B
 TM 5-5420-210-12-HR Feb MOFAB
 TM 5-6115-413-24P Mar Gen Set: 7.5-KW, 28-V DC, Gas, Wheel Mtd Bendix Mods 59B2-1-A, 59B2-1-B
 Ch 3, TM 5-6115-465-12 Apr Generator Set, GED, 30 KW
 TM 5-6675-210-15-HR May Theodolite Wild Heerbrugg Mod T/A
 Ch 6, TM 9-1015-203-12 Mar M101/M101A1 Howitzer
 Ch 9, TM 9-1015-215-12 Mar Mortar, 4.2 Inch
 Ch 8, TM 9-1015-223-12 May Rifle, Recoilless, 90-MM, M67
 Ch 6, TM 9-1425-470-12 Feb TOW
 TM 9-2320-216-20P Dec M151 Series 1/2-Ton Trucks
 TM 9-2350-217-10N Dec M109/M109A1
 TM 9-6920-466-12 Jan Shillelagh
 TM 9-6920-466-24P Apr Shillelagh

TM 11-1520-237-23-1 Apr Avionics on UH-60A
 TM 11-1520-237-23-2 Apr Avionics Fault Isolation on UH-60A
 TM 11-5805-359-14 Apr AN/TCC-62 Telephone Radio Sets Terminal Set
 TM 11-5815-309-24P Apr AN/MGC-32 Teletypewriter Terminal
 TM 11-5820-401-10-1R Jan AN/VRC-12, -43, -44, -45, -46, -47, -48, -49
 TM 11-5820-497-20P Mar RT-505/PRC-26 Receiver-Transmitter
 TM 11-5840-281-20P Apr Org AN/TPN-16 Radar
 TM 11-5855-253-10 Apr AN/TAS-6 Infrared Night Vision Sight
 TM 11-5860-201-10 Apr AN/GVS-5 Laser Infrared Observation Set
 TM 11-5860-201-10-HR Apr AN/GVS-5 Laser Infrared Observation Set
 Ch 2, TM 11-5965-280-15 Jan H-189/GR Handset

Ch 1, TM 43-0143 Jan EIR and Maintenance Summary, TARCOM Eapt
 TM 55-1500-340-PMS Nov U-21A, U-21G, RU-21A, RU-21B, RU-21C, RU-21D, and RU-21H
 TM 55-1520-210-23-1, 2 Feb UH-1D/H, EH-1H
 TM 55-1520-227-PM Apr CH-47B, CH-47C
 TM 55-1680-322-12 Aug Distress Marker Light Part No. SDU-5/E
 TM 55-2840-229-23P Feb Engine, Gas

Turbine T-53
 TM 55-2840-234-23P Mar Engine, Aircraft, Gas Turbine T-55
 TM 55-2840-241-23P May Engine, Aircraft, Turboshaft T-63
 TM 55-2840-248-23P Apr Engine Assembly 1700

MISCELLANEOUS

DA Poster 750-75 Dry-Cell Battery PM
 LO 5-6115-465-12 Feb Generator Set, DED, 30 KW
 LO 9-2320-260-12 Mar M809 Series 5-Ton Trucks
 SC 4935-92-CL-001-HR Dec Guided Missile, Org Maint Set
 SC 4940-95-CL-A08-HR Feb Organizational Maintenance, Supplemental No. 2
 SC 5180-95-CL-A47-HR Tool Kit Org Maint, Chaparral
 SC 5180-95-CL-A47-HR Mar Tool Kit Org Maint Chaparral
 SC 5180-95-CL-A51-HR Feb Tool Kit, Turb Mechanic's
 TB 43-0142 Apr Safety Inspection, Teleg of Lifting Devices
 TB 55-1520-201-20-13 Apr Inspect Travel Elevator Conn Link U-8D, U-8G, U-8F, RU-8D
 TB 55-1520-227-20-18 Apr One-time Inspect CH-47C Combining Transmissions

AUDIO-VISUAL STUFF

Available at battalion or post Learning Center

TV Tapes, Film, GTA

TVT 10-51 Forward Area Refueling Equipment System (FARE)
 TVT 10-53 Tank And Pump Unit, Part I
 TVT 10-54 Tank And Pump Unit, Part II
 TVT 11-111 Intro To Tac Auto Switching AN/TTC-38
 TVT 55-103 M911 (C-HET), Part I
 TVT 55-104 M911 (C-HET), Part II
 TVT 55-105 M911 (C-HET), Part III
 TVT 55-106 M911 (C-HET), Part IV
 TVT 55-107 M911 (C-HET), Part V
 TF 9-6099 Safe Operations, Gama Goat
 GTA SLC 10-1-6 Field Range And M2 Burner

TEC LESSONS

010-071-1102-F Combat Loading APC
 020-171-5312-F M50 Periscope (M60A2)
 030-051-6418-F Ribbon Bridge/Raft (assembly) Part I
 041-061-6000-F M102 Howitzer
 043-441-1014-F PM, Operation Generator 1.5-KW, 28-VDC (Vulcan APU)
 101-113-4778-A Measuring Resistance With Multimeter ME-26
 412-061-7953-F SR-56 Calculator, Part I
 431-113-7351-J Radiac AN/PDR-27
 610-091-6252-J Timing Injector Pump, Multifuel Engine, Adjust Idle
 610-091-6253-J Multifuel

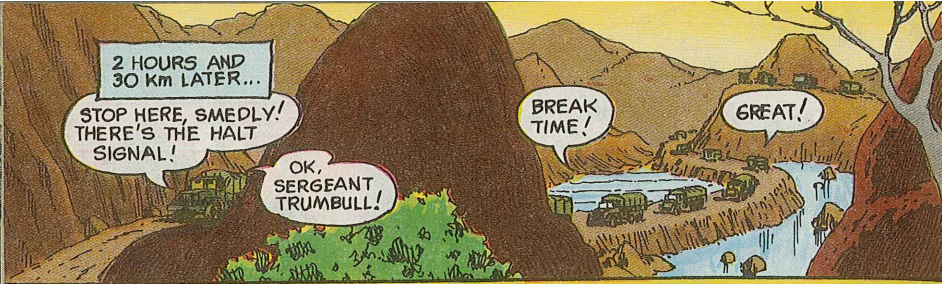
Engine Injector Nozzle, M-35 Truck
 611-091-6103-J M60-Series Tank Stall Test
 611-091-6104-J Transmission Oil Pressure Checks, M60-Series
 611-091-6105-J Check, Adjust Shift Linkage, M60-Series
 611-091-6106-J Adjust L-200 Reverse Range Bands, M60-Series
 611-091-6108-J Check, Adjust Brake System, M107, M110 Army
 611-091-6109-J Bleeding Hyd Brake, M60-Series
 611-091-6110-J Brake Adjustment, M60-Series
 642-091-5801-J Troubleshoot Gun Traverse, Elevate Control Circuit (M107 Gun, M110 HOW)
 642-091-5804-J Troubleshooting The Oil Pump Motor

Circuit (M107 Gun And M110 Howitzer)
 643-091-5710-J Troubleshooting M60A2 Tank Turret Cupola (STAB)
 645-093-7257-F How To Load Ammo On A Truck
 645-093-7288-J How To Prepare A Report Of Item Discrepancy (ROID)
 800-101-6408-F M2 Burner Unit
 800-101-8412-F M59 Field Range Components Identification
 800-101-8433-F M59 Field Brake, Before, During Op
 944-091-0007-F Before Op PM, M880 1/2-Ton Truck
 953-071-0065-J AN/PVS-2 Starlight Scope With M16A1 Rifle, M60 Machinegun
 953-071-0066-J AN/TVS-2 Starlight Scope With Cal .50 Machinegun



Crying In The Rain?

Use NSN 2540-00-498-8627 to get the 18-in windshield wiper blade refill for your M880-series 1 1/2-ton truck. The NSN listed on page 2-171 of TM 9-2320-266-20P (Feb 78) is for a 13-in refill. Jot down the NSN till your TM is changed.



2 HOURS AND 30 km LATER...

STOP HERE, SMEDLY! THERE'S THE HALT SIGNAL!

OK, SERGEANT TRUMBULL!

BREAK TIME!

GREAT!



GIVE OUR DEUCE - AN'-A-HALF A WALK-AROUND!...

RIGHT ON!

I'M GOIN' BACK T'CHECK ON OUR OTHER VEHICLES!

I'LL TAKE MY TRUSTY -10 TM AND GTA 9-1-185 (1-8) AND START...

HMM-- THAT ENERGY CRUNCH BACK HOME... DEUCY IDLING AWAY... BURNING FUEL... HMMM...

...I'LL SHUT TH' ENGINE DOWN AN' SAVE ENERGY WHILE WE'RE STOPPED...



FIVE MINUTES LATER...

YUP- EVERYTHING'S OK... TIGHTENED A COUPLA BOLTS AN' A LUG NUT...

GOOD! OL' DEUCY'S IN FINE TUNE-- I CAN'T EVEN HEAR TH' ENGINE RUNNING --

IT AIN'T RUNNIN'--!

OH, NO!

DID IT DIE?

WALK AROUND COMPLETE...

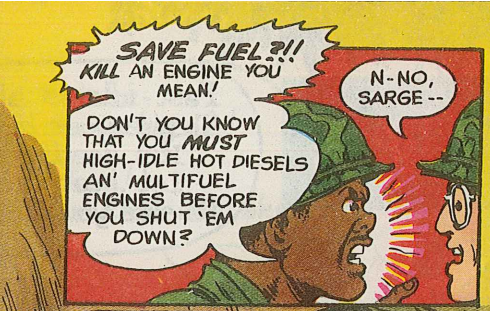
JUST IN TIME TOO...

HERE COMES SARGE!

NO, SARGE-- I SHUT IT OFF...

...TO SAVE FUEL!!!

YOU WHAT?



SAVE FUEL?! KILL AN ENGINE YOU MEAN!

N-NO, SARGE--

DON'T YOU KNOW THAT YOU *MUST* HIGH-IDLE HOT DIESELS AN' MULTIFUEL ENGINES BEFORE YOU SHUT 'EM DOWN?



ODD-- IT WON'T START...

TH' AGE OF MIRACLES IS PAST!

SERGEANT TRUMBULL, GET THAT TRUCK MOVING... THE BREAK IS OVER!



CAN'T, MAJOR SMITH, THIS ENGINE WON'T GO-- LOOKIT TH' WATER!

?

ISN'T THAT NICE...

... THE LEAD VEHICLE OF OUR CONVOY COMPLETELY BLOCKS THE NARROWEST ROAD SOUTH OF THE DMZ!

WE SURELY CAN'T BACK-UP THIS CONVOY ALL TH' WAY TO CAMP WHITE CLOUD!

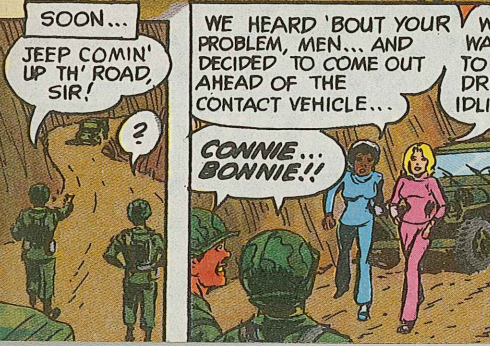


SERGEANT, GET IN TOUCH WITH BASE AT CAMP STACEY AND REQUEST A WRECKER BE SENT UP THE OTHER WAY TO UNCORK THIS BOTTLENECK!

YES, SIR!

SMEDLY-- YOU HEARD TH' MAJOR!

? GULP? RIGHT AWAY--



SOON... JEEP COMIN' UP TH' ROAD, SIR!

WE HEARD 'BOUT YOUR PROBLEM, MEN... AND DECIDED TO COME OUT AHEAD OF THE CONTACT VEHICLE...

WHILE YOU WAIT, WE'D LIKE TO BRIEF YOUR DRIVERS ON IDLING DOWN!

CONNIE... BONNIE!!

Joe's Dope Sheet

Fast-idle is all it'll take
To give your big engine a break!
It's deadly to stop...
Let heat take a chop!
Be sure you don't make that mistake!

THANKS,
CONNIE...
HEAT
KILLS
ENGINES!!

TELL IT LIKE
IT IS...
SAVE OUR
ENGINES!

CONNIE ...
ALSO TELL 'EM TO... HIGH-IDLE AT
1000 TO 1200 RPM
FOR 2 TO 5 MINUTES
BEFORE SHUTDOWN!

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

IF YOU WANT TO ENJOY THE BENEFITS OF YOUR EQUIPMENT...

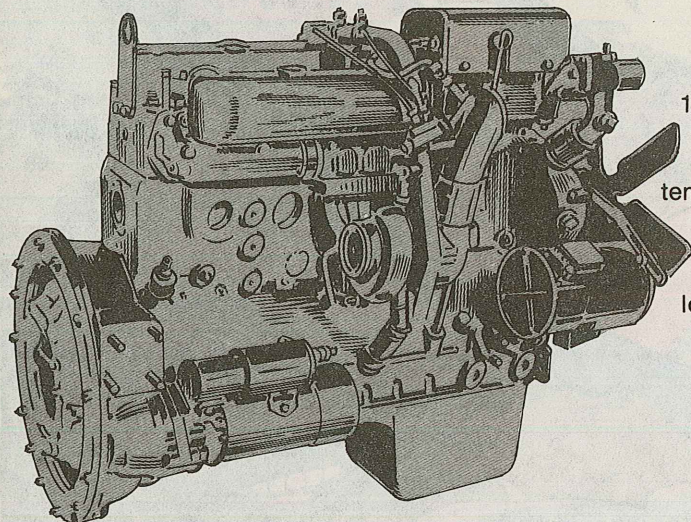
GATHER 'ROUND,
ALL YOU WHEEL AND
TRACK TYPE VEHICLE
OPERATORS...

HASTE MAKES WASTE
WHEN YOU SHUT DOWN
A LIQUID-COOLED
DIESEL OR MULTIFUEL
ENGINE WHILE IT'S
STILL HOT—ABOVE
180° F!

LIQUID-COOLED ENGINES

The heat from the block will turn the coolant in the water jacket to steam. The locked-in heat can crack or warp the head, or valves, or ruin head gaskets, or carbon up rings, or cause fuel injector nozzles to plug up.

Some liquid-cooled diesel engines—like in the Gama Goat—have aluminum blocks. Heat will damage an aluminum block faster than an iron one.



Run at
1,000 RPM
until
your
temperature
gauge
shows
180°F or
lower. Idle
down,
then
shut
down.

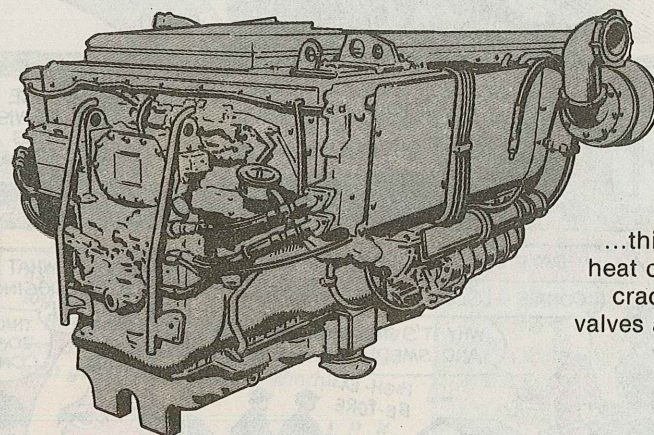
Diesel engines in vehicles like the M109 or M113A1 family really need the idle-cool shutdown treatment. They've been put down in a hole where air can't flow around them. If these engines are shutdown hot, there's no place for the heat to go. Idle-cool them at about 1,000 RPM for 2 minutes, then at 650-700 RPM until the temp gauge is at 180°F or lower.

SHUTTING DOWN
AN AIR-COOLED DIESEL
ENGINE WHILE IT'S HOT
IS JUST AS BAD...

AIR-COOLED ENGINES

Engine lube oil, special fins or baffles, and a fan or blower are used to cool these engines.

When you shutdown, the oil stops flowing. It can no longer carry away heat from the block. The fan quits blowing cool air over the engine. The heat's locked up in the head and block because the fins can't carry it away fast enough...



...this locked in
heat can warp or
crack heads or
valves and carbon
up rings.

Idle-cooling is real important for that big air-cooled, turbocharged, rear-mounted, inclosed 1790 diesel engine used in tanks and recovery vehicles. Idle-cool 3 to 5 minutes at 1000 to 1200 RPM before shutdown.

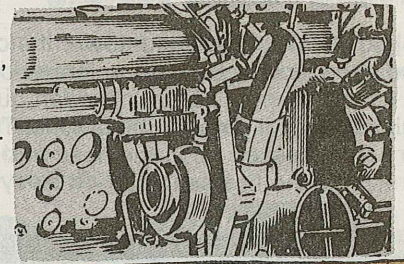
Always follow your -10TM. If it tells you to idle-cool before shutdown, you owe it to your engine's life to do it.

IDLE - COOLING IS REAL IMPORTANT TO THE BEARINGS IN YOUR ENGINE'S TURBO-CHARGER!

THAT TURBO-CHARGER IS LUBED BY THE ENGINE'S OIL!

TURBOCHARGED ENGINES

When the engine stops, the oil flow stops. The turbocharger spins as fast as 50,000 RPM.



It takes a few minutes for the turbocharger to slow down. The shaft bearings must have oil during slow down.

HERE COMES TH' WRECKER NOW...

GOOD!... WHEN YOU RETURN FROM YOUR EXERCISE, LOOK US UP IF YOU HAVE ANY QUESTIONS!

WE WILL BE VISITING THIS AREA FOR A WEEK!

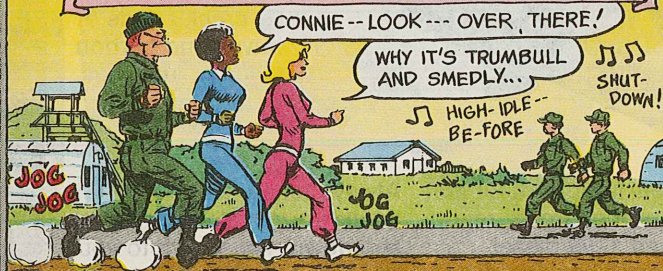
EARLY AM, A FEW DAYS LATER, AT CAMP STACEY...

CONNIE -- LOOK --- OVER, THERE!

WHY IT'S TRUMBULL AND SMEDLY...
HIGH-IDLE -- BE-FORE
SHUT-DOWN!

GOODNESS! WHAT STYLE OF JOGGING DO YOU CALL THAT?

THAT'S NOT JOGGING, CONNIE!



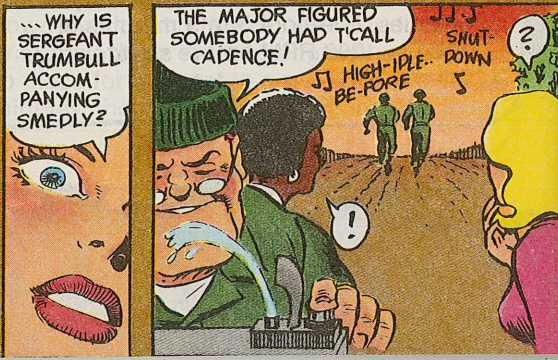
SO'S TO HELP HIM LEARN HOW TO SHUT DOWN HIS DIESEL, MAJOR SMITH SUGGESTED THAT SMEDLY DOUBLE-TIME DOWN TO THE MAIN-GATE AND BACK -- BEFORE AND AFTER DUTY HOURS FOR A WEEK...

B-BUT...

... WHY IS SERGEANT TRUMBULL ACCOMPANYING SMEDLY?

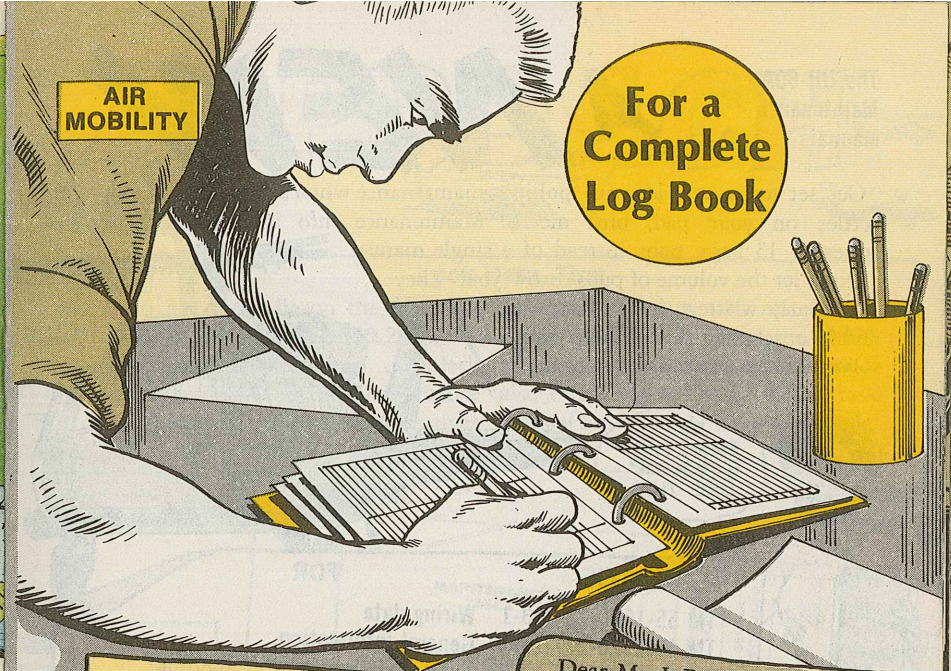
THE MAJOR FIGURED SOMEBODY HAD T'CALL CADENCE!

HIGH-IDLE.. BE-FORE
SHUT-DOWN



AIR MOBILITY

For a Complete Log Book



Dear Windy,
Appendix E of TM 38-750 (May 78) lists all the forms required in an aircraft log book.
But where can we find a complete list of the required publications that also go in the log book, Windy?

CW2 J. P. K.

Dear Mr. J. P. K.,
What you're looking for is AR 750-31 (Oct 78) on tech pubs for aircraft files. Para 4 lists the forms you need, plus the pubs required.
For example, the PMS checklists go in the log book. Other pubs are located according to local SOP.

Windy

AVUM DA 2407

If you're working in an OCONUS AVUM (Aviation Unit Maintenance) shop, don't let the old maintenance levels throw you when you're filling out a DA Form 2407 Monthly Maintenance Report.

HERE'S YOUR RULE OF THUMB...

If your MAC says the job is done at AVUM level, it goes on your Organizational Monthly Maintenance Report.

The UH-60A
Maintenance
Manuals...

A NEW

Get set for a new idea in pulling maintenance when a new Black Hawk settles on your pad, bird mechs. Maintenance info is included in a series of 13 basic pubs instead of a single manual.

Don't let the volume of pubs throw you! They are clearly written, fully illustrated, and the schematics will help you solve maintenance problems.

THE
BASIC PUBS
STACK UP
LIKE THIS...

USE

- TM 55-1520-237-23-1
- TM 55-1520-237-23-2
- TM 55-1520-237-23-3
- TM 55-1520-237-23-4
- TM 55-1520-237-23-5
- TM 55-1520-237-23-6
- TM 55-1520-237-23-7
- TM 55-1520-237-23-8
- TM 55-1520-237-23-9
- TM 55-1520-237-23-10
- TM 11-1520-237-23-1
- TM 11-1520-237-23-2
- TM 11-1520-237-23-3

FOR

- Wiring data
- General information
- Fault isolation (troubleshooting)
- Tasks: Servicing, ground handling, air transportability, general maintenance
- Tasks: Airframe, landing gear
- Tasks: Powerplant, fuel
- Tasks: Powertrain
- Tasks: Hydraulics, flight controls
- Tasks: Electrical, instruments
- Tasks: Structural repair
- General avionics information
- Avionics Fault isolation (troubleshooting)
- Tasks: Avionics

Course, the 237-series pubs, intermediate Maintenance. Information written for the 3-level maintenance locators, with page edge marks on the concept, include both Aviation Unit first page of each manual, lead you Maintenance and Aviation In- quickly to your area.

Page edge marks are new—and useful

AREA NO. 1

AREA NO. 2

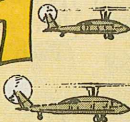
AREA NO. 3

AREA NO. 4

AREA NO. 5

AREA NO. 6

APPROACH



Look Here, First

To get a handle on the manuals, you the important task matrix (job focus-in on TM 55-1520-237-23-2. chart). Each job lists the MOS You'll find general info on Black requirement and maintenance level. It Hawk systems and the maintenance also refers you to the applicable task allocation chart. Fig 1 in the pub gives manual for detailed maintenance info.

Task matrix chart is a key job sheet

TM 55-1520-237-23-2

Section 1

MAINTENANCE TASKS	MOS	MAINTENANCE LEVEL	Refer to TM55-1520-237-		
			GENERAL INFORMATION	FAULT ISOLATION	MAINTENANCE
INTERMEDIATE GEAR BOX CHIP DETECTOR SYSTEM					
Check/Replace	67T	AVUM			
Fault Isolation Procedures	67T 68F	AVUM		23-7	
IR SUPPRESSION KIT					
Description			23-3		23-1
Maintain		AVUM	23-2		
LANDING GEAR	67T	AVUM			23-4
Description					
LANDING GEAR FAIRINGS/STEPS		AVUM	23-2		
Replace					
LIGHTING SYSTEMS, EXTERIOR	67T	AVUM			23-5
Anti-Collision Lights - Description		AVUM	23-2		
Anti-Collision Lights - Fault Isolation Procedures	68F	AVUM		23-3	23-1
Anti-Collision Lights - Maintain	68F	AVUM			
Controllable Searchlight - Description		AVUM	23-2		23-9
Controllable Searchlight - Fault Isolation Procedures	68F	AVUM		23-3	
Controllable Searchlight - Maintain	68F	AVUM			23-1
Description		AVUM	23-2		23-9

Figure 1-9. Maintenance tasks matrix (sheet 18 of 36)

The task pubs include requirements for manpower, supplies and tools. Each task pub is written for a specific MOS. A crew chief, tho, will be using the whole set. The convenient size lets you tote 'em right to the bird when pulling PM.

TASK 1 TM 55-1520-237-23-7

TASK 1

MAIN ROTOR BLADE - REMOVE/INSTALL

- REMOVE - STEP 1
- INSTALL - STEP 2

MANPOWER

- Two Men Required: **MOS 67T** - Tactical Transport Helicopter Repairer Assistant

SUPPLIES

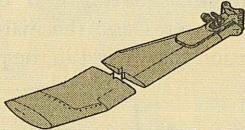
- Lockwire, MS20995NC32 (STEP 2)

TOOLS

- Adapter, 70700-20426-041 (STEP 1)
- Aircraft Mechanic's Toolkit, NSN 5180-00-323-4692
- Hoist, Enough Capacity to Support Main Rotor Blade
- Maintenance Crane, 70700-20300-042 (Alternate For Hoist)
- Blade Clamp Assembly, 70700-20324-041
- Torque Wrench, 150 - 750 in. lbs, NSN 5120-00-821-3441 (STEP 2)

ALSO NEEDED

- Fish Scale, Up To 35 Pounds (STEP 2)
- Holding Fixture or Padded Area to Support Removed Blade (STEP 1)
- TASK 3 (STEP 2)
- TASK 4 (STEP 2)
- Small Workstand



5 44622 (0)

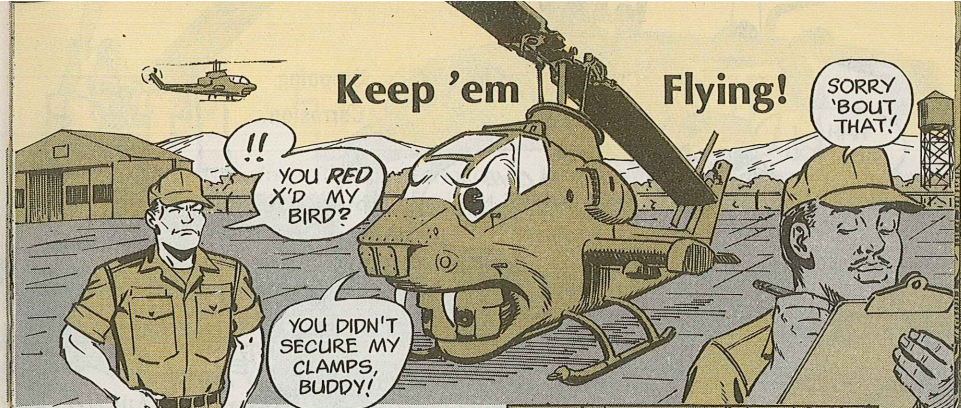
Task pubs spell out the requirements 1-1

Look Here, Next

TM 55-1520-237-23-3 has fault isolation, alphabetical and malfunction indexes to steer you to the cause of a maintenance problem. The schematics are something else...just what the doctor ordered. The MOS, maintenance level, and task pubs are again referenced—in Fig 1.

See Other Pubs, Too

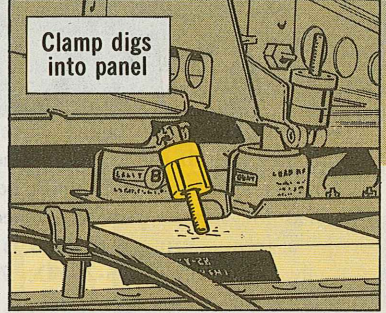
You'll find the parts you need for your bird in TM 55-1520-237-23P. The T-700 engine pubs are TM 55-2840-248-23 and -23P. TM 55-1520-237-PMS-1 has a 10-hr/5-day inspection. The bird is divided into 6 areas. Normally, 2 tactical transport helicopter repairers (MOS 67T) pull this inspection. The other inspection is a 500 flying-hr Periodic, listed in TM 55-1520-237-PMS-2. An aircraft power plant repairer, electrician, and avionics mechanic will assist you MOS 67T's. Yessir-e-e-e, there's a lot to like about the new manual system. Although you will handle more pubs, what's in 'em makes it all worth while.



When you avionics types remove the TSEC/KY-28 voice discriminator from an AH-1S for local flying, make with some lock wire on the airframe.

How come? Well, if you fail to secure the 2 retaining clamps, they'll dig holes in the honeycomb panel mount and lay the bird up for repairs.

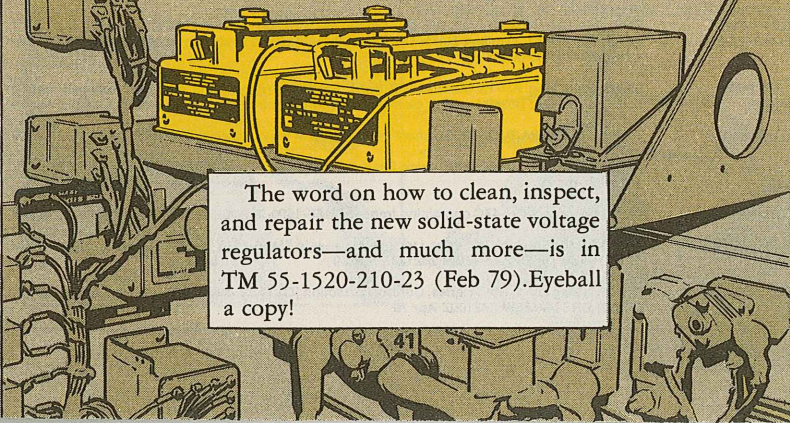
To prevent vibration from doing its worst, secure the clamps upright with lock wire—every time!

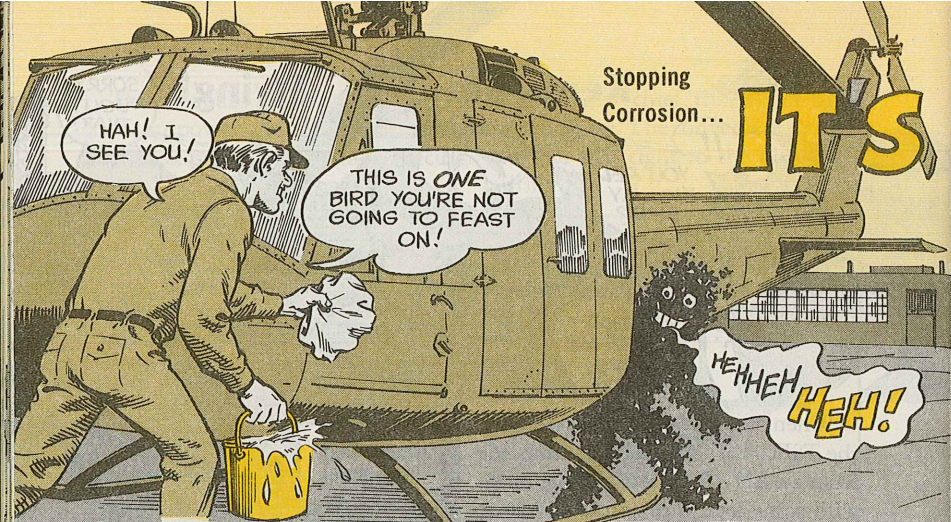


For a Better Look

You can actually cut down on Cleaning compound, NSN 7930-00-plexiglass replacements for your 570-9355, will actually remove minute aircraft by using an 8-oz squeeze bottle cracks (crazing) and give you an of plastic polish—after a wash job. unclouded look to the outside.

New Huey Pub Here!





Stopping
Corrosion...

IT'S

The corrosion villain begins hovering over your thin-skinned birds the minute they roll off the assembly line—and poses a threat forever more.

Corrosive agents are continually being deposited on the metal surfaces of your bird. Magnesium parts are especially vulnerable. The best way to keep corrosion from getting a toehold is to move your bird to the wash rack, routinely. TM 55-1500-333-24 (Oct 74) has the word on cleaning aircraft.

Local environmental conditions dictate how often a wash job is needed, tho. In coastal areas salt-laden air means cleaning the bird weekly—or more often. Air pollution in a heavy industrial area calls for a weekly wash.

At all other locations, a monthly cleaning is recommended, according to Para 2-9 of TM 43-0105 (Apr 76) on corrosion control. An ideal clean-

Safety-of-Flight Messages

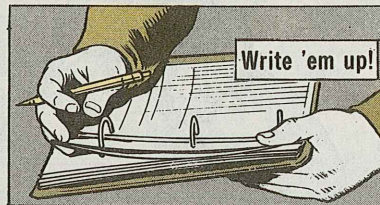
UH-1-79-5 AH-1-79-4	Operational Msg UH-1H/M, EH-1H, AH-1G, TH-1G, Failure of P1 bellows fuel control on T53-L-13B engine DRSTS-MEP 131830Z Apr 79
UH-1-79-6 AH-1-79-5	Tech Info UH-1H/M, EH-1H, AH-1G, TH-1G, Ground and flight checks to indicate possible P1 bellows problems, to relieve current op Restrictions Imposed by Message UH-1-79-5 and AH-1-79-4 DRSTS-MEP 270003Z Apr 79
AH-1-79-3	Maint Advis Msg AH-1S Mod, AH-1S Prod, Sealing of panels and openings between mating surfaces to avoid possible water damage to electric/electron eqpt DRSTS-MEP 111653Z Apr 79
OH-58-79-6	Tech Msg OH-58A/B/C, Replacement of TT straps in main rotor head DRSTS-M 062030Z Apr 79
OH-58-79-7	Maint Advis Msg OH-58 main rotor head outboard seal, NSN 5330-00-131-7267 DRSTS-MEL 171700Z Apr 79
CH-47-79-4	One-time inspect CH-47C combining transm, TB 55-1520-227-20-18 DRSTS-MET 111855Z Apr 79
OV-1-79-4	Op Advis Msg OV-1, RV-1-Series, Unusable pages in TM 55-1510-204-10/3 [Mar 79], TM 55-1510-213-10 [Aug 78] DRSTS-MEW 232120Z Apr 79
NO NUMBER	Op Advis Msg OV-1, RV-1-Series, Control correction [OV-1-79-4 was originally transmitted as OV-1-79-2] DRSTS-MEW 242100Z Apr 79

UP TO YOU!

ing time is during a Phase or Periodic inspection, when the bird is down for extended maintenance.

Course, corrosion is detected and treated during a major inspection. But fighting corrosion is a constant battle that crew chiefs can wage during Daily inspections. You can spot a "dirty" bird that needs a cleaning.

Write up nicks, digs and scratches that expose bare metal...a natural hiding place for corrosion Make a

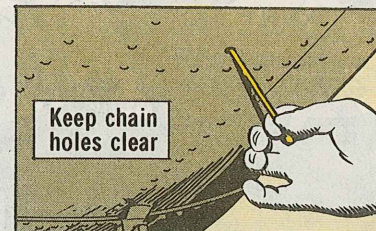


temporary repair by spot painting the damage until a sheetmetal repairman can finish the job. Never paint an area to hide corrosion, tho. A special treatment is required.

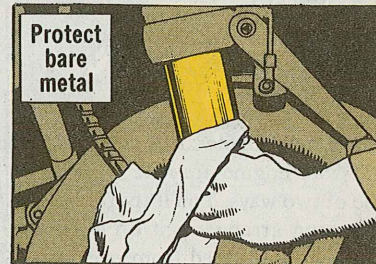
NSN 8010-01-016-1488 will get you a 1-pt spray can of low-reflective OD lacquer. NSN 8010-00-941-8712 gets a pint can of OD lacquer.



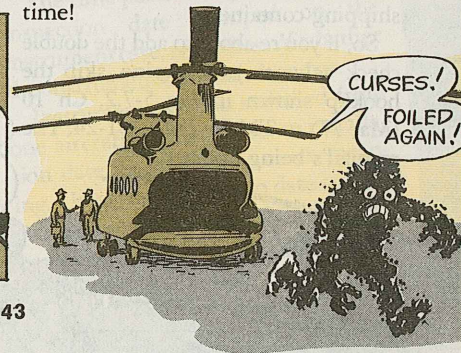
Make sure all drain holes are open so moisture is not trapped...another breeding place for corrosion.



Wipe down exposed metal, like the bare metal parts of hydraulic cylinders. A rag moistened with the type of hydraulic fluid used in your bird will do the trick.



Stop the corrosion villain from setting up housekeeping in your bird by pulling a thorough Daily—every time!



Check Double Check Valve!

ADD A DOUBLE CHECK VALVE?

GREAT!

HMMM--

You want this setup!

The new double check valve on your OH-58A engine may be hooked up one of two ways. You'll spot the latest plumbing arrangement on a T63-A-700 engine shipped from overhaul.

The reason for the change from the original setup is to provide enough clearance so the engine will fit into the shipping container.

So, if you're about to add the double check valve to your engine, skip the hookup shown in Fig 5-7.2, Ch 10 (Mar 77) to TM 55-2840-231-24. The manual's being updated.

Instead, make the hookup according to Fig 5-2 in TM 55-2840-241-23 (Nov 77) on the T63-A-720 engine.

THEN, YOU WON'T HAVE ANY SHIPPING CONTAINER PROBLEMS!

Shelf Time Also Counts!

ISN'T IT ABOUT TIME TO CHECK OUT THE GAGES?

NAHHH! THEY HAVEN'T BEEN INSTALLED THAT LONG! WE GOT PLENTY O' TIME!

BUT IT IS TIME!

Dear Windy,

The altimeter and air speed indicator in our bird have to be inspected and tested by our support outfit every 24 months.

We have a dispute going, tho, about figuring the time period. I say shelf time and installation time count, but my buddy says only installation time counts.

Who's right, Windy?

SGT C. B. A.

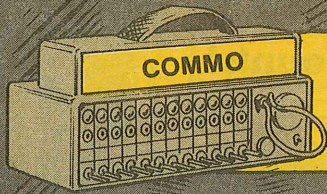
Dear Sergeant C. B. A.,

You are!

The time period is figured from the inspection date stamped on the instrument case, regardless of whether the instrument's installed or not.

Instruments can be switched from one aircraft to another so an installation date wouldn't have much meaning. Using the inspection date assures you of compliance with the 24-month period given in the tech manual for your bird.

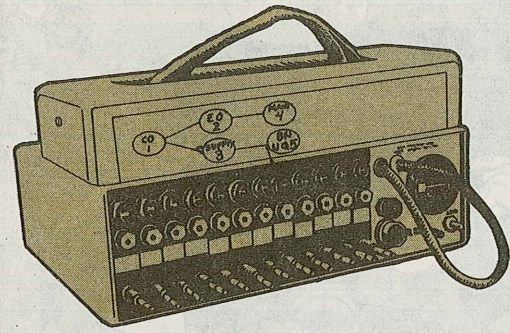
Windy



SB-22
Switchboard
PM Helps...

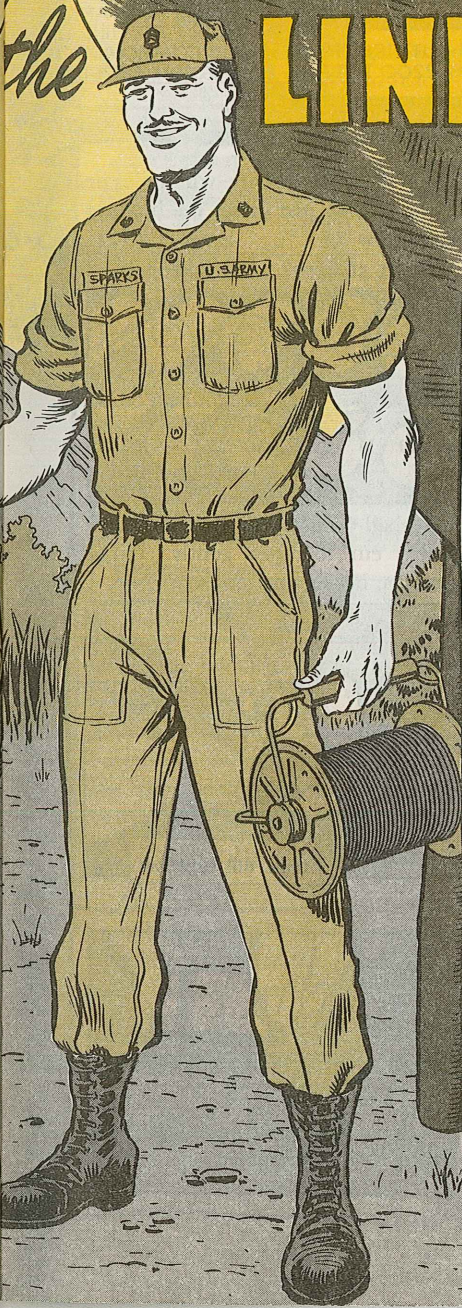
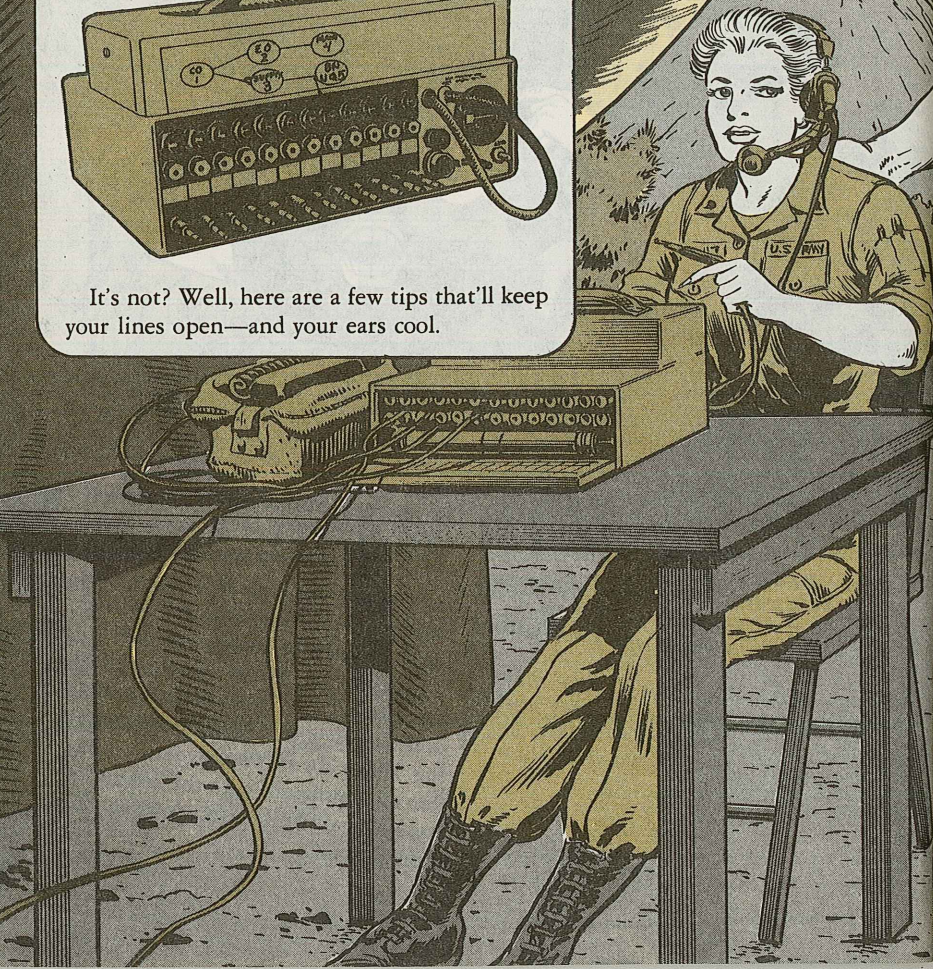
KEEP the LINES OPEN

If your idea of a fun time is telling your CO why he can't get a call through your SB-22 switchboard, read no further.



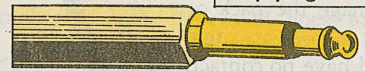
It's not? Well, here are a few tips that'll keep your lines open—and your ears cool.

THE GOOD OPERATOR KNOWS THAT C-L-E-A-N SPELLS MEAN!



PLUG ALONG—Keep plugs clean. Use a piece of treated cotton polishing cloth, NSN 7920-00-985-6849. You'll

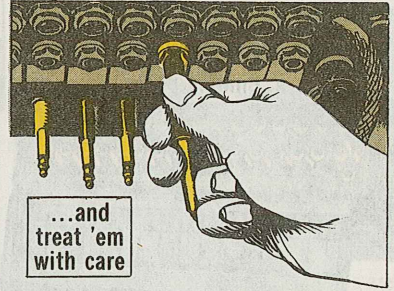
Keep plugs clean...



be surprised how dirty clean-looking plugs can be.

Some cleaners are killers, tho. Avoid using solvents, abrasives or metal polish.

Use the sleeve when plugging and unplugging. Using the cord can break wiring inside.



...and treat 'em with care

Letting the plug fly back into its slot is another no-no.

Are your cord sleeves splitting? You can head off further damage by cutting the sleeve away just above the split. Keep your knife or razor blade off the cord, of course.

When you've clipped the split, taper the sleeve back toward the cord.

I GOT 'NOTHER QUESTION, MACON, 'FORE YOU LEAVE--

ME TOO!

SO'VE I...

B-BUT, TROOPS, IT'S 2200 HOURS...

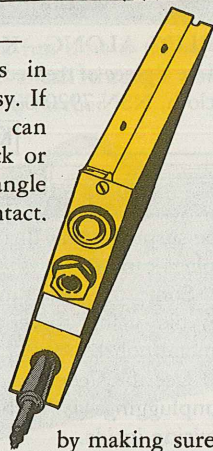
GRRRUMMP!! WHEN IS SPARKS GOING TO WIND UP HIS COMMO ADVICE SESSION, SERGEANT?

WITH THOSE GALS, MAYBE NEXT SPRING, SARGE!

CONTACT!—

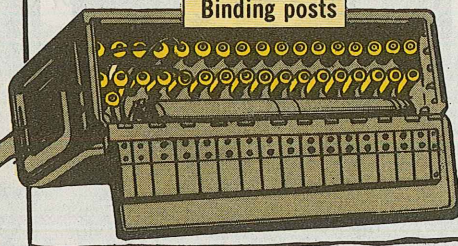
Put line packs in straight and easy. If you don't, you can damage the pack or get it in at an angle and have no contact.

Install line packs carefully



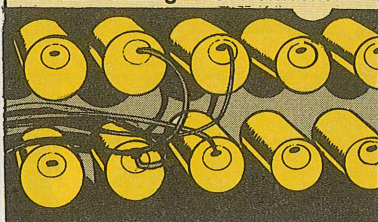
Keep contact by making sure binding posts bind. If they stick, grease 'em. Use a dab of silicone, NSN 9150-

Binding posts

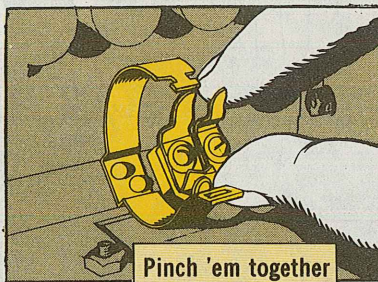


00-257-5358, in the line wire holes or in the hollow just under the binding post screw.

Posts sticking? Use silicone!



Eyeball your battery case clips. Pinch 'em together gently. That'll give you better contact.

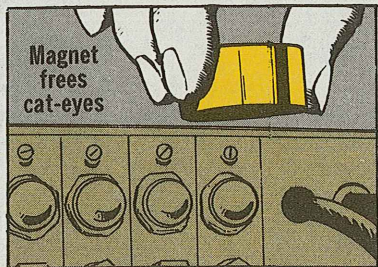


Pinch 'em together

THE EYES HAVE IT—Cateyes sticking? Banging 'em won't help. It might even break the lens. Your best bet is to use a small magnet to move the eye back where it belongs.

Clean the eye and the traffic diagram board with a water-dampened cloth.

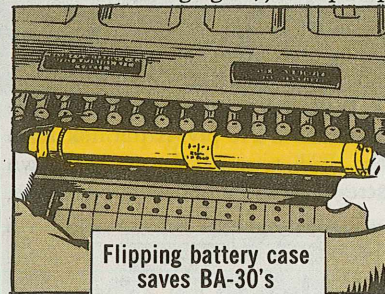
Magnet frees cat-eyes



GROUNDING?—A strip of WD-1 wire is your ground for aluminum cases. Cut it just long enough to reach the rod. Strip 3/4-in of insulation from both ends of the wire and twist both conductors together. Fasten one end to the rod and the other to the set, through the case gasket. If you bypass the gasket, you have to close the back cover over the wire. That springs the cover.

A 6-ft ground wire comes with the new plastic switchboard case. Always leave it connected to the case's ground stud. The free end goes to the ground.

DON'T ASSAULT BATTERIES—If you're getting weak audio or dimming lights, just flip-flop



Flipping battery case saves BA-30's

your battery case. Two of those batteries power the 'board, and 2 are for the telephone. The telephone batteries' reserve is probably still strong. If so, you've saved some BA-30's.

Another battery saver is to switch your headset OFF when you have a scheduled lull in traffic. Leaving it on eats batteries and can KO the transmitter's carbon element.

You can remove the batteries when the set's not in use, too. That'll halt corrosion.

Course, whenever you take out or replace the battery case, go easy or you'll break springs or contacts.

WATCH HEAD(SET) SPACE—

There's just room enough in that cover for you to pack your H-182 headset. Follow the instructions in Fig 25 of TM 11-5805-262-12 (Dec 60).

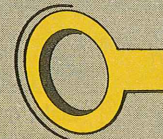
Store H-182/PT carefully



If you cram it in, you have to force on the cover. That can break the headset, or mangle plugs.

Finally, be sure recessed latches are flush with the back cover. If they stick

Keep latches flush



up, they'll break if the switchboard slides across a truck bed or the ground.

Make the Right Connection

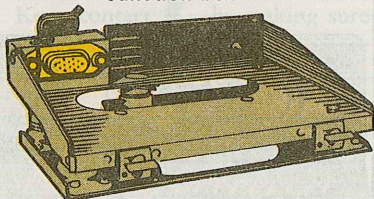
HEY-- YOU STARTED UP WITHOUT SHUTTING OFF BOTH COMMO SYSTEMS!

WOW! YOU PROB'LY FRIED 'EM MAN!

NO SWEAT, GUYS! I'VE GOT TH' RIGHT CONNECTIONS!

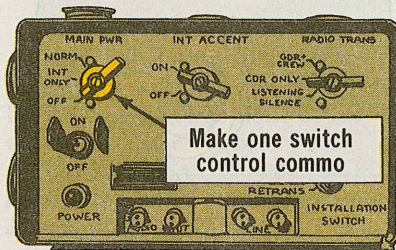
Make things easy for yourself—and your tracked vehicle's radio—by having the right connection in your MT-1029 mount.

Junction box

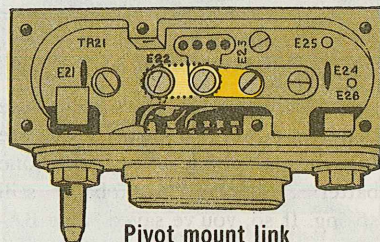


MT-1029 mount

The power control link in your mount's junction box can put on/off control over all your comms in one switch. That's on your intercom's AM-1780 amplifier.



Your organizational man makes the connection. He pivots the link from the E23 terminal board hold-down screw to E22. Before anything is done,



Pivot mount link

tho, be sure power is cut from the mount. Para 2-10b, TM 11-5820-401-12 (Sep 72) has details on the switch.

This switch saves you the hassle of scrambling around to shut off both comms systems before you start your engine.

Natch, if you don't shut off the comms, you risk a zapped receiver-transmitter. The power surge from starting can fry it.

Don't Point

COME IN, DELTA-TEN... COME IN!

GRR-RRR

WHY DON'T THEY RESPOND? I'M POINTING RIGHT AT THEM!

H-HERE I AM, SIERRA NINE-- H-HERE!

¿GULP?

STRANGE-- I'M GETTING AN SOS!

RUWWR-R-R!

It's not nice to point. Everyone knows that. Everyone except the young man with the AN/PRC-90 radio set on page 43 of PS 312.

As many readers have pointed out, the set's pub, TM 11-5820-800-12 (Nov 73) warns against pointing the radio directly at a target. See Fig 3-2 and read para 3-5a(1).

Pointless nitpicking? Hardly. In a rescue situation, this pointing could be fatal.

Point is, to get your SOS signal through, hold your set at right angles to your target—whether testing, or in an emergency.

Wireless?

If your unit's shopping list includes WD-1/TT telephone cable, better check your stock numbers.

wire NSN—have been dropped. The stock on the dropped numbers is gone and won't be renewed.

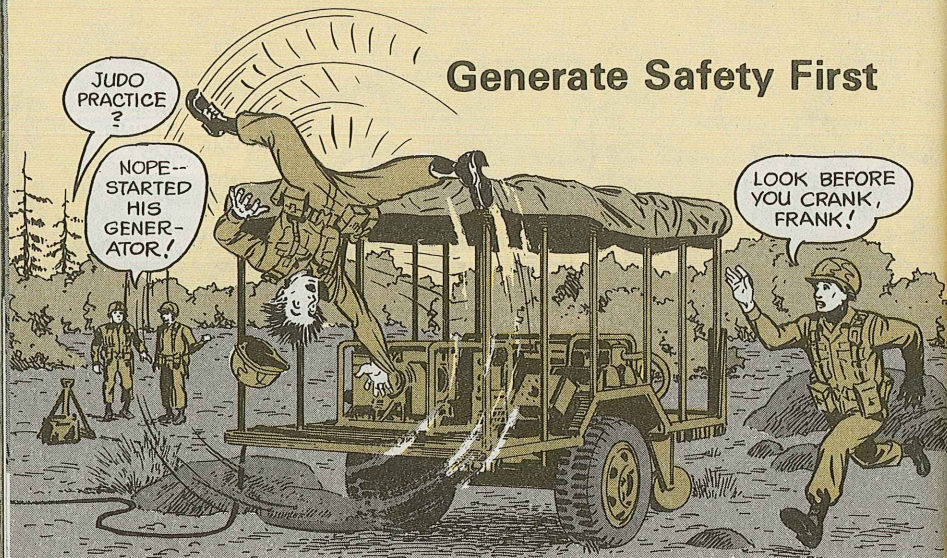
Some old standby's—like the bulk

Good numbers? There are just 4:

NSN	Length	Issued On:
6145-00-226-8812	¼-mi (1,320-ft)	DR-8
6145-00-160-7795	½-mi (2,640-ft)	MX-306/G
6145-00-243-8466	1-mi (5,280-ft)	RL-159
6145-00-174-0949	2½-mi (12,200-ft)	DR-5

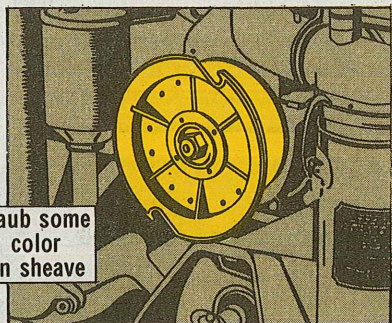
Need more? Less? You'll have to cut or splice.

Generate Safety First



A little look before you crank up your electronic gear's trailer-mounted generator could save you a lot of grief later.

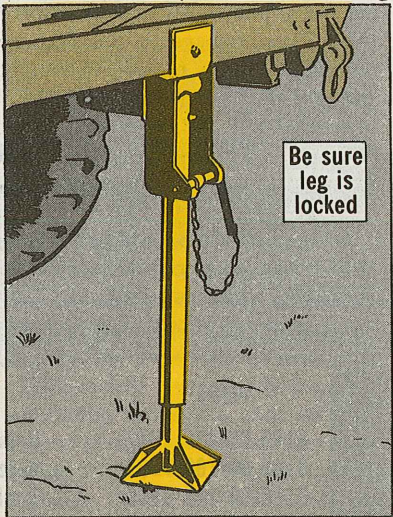
For instance, the starting sheave on smaller generators can grab your sleeve and send you sprawling—maybe onto the power plant. Set up your own early warning system with a little paint. Daub a distinctive color on the face of the sheave to serve as a



Daub some color on sheave

constant reminder of danger. Get your CO's OK, of course.

Then, if your trailer has a rear support leg, be sure it's down and locked before you start climbing



Be sure leg is locked

around inside. If you don't, you're heading for a fall. And the generator could come tumbling after.

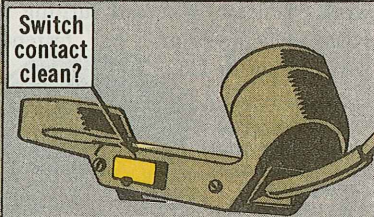
Button Up!

NO WONDER YOU CAN'T RECEIVE --YOUR MESH FUZZ BUTTONS AREN'T MAKING CONTACT!



If they're crushed or separated, your contact's likely to be lost. You can get it back, tho. Just rearrange the mesh with a thin, sharp object. A straight pin will do. Go easy. Those buttons aren't anchored in the handset and replacing them is a support job.

Buttons OK? Maybe the short-stop is your push-to-talk switch. If contacts



are dirty, you can't key your radio.

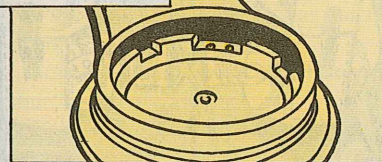
This fix is a job for your support, tho. While they've got it, ask 'em to give your handset a good going over.

Finally, head off contact and corrosion problems. Use your moisture

If your H-189 handset is short-stopping your commo, don't pop your buttons. Give 'em the once over instead.

That's the copper mesh fuzz buttons in your mouthpiece and

Check fuzz buttons



earphone, of course. They're your first line of contact.



shields. Eyeball TM 11-5965-280-15 (Oct 66) for ordering info.

COMBAT
SUPPORT

ALICE...

Snap Fastener PM

Your All-Purpose Lightweight Individual Carrying Equipment—ALICE—has a bunch of snap fasteners that keep protective covers closed, equipment secured and loads adjusted. A lot of web gear is being turned in because fasteners have been pulled out.

A snap fastener that won't close can cause a loss of equipment and extra work. At least, it means turning in your ALICE items for fastener replacement by DS.

YOU CAN SLOW
DOWN THIS TURN-
IN TREND WITH
SHARP-EYED
FASTENER
PM...

...LIKE
THAT OF
THIS
SOLDIER!

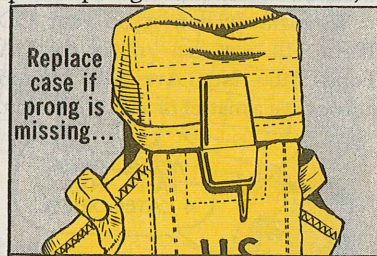
THANKS,
BONNIE...

ALICE gets cleaned up after you make like a snake during your training scenes. When you're cleaning your web equipment like it says in Chap 2, FM 21-15 (Feb 77), don't overlook those snap fasteners.

Small Arms Ammo Case

Extra PM care of your small arms ammo case can stop extra M16A1 magazine cleanup...maybe even an ammo jammo!

Replace a case that has a broken plastic prong on the cover closure, or



Replace case if prong is missing...

Keep sockets and balls clean...

...they both work better

one that has a closure rivet torn out of the cloth.



...or rivets torn out

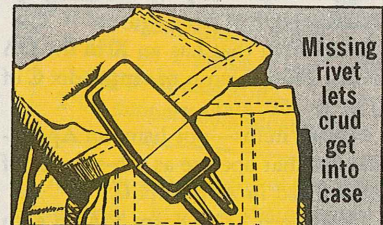
Use a knife blade, pin or sharp pointed object to dig out the sand, mud and dirt that's packed into the fastener socket. You might be able to get out loose stuff by tapping the fastener with a hard object, or by washing it out.

Packed-in gunk in the socket keeps a metal spring from expanding as you push the socket over the fastener ball. No spring expansion...no easy snap closure.

Sure, you can pound the fastener shut.

But when you try to open the fastener you'll jerk or yank on the cloth or tab, and tear the cloth from the fastener.

Either defect lets the case cover peel back. Sand, dirt, leaves, twigs 'n' stuff



Missing rivet lets crud get into case

get into the case and ammo magazines. It means more work and damaged parts replacement.

A Little Simple Addition

SOME PEOPLE THINK YOU HAVE TO BE A MATH WIZARD TO FIGURE NORS AND NORM TIME FOR YOUR DA FORM 2406. BUT NO WAY THAT'S SO.

With timely entries on your DD Form 314, you can make the DA Form 2406 Not Available column entries just a matter of a little addition.

NORS AND NORM TIMES FALL INTO 4 CATEGORIES...

- Organization NORS
- Organization NORM
- Support NORS
- Support NORM

Splitting your not available time that way lets everybody know where the hang-ups are in keeping your equipment combat ready.

So what equipment needs NORS/NORM time?

Any item that has an X in the DA Form 2406 column of Appendix C of TM 38-750, and

Other items—not listed in Appendix C—that operate as sub-systems of gear listed in Appendix C.

You need 1 DD Form 314 on each reportable item and each subsystem. You need a separate form to combine the NORS/NORM for systems.

NORS=
Not Operationally Ready-Supply

NORM=
Not Operationally Ready-Maintenance

DD FORM 314
REGISTRATION NUMBER ADMINISTRATION NO. MONTHS

DA FORM 2406
MAINTENANCE REQUEST

CONTROL NUMBER 204097

REGISTRATION NUMBER ADMINISTRATION NO. MONTHS

DATE RECEIVED RECEIVED FROM

REGISTRATION NUMBER ADMINISTRATION NO.

Para 3-3 OF TM 38-750 GIVES YOU 3 SYMBOLS TO USE FOR NORS/ NORM TIME...

For example, you may have an M151A1 with a mounted AN/VRC-47. The M151A1 is listed in Appendix C under Equipment Category Code (ECC) HB and Line Item Number (LIN) X60833. The radio is not listed. So you have a reportable truck system with a radio subsystem.

You need a DD Form 314 on the M151A1 and a separate DD Form 314 on the AN/VRC-47. You keep track of periodic services on the front of each form—the truck's, on the truck DD Form 314; the radio's, on the radio DD Form 314. Each separate item's NORS/NORM time goes on the back of its form.

You keep a third system DD Form 314 to combine their NORS/NORM time.

For single items, a single DD Form 314 is enough.

OK, you know where to keep NORS/NORM time, now how do you keep it?

Para 3-3 OF TM 38-750 GIVES YOU 3 SYMBOLS TO USE FOR NORS/ NORM TIME...

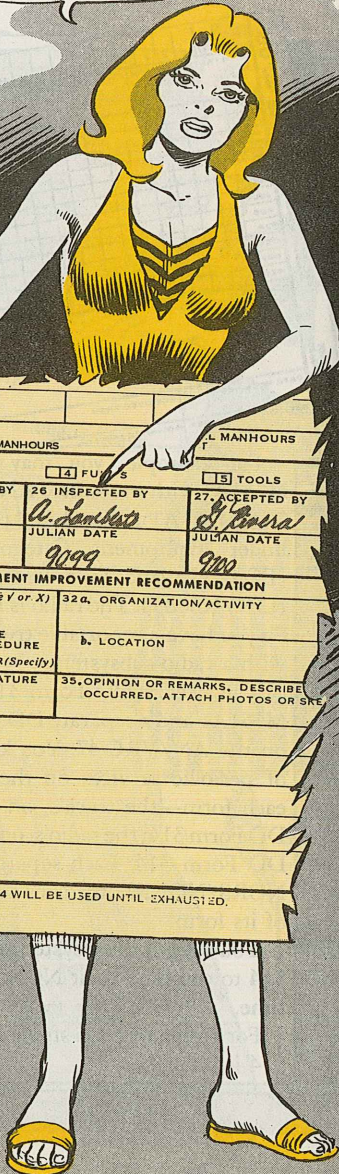
- 0 for organizational NORM
- 0 with an s inside ⊙ for organizational NORS
- X for support nonavailable time

As long as you control the equipment, you know if maintenance is being performed (NORM), or if it's not available until a part or component comes in (NORS). But when that

item goes to support, all you know is that the equipment is not available. Until the equipment is fixed—and support tells you what took so long—you won't know how much time was for maintenance and how much for supply.

Support usually tells you how to account for the time in Block 35 of the copy of the DA Form 2407 that support sends back to you. The total time must cover each day the equipment was at support—from the date in Block 24 to the date in Block 26—including those 2 days:

SUPPORT NORS/NORM TIME INCLUDES ALL THE TIME FROM BLOCK 24 THROUGH BLOCK 26.



21. DELAY (Select one—use Y or X) <input type="checkbox"/> PARTS <input type="checkbox"/> MAINTENANCE		TOTAL MANHOURS		L MANHOURS	
23. SUBMITTED BY <i>A. Thomas</i>	24. RECEIVED BY <i>J. Bohannon</i>	25. WORK STARTED BY <i>P. Hansen</i>	26. INSPECTED BY <i>A. Lambert</i>	27. ACCEPTED BY <i>S. General</i>	
JULIAN DATE 9096	JULIAN DATE 9096	JULIAN DATE 9098	JULIAN DATE 9099	JULIAN DATE 9100	
SECTION III - EQUIPMENT IMPROVEMENT RECOMMENDATION					
29. NORMAL REPLACEMENT (Select one—use Y or X) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		30. EIR (Select one—use Y or X) <input type="checkbox"/> EMERGENCY <input type="checkbox"/> URGENT <input checked="" type="checkbox"/> ROUTINE		31. RECOMMENDATION (Select one—use Y or X) <input type="checkbox"/> IMPROVE DESIGN <input type="checkbox"/> REVISE PROCEDURE <input type="checkbox"/> MODIFY <input type="checkbox"/> OTHER (Specify)	
33. NATIONAL STOCK NUMBER		34. NOUN NOMENCLATURE		35. OPINION OR REMARKS. DESCRIBE OCCURRED. ATTACH PHOTOS OR SKETCHES.	
		NORS 3		NORM 1	

Maybe support's still working on your equipment when the DA Form 2406 comes due. They'll tell you how to charge the time—up to the report's due date—on a DA Form 2418.

Each day the equipment's been at support, you've put an X in that day's block on the DD Form 314. Now you have an actual breakdown for NORS and NORM.

DD FORM 314 PRECEDING EDITIONS OF THIS FORM MAY BE USED	REGISTRATION NUMBER	ADMINISTRATION NO.
	JAN	
	FEB	
	MAR	
	APR	X X X X
	MAY	
	JUN	
	JUL	
	AUG	
	SEP	
	OCT	
	NOV	
DEC		
REMARKS		

Put an X in that day's block for each day the equipment is at support.

Make a block, box or note in the Remarks Block of the DD Form 314 showing the actual number of days used for supply and maintenance.

DD FORM 314 PRECEDING EDITIONS OF THIS FORM MAY BE USED	REGISTRATION NUMBER	ADMINISTRATION NO.
	JAN	
	FEB	
	MAR	
	APR	
	MAY	
	JUN	
REMARKS		
SUPPORT NORS 3 NORM 1		

Make a block, box, or note in the Remarks Block showing the actual NORS/NORM breakdown during the time support had your equipment.

DATE RECEIVED	RECEIVED FROM
---------------	---------------

Could be, though, that when you try to transfer that information to the system DD Form 314, you run into a problem. Your truck was at support while your radio was down for a part your PLL clerk had on order. What do you do?

Until that radio part comes in, mark your radio's DD Form 314 for organizational NORS.

On your truck's DD Form 314, mark the days for support maintenance. Your system DD Form 314 can only handle one symbol for each day, though. You have to choose between the support NORM and organizational NORS symbol.

Figure it this way: Any time part of the system is down for support, charge the whole system that way. Put an X on the system DD Form 314 for each overlapping day.

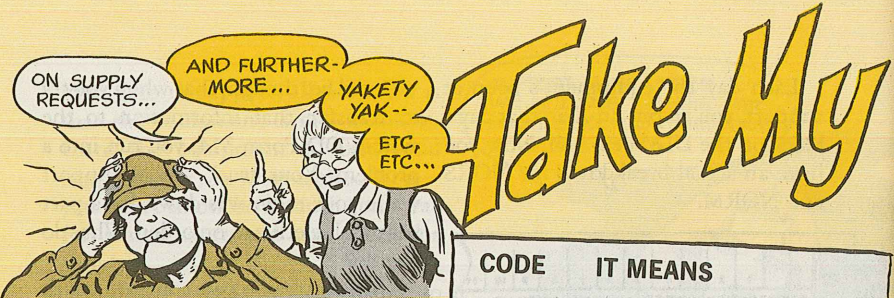
Then, when support tells you how many of those days were for NORS and how many NORM, mark that on your DD Form 314, too.

Any time your not available time overlaps for NORS and NORM, organization or support...

CHARGE THE TIME IN THIS ORDER...

1. Support NORS
2. Support NORM
3. Organization NORS
4. Organization NORM

As long as you keep your system DD Forms 314 up to date, filling out the Not Available time on your DA Form 2406 is a snap!



Take My

True, some advice is cheap—but still no bargain. Hardly worth what it costs. But a 2-part advice code on your supply request sure can save you a heap of wasted time and hassle.

ADVICE CODES ARE HANDY LITTLE CODES YOU USE TO EXPLAIN ANYTHING UNUSUAL ABOUT YOUR REQUEST-- SUCH AS THESE...



- | CODE | IT MEANS |
|------|---|
| 2A | You can't get the item locally through manufacture, local purchase, fabrication or cannibalization even though the SMR code in the parts pub says use those methods. |
| 2B | You can use the item requested only. Do not send a substitute. |
| 2F | You know the item is obsolete—usually coded obsolete or shows an N for disposal phrase code on the AMDF—but you still need the item to support equipment you have. |
| 2L | You use 2L when support's rejected your request with status code CS—they think your quantity is wrong (too much!). You can head-off a CS, though, by putting 2L on the original request for items you really do need a lot of. 2L tells support you know the quantity is high—maybe even more than you're OK'd for on your PLL—but you need that amount anyway. |
| 2T | You've got a hot project simmering or your unit's due to be shipped out on a certain day. 2T tells support you must have that item by the required delivery date on the request or forget (cancel) the request. |

ADVICE!

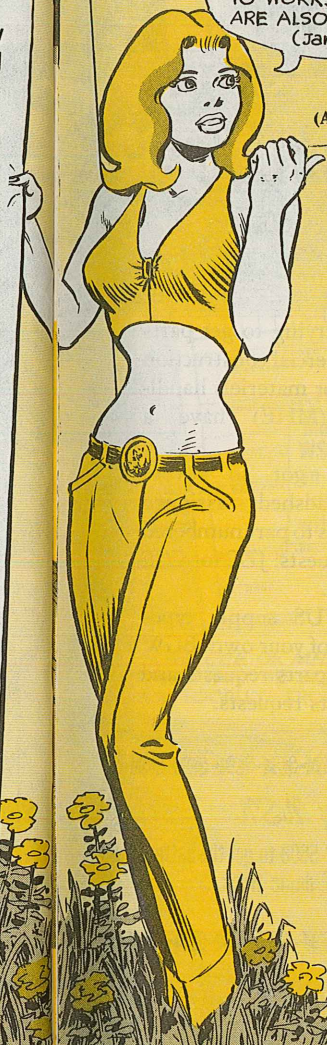
The right advice code in Block 22 of your DA Form 2765 can carry that request a long way—all the way to the depot and home again—with no delays.

CHECK APPENDIX F OF AR 710-2 FOR MORE ADVICE CODES AND PUT 'EM TO WORK! THOSE CODES ARE ALSO IN FM 38-725-10 (Jan 79).

C 4, AR 710-2

ADVICE AND STATUS CODES (AR 725-50)

(Applicable to Creator of Supply Request or Consignee)



* Advice codes *

Microfiche Sets...

Make the Job Easier

Go "fiche" if you want to make your job easier and quicker. Many of the references you use every day—such as the AMDF, Master Cross Reference List and SB 700-20—are on microfiche. With a quick glance at one of the 4-in x 6-in plastic sheets (called fiche), you can get supply data for NSNs, part numbers, substitutions and much more. The microfiche sets are distributed by the DARCOM Catalog Data Activity (CDA) and the AG Pubs Center in St. Louis. Eye AR 708-1, Chap 8, to find out which sets are available from CDA and how to get them. The microfiche sets available from the Pubs Center are in DA Pam 310-4 and DA Pam 310-6. Use DA Form 12-21, DA Form 12-21A and DA Form 12-34 to get them. AR 310-2 and DA Pam 310-10 will give you a steer on how these forms are used. If you need a microfiche reader, your S&S or S&T battalion can get one for you by sending a funded requisition to Defense General Supply Center, ATTN: DGSC-OS, Richmond, VA 23297.



A REPAIR



OPERATING A BIG CRANE OR FORKLIFT REALLY TURNS SOME PEOPLE ON...

But PLL clerks trying to get parts for that type commercial construction equipment (CCE) or materials handling equipment (MHE) have a different opinion!

The headaches got so severe overseas, the headsheds assigned special project codes to part numbered CCE and MHE requests: JZC for CCE and JZM for MHE.

Now you CONUS supply types have project codes of your own! BGW goes on your CCE parts requests and BGX on MHE parts requests.

PARTS PROJECT

Make sure you also put the right Weapons System Designator Code (WSDC) on the request. Some of those codes changed lately so check 'em out in Appendix H of AR 710-2 with 5 changes.

Always double-check and even triple-check the Federal Supply Code for the Manufacturer (FSCM) and the part number you put on those requests.

An out-of-date WSDC can stop your request cold!

DD FORM 1348-6 DD 1 JAN 71. Includes fields for DOCUMENT IDENTIFIER, ROUTING IDENTIFIER, MANUFACTURER'S CODE AND PART NUMBER, QUANTITY, FSCM, PART NUMBER, UNIT OF ISSUE, and SUPPLIER'S NAME.

Check the FSCM and part number again. FSCM always goes first.

Use the project code.

Make sure the WSDC is listed in Appendix H of AR 710-2 with 5 changes

SOME CCE OR MHE PARTS MAY BE BOUGHT FOR YOU LOCALLY--FROM A DEALER!

OTHER REQUESTS GO THROUGH THE REGULAR SUPPLY SYSTEM!



Field Desk Stool

NSN 7105-00-282-0684 gets a replacement stool for Field Desk NSN 7110-00-267-1999.

Battery NSN

Use NSN 6140-01-072-5608 to get the battery for your IHC 20-ton CCE dump truck.

Get out your pubs—User Maintenance Support Plans, Materiel Fielding Plans and Supplemental Maintenance and Repair Parts Instructions—on these items and make a note of the new project codes:

LINE ITEM NUMBER	NSN	ITEM	MANUFACTURER
Z16659	4310-01-053-3891	Compressor, 750-CFM	Sullair
S12916	3895-01-012-8875	Roller vibratory	Tamp
S12916	NSN NOT ASSIGNED	Roller vibratory	Rexnord
W88575	2410-00-574-7597	Trac F.T. D8K w/winch	Caterpillar
W88699	2410-00-574-7598	Trac F.T. D8K w/ripper	Caterpillar
W91074	2420-00-567-0135	Trac wheeled w/loader & backhoe	John Deere
E61618	3895-01-024-4064	Compactor high speed	Koehring USA Bomag
S11711	3895-00-578-0372	Roller MTZD steel wheel 10-14 ton	Hyster
W02673	6635-01-030-6896	Tester density and moisture (nuclear)	Campbell Pacific
G27844	3895-00-090-0434	Distributor Bituminous 1500 gal	Entyre
L76315	3805-00-602-5006	Loader, 4½-cu yd rock bucket	Clark Eq Co
L76315	3805-01-052-9042	Loader, 4½-cu yd rock bucket	IHC
L76321	3805-00-602-5013	Loader, 5-cu yd GP bucket	Clark Eq Co
L76315	3805-01-052-9043	Loader, 5-cu yd GP bucket	IHC
V11001	3895-01-013-4328	Tamper	Stone Mfg Co
X44403	3805-00-192-7249	Trk dump 20-ton	Intl Harvester Corp
F43429	3810-00-018-2021	Crane hyd 25-ton	Harnishfefer
F43429	3810-01-054-9779	Crane hyd 25-ton	Grove Mfg Co
W96942	2330-01-060-8141	Tlr tilt bed 15-ton	Hyster Corp

Add all the MHE items in Federal Supply Class (FSC) 3930—the first 4 numbers of the NSN—and the Mobile Ramp, NSN 3990-01-026-1575 and 3990-01-059-0104 to that list

Connie's Mini Minis

YOU MIGHT SAY
WE HAVE A PERSONNEL
MAINTENANCE
PROBLEM, CONNIE...

SOMEBODY SWIPED ALL THE
CAN-OPENERS FOR
OUR C-RATIONS!

!!
SORRY-- THERE JES
AIN'T ANY IN TH'
CARTON, MEN!

☆!! GRRR ?

Retread Tires OK

Yes, you can use retreaded tires on an ambulance. Fact is, there's only one place on one vehicle you can't use retreaded tires—that's the front wheels of a bus. So says AR 750-36 (Jan 74), para 5d(2). Except for that bus front wheel limitation, retreaded tires are OK for all Army vehicles.

Air Mattress Plug

Lost the air inlet plug to your pneumatic mattress? Get Stopper, inflating tube, pneumatic, with NSN 8465-00-319-4183.

TOW Index Plates

An afterthought on the TOW index plate article, page 19, PS 319: The normal surface of the index plates on the optical sight or traversing unit is black anodized—if they are painted, get the paint out of the grooves. Or, use paint remover (carefully). If that doesn't work, turn it in to Support for a more thorough job.

M60A1 (RISE) Tach Story

Your M60A1 (RISE) can have either one of 2 different kinds of tachometer adapters. Note 6 in your LO 9-2350-257-12 (Jul 75), which says do not lubricate, applies to the sealed lube type. However, if you have the kind with grease fittings, lube it sparingly with GAA during every quarterly service.

M880 Mirror Stickum

If the mirror falls off your M880-series 1½-ton truck's windshield, you can stick it back on with the glue you get under NSN 2540-01-033-1831. This NSN's for Installation Package, Rear View Mirror, Inside, in TM 9-2320-266-20P (Feb 78). The super glues on the market can bond your fingers together and cause eye injuries. Use only the authorized glue.

Gama Goat Update

It's new—an update of DA Pam 750-31, Operation and Preventive Maintenance, The M561/M792 Gama Goat. Everybody who operates or works on Gama Goats should have a copy of the new DA Pam. It went out to all pinpoint accounts for Gama Goat pubs—but you can get more from the Baltimore pubs center by ordering on a DA Form 4569.

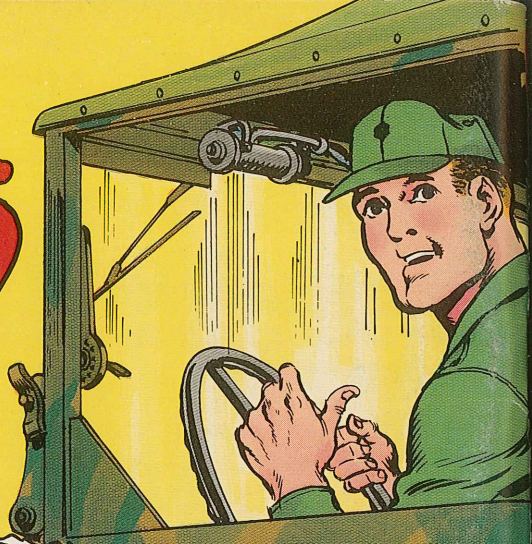
M880 Recoverable Parts

The M880-series 1½-ton truck's carburetor, starter and alternator are not throw-away parts. The Source, Maintenance and Recoverability (SMR) code in TM 9-2320-266-20P (Feb 78) is PAOFF—that's OK. But it's wrong in the AMDF—it should be F instead of Z. The AMDF will be changed soonest. So make sure you get those damaged or worn-out items in to your support for repair when you order new ones.

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MANUAL FOR THE
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DEPARTMENTS OF THE ARMY AND THE AIR FORCE
APR 1954

2-6. **Driver Inspection and Servicing**
a. You are the most important single factor in preventive maintenance. Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition

YES, YOU!