

Issue 288

PS

November
1976

THE PREVENTIVE MAINTENANCE MONTHLY

HEY,
CONNIE...

SOME
TURKEY JUST
SWIPED MY
HATCHET!

?

OH, FER...

IS NOTHIN'
SACRED?...

...AN' I JUST
DID CAREFUL,
BY-THE-BOOK
PM ON IT...

PLYMOUTH
COLONY
B. MAINT

MURPHY
ANDERSON



GOT THE SLIGHTEST
DOUBT?

THE PREVENTIVE MAINTENANCE MONTHLY

Your supply man gets a slew of supply requests kicked back. Support says he can't order the repair parts.

HEY... MY SUPPLY
REQUEST GOT
KICKED BACK!

THOSE NO
GOOD SUPPLY
TYPES!!

Inspectors keep laying it to unit after unit because they say the wheel bearings are not adjusted right.

GIG...
I LIVE
ON
GIGS!

And on and on and on . . . all over the Army.

All of these situations have one thing in common: **Somebody didn't read the book.**

If your PLL man had looked in the front of his parts manual he would

CODES...
WHAT
CODES
?

YOU MEAN THOSE
JUMBLED LETTERS
MEAN SOMETHING?

DAWGONE!!
YOU'RE RIGHT!
THAT PART IS
FOR SUPPORT!

find the keys to codes used in the lists. He would know that he need not order certain parts because they are for support level.

If some inspectors would read the truck's manual they would know that they can't tell if a wheel bearing is loose just by shaking the wheel. They have to do more than that.

JUST SHAKE THE WHEEL...
THAT'S HOW TO CHECK FOR
WHEEL BEARING
ADJUSTMENT!

HEY, THE BOOK SAYS
YOU DO IT THIS WAY...
AND SHOWS HOW! SHAKING
JUST WON'T HACK IT!

Did you ever see an electronics repairman checking out equipment without following the manual? He

knows he's got to use the book or he'll be lost in circuits, diodes and stuff like that.

Or any good aircraft mechanic. He uses the TM because he knows

I CAN'T AFFORD
TO SLIP... A GOOF
AND THE CHOPPER
GOES DOWN FROM
1000 FT!

one little slip on his part can bring the aircraft down.

So, no matter how well you think you know your equipment's maintenance or supply, before you take action, **read the book.**

YEAH! READ
THE BOOK!

THEN,
YOU'LL
KNOW!

Then you'll know what you do is right.

PS THE PREVENTIVE MAINTENANCE MONTHLY

Published by the Department of the Army for the information of all soldiers assigned to combat and combat support units, and all soldiers with organizational maintenance and supply duties.

Within limits of availability, older issues may be obtained direct from Editor, PS Magazine, c/o US Army Maintenance Management Center, Lexington, KY 40511.

ISSUE No. 288 NOVEMBER 1976

COMMO/ELECTRONICS

2-11

Squad Radio Set	2-8	COMMEL Pubs	9
Radiator Poster	8	AN/FGC-25 TT	10
AN/GRC-122 RTT	9, 10	Commo WSDC	11
		M-80/U Microphone	11

FIREPOWER

12-27

M107/M110	12-15	Multimeter Adapter	19
FADAC	16	Torque Screw Tip	19
M564 Fuze	17	106-MM RR	20-23
7.62-MM MG	17	M60 MG	24-26
NATO Slave Cable	18	LSA On M16A1	27
		Pistol Holsters	27

GROUND MOBILITY

37-45

Solvent Caution	37	Lube Intervals	42
1/4-Ton Trucks	38-39	Multifuel Engine	43
2 1/2-, 5-Ton Trucks	40-41, 44	Voltage Regulator	44
		Cushions	44
		10-Ton Truck	45

AIR MOBILITY

46-53

FOD	46	OH-58A	50-52
Chinook Poop	47	RT-859/APX-72	52
Huey/Cobra	48	Red X	53
APU	49	Grounding Jack	53

COMBAT SUPPORT

Command Emphasis	29-36	Canvas Repair	59
New Publications	28	9,000 BTU Reefer Unit	60-61
Fuel Pump Filters	54-55	New MOS	61
400,000 BTU Heater	56	Mine Detecting Set	62-63
Immersion Heaters	57	Camouflage Screen	63
M67 Burner	58	Pub	63
Air Mattress Kit	58	Disposal Codes	64
Water Bag Storage	59		

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to: Or call: AUTOVON 745-3503.

MSG Half-Mast
PS Magazine
Lexington, KY
40511

Use of funds for printing of this publication has been approved by Headquarters, Department of the Army, 23 December 1975 in accordance with AR 310-1.

DISTRIBUTION: In accordance with requirements submitted on DA Form 12-5.

SOLID P M SOLID COMMO

PILGRIM
TO ROCK...
PILGRIM
TO ROCK!!
COME IN
PUN-LEEZ!

I'VE FOUND A
MAIN COURSE FOR
OUR MAIN BASH!...
BUT I COULD
USE A LITTLE HELP
BRINGIN' IT IN!!
OUT--

KEEP YOUR
RADIO SET IN
TOP SHAPE
WITH REGULAR
PM!...

YOU MAY
GIVE THANKS
SOME DAY
YOU DID!

GRR-ROAR-RR

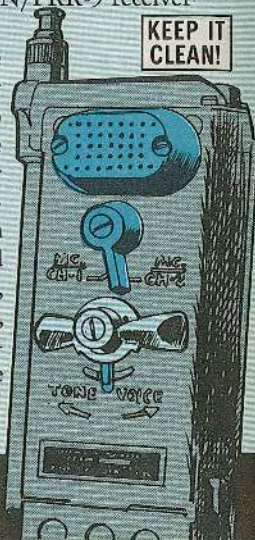
Your squad radio set's geared for swift and solid communication—return the favor with some solid PM.

These tips will give you a hand (and a nudge) on the preventive maintenance your AN/PRT-4 transmitter and AN/PRR-9 receiver rate.

Mud and grime can mess up your squad radio. Keep the crud off the mike, selector switch and tone-voice switch on your PRT-4, and the headset jack, transducer horn, and receiver control knob on the PRR-9.

2

KEEP IT
CLEAN!



COME IN,
PILGRIM... COME IN!!
CAN'T READ
YOU--

WHAT'S THAT
ROARING SOUND?

WHEN DID
STANDISH LAST
DO PM ON HIS
COMMO GEAR?

BATTERIES

When you're installing a battery, line up the contact pins and receptacles just right.

Brute force won't take the place of alinement, so line up contact pins to receptacles. Then ease the pins in.

A good pins/receptacles line-up is real important for the BA-505. If you get the pins and receptacles misaligned, the larger contact pin on the PRR-9 can ruin the small hole on the BA-505.

MAKE GOOD
LINE-UP



With the BA-399, it's all a matter of simple line-up and gentling the pins into the 4 receptacles.

You want no heavy-handed enthusiasm here. Too much force means you end up with a cracked or mangled receptacle plate.

HANDLE
LIGHTLY



If you don't plan to use your squad radio for a couple of days or longer, remember to take out the batteries to head off corrosion.

NATURALLY
YOU REPLACE
ANY BATTERY
THAT SHOWS
SIGNS OF
LEAKAGE!

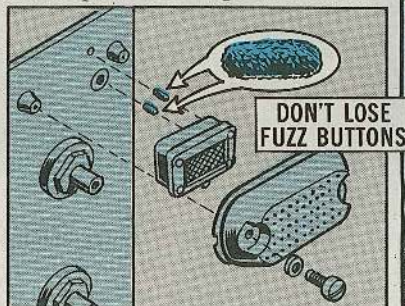


PS MORE

FUZZ BUTTONS

When you come up with no sound or intermittent sound from your PRT-4, have direct support check the microphone element's fuzz buttons, if it has 'em. These tiny metal-mesh "buttons" are just flexible enough to lose touch with the element contact points.

The 2 fuzz buttons are used only with mike elements with the thin contact pins. The improved thicker



pins make good contact without the buttons.

If you're not getting gung-ho contact between the fuzz buttons and the element's contact points, ask your repairman to put a little solder on the element contacts to build 'em up a bit. This'll give the buttons a better chance to do their job.



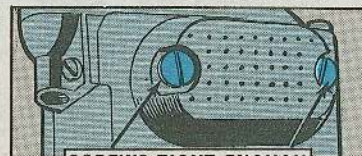
If you lose any buttons, get support to replace 'em, or go after a new microphone element (NSN 5965-00-995-2242).



ALL SCREWED UP

Keep the microphone screws on the PRT-4 tight. If they loosen too much, the talking you do won't go anywhere. Best not to give 'em any hard screwdriver turns, though, or you'll damage the mike cover.

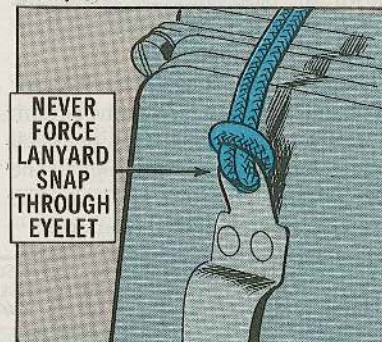
Also keep the volume control set screws tightened on the PRR-9.



LANYARD

Clip the transmitter lanyard to a button hole or the harness slide. That keeps the AS-1999 antenna from getting banged up if the transmitter's accidentally dropped.

Never force the lanyard snap through the eyelet on the receiver or transmitter. The eyelet can break off, making the whole chassis a salvage item since the chassis is not repairable. Always loop the lanyard cord through the eyelet.



And, of course you wouldn't think of swinging either the receiver or transmitter by the lanyard. You'd know that's almost always good for a broken eyelet.



UP THE ANTENNA

Get in the habit of upping the antenna every time you transmit. You might get the good word out (even with a downed antenna) in the CH-1 position because of the higher RF output—but not so in the CH-2 position. Too, when the antenna's down, the base can press against the CY-6115 battery case clamp and short out transmission.

When you up the AS-1999 for transmitting, help it from the bottom with a friendly thumb-push, then pull the antenna to its full height. The thumb-push eases the strain on the telescopic portions of the antenna.

A FRIENDLY THUMB-PUSH



ALINEMENT

An ordinary screwdriver can be nothing but trouble when it's used to align the transmitter or receiver in a frequency change. Stick to the alignment tool you get with ID-1189/PR channel alignment indicator.

6



PRR-9 POINTERS

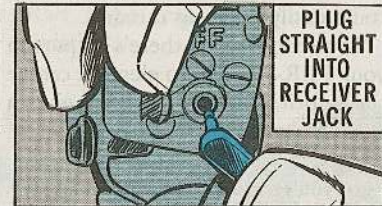
Whether you're carrying that receiver clipped to your helmet or in your pocket, the AS-1998 antenna's retaining screw should be finger-tight when the antenna's set in a vertical position. If it's not tight, you could lose the antenna.

KEEP H-264 HEADSET CLEAN

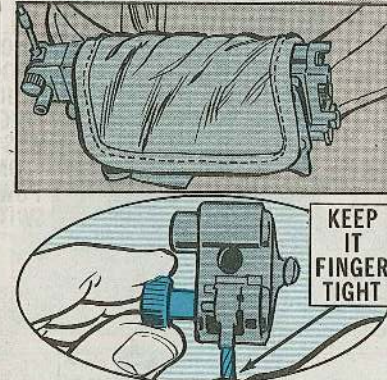


jiggling or wiggling or you may bend the connector springs and down-time your receiver.

PLUG STRAIGHT INTO RECEIVER JACK



KEEP IT FINGER TIGHT



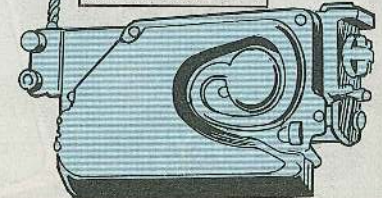
When you remove the PRR-9 from your helmet, grip the entire receiver—not just the transducer horn.

You may not always be using the H-264 headset, but keep it clean and know where it is.

Eyeball the CX-1022 electrical cord assembly for cracks and frays and be sure you've got an ear holder. To install the headset, push the plug straight into the receiver jack... no

If your receiver's equipped with a non-filter transducer horn, clean the horn by taking it off and tapping it gently. Blowing defeats the purpose, because it can damage the membrane-type element or even drive the dust deeper into the horn. The newer horns have dirt-stopping filters.

CLEAN HORN...



7

... TAKE OFF—TAP GENTLY

PS MORE

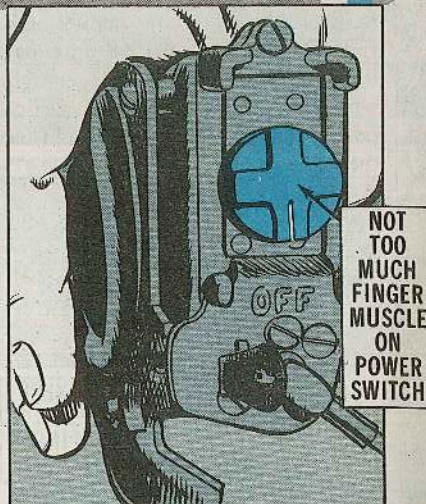


You can break the power switch on your PRR-9 by giving with too much finger muscle. Take it easy.

If you put the set of blades on the AS-1998 antenna base backwards into the housing, the retaining screw won't lock the antenna firmly into position. This gets you a loose antenna that could easily come up missing.

Sometimes when there's no purr in your PRR-9 the horn element can be the culprit. Heat can swell the glue in the element, then you may get no, or low, sound.

If you're convinced your battery's working for you, but receiver sound is low or no, you may need a new horn.



PS END

FOR COLD WEATHER

Get ready for freezes with DA Poster 750-70. 'Is Your Radiator Ready for Winter?

ORDER COPIES
TODAY!



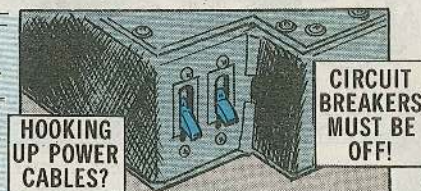
8

AC-DC?

ONLY YOU KNOW FOR SURE



Make sure all circuit breakers and power switches are off before hooking up your power cables.



Before you fire up that AN/GRC-122() or -142() radio teletypewriter set with AC power, make sure your power source is 115 VAC, 60 Hz.

Eye your power source, whether it's AC-DC generator set, utility line or converter.

Then, for the plain models, set the 15-amp outlets circuit breaker to ON. For the A & B models, set the AC MAIN circuit breaker to ON. Make sure the AC voltmeter reads 115 VAC.

Apply the voltage to the rest of your Ratt Rig's gear by turning on the switches.

COMME

COMMERCIAL PUBS

No Army TM listed in DA Pam 310-4 for your commo/electronic item?

You can request commercial pubs if you're authorized equipment without a TM that has a B16 source of supply (SOS) on the Army Master Data File (AMDF).

SEND THE REQUEST INCLUDING YOUR AUTHORIZATION TO...

Commander
US Army Electronics Command
ATTN: DRSEL-MA-ML
Ft Monmouth, NJ 07703

If you're in a STRATCOM unit, order commercial pubs like you order repair parts.

9

AN/FGC-25 MAIN POWER OFF *FIRST*



Before you disconnect your AN/FGC-25 teletypewriter set's keyboard cable, make sure you unplug the machine's main power.

If the power's on, you can wind up with arcing between the J9 and P9 connectors and damaged connector pins.

You can also get a severe electrical shock.



LOOSE SCREWS PLAY TRICKS



Magic is great entertainment!

But, a disappearing act you can do without when it comes to the AN/GRC-122() or -142() radio teletypewriter set's SA-1650 switch assembly.

The OWR-DX-SEND and DX-REC-PONY jacks can vanish into the

SA-1650 front panel when the holding screws get loose. This can head you into higher maintenance for the lack of a jack.

So, keep an eye on the screws and snug 'em up when you see 'em losing their grip.

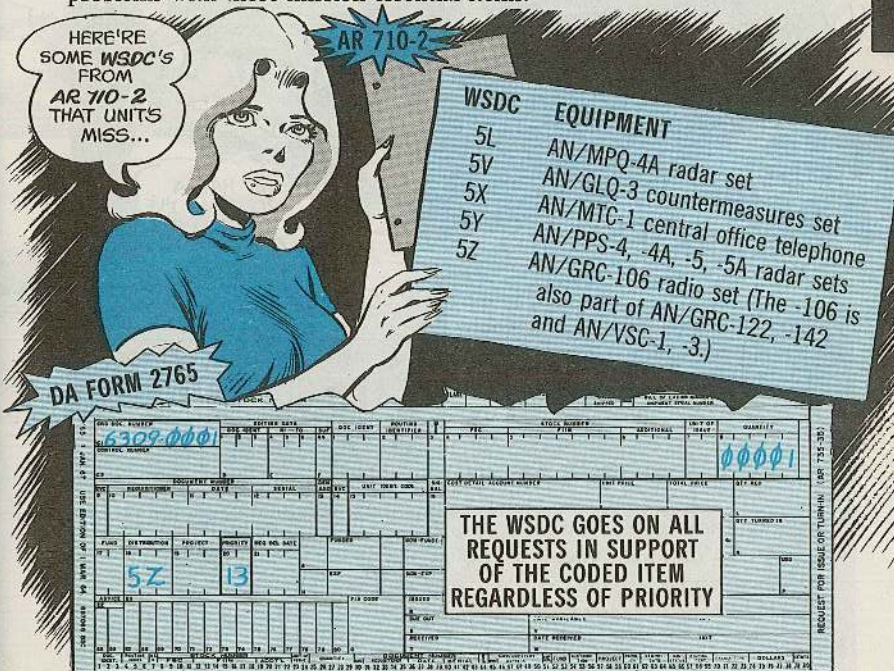
USE COMMO WSDC'S



With the WSDC, you can put through a NORS/ANORS request to get parts faster to make the set operational.

The WSDC goes in block 18 of all requests for parts of those items, regardless of priority.

These WSDC's also help the supply and maintenance types keep tabs on problems with those mission-essential items.



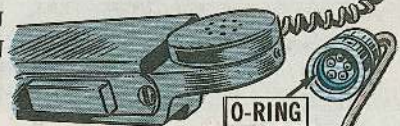
WSDC	EQUIPMENT
5L	AN/MPQ-4A radar set
5V	AN/GLQ-3 countermeasures set
5X	AN/MTC-1 central office telephone
5Y	AN/PPS-4, -4A, -5, -5A radar sets
5Z	AN/GRC-106 radio set (The -106 is also part of AN/GRC-122, -142 and AN/VSC-1, -3.)

DA FORM 2765

**THE WSDC GOES ON ALL
REQUESTS IN SUPPORT
OF THE CODED ITEM
REGARDLESS OF PRIORITY**

M-80/U MIKE O-RING

To get the O-ring for your M-80/U microphone cable connector use NSN 5330-00-905-6032.





M107/M110
SP ARTILLERY ...

COLD

WEATHER STARTING



C'MON! START...
WILLYA!

HEY, CONNIE--
I GOTTA
PROBLEM!

HE HAS A
PROBLEM? I'VE
GOT THE PROBLEM--
HIM AND HIS PM!

RRR-
RRR-
RRR-RR!!

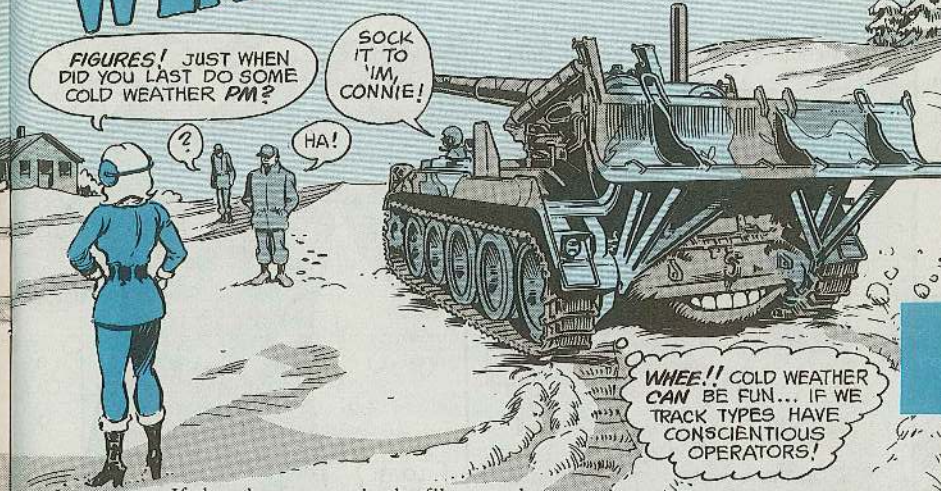
Having trouble starting your vehicle in cold weather?

It should start easily, except on the very coldest days, provided that the last time you used it, you drained the fuel filters while the engine was still hot.

Starting the engine is much harder if you try to drain the filters in the morning when the engine's cold.

The best thing to do in cold weather is to drain both the primary and secondary fuel filters at refueling time before the engine cools off.

NOTE: The engine must be running when you drain the secondary fuel filter. You drain it through the cock at the end of the hose.



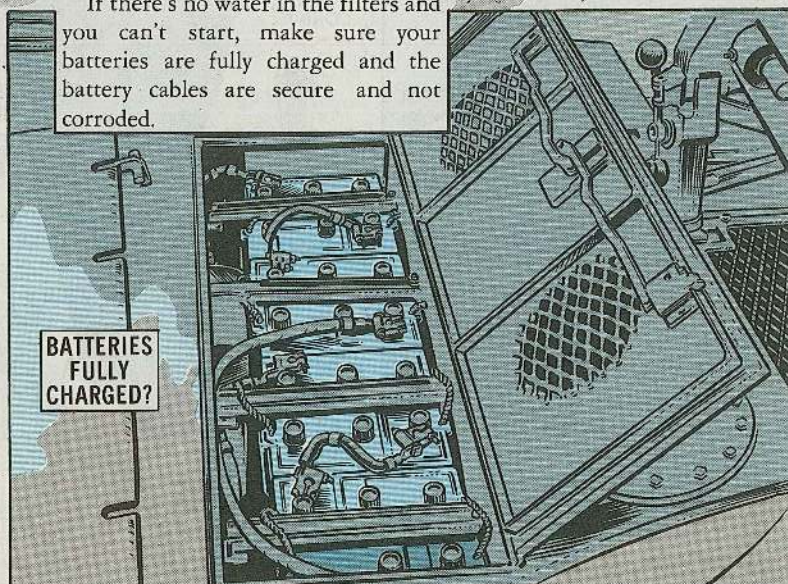
FIGURES! JUST WHEN
DID YOU LAST DO SOME
COLD WEATHER PM?

SOCK
IT TO
'IM,
CONNIE!

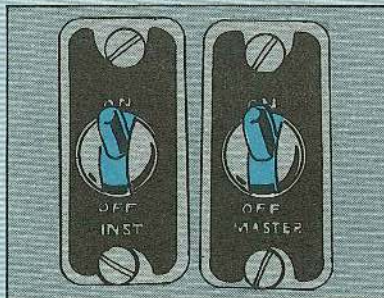
HA!

WHEE!! COLD WEATHER
CAN BE FUN... IF WE
TRACK TYPES HAVE
CONSCIENTIOUS
OPERATORS!

If there's no water in the filters and you can't start, make sure your batteries are fully charged and the battery cables are secure and not corroded.



1. Master and instrument switches ON, coolant heater OFF,



parking brake full on and transmission in N (neutral).

2. Press the spring-loaded pump and igniter switch to the ON position and hold it there while you ...



3. Press the fuel valve switch to ON, hold for 1 or 2 seconds, let go



and then press the START switch and hold it down.

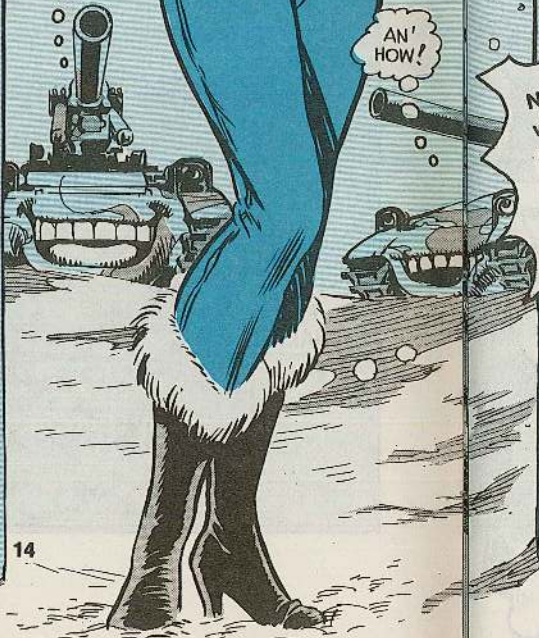


IF YOU STILL CAN'T START, YOU'LL HAVE TO USE COLD-WEATHER STARTING PROCEDURES WHICH GO LIKE SO...

...AND SO!

LOVE THAT CONNIE!

AN' HOW!



4. Keep holding the pump and igniter switch ON while you put the fuel valve switch through cycles of 1 second ON and 2 seconds OFF. Crank engine until you reach a



cranking speed of about 300 RPM and then release the START switch.

5. Keep doing the ON and OFF cycles with the fuel valve switch until the engine is running smoothly.

6. When you get the engine running, let go of both the fuel valve switch and the pump and igniter switch.

NOTE: Make sure you let go of the fuel valve switch every 1 or 2 seconds. If you keep it turned ON you'll be making a continuous flame in the air box that'll burn up the oxygen that should be going to the engine.

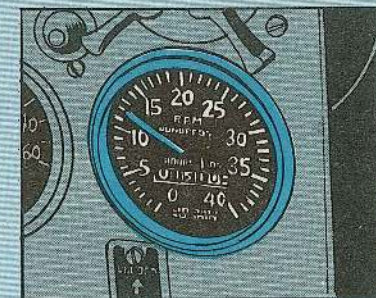
7. Try the steps above for 40 seconds and if they don't start your engine, get your unit mechanic to look the vehicle over.

8. On 'tuther hand, if the engine is now running all right, keep the

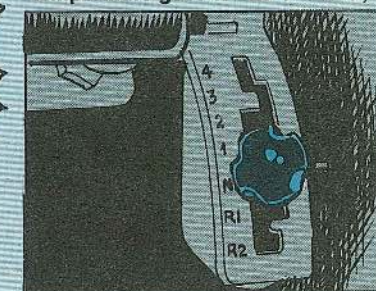
brakes locked but adjust the



throttle to run the engine at 1,200 RPM and shift transmission into



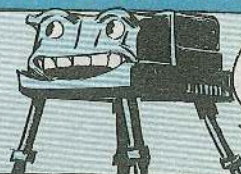
4th range position. Keep on idling the engine until the coolant temperature goes to 120°F-140°F,



then shift into N (neutral) and cut the engine speed back to slow idle (500-600 RPM). Drive the vehicle slowly for the first 100 yards. This will warm the lubricants for normal operation.

FADAC PROGRAM TAPES READY

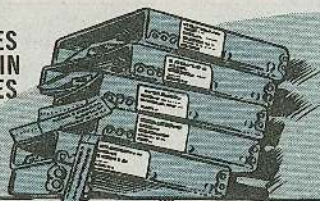
HERE Y'ARE...
REVISION NO. 5
TAPES -- JUST
FOR YOU, FADAC,
OL BUDDY!



'AT'S MY
BOY!

The Revision No. 5 program tape kits are now ready for issue.

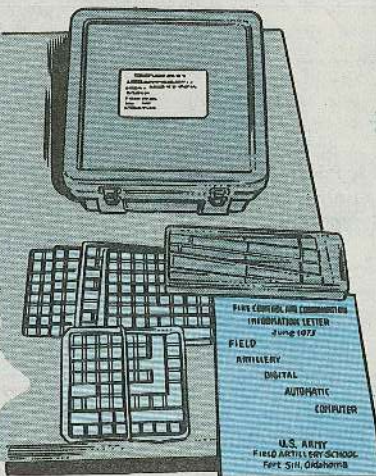
TAPES
ARE IN
BOXES



TAPES



So re-program your FADAC and use the improved Revision No. 5 program tapes. Ch 4 to TM 9-1290-326-12 (Nov 65) lists 'em.



ARTILLERY PIECE	NSN FOR PAIR OF TAPES	COST
M101A1 howitzer	1290-00-229-4722	\$94.72
M102/M108 howitzer	1290-00-229-4723	\$157.00
M114A1 howitzer	1290-00-229-4724	\$94.72
M109 howitzer	1290-00-229-4731	\$129.00
M109A1 howitzer	1290-00-207-9462	\$171.00
M110/M110E1	1290-00-229-4736	\$91.68
M107/M107E1	1290-00-229-4750	\$94.72

In addition to the 2 tapes you get for each type of artillery, you'll also need a Revision No. 5 accessory kit, NSN 1290-00-148-7757 at \$337.

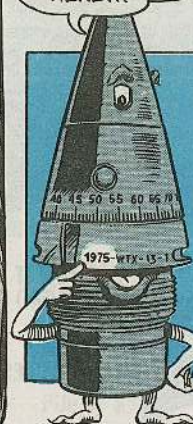
ORDER ONLY
THE TAPES TO
SUPPORT YOUR
PARTICULAR
WEAPONS!

1-21-71
MAY 1971

M564 FUZE NEWS

1-21-71
MAY 1971

MY DATE SHOWS
HERE...



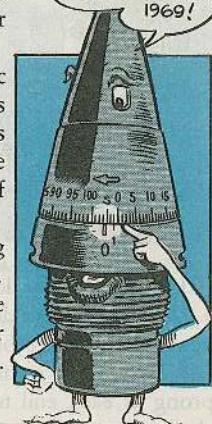
Hold one if you're about to set the M564 MTSQ fuze to 90 seconds for superquick (impact) action!

If your fuze was made after Dec 1969 (the date's on the fuze body), it's set up for superquick the way it comes out of the container... with the fuze set on "S." Set back and spin action of the projectile arms it.

TM 9-1300-203 (Apr 67) is being changed to show the new procedure.

Remember, though: you still have to set the fuze to 90 seconds for superquick if it was made before 1970.

I'M SET
ON "S" AFTER
1969!



M73/M73A1, M219 MACHINE GUN TIPS

*@!!☆?!
WHAT'S WRONG
WITH TH' MG?



DID YOU CLOSE
ITS COVER BEFORE
WE FIRED THE
MAIN GUN?

Your Sheridan types be sure to close the cover on your 7.62 mm machine gun before you fire the main gun/launcher. If you don't close it, the recoil from that big gun will tear up the cover assembly and other parts of your gun.



KEEP
COVER
CLOSED

NATO SLAVE CABLE NEWS



So now you've got the M60A1 (RISE) tank. How do you slave it?

No way you can do it without the new NATO slave cable NSN 2590-00-148-7961. This cable has a single prong at each end to fit the NATO slaving receptacle. It also comes with a 3-part 2-prong adapter at both ends to fit the standard 2-hole slaving receptacles.

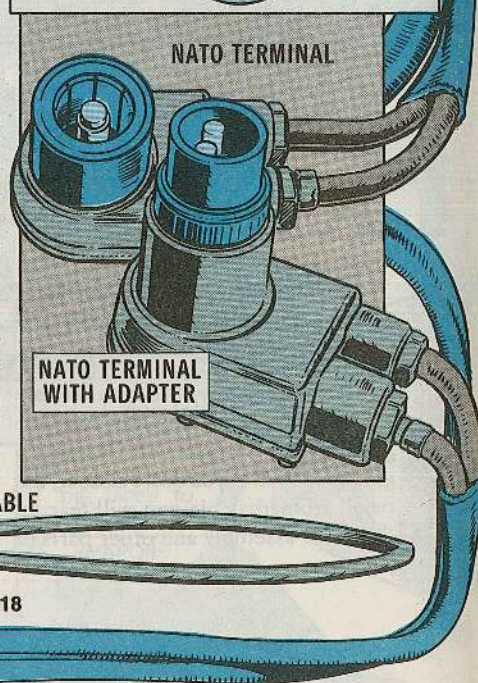
As you can see, the NATO cable can do it all... slave 2 NATO vehicles, 1 NATO and 1 non-NATO or a pair of non-NATO vehicles.

It's so handy it'll replace the old 2-prong slave cable NSN 4910-00-474-9135 in the No. 1 and No. 2 common tool kits.

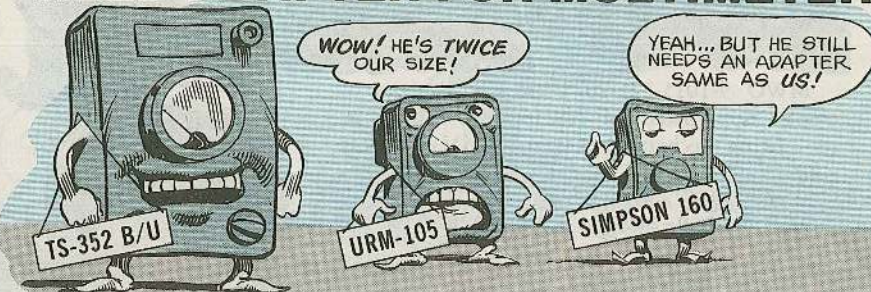
In time the 2-prong receptacles will be phased out and all new vehicles, both wheeled and track, will have NATO receptacles.

If the AMDF lists them as NSN 5935-00-322-8959 per set.

OLD 2-PRONG SLAVE CABLE



NEED ADAPTER FOR MULTIMETER



No matter what kind of multimeter you have—TS-352 B/U, URM-105 or Simpson 160—the probes are too big to troubleshoot the AOS (add-on stabilization) electrical cables on your M60A1 tank.

The female sockets in the cables need to be connected to the multimeter with an adapter set to give you a reading.

This adapter set, NSN 6625-00-678-0657, is listed in the Army Master Data File at \$5.34.

M48/M60-SERIES TANKS/M728/AVLB

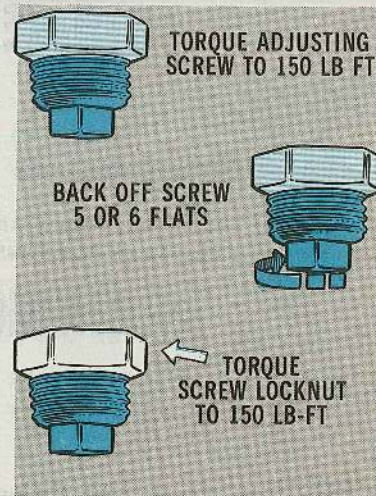
TRANSMISSION TORQUE CHANGE

The torque value on low and reverse servo band adjustments has been changed for CD 850-5 and CD 850-6A transmissions.

You do everything the same except you torque the adjusting screw to 150 lb-ft instead of to 30 or 50 lb-ft the way the -20 or 20-1 TM for your particular vehicle now reads.

Then, back the adjusting screw off 5 to 6 flats (about one full turn) before you tighten the adjusting screw locknut. Torque the locknut to 150 lb-ft.

Do everything else the way you find it in your TM. Item 6c, page 53 in TB 43-0001-39-1 has the word.



106-MM RR

MWO 9-1015-221-20/1 (rescinded) put a whole new batch of replacement parts in the firing mechanism of your 106MM recoilless rifle.

SO GATHER 'ROUND AND GIVE A LISTEN--SEE, ALL YOU RR TYPES...

THESE PICTURES SHOW YOU WHAT YOU SHOULD HAVE, IF YOU DON'T HAVE THE NEW PARTS, REPLACE THEM. CHECK THE PART NUMBERS ON THE PARTS.



CAM

The long edge of the new cam is square (no indent). Stone or polish minor burrs from the edges.

SURFACE IS FLAT



Part No. 11578017 NSN 1015-00-998-6073

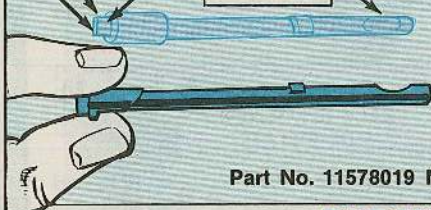
SQUARE CORNERS

TAB

REPLACE IT DAMAGED

SEAR

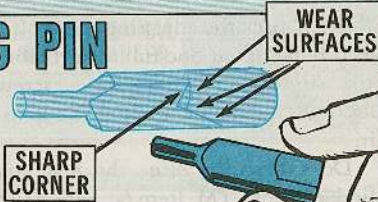
The improved sear has a longer tab with square corners (longer than the back end of the cam). Replace it if the edges in the recessed area are damaged.



Part No. 11578019 NSN 1015-00-998-6075

FIRING PIN

The surface shown has a sharp edge (not slanted) on the new pin. Replace it if the edges are burred from use.



SHARP CORNER

WEAR SURFACES

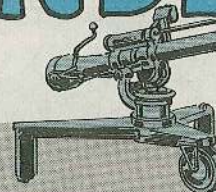
Part No. 11578018 NSN 1015-00-998-6074

REMINDERS

MINOR REPAIRS AND TROUBLE AREAS TO LOOK FOR ARE ALSO LISTED.

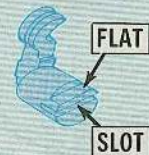
? NEVER KNEW WE HAD 60 MANY RR TYPES ON POST...

WE DON'T, BUT WHEN BONNIE TALKS PM--EV'RY BODY LOOKS!



TRIGGER

The slot on the improved trigger is parallel to the flat side (not at angle).



FLAT

PARALLEL TO EACH OTHER

SLOT

Part No. 11578015 NSN 1015-00-998-6072

FIRING CABLES

TWISTED WIRE STRANDED CABLE

The improved cable has stranded wire (the old has flat-wrapped wire).

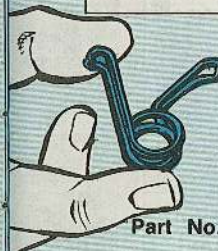


Part No. 11577981 (for main gun) NSN 1015-00-089-8542

Part No. 11578002 (for spotting rifle) NSN 1015-00-878-0032

TRIGGER SPRING

The new spring is round metal, not flat, and should look like the picture.



Part No. 11578016 (not marked on spring) NSN 5360-00-873-6959

THERE'S BONNIE!

RIGHT ON! HURRY!

NOW, TAKE A MOMENT AND EYEBALL THESE IMPORTANT PM CHECKS ON YOUR RR!

BREECH

With the breech open, hold the sear between your thumb and forefinger. You should be able to move it back and forth. If it binds, replace the sear.

CHECK SEAR HERE

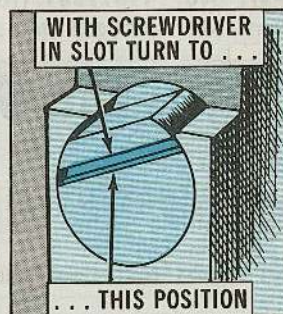
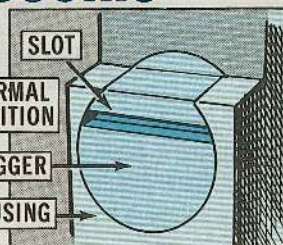
TRIGGER HOUSING

Remove the gun tube from the mount. Open the breech. Turn the trigger to the fired position with a screwdriver. When you remove the screwdriver from the trigger slot, the trigger should return to normal position.

If it doesn't return (or if it wasn't there in the first place), adjust the firing cable.

1. If the trigger still won't return, check it and the housing for burrs or dents.
2. Clean the trigger and housing.
3. If there is no spring pressure when you rotate the trigger, see if the trigger spring is broken or damaged.

22



WAIT FER US!

HOLD ONE!

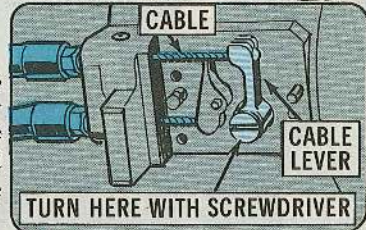
SO AM I...

DID SOME-BODY SAY R+R?

HEY--I'M FAST ON TH' TRIGGER, BONNIE!

FIRING CABLE LEVER

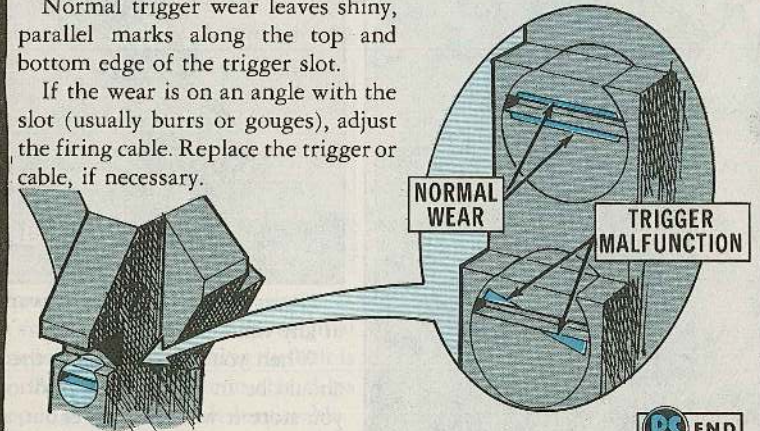
To check for a damaged firing cable, rotate the cable lever (with a screwdriver) against the pressure of the trigger spring. The lever should return to its position when you release the pressure.



TRIGGER

Normal trigger wear leaves shiny, parallel marks along the top and bottom edge of the trigger slot.

If the wear is on an angle with the slot (usually burrs or gouges), adjust the firing cable. Replace the trigger or cable, if necessary.



23

M60 MACHINE GUN CHATTER



Cartridge feed tray damage on your M60 machine gun can be avoided by knowing when to close the cover or operate the bolt.

When the bolt's forward, never attempt to close the top cover and the feed tray . . . and that goes whether or not the barrel's in the gun.



Never let the bolt slam forward . . . at any time.

When you store the M60, the bolt should be in the forward position. If you store it with the barrel out, close

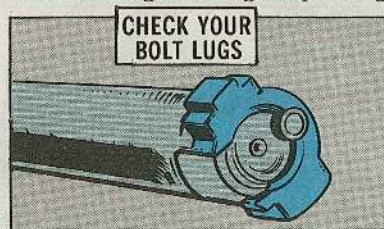
the cover and ease the bolt forward gently (never operate the bolt until the barrel's reinstalled).

Flash suppressors get a little loose during normal operation, but a "little loose" is OK. If the suppressor turns up to 1/16-in, there's no cause to turn



the gun in for repair. More play than that calls for suppressor repair by your Direct Support.

Same kind of deal goes for the front of the bolt lugs. The lugs chip during



normal operation, but so long as you've got half or more of the original front left corner remaining the bolt is OK. Armors can stone the chips smooth to keep the bolt serviceable.

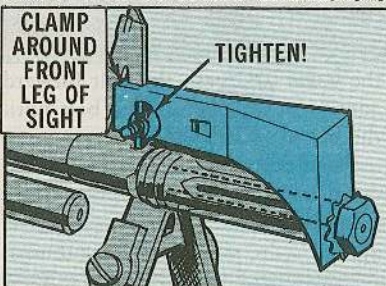


One thing you shouldn't fool around with is the M13 blank firing attachment.



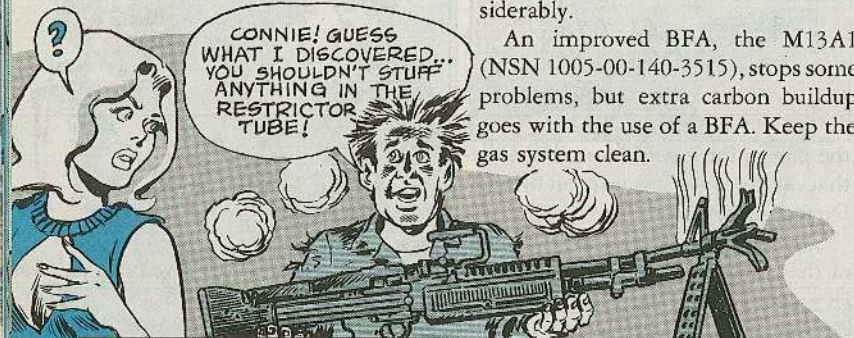
Some Joes, when the gun fails to fire bursts, stuff tissue or such down the BFA restrictor tube or in the barrel. That can cause 2 things . . . the BFA may fly off the next burst or 2, or the gun will blow up. No profit either way.

If you've got the M13 BFA, be sure it's seated right when you put it on. It has to be all the way in the flash suppressor and seat tight against the barrel face. To reduce malfunctions,



clean the gas system after every 500 rounds and lube the entire gun after 1,000 rounds. That'll help considerably.

An improved BFA, the M13A1 (NSN 1005-00-140-3515), stops some problems, but extra carbon buildup goes with the use of a BFA. Keep the gas system clean.



FREE BACK ISSUES

Drop a note to Bonnie at PS Magazine, Lexington, KY 40511 for any back issues of PS Magazine you may need. Most issues since No. 247 (June 1973) are still on the shelf.



LSA ALL THE WAY

There's one thing you've got to remember about lubing your M16A1 rifle:

Use LSA all the way. Your operator's manual shows you just how much to use and where. That's the only lube authorized for your rifle . . . unless you're in a below zero climate (in which case, use LAW).

Some troops substitute PL Special, but it won't hold up like LSA . . . which lasts longer and protects metal surfaces better.

Some weapons, like the M60 machine gun, use a combination of LSA and PL Special. Wherever lube instructions tell you to use LSA, use it. It gives your weapon better protection.



PISTOL PACKER POOP

M7 SHOULDER HOLSTER
NSN 1095-00-973-2353



M1916 HIP HOLSTER
NSN 1095-00-592-6491



Your M1911/M1911A1 .45-cal automatics are no longer issued with hip or shoulder holsters. So, use NSN 1005-00-726-5655 to get an M1911A1 pistol w/o holster, and NSN 1005-00-575-0004 for an M1911 pistol w/o holster. You still get the M1916 hip holster for your pistol with NSN 1095-00-592-6491 and the M7 shoulder holster with NSN 1095-00-973-2353. Your property book officer will have to do some fancy footwork to account for pistols and holsters separately from now on.

SUCH IS PROGRESS!

This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Nov 74), and Ch 3 (Oct 75), TM's, TB's, etc.; DA Pam 310-6 (Jul 76), and Ch 3 (May 78), SC's and SM's; and DA Pam (O) 310-9 (Aug 74), COMSEC Pubs.

TECHNICAL MANUALS

Ch 2, TM 3-1055-456-12 Jul M202A1 Rocket Launcher
Ch 2, TM 5-1080-200-10&P Jul Camouflage Screen System
TM 5-4220-202-14 Jun USAF Flotation Equip
TM 5-4320-273-24P Jul Pump Assy, Flam Lig, GED 350-GPM Gorman-Rupp Mod 04A12C-MVG4D
TM 9-1425-525-24P-1 Jul Improved HAWK Ch 3, TM 9-2300-378-20P/1 Jun M60 Tank Series/M728/M48A3
Ch 1, TM 9-2320-211-20 Jun 5-Ton Truck TM 9-2320-233-10 Jun GOER, M520, M553, M559, M577
TM 9-2330-238-14&P Apr Semitrailer M205A1, M313, M447, M447C, M749
TM 9-2350-230-10 Jun M551/M551A1 Sheridan
Ch 1, TM 9-2350-257-20-2 Jul M60A1 (RISE) Tank Turret
TM 9-2350-257-20P-2 Corr Cy Dec M60A1 (RISE) Tank Turret: RPSTL
TM 9-2350-300-10 May M163 Vulcan
TM 9-4910-593-10 Jun Towbar
Ch 3, TM 10-7360-204-13 Jul M59 Field Range
TM 11-5805-371-20P Jun AN/TC-66 Telephone Terminal Set
TM 11-5805-478-24P Jun AN/TC-72 Telephone Terminal Set
TM 11-5805-583-24P Jul AN/TC-76 Patching Communications Center
TM 11-5815-332-24P Jul AN/VSC-3 Radio Teletypewriter Set
TM 11-5815-394-ESC-2 Jun AN/GRC-1222 Radio Teletypewriter Set
Ch 1, TM 11-5820-401-ESC-1 Jul AN/VRC-12 Radio
TM 11-5820-554-12 Jun AN/FRC-93 Radio Set
TM 11-5820-795-20P Jul MD-883 Telephone Modem-Translator
TM 11-5825-227-24P Jun AN/ARN-091 Direction Finder Sets
TM 11-5895-367-24P Jul AN/TRC-108(V) Radio Terminal Set
TM 11-5895-694-24P Jun AN/MRC-127 Radio Terminal Set
TM 11-5895-809-24 May RU-21D Aircraft Mission Equip
TM 11-5895-954-12 Jun C-9066/GSQ Code Programmer-Indicator
TM 11-6125-240-12 Jun PU-545/A Motor-Generator
TM 11-6225-2745-14 Jun ME-30F/U Voltmeter
*TM 32-5410-214-ESC Jun Shelter, Electrical Equip A-457/G
*TM 32-5815-206-ESC/2 Apr Teletype Receiving Central AN/TCR-2



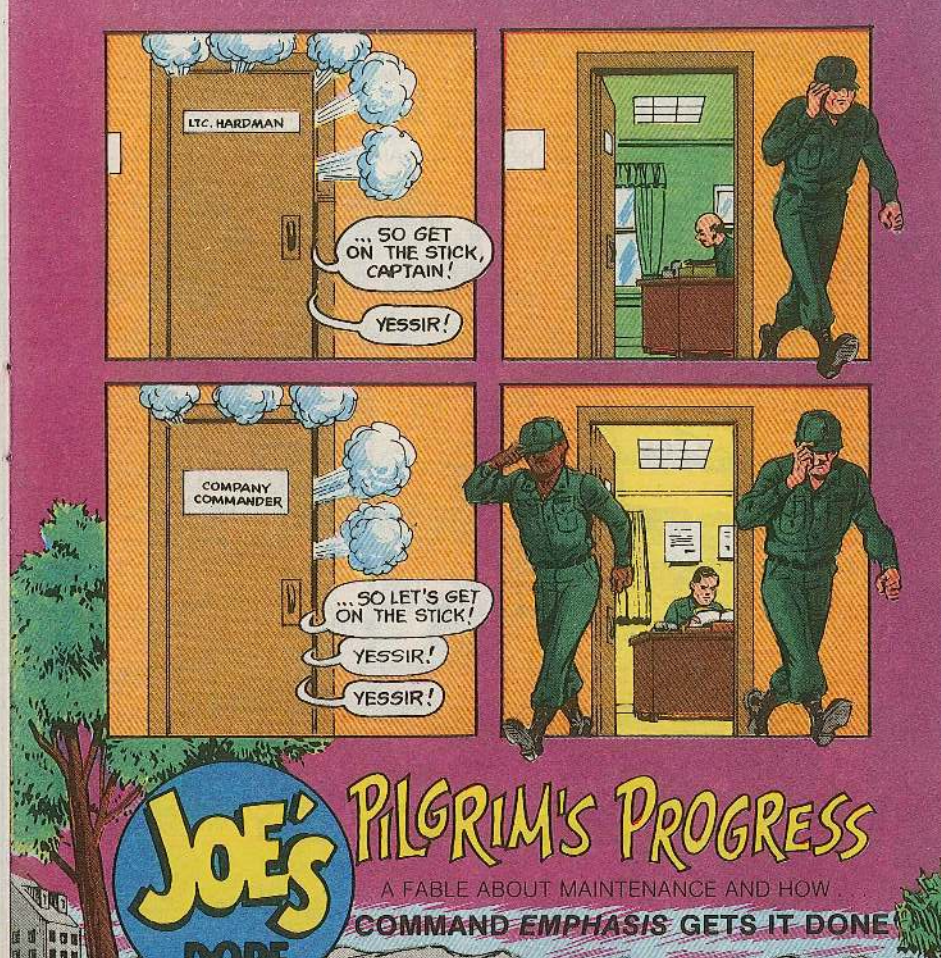
*TM 32-5895-199-ESC Nov 75 Data Analysis Central AN/TSQ-63
*TM 32-5895-223-14&P Operators Organizational, Direct Support and Gen Support Maint Manual including Repair Parts and Special Tools List
Ch 2, TM 55-1500-333-24 Jun Cleaning Procedures for Army Aircraft
TM 55-1510-209-23P-1 Jun Airplane U-21 Series
Ch 1, TM 55-1520-209-PMS Jun CH-47A Helicopter
Ch 13, TM 55-1520-209-20-1 Jul CH-47A Helicopter
Ch 27, TM 55-1520-210-20 Jul UH-10/H Helicopters
Ch 7, TM 55-1520-219-PMS Aug UH-1B Aircraft
Ch 8, TM 55-1520-219-20 Dec UH-1B
Ch 7, TM 55-1520-220-PMS Jul UH-1C/M
Ch 16, TM 55-1520-220-20 Jul UH-1C/M Helicopter

Ch 8, TM 55-1520-221-PMI Jul AH-1G, AH-1Q, and TH-1G Helicopters
Ch 5, TM 55-1520-221-20 Jul AH-1G, AH-1Q, TH-1G Helicopters
Ch 22, TM 55-1520-227-20-1 Jul CH-47B, and CH-47C Helicopters
Ch 9, TM 55-1520-228-CL Jul OH-58A
TM 55-1520-228-23P May OH-58A
Ch 12, TM 55-2840-229-24 Jun Shaft Turbine Engine Mod T50
TM 55-2840-232-23P Jun Engine, Aircraft, Turboprop (Pratt and Whitney)
TM 55-2840-233-23P Jun Engine, Aircraft, Turboprop (Lycoming)
TM 55-2840-247-23P Jun Engine, Aircraft, Turbine T-53-L-703 (Lycoming)

*These Pubs are available only from the U.S. Army Security Agency, Materiel Support Command, Vint Hill Farms, Warrenton, VA 221186

MISCELLANEOUS

AR 750-51 Jul MAIT-Maintenance Assistance and Instruction Team Program
DA Cir 40-18 Aug Command Emphasis on Hearing Conservation
DA Cir 310-91 Jun Distr of SB 700-20 on 48X Microfiche
DA Pam 385-3 May Safety
FM 9-45B1/2 May MOS458 Small Arms Repairman Skill Level 1/2
LO 5-4310-352-12 Jun Air Compressor 2-HP, S-CFM, 175-PSI
LO 5-4930-216-12 Jun Lube and Service Unit (Elliot Mach Mod ENG-3A)
LO 9-1440-585-12 Feb Guided Missile Sys M-54
LO 9-2300-216-12 Apr M107/M110 SP Artillery
*MWO 32-5811-636-20-1 Apr TD-535/G, TD-535A/G, TD-535B/G Demultiplexer
*MWO 32-5835-244-30-3 Aug AN/TNH-20(V) and AN/TNH-20A(V) Recorder and Reproducing Set
*MWO 32-6625-232-35-5 Jan AN/GSQ-53A Time Signal Set
SB 9-16 Jul Personnel Heater, Winterization Kit Policy for Tank-Auto, Construction, MHE
SB 700-20 Jan Army Adopted/Other Items Selected for Authorization/List of Reportable Items
SB 700-20, Microfiche, Jul Army Adopted/Other Items Selected for Authorization/List of Reportable Items
SC 1680-99-CL-A07 Jun Survival Kit, Individual Vest
SC 5180-90-CL-N48 Jun Tool Kit, Lineman's (LIN W43974)
SC 5180-99-CL-A01 Jun Aircraft Mechanic's General Tool Kit
TB ORD 401 Jun Rustproofing Procedures for Trucks, Trailers
TB 5-4200-200-10 Jul Hand Portable Fire Extinguishers Approved for Army Use
TB 43-0210 Aug Nonaeronautical Equipment Oil Analysis
TC 5-200 Aug 75 Camouflage Pattern Painting
TC 10-19 Jul All-purp Lt-Wt Individ Carry-ing Equip (ALICE)



TEC LESSONS Available At Your Local TASO

041-061-6120-F Reliability of Deflections and Panel Mount Checks (Tube Artillery-Fire Control Alignment Tests)
043-441-1018-F TADDS Emplacement, Operation, Maintenance
043-441-1018-F TADDS Emplacement, Operation, Maintenance
043-441-5947-F March Order-SF, Towed Vulcan
930-071-0017-F Lensatic Compass

931-061-0065-A Maint of M-17 Series Masks (Printed text only)
941-071-0080-F M60 Machinegun, Mechanical Training Part III
944-441-0012-F Wheeled Vehicles Checks, Services, Gama Goat, Part I (Exterior)
944-441-0012-F Wheeled Vehicles Checks, Services, Gama Goat, Part V
944-441-0017-F Wheeled Vehicles Checks, Services, Gama Goat, Part VI (During, After Operations)

944-441-0018-F Wheeled Vehicles Checks, Services, Gama Goat, Part VII (Lubrication, Troubleshooting)
944-441-0021-F Wheeled Vehicles, Gama Goat, Water Operations, Part I (Fording)
944-441-0022-F Wheeled Vehicles, Gama Goat, Water Operations, Part II (Swimming)

FILMS

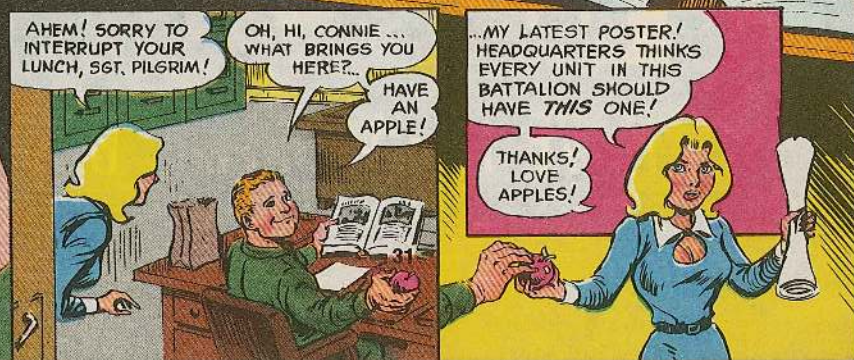
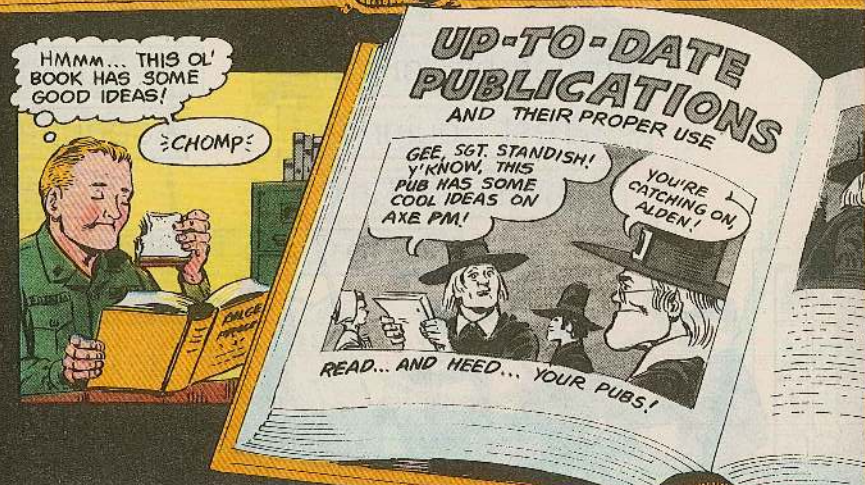
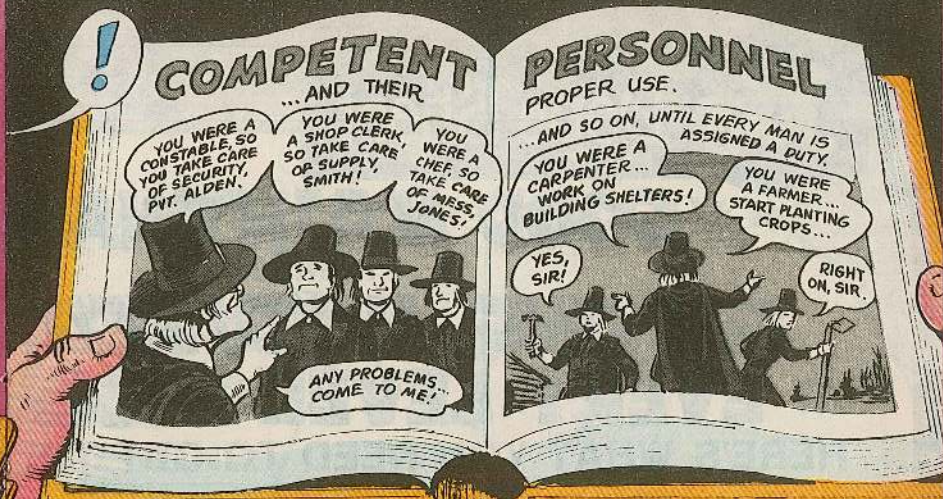
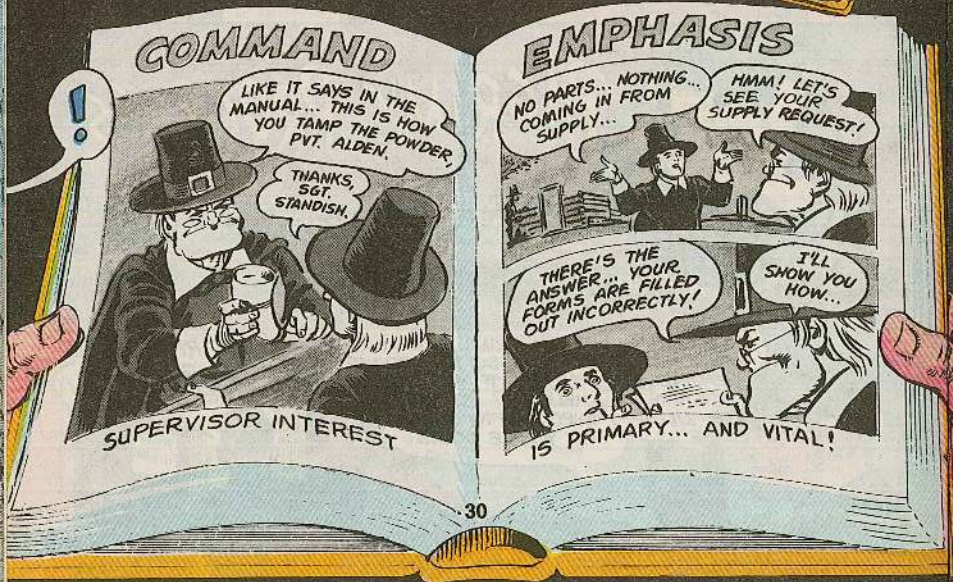
TF 11-4831 Radio Terminal Set AN/TRC-121, Part I-Introduction

TF 17-4668 Mechanical Training 50 HB M2 Machine Gun (Flex) Part II Headspace, Timing, Operation
TF 19-4919 Lock and Key Security
TF 38-4931 Processing Combat Vehicles
TF 38-4932 Processing General Purpose Vehicles
TF 44-4838 Forward Area Alerting Radar (FAAR) Part I
TF 55-4837 Loading and Securing Cargo on General Transport Vehicles



OH, NUTZ! IT'S FEED TIME! HOW CAN I CHEW OUT GUYS THAT'RE NOT HERE!

MIGHT'S WELL LUNCH IT, TOO!



Joe's Dope Sheet

GOOD MAINTENANCE

means

GETTING INVOLVED....
at **EVERY LEVEL** of **COMMAND!**
HERE'S WHAT YOU NEED TO GET THE JOB DONE:

Command Emphasis

Competent Personnel

All Authorized Tools

All Test Equipment

Adequate Facilities

Scheduled Time

Repair Parts

Up-to-Date Publications

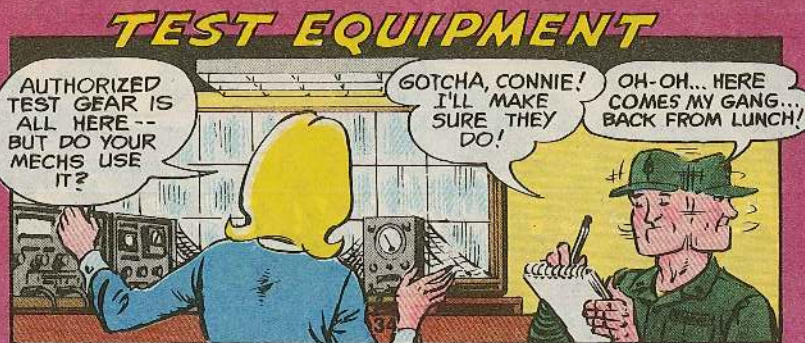


Your outfit's ability to GO
Depends on the interest you show—
'Cause without your support
Your readiness report
Will reflect much confusion and woe!



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

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



AND IN ANOTHER MONTH...

TIME FOR MAINTENANCE

LTC HARDMAN IS ON TOP O' THIS DEAL, SGT. PILGRIM! YER STILL FAR FROM BEING COMBAT READY!...

TOO FEW MECHS TO CARRY TH' LOAD, SERGEANT MAJOR!

WHOA! HOLD ONE, SARGE! WHERE ARE CERNEK, CORNETT AND BROWN?

WHAT SEEMS TO BE TH' HOLD UP?

WHY, CERNEK'S WRITIN' THE NEWSLETTER...

CORNETT'S DESIGNING A NEW COMPANY INSIGNIA...

AND BROWN'S PAINTIN' ROCKS!

NO WONDER! I'LL SEE YOUR FIRST SERGEANT ABOUT GETTING THEM BACK TO THEIR REGULAR DUTIES!

...AND IN ALMOST NO TIME...

TH' COLONEL SENDS CONGRATS! YOUR OUTFIT FINALLY MADE IT...

OUR READINESS RATING IS **NUMBER ONE!**

RIGHT ON! THANKS TO YOU, TOP... TO YOU, **SERGEANT MAJOR...** TO CONNIE AN' HER POSTER... BUT MOSTLY TO THIS LI'L OL' BOOK!

'BYE, NOW!

Y'MEAN... THANKS TO CONNIE **ALONE!** SHE PRODDED THE WHOLE COMMAND ON THIS **DEAL!**

MEBBE --BUT THIS BOOK IS WHAT TURNED ME ON!

OH, YEAH? WHO WROTE TH' BOOK?

WHY, ER... ER...

¿GULP? Y'MEAN?... TH' "C" STANDS FER "CONNIE"?

PILGRIM'S PROGRESS

COMMAND EMPHASIS GETS IT DONE

by C. Bunyan Rodd

36

WELL, WHAT DO YA KNOW?

PILGR PROGR

GROUND
MOBILITY

DANGEROUS SOLVENT

KICK OUT PAINT THINNER

HALT... STOP! **WHOA!**

?

PAINT THINNER

You no longer use paint thinner as a cleaner for grease fittings and parts when servicing and repairing your Army equipment. It's too dangerous. Its flash point is too low, only 100°F.

Instead, use Dry Cleaning Solvent, Type II (SD-2), Fed Spec P-D-680. It has a flash point of 140°F.

THIS SOLVENT IS AVAILABLE UNDER THESE 4 NUMBER...

SIZE

NSN

1-pt can

6850-00-110-4498

5-gal can

6850-00-274-5421

55-gal drum

6850-00-285-8011

Bulk

6850-00-637-6135

THE PINT IS NOT ON THE **AMDF**, SO YOU'LL HAVE TO GET IT WITH AN EXCEPTION - SUPPLY DATA REQUEST!

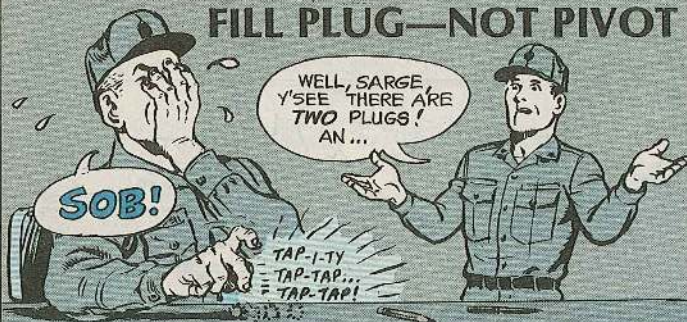


Until the dry cleaning solvent appears in your tech manual's Consumable Supplies list, use CTA 50-970 as your supply authority.

The word for this change is in Army-wide DA Msg DALO-SML 081904Z Jul 76.

37

FILL PLUG—NOT PIVOT



It's a simple thing to check the lube in your 1/4-ton truck's transmission, right? Right!

But you could end up ruining the transmission simply by using the wrong wrench.

The fill plug is low down and toward the front of the transmission. You use an open-end or box wrench to get it off.

Some guys see a plug further up, figure that's the fill plug, and go after it with a hex-head wrench. The trouble begins at the twist of the wrist.

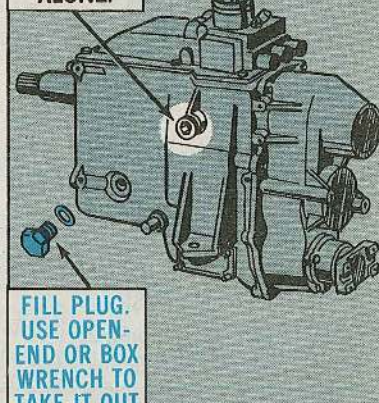
That higher-up plug is the pivot plug for the reverse shifter arm. Taking it out lets the arm drop down into the transmission. And that means a trip all the way to general support to get the arm replaced. Or a ruined transmission when you start off.

So stay away from that pivot plug.

STOCK NUMBER PROBLEM?

AUTOVON 977-7431

PIVOT PLUG. LEAVE IT ALONE!

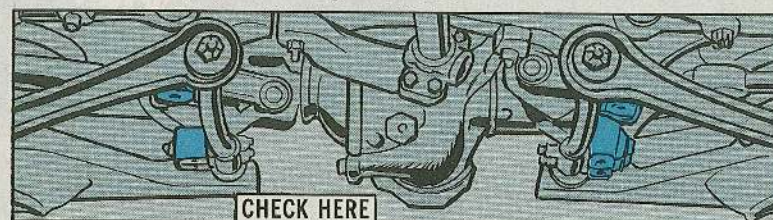


SHIMS- LEARN THE EASY WAY



Are the front tires wearing unevenly on your M151A2 or other TM-218-series 1/4-ton truck?

Is not-so-funny steering giving you the jitters? Steers hard? Pulls to one side? Too much play in steering? Wanders?



Then you'd better get under there and check those shims and spacers for the lower suspension arms . . .

. . . before you lose the suspension arms altogether!

Those shims 'n' spacers are used by your DSU to adjust your front wheel alinement.



If you lose the shims or spacers, it means the bolt 'n' nut mounting hardware has loosened up—or never was tight enough to begin with. And if the nuts are that loose, they can back off till you lose the lower suspension arm!

That's the hard way to learn about those shims 'n' spacers.

Only your DSU knows how many are needed. They figure this out when they adjust the alinement.

Your best bet is to make sure the nuts don't loosen up.

Check 'em. Back 'em off just a little—not too much or the shims and spacers will fall out. Then torque 'em back down—40-55 lb-ft for the 2 front nuts and 45-65 lb-ft for the rear nut.

2½- AND 5-TON TRUCKS... MULTIFUEL PROBLEMS?

Your 2½-ton multifuel truck blowing black smoke?
Got a 5-tonner that seems to lack power or is sluggish?

Check for dirty air cleaners and dirty fuel filters.

If you've still got the problem, maybe the fuel injectors were mixed or interchanged somewhere up the line.

Have your DS unit check 'em out. The injectors in multifuel engines should never be mixed or interchanged. The right fuel injector nozzles for each vehicle are specified in the engine parts manuals.

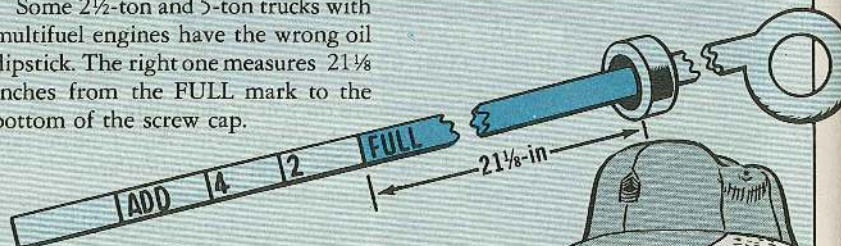
HEY-- IS THAT A BLACK TORNADO FOLLOWING US?

LET ME BREAK IT TO YOU GENTLY...

MULTIFUEL TRUCKS...

STICK TO THE RIGHT DIPSTICK

Some 2½-ton and 5-ton trucks with multifuel engines have the wrong oil dipstick. The right one measures 21½ inches from the FULL mark to the bottom of the screw cap.



YOU CAN ORDER THE RIGHT DIPSTICK WITH
NSN 6680-00-887-1334.

JACK & LUG WRENCH



Yes, jacks and lug wrenches are Basic Issue Items for wheel/tire

changing on 2½-ton (TM-209-series) and 5-ton (TM-211- & TM-260-series) trucks. Here's the word that went out to all major commands in 2 letters (Sep 75 and Oct 75) from AMSTA-MI, U.S. Army Tank Automotive Command:

For 2½-ton Trucks—	All
—Jack w/handle, NSN 5120-00-403-0953	✓
—Wrench, Socket, NSN 5120-00-293-1289	✓

For 5-ton trucks—	M813 and most others	M821, M139, M328A1, & A2	M41
Jack, 8-ton, NSN 5120-00-595-8396	✓		✓
Jack, 12-ton, NSN 5120-00-224-7330		✓	
Handle, Socket Wrench, NSN 5120-00-243-2419	✓	✓	✓
Wrench, Socket, NSN 5120-00-316-9217	✓	✓	
Wrench, Socket, NSN 5120-00-449-8261			✓

M109 VAN POWER CABLES

Need power cables for your 2½-ton shop van truck?
Get a 7-foot job with NSN 4910-00-800-1405.

If that's not long enough, get a 25-footer under NSN 4910-00-725-9558. This one hooks up to your 7-footer and then to the van.

THOSE LUBE INTERVALS



Confused about doubling lube intervals for your tactical trucks? Trailers? Commercial vehicles? Material handling equipment?

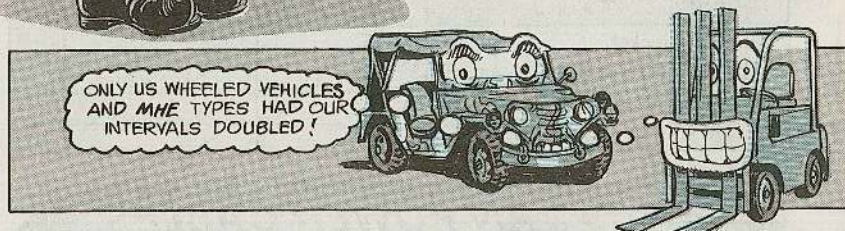
Having trouble deciding which LO's need the intervals doubled?

There's no double talk involved when it comes to LO's for combat vehicles and construction equipment.

Go by the LO—and the LO intervals!

The doubling of mileage or time for oil and antifreeze changes applies only to tactical and commercial wheeled vehicles and Materiel Handling Equipment (MHE) no longer under warranty.

Is your equipment under warranty? You lube it by the LO or with the manufacturer's recommended lubes at the manufacturer's recommended intervals.



You double the hourly intervals on MHE. Never go over 500 hours or semiannually for MHE engine oil change. The MHE poop will come later in the TB 43-0001-42-series.

These TB's tell about doubling mileage intervals:

TB 43-0001-39-1 (Apr 76), page 66.1, article 10, tells about tactical wheeled vehicles.

TB 43-0001-40-1 (Apr 76) page 15, article C, tells about commercial vehicles.

Department of Army message DALO-SMM-E261852Z Feb 74 had the word on doubling lube and antifreeze intervals.

MULTIFUEL ENGINE

UEL ILTER IX



Some older multifuel engine trucks are sufferin' like a hermit with bad teeth.

They've got broken fuel filter bracket mounting studs. And there's no need for it. There's a simple fix—but it's a job for your support.

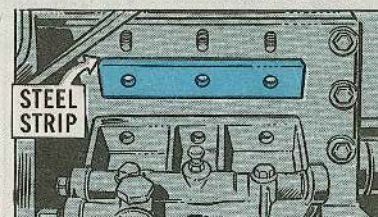


They'll take off the tappet chamber access cover and turn it upside-down. This puts the 3 tack-welded mounting hole washers at the bottom—out of the way. Then they'll put the cover back on. And they'll mount a steel



strip on the 3 studs that hold the fuel filter bracket.

This's a strip $\frac{3}{16}$ -in thick, $1\frac{1}{2}$ -in wide and $7\frac{1}{2}$ -in long—with holes drilled in it to match the 3 studs.



Or, if the upside-down cover won't line up with the studs, they'll take off the tack-welded washers and use the original holes—with the 3-hole steel strip added.

Now, with the fuel filters remounted and stud nuts torqued to 25 lb-ft, your old multifueler will feel like that hermit with new store teeth.



CUSHIONS FOR NEW VR'S?

Dear Half-Mast,

The solid state 25-amp voltage regulators in some of our trucks are mounted with shock mounts. Others are not.

These cushions are listed in the parts manuals, but it's not clear as to which VR's get 'em.

What's the scoop?

SSG S.L.V.

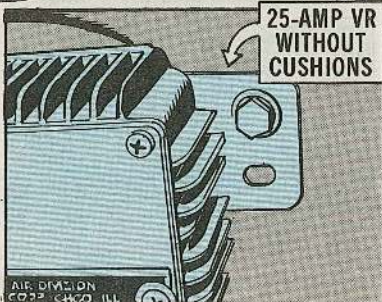
Dear Sergeant S.L.V.,

You don't need shock mounts for mounting solid state 25-amp voltage regulators.

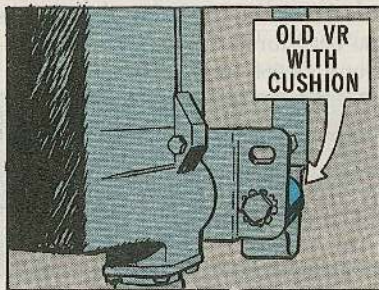
Those cushions are only for some older, contact-type VR's. This's because they have moving parts and have to be protected from too much vibration.

Half-Mast

25-AMP VR
WITHOUT
CUSHIONS

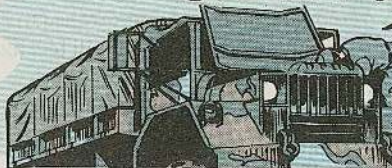


OLD VR
WITH
CUSHION



TM-260-SERIES 5-TON TRUCK . . .

STEER PUMP VENT



THIS VENT VALVE
LOOKS DIFFERENT
FROM THE
OLD ONE!

DON'T
SWEAT
IT—IT'LL
DO THE
SAME
JOB!

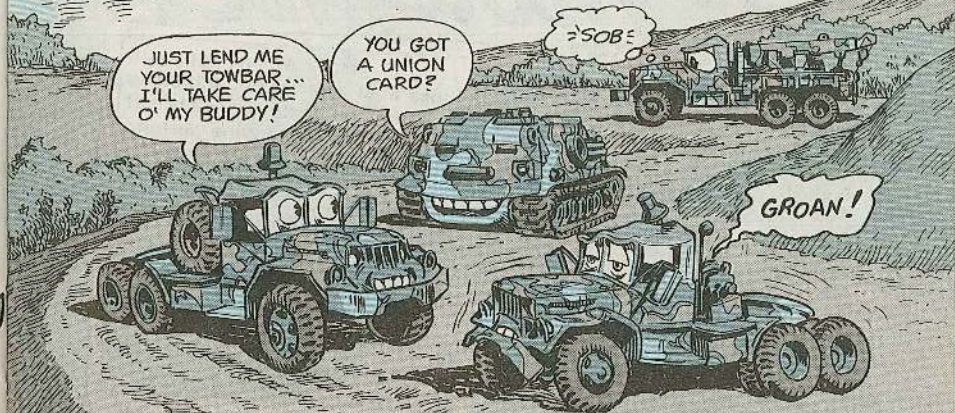


POWER
STEERING
PUMP

You don't need to replace the whole power steering pump on your M813 or other TM-260-series 5-ton truck just because you need a new vent valve.

NSN 4820-00-726-4719 will bring you a new vent. If it doesn't look exactly like the old one, don't sweat it—it'll do the same job.

TOWBAR FOR 10-TON



Nope, that towbar carried on 5-ton wreckers won't do when it comes to towing a disabled 10-ton truck (M123A1C, M123E2, etc.).

You need the heavy-duty towbar, like's carried on the M88 recovery vehicle.

This towbar is listed under NSN 2540-00-378-2012 (PN 8383802) in Table 1-1, TM 9-2320-222-10 (Apr 66) for the M88.

Your own command can authorize you to get it under AR 710-2, para 2-18h(1).

You don't have to use an M88 for the prime mover. Another 10-ton truck is the best bet. A 5-ton wrecker is not for this job.



Next Month In PS

M880, EASY 8, UP to DATE

HOWITZER HYDRAULICS

*

*

KEEPIN' HERMAN HEATIN' ELF-MAST AND THE HANGAR QUEENS

MERRY CHRISTMAS EVERYONE



AIR MOBILITY

ABOUT

Thoughts FOD

Naked.
Exposed.
Vulnerable.

AN' EMBARRASSED!



An open invitation to Foreign Object Damage.

That's the state of your Chinook's engines when the air-inlet screens are off.

The smartest and kindest thing you can do is to cover up the inlets with the covers made for that purpose.

THE KEY IS BEING REAL CAREFUL!

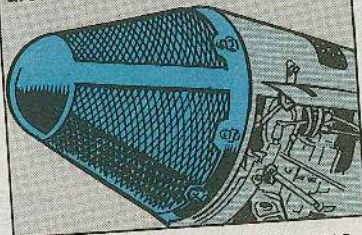
SO HERE ARE SOME TIPS...



Any time you're working near open inlets, be careful with small objects like wire clippings, small nuts or bolts. Try to work with that type of object as far away from air-inlets as possible.

By spending a few minutes being super-careful you can save, save, save.

1. Be gentle when you pull those inlet screens off, and make sure that no foreign objects get knocked into the engine air-inlet area. Then clean the screens.



2. Check the air-inlet area, guide vanes and first-stage compressor blades for signs of FOD. If there are signs of broken or chipped parts, your support will have to inspect further and replace parts.

3. Make sure your engine inlet covers—part of your fly-away gear—are free of foreign objects. Install them before doing any maintenance.



4. After you've completed your task, eyeball the covers for foreign objects before you take 'em off. Again inspect the engine air-inlet area. Then put on the now-clean screens.

CHINOOK
BIRD-MEN

KEEP A STIFF UPPER SHIELD

RAIN DROPS
KEEP FALLIN' ON
YOUR HEAD?

ROTARY WING
HEAD CONTROLS,
THAT IS...

YOU
GOT TH'
RIGHT
NUMBER,
CONNIE!



A good bet is that the stiffeners for your weather protective cover, rain shield, have been crackin' up on the job.

GET NEW STEEL
STIFFENER



NSN 1615-01-014-2092

Your support units have been fabricating aluminum replacement stiffeners—which prove too weak for the job. A new steel version has been added to the supply system. It goes by NSN 1615-01-014-2092. It'll be in short supply for a while, but, it's worth the wait. It'll help keep your heads together.

NEW SUPPORT FOR DOORS

SPACE
JUNK?



NOPE!
PILOT'S
DOOR.

SOMEBODY
SHOULD TELL 'EM
ABOUT THE FIX!



Pilot and copilot jettisonable doors that accidentally leave a Chinook in flight can be downright distracting to the crew.

The engineer types say the door actually slides down until the top latch is cleared. That's when the door exits the bird. The manufacturer is now putting stops under the door to keep it in place.

You can do the same by adding 2 phenolic blocks under each door. You'll find the good word on page 6 of TB 43-0001-2-4 (Jan 76).

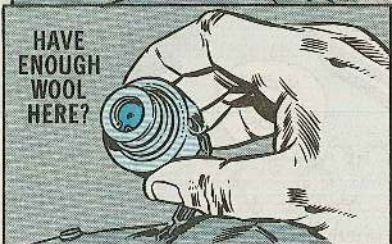
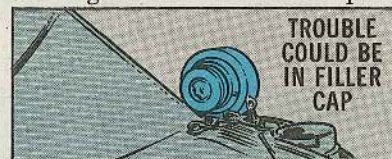
HOP
TO IT,
FLY
GUYS!





Some Huey and Cobra 90° gear boxes get changed because of a high aluminum content in the oil. These changes may not be necessary.

How come? Well, the little filler cap on the gear box could be the culprit.



Inside the cap is aluminum wool, held in place by a washer and retaining ring.

Trouble is, some caps didn't get enough wool. The wool moves around, rubbing off bits of aluminum that fall thru the vent hole in the washer—right into the oil.

So, if gear box oil in your baby is contaminated with aluminum, take off the cap and give it a thorough going-over.

Lay the cap on a workbench, upside down. Press in on the washer and release the pressure. The washer is supposed to spring back against the retaining ring.

If the wool is not doing the job, remove the retainer ring and washer. Toss out the old wool and clean out the cap. Put in enough new wool to place the spacer under tension and insert the retainer ring. NSN 5350-00-286-4851 will get you a pound of the metallic wool for only \$3.20.

Hang the cap back on the gear box. Then, comply with the special inspection poop in TM 55-1520-210-20, Ch 20 (Aug 75), about sending an oil sample to the lab.

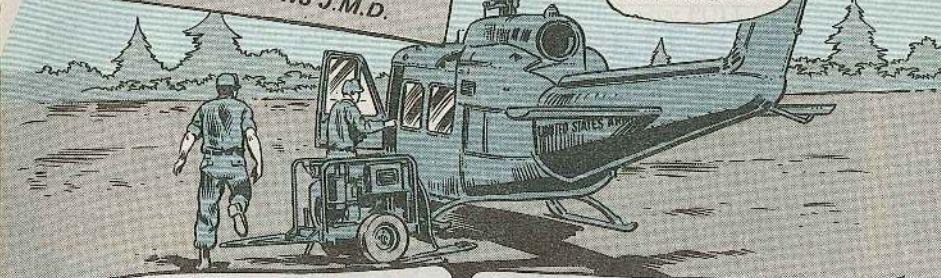
After your bird is back in the wild blue send a special oil sample to the lab for analysis, according to TB 55-6650-300-15 (Aug 70). The chances are good your gear box will pass the test with flying colors.

THE APU AND YOU

Dear Windy,
Para 2-27 of TM 55-1520-210-10 (Aug 71) says that a 650-amp auxiliary power unit is needed to crank up a UH-1 chopper.
However, the Hollingsworth Model JHGV7.5A generator we use is only rated at 268 amps. That info is in para 1-7 of TM 5-6115-440-20 (Feb 71). Of course para 12-9 of TM 55-1520-210-20 (Sep 71) recommends using an APU.
Do we really need 650 amps and how do we get it out of our generator, CW3 J.M.D.

YER LATE AGAIN, JONATHAN!

Y'KNOW-- I NEED AN APU THESE COLD MORNINGS!



Dear CW3 J.M.D.,

Yes! You need all that juice to turn over the engine compressor with enough "umph" to prevent hot starts.

Your generator has a continuous rating of 268 amps, even if the battery is shot. When you start the generator with a fully-charged battery, the battery current is added to the generator output because they are hooked up in parallel.

The combined output measures 668 amps for 2 seconds, decreasing to 568 amps in 5 seconds. This juice is available only when you use the authorized, fully charged, lead-acid battery. If nickel cadmium batteries

have been substituted the amperage potential will be much less because the generator battery charging system will not fully charge the nickel cadmium batteries.

HERE'RE THE GENERATORS YOU CAN USE TO START THE UH-1...



Hollingsworth Model JHGV7.5A
NSN 6115-00-074-6396

Bendix Model 59B2-1B
NSN 6115-00-926-8335

Atlas Polar Model MC 111
NSN 6115-00-999-5935

OH-58A KIOWA . . .

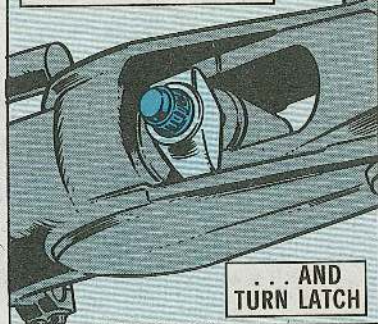
THE AFT NUT ONLY

If you're about to remove the Kiowa main rotor blades from the grips—like maybe for shipping—you can save yourself some sweat and elbow grease when you put them back.

How? Just loosen the latch nut on the trailing edge of the blade and turn the latch to the horizontal position. Then remove the blade bolt.

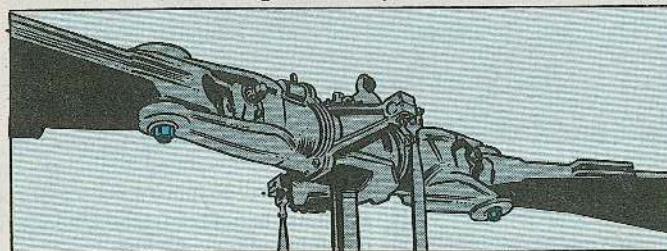
Never loosen the latch nut on the leading edge of the blade or you'll have blade realignment problems.

LOOSEN LATCH NUT . . .



MAKE THE BULLET

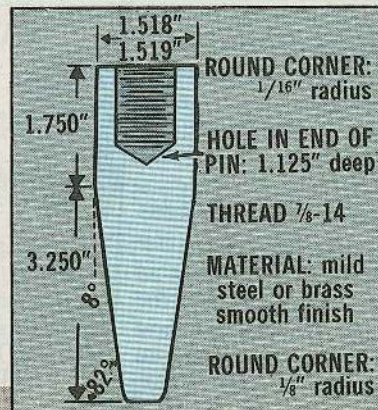
Sometimes it's almost impossible to remove the main rotor blade retention bolt on the OH-58A, using an ordinary brass drift, without damaging the grip.



TAKE A BREATHER,
KIOWA TYPES,
AND...

Well—there's a drift that can be threaded onto the bolt, butting against the bolt shank. This relieves impact forces from the bolt threads and holds the tool in place.

How can you get one? Just eyeball page 15 of TB 43-0001-2-4 (Jan 76) for the details on making the bullet-shaped drift.



ROUND CORNER:
1/16" radius

HOLE IN END OF
PIN: 1.125" deep

THREAD 7/8-14

MATERIAL: mild
steel or brass
smooth finish

ROUND CORNER:
1/8" radius

SLOW AND EASY

Easy does it when you add oil to the tail rotor gear box on your Kiowa. Give the oil a chance to register on the sight gage or you'll overfill that dude. That means real trouble.

The excess oil runs down the output shaft during operation and gets into the trunnion and teflon bearings.

You know what happens when oil and teflon meet? Bearing wear accelerates somethin' fierce. The trunnion hasn't a chance to make the 2400-hr retirement interval.

Even when you flush the gear box on a recommendation from the oil lab, never fill that baby to the brim . . . the excess has to go some place!

Just add oil slowly, until the oil level is 1/8 inch above the FULL level line. If



your bird is equipped with the high landing gear, fill to the FULL level line. Maintain those levels to get the required amount of oil—.375 US pint (6 ounces)—for proper gear box lubrication. The lube chart, Fig 1-4 in TM 55-1520-228-20, is being updated with this info.



If you go overboard when filling the gear box, get rid of the excess. Just take out the chip detector plug and drain enough oil to get the right level.

... HEED
THESE THREE
ARTICLES!

REGULAR
PM
IS THE
ONLY WAY!



HERMAN!
WHAT HAPPENED?

FASTEN OR FOD!

Cable connectors in the OH-58A's horizontal console are getting wedged between the fuselage and the tail rotor push-pull tubes. It doesn't have to happen, avionics types. Just make sure that all connectors are tightly fastened after maintenance is completed. And secure any connectors not in use.



GET "MODE 4"

No respectable aircraft with an RT-859/APX-72 transponder set should be caught without the latest Mode 4, called for in MWO 11-5895-490-40-4 (Mar 74).



HOWEVER...
NOT ALL OF THE
SETS HAVE BEEN
MODIFIED!

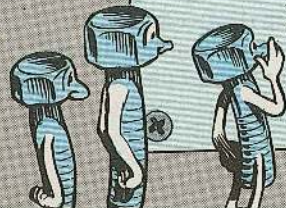
THE BIRD LOG
BOOK WILL CLUE YOU
IF YOU'RE WITH THE
PROGRAM!



PANEL SCREWS ... USE!

Bolts are not authorized as substitutes for the screws in the Kiowa's tail boom inspection and fuel line access panels. The bolts cut into longeron fittings, formers and the heads of the high-shear rivets on the longerons and formers. Considerable damage can result from overtightening a bolt. Only screws of the right length are authorized.

NO!
GO AWAY!



RED X GROUND CHECKS

IT'S OK TO
RUN ME...

BUT DON'T
FLY ME!



Dear Specialist R.C.B.,
Nosir-e-e-e! With respect to TM 38-750, the word "operate" means to fly the bird. You won't be flying it, so leave your bird on the red X.

Just be sure you eyeball the log book—and your aircraft—to make sure all parts are present 'n' accounted for ... and connected. Then the bird can be safely cranked up.

Windy

Dear Windy,
Our bird is on a red X which means we can't operate it.
To pull a maintenance operational check, or troubleshoot an aircraft system, do we have to downgrade the red X to a circled red X, Windy?

SP6 R.C.B.

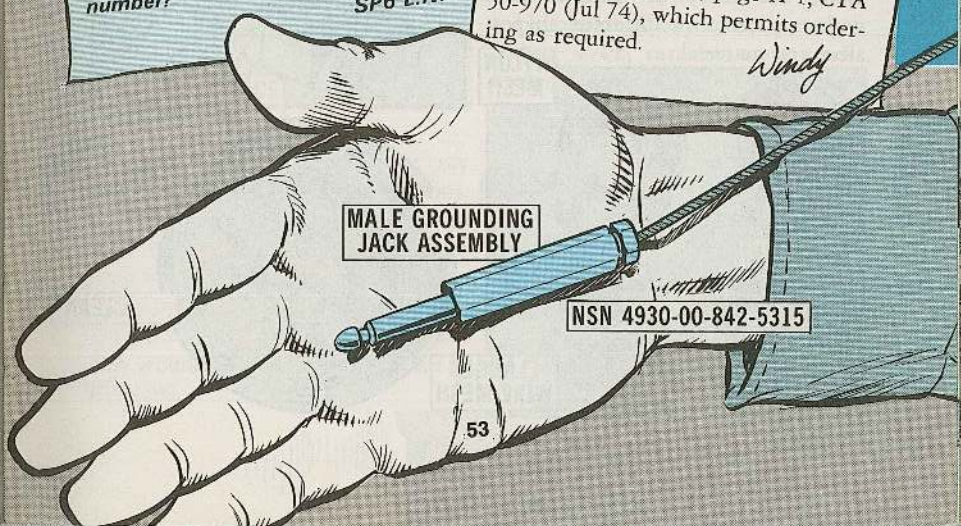
GROUNDING JACK LACK?

Dear Windy,
I need the stock number for the male grounding jack assembly that's used to ground the fuel nozzle in refueling aircraft. Can you lend a hand ... and a number?

SP6 L.N.

Dear Specialist L.N.,
You can order this assembly under NSN 4930-00-842-5315, Ground Wire Assembly. Your authority is Note 1, Appendix A, page A-1, CTA 50-970 (Jul 74), which permits ordering as required.

Windy

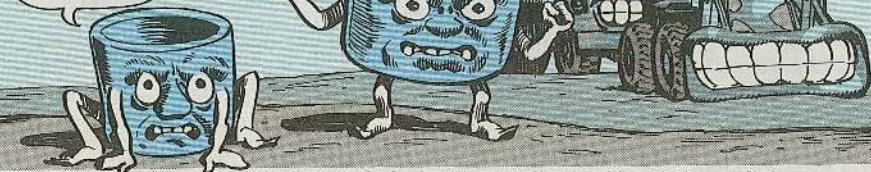




OUT OF SIGHT ...
OUT OF MIND ...

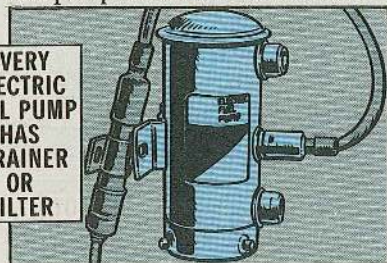
GIVE A
LISTEN TO
US FILTER
PARTS...

HEY, YOU
TROUBLE-
SHOOTERS...



Just about every piece of fuel-operated equipment uses an electric fuel transfer pump. And every electric fuel pump has a strainer or filter.

EVERY
ELECTRIC
FUEL PUMP
HAS
STRAINER
OR
FILTER



While all pumps look pretty much alike, the filter or strainer—and gaskets—comes in different shapes, sizes and material.

NYLON
MESH



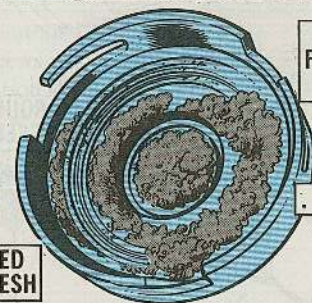
CERAMIC



WIRE
MESH



FLANGED
WIRE MESH



... AND
FUEL PUMP
CAP ...

... CLEAN!

It does a good job, too ... up to a point.

If you never clean it, gunk clogs it up and dirty fuel goes right on thru the line ... and you'll get a loss of power ... maybe engine stoppage.



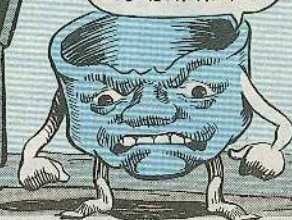
KEEP
FILTER ...

FUEL

PUMP FILTER FACTS

A LITTLE PM... WILL KEEP
YOUR GEAR
COMBAT READY!

LOOK FOR
AND CHECK
US OUT!

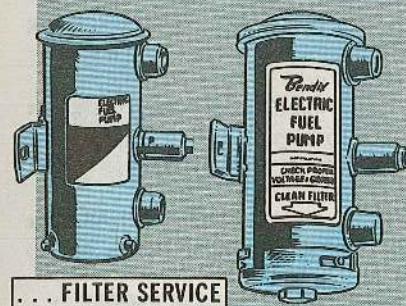


Not many O-level TM's mention this electric fuel transfer pump. Most of the time the only information you see about filter service is on the fuel pump decal. Some pump decals don't mention any service at all.

Check and clean those filters. If they're damaged, replace 'em. Gaskets, too!

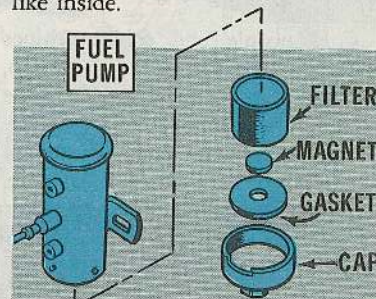
Here's what your fuel pump looks like inside.

NOT ALL PUMP DECALS GIVE ...



... FILTER SERVICE
INFORMATION

FUEL
PUMP



Hightail it out to your equipment ... rolling stock, carriers, vans, tracks, loaders, generators, etc. and check those filters N-O-W!

Some troubleshooting tables say replace the filter for various reasons. But nothing's said about inspecting, cleaning, or replacing the filter on a regular schedule.

Follow the cleaning poop if it's in your TM. Otherwise, dunk and swish 'em around in drycleaning solvent—P-D-680.

FOLLOW THESE
FILTER TIPS,
AND YOU'LL GO
A LONG WAY,
BABY!



400,000 BTU/HR HEATER

MAG POINT PICTURE

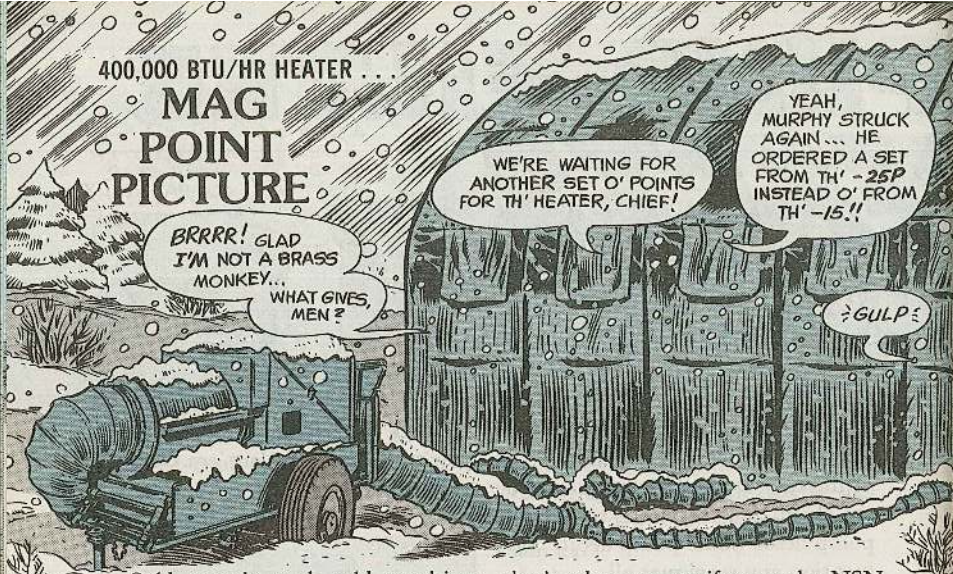
BRRRR! GLAD
I'M NOT A BRASS
MONKEY...

WHAT GIVES,
MEN?

WE'RE WAITING FOR
ANOTHER SET O' POINTS
FOR TH' HEATER, CHIEF!

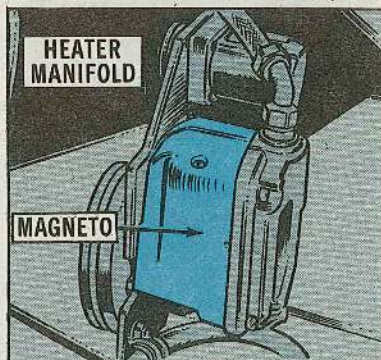
YEAH,
MURPHY STRUCK
AGAIN... HE
ORDERED A SET
FROM TH' -25P
INSTEAD O' FROM
TH' -15!!

?GULP?



Cold people and cold machines really cool the PM picture. So-o-o-o, getting heat to man and machine warms up your mission ready posture.

This's where the magneto—driven by the power unit—enters the picture.



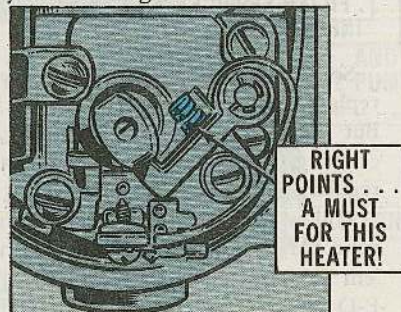
The mag supplies the high-tension spark that ignites the fuel-air mixture in the heater combustor.

A wrong distributor contact set for the magneto won't hack it . . . and

that's what you get if you order NSN 2920-00-142-0888—item 31, fig 14, TM 5-4520-208-25P (Sep 67). These parts are for a clockwise (cw) rotating magneto and won't fit the Fairbanks-Morris item.

You want a distributor contact set for a counterclockwise (ccw) rotating mag, so use NSN 2920-00-345-7398, P/N B2437AX.

Figure 30, TM 5-4520-208-15 (Mar 67) shows the right points set up you're looking for.



IMMERSION HEATERS...

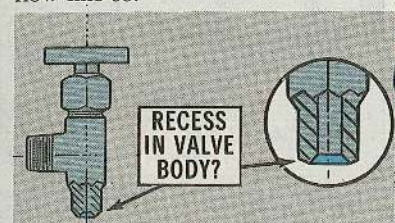
FUEL FLOW FIX

Having a hard time keeping a steady fuel flow dripping from your immersion heater's fuel tank to the burner?

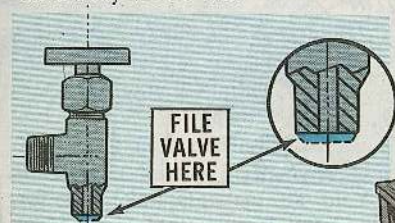
Could be you're getting air bubbles—specially on M67 models—at the fuel control valve outlet.



Some valves have a recess in the valve body. You can get a steady fuel flow like so:



Remove the valve from the tank. Lock it in a vise—away from fuel tank—and even off the bottom of the valve body with a file.



Item 3-5 in TB 43-0001-11-3 (Oct 75) gives you the go-ahead.

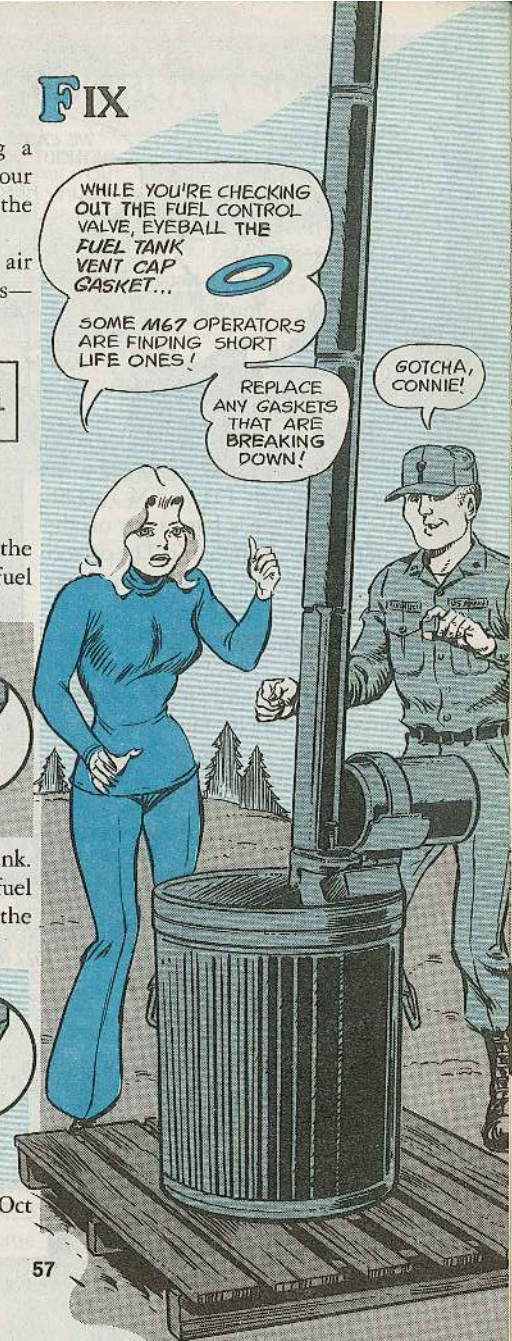
WHILE YOU'RE CHECKING
OUT THE FUEL CONTROL
VALVE, EYEBALL THE
FUEL TANK
VENT CAP
GASKET...



SOME M67 OPERATORS
ARE FINDING SHORT
LIFE ONES!

REPLACE
ANY GASKETS
THAT ARE
BREAKING
DOWN!

GOTCHA,
CONNIE!



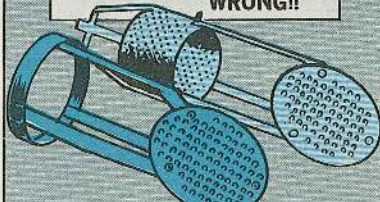
M67 BURNER NSN GOOF



Change 1 (Apr 75) to TM 5-4540-202-12 gives you a bum steer on the burner unit stock number. The correct NSN for your M67 immersion heater is 4540-01-011-7357.

The number given in Change 1—NSN 4540-00-542-2930—is the NSN for the burner used with the heaters covered in TM 10-4500-200-13. As you can see by comparing the 2 burners, they're not twins. So pencil in the right NSN in the Change 1.

NSN 4540-00-542-2930 ...
WRONG!!



NSN 4540-01-011-7357 ...
RIGHT!!
CHANGE THE CHANGE!

AIR MATTRESS FIXIT KIT



WATER BAG STORAGE



Dear SFC W.J.D.,

You scrub it inside and out with a strong solution of chlorine—one glass of calcium hypochlorite to a gallon of water. Then rinse it several times with purified water. Let it dry thoroughly.

Then, when the bag's completely dry, you fold it up compactly, wrap it in kraft paper and put it back in its original box. Or, if that box is long gone, use any clean box that'll keep it from getting damaged.

Natch, you then put the boxed bag in a clean, dry place.

THAT'S ALL THERE IS TO IT!



CANVAS REPAIR ...

PLASTIC CANVAS PATCHES



If you've got the Tentage Repair Kit, NSN 8340-00-262-5767, and you're working on the new plastic-covered material used for some new vehicle tops, you'll need something extra.

The vinyl-covered patching cloth comes by the yard with NSN 8305-00-616-0022. And a special cement for it is NSN 8040-00-893-1882, which gets you a 3-oz bottle.

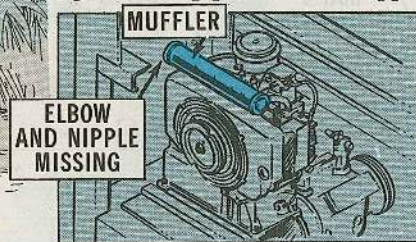
VAPOR LOCK *MTBS*

GETTING A VAPOR LOCK ON THE ONAN ENGINE THAT POWERS YOUR GED REEFER UNIT?

HERE'S A SURE FIRE CURE... AND A FEW PM TIPS!

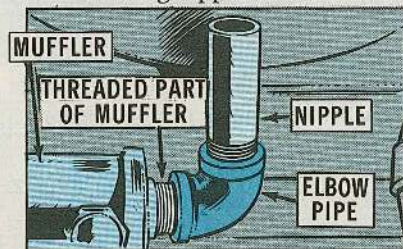
YOU BEEN READIN' OUR MAIL, CONNIE?

Could be the muffler is missing a couple of parts—like maybe a 90-degree elbow pipe and a 4-in nipple.

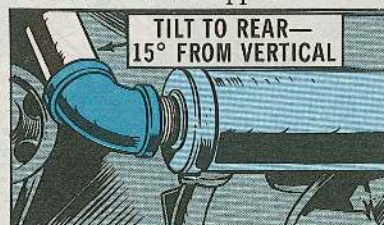


They help keep the engine cool 'n' operatin'. Your engine doesn't come with these 2 parts installed.

If the pipe and nipple are missing, add 'em. Use NSN 4730-00-249-3920 to get the elbow pipe and any 1¼-in X 4 or 5-in long nipple will do.



Screw the pipe onto the threaded end of the muffler. Tighten it until it's about 15 degrees from the vertical and pointing to the rear of the refrigeration unit. Add the nipple.



Now the exhaust heat will be directed upward—away from the engine—and cooled and scattered by the condenser fan.

NO WONDER EVERYTHING'S MELTIN'...

YEAH... CONNIE'S HERE...

HEY--COOL!

RIGHT ON! AT LEAST... NOW THE REEFER WILL BE!



Read and heed the CAUTION notes in para 2-3 and Table 2-3, TM 5-4110-224-12 (Aug 75).

CAUTION

When jumper cables are used; i.e., dead battery on refrigeration unit; the alternator must be disconnected from the circuit or damage to the rectifier diodes will result. Alternator leads may be reconnected after engine has started.

You can stop equipment damage and maintenance downtime by using the right polarity or voltage when starting the engine with a booster battery.

So, be sure to unhook the alternator. If you don't unhook the alternator, you'll short the rectifier diodes. Replacing 'em is a DSU job.

Hook up the alternator leads after the engine starts.

Never—like n-e-v-e-r—use a jumper from a tactical vehicle to start the unit. That's a 24-V electrical system, and it'll blow the refrigeration unit's circuitry quick-like!

If you're having trouble with the unit's battery running down, turn the engine over at least once a week. Run it long enough to charge the battery.

+++ New MOS Tests +++

SQT is coming. The Army has a new series of skill qualification tests (SQT). Four MOS are slated to take the test first: 11B Infantryman, 16J Defense Acquisition Radar Crewman, 45B Small Arms Repairman, skill levels 1 and 2 only, and 95D Assistant Special Agent, skill levels 1-3. Soldiers with those MOS should have the Soldier's Manual and SQT notice by now. See your supervisor or unit First Sergeant if you haven't received 'em.

PORTABLE MINE DETECTING SET

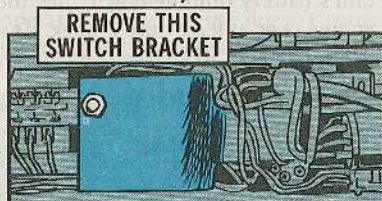
UNDERMINED!



Your Fourdee Model 4D6000 portable mine detecting set AN/PRS-7 could be a walking electrical short circuit . . . waiting for the battery to explode!

Your set short circuits when the terminals on the rotary switch wear thru the insulation on the switch retaining bracket P/N 13220E0828. Heat continues to build up in the still discharging dry-cell battery . . . and boom!

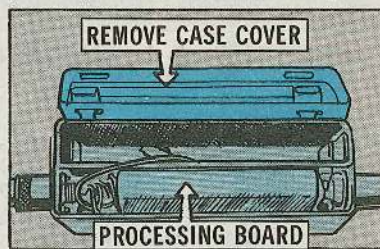
USATROSCOM Message 161430Z May 75 authorizes organizational personnel to remove the metal switch bracket as a safety measure.



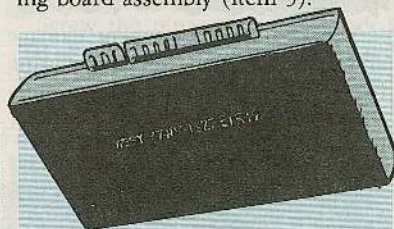
Check your 4D6000 sets pronto. Could be you didn't get the message.

If you haven't taken out the metal switch retaining bracket, here's the how-to poop. You'll need a copy of TM 5-6665-293-23P (Nov 73). Open it to Fig 3, page 7.

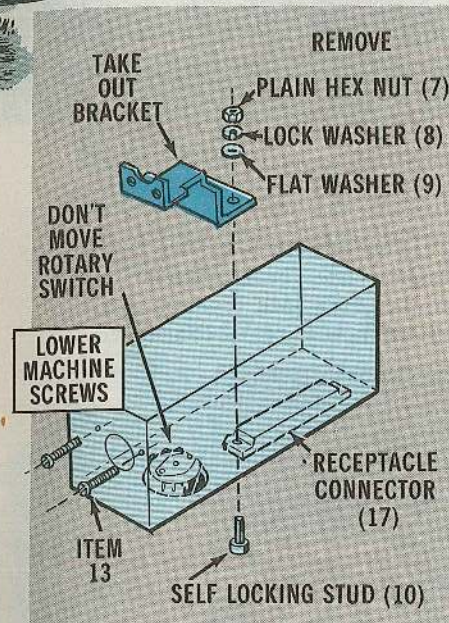
Remove the control unit case cover (item 1).



Carefully lift out the signal processing board assembly (item 3).



Check the rotary switch (item 22). You don't want the switch to move when you're taking out the bracket. So, doublecheck the threaded water seal dust boot (item 20) and the rotary switch setscrew/knob (items 18, 19) for tightness.



Now focus on the left-hand side of the electrical receptacle connector (item 17). Remove the plain hex nut, lock washer and flat washer (items 7, 8 and 9) from the self locking stud (item 10) that holds the retaining bracket to the connector.

Remove the two lower machine screws (item 13) that hold the bracket to the receptacle connector (item 15). Take out the bracket.

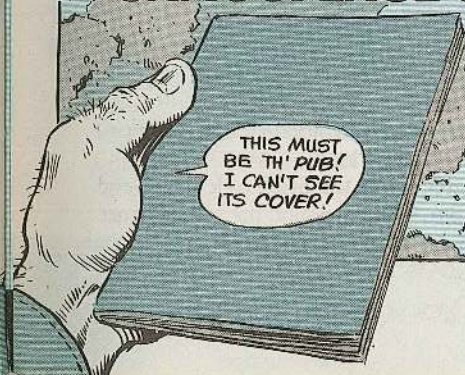
It's careful does it now as you replace all the items you took out of the case. This includes items 7-10. You'll need 'em for a new type bracket.

In order to replace item 13, you must use two additional hex nuts and lock washers (item 11-12). Replace the module and case cover.

Keep the metal bracket until you get the word on what to do with it.

Watch for a new non-conductive plastic bracket NSN that'll make the AMDF microfiche later this year.

CAMOUFLAGE SCREEN PUB OUT



Great late word on camouflage screening is in TM 5-1080-200-10&P (Jul 75), with Change 1. It tells all about the woodland light weight radar scattering screen—NSN 1080-00-103-1246—and the support system, NSN 1080-00-108-1173. It's pocket size and a real goodie.

NON-DISPOSABLE EXPENDABLES

You're a sharp PLL type, right? You speak the lingo and fill out a DA Form 2765 with the best of 'em.

Your job is crucial and you know it.

But, did you know a lot of supply types blow it over two small codes Recoverability and Expendability?

No way, you say?

OK, try this on for size: One of your mechanics charges in with a bum part—maybe a cable or a filler plug.

You take the old part, give him a new one and fill out a request to replace the item. While you're checking the info on the AMDF, you notice the item is coded X for expendable. So, you start the part on its trip to the property disposal office.

Everything's straight, right? Wrong! That cable or filler plug may be expendable but the recoverability code decides its fate. The recoverability code (RC) on the AMDF or the last letter in the item's SMR (uniform source, maintenance and recoverability) code tells you how to get rid of bum items.



THE RECOVERABILITY CODE (RC) COLUMN ON THE AMDF GIVES YOU DISPOSAL INFO.

DO NOT USE EXPENDABILITY CODE (EXP).



The expendability code (X or N) determines paperwork accountability (like property book or hand receipt listing). You never use the expendability code to decide what to do with a bum item.

If the RC column on the AMDF disagrees with the SMR code in the end item's parts TM, go with the SMR code. But, when in doubt, the Maintenance Allocation Chart (MAC) rules over both the AMDF and the SMR code.

Connie's POSTSCRIPTS



MIB Keep Your Seat MIB Right Form, Wrong Place?

Better do the best you can to hold on to your driver's seat. There are not enough to go around. You might say people are standing in line for these seat assemblies.

So, keep the seat, NSN 2540-00-933-1092, in shape with the parts listed on pages 120 and 121 of TM 9-2300-257-20P (Aug 75). Items 2 to 31 are the parts you need.

10-Ton Tie-Rod Nut

The right nut, hexagon, tie rod steering, for your 10-ton truck comes under NSN 5310-00-998-0608. TM 9-2320-206-20P (Dec 71) has the wrong number . . . and so does PS 281, page 65.

Oil Analysis Expanded

The Army Oil Analysis Program (AOAP) for nonaeronautical equipment has been expanded. In addition to tank engines, it includes the 6V53, 6V53T and 8V71T engines for the M113A1-series carriers, the M551/M551A1 Sheridans, the M107, M109 and M110 SP artillery and the M578 recovery vehicle. Diesel rail locomotives and diesel watercraft engines were added. The new edition TB 43-0210 (20 Aug 76) has the word. Construction equipment with the above engines are included. This will be covered by Change 1 to the TB.

When you use this new DA Form 2028-2, remember one thing: It's pre-addressed to the command responsible for the particular pub it came from.

If you use a 2028-2 from one pub to send comments on another pub, make sure the preprinted address is the one you want. Check the front of each pub for the right address.

'Course, if you're out of the new forms, a regular ol' 2028 to the address in the pub will do just fine.

Camouflage Reg Change

The latest word on camouflage marking and painting is in a message change to AR 750-58—DALO-SML 091705Z Aug 76.

This message gives updated info on marking Army equipment such as removing the requirement for exterior registration numbers on camouflage-painted equipment.

Plexiglass Polishing

Pilots need a clean and scratch-free view for safety. A plexiglass polishing kit, including cleaner, is listed in the maintenance supplies section of aircraft -20P TM's. It's under NSN 1560-00-624-0175. Cleaners other than those in the kit can scratch the plastic, so stick with the kit's cleaner.

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

GET THE **URGE** TO **PURGE** YOUR **OPTICS**



EVERY 90 DAYS—OR OFTENER!

TM 750-116
SHOWS YOU HOW!