

respondence course program. It's OIT-On the Job Training.

You learn-by-doing. You study the written material on your own time and then actually put into practice what you've learned.

The Army is helping you help yourself. It's the next best thing to straight OJT, which some units can't set up because of a shortage of time and instructors. It's especially handy for Guard and Reserve outfits.

So far, there are 2 organizational maintenance MOS's (Military Occupational Specialty) Program-

- 63B20, Wheel Vehicle Mechanic
- 71T20, Maintenance Data Specialist (duty: equipment reports clerk)

Coming up soon is 63C20, Track Vehicle Mechanic.

Your CO has all the poop. Or he can get it by ordering OSPAM 75 (Commander's Guide to the Enlisted MOS Correspondence/OJT Program for Career Development) from:

These OJT courses and the other straight. correspondence courses offered by USAOC&S are described in OSPAM 27, Catalog of Correspondence Courses, 1972-1973.

DA Pam 351-20 (Mar 72) Announcement of Army Correspondence Courses, lists all correspondence courses offered by all service schools in the Army.

If you're a newcomer to the Army, Guard or Reserve and you don't know exactly what's involved in a particular MOS, get AR 611-201 (Jan 67) w/Ch 1 thru 21. It lists 'em all and tells everything about each one.

PREVENTIVE MONTHLY

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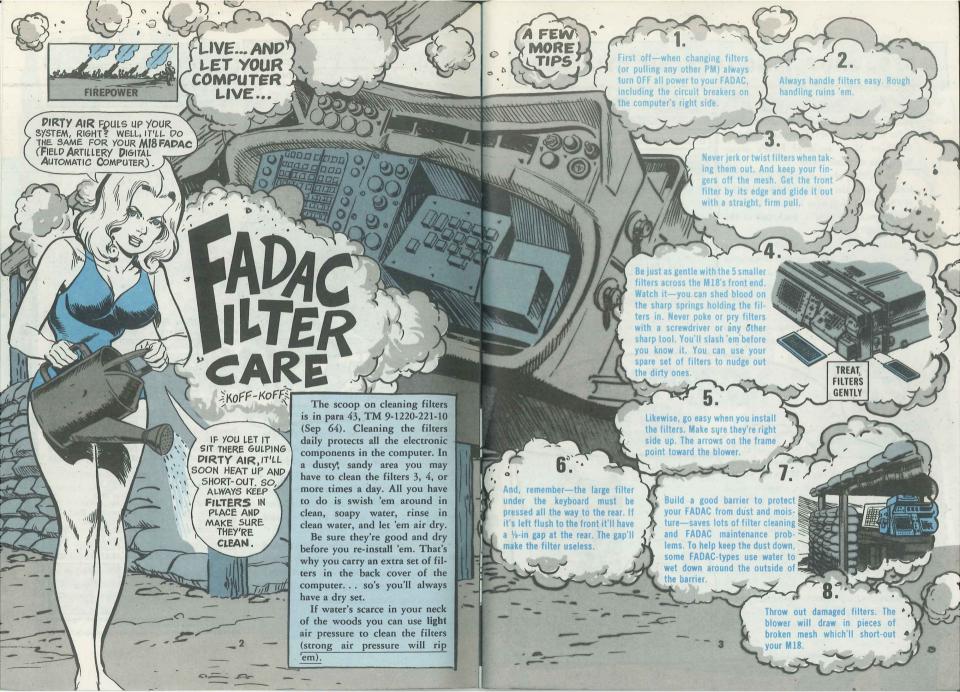
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PS wants your ideas and contribu tions, and is glad to answer your questions. Name and address are cept in confidence. Just write to:

USG Hall-Mast PS Magazine, Port Knox, Ky.

Use of funds for printing of this publication has been approved by Headquarters Department of the Army, 22 January 1971 **DISTRIBUTION:** In accordance with requirements submitted on DA Form 12-4.



M578, M107, M110 LOCKOUT CYLINDERS

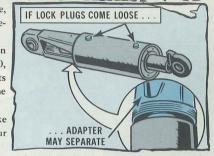
So you got an M578 recovery vehicle, M107 or M110 artillery? Here's something else to think about . . .

The locking plugs on your suspension lockout cylinder, FSN 2530-019-0010, (P/N 10891574-1) may loosen which lets the adapter (10891575) back out of the shell (10891578).

Operate your lockout cylinders to make sure they're OK any time you think your suspension is not working right.

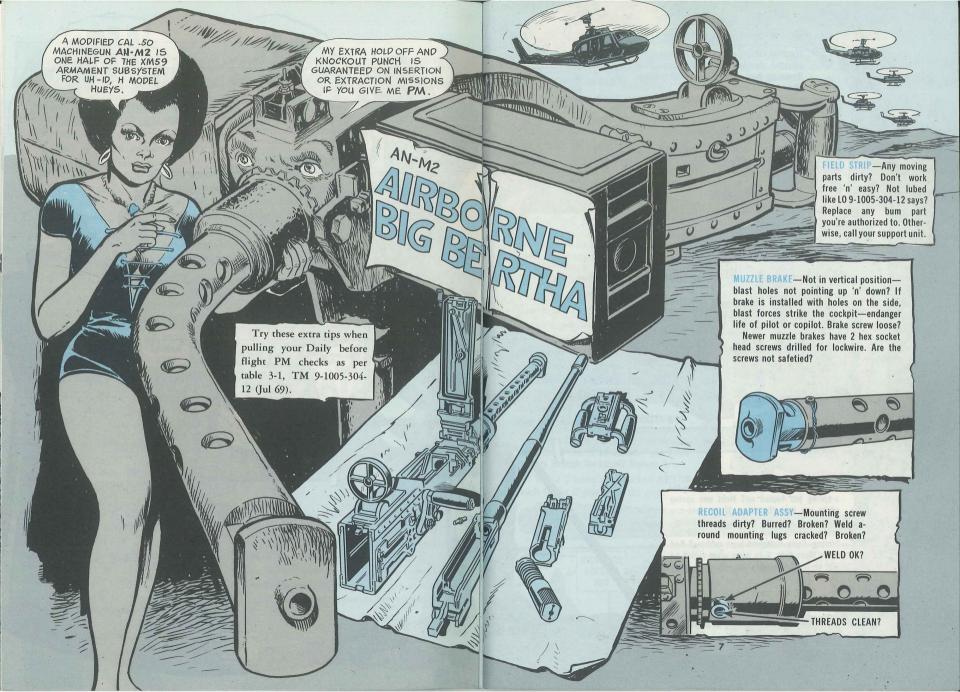
During quarterly maintenance (or any other time the power plant is removed) inspect the lockout cylinder for evidence of leakage or loosening of the adapter in the shell.

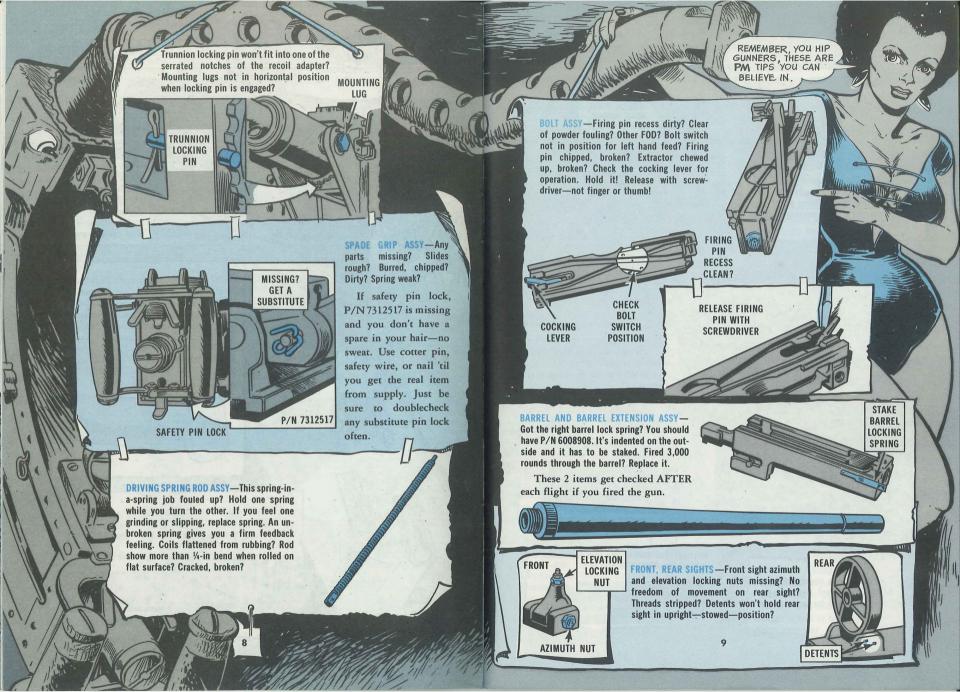
If this is what's happening, contact your direct support for replacement cylinders or necessary repairs. They'll know how to fix lockout cylinders.

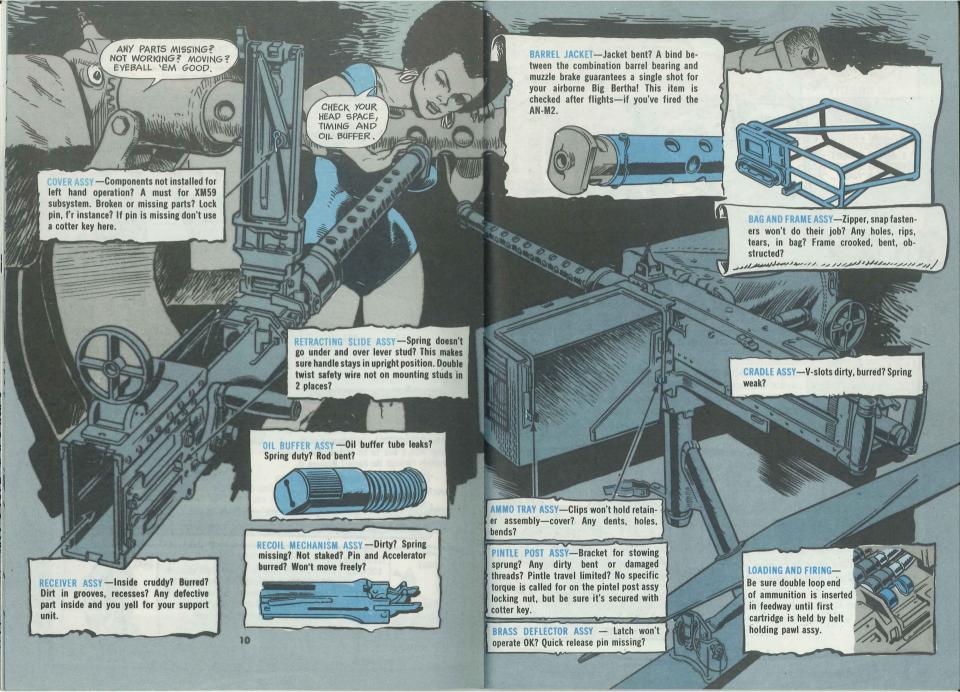


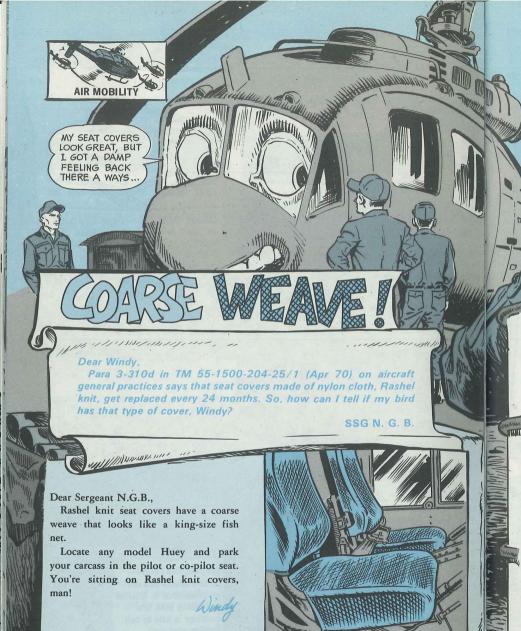












STEPPED ON FUEL LINE

A ruptured hose spells trouble any time, and 'specially if it's the main fuel line!

A loose clamp, poor hose routing, bum nut torque, or careless hose hookup during replacement and the line goes on the fritz.

F'rinstance, when Spec Careless connected the aft end of the main fuel line to the fuel flow divider inlet on his UH-1D T53-L-13 power plant, he let the elbow turn while tightening the B nut. The fuel line played footsie with mormon clamp on the combustion chamber. In-flight vibration did the rest.

No one caught the chafed line deal until 2d PMI!

Inspection means looking, feeling and tugging. It's a dirty-hands, by-the-book type of PM that pays off. Would you believe safer aircraft, saved skins?

Need a hint on your next PMD? Broken strands, squashed, frayed or twisted lines' or hose are first-class danger signs. A twisted line is shorter so you'll get a lousy fit and extra stress on fitting, plus a restricted fuel flow.



YOU HEARD HIM, CHECK THAT MAIN

FUEL LINE!



JUNE 1972 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

SMTWTFS

Dear Windy,

The replacement and retirement schedule in our Seminole shows that the altimeter gets replaced every 12 months.

The same type altimeter in the Ute gets a 24-month accuracy check.

What gives, Windy?

Dear Sergeant H. O. G.,

Both altimeters get a 24-month accuracy check.

Look for a change to the special inspection section of TM 55-1510-201-20 (Jan 69). Then—enter the check on the log book DA Form 2408-18.

m 2408-18. Windy











ments. To avoid the pucker situations you 68F types should know how to use the right splicing tool and right splice to get a Numbah One job.

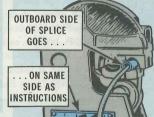
Review para 5-63, TM 55-1500-323-25 (Aug 68). Then with crimping tool MS25037 in your mitt, focus your peepers on these PM tips.



splice inspection window when the stripped conductor butts against the center stop.



Make sure the outboard part of the splice is inserted in the conical side of the crimping tool-not in the flat side.



If you crimp the inboard part of the splice in the larger diameter of the crimpcrimp on the exposed wire.

OH!

So, the smaller diameter of the flat side die crimps the insulation as well as the wire. Then when a strain is put on the wire it'll slide out from under the crimp.

a locater groove in the die. If so, don't

use butt splices with ridges.

Some crimping tools are similar to ing tool's conical die you won't get a tight the MS25037 and make good splice crimps. When you use a look-alike tool, just be sure its smaller diameter area crimps only on the splice area and stripped bare wire.

'Course, Old Pro wiresplicers never use needle nose pliers, diagonal pliers-You may have a crimping tool without dikes-adjustable wrenches or bench vises for crimping.





EM, PODNER. 30MIN AND GOW

COMMO GEAR BACK TO DS FOR REPAIR 22 TLC IS THE BYWORD

PACK 'EM, MAN. Packing-that's the Cushion sharp edges so they won't dam-

You swaddle that piece of electronics gear in as much padding and insulation electronic gear in the back of a deuceas you can. Use the original packing case anna-half, to bounce and bang and jiggle if you still have it, and always make it around, and maybe pick up a whole packing duty.

Wrap the equipment in blankets and other available padding. Regular packing materials such as foam rubber or polystyrene "worms" can be worth their weight in modules. Crumpled newspapers can save the day. Some outfits keep an old salvage mattress or two around and haul their delicate items on them. They're great!

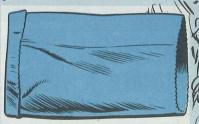


SEPARATELY, PLEASE -If you've got several items making the move, it's best to pack 'em separately. Beware of stacking fragile items in the bottom of a box and tossing heavy items on top of 'em.

, age other equipment.

O'course, nobody ever slams a piece of point to save boxes and cartons for mess of extra damage. That's for the

> Too much bumping and banging over super-rough roads, and that item you send out for calibration, f'rinstance, could need more calibration after the return ride. Use padded bags to transport modules and printed circuit boards.



PADDED BAGS ARE GOOD FOR SUPER ROUGH ROADS

Which means, the equipment has to be packed just as well to come back home. So, remind your DSU to do a little extra padding and give with extra care with your gear when it's ready to come back to you.

West of the state LOOK IN THE BOOKS - You'll find SB 38-100 (June 71) more than valuable in packing matters. It's official name is "Preservation, Packaging, Packing and Marking Materials, Supplies and Equipment Used by the Army."

Using SB 38-100, you can order boxes, bags, and packing-all varieties of eachplus other essential packing needs.

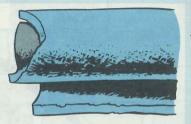
For example, FSN 9390-174-0983 will bring a burlap bag of dry, shredded asbestos, and FSN 8135-132-9569 is good for bonded-fiber cushioning material measuring 72 by 24 inches.

If you're after padded bags, try FSN 8105-290-0340 for a 10 by 6-in bag: FSN 8105-290-0342 for one that's 12 by 71/4-in, and FSN 8105-281-1169 for a 20 by 141/2-

These, as well as other cushioned bag sizes, are listed on page 6 of SB 38-100.



To protect items against shock and vibration, order some bubble pack. It's a flexible, cellular, plastic film that comes in rolls 250 feet long, 4 feet wide and ½-inch thick. The FSN is 8135-142-9004.



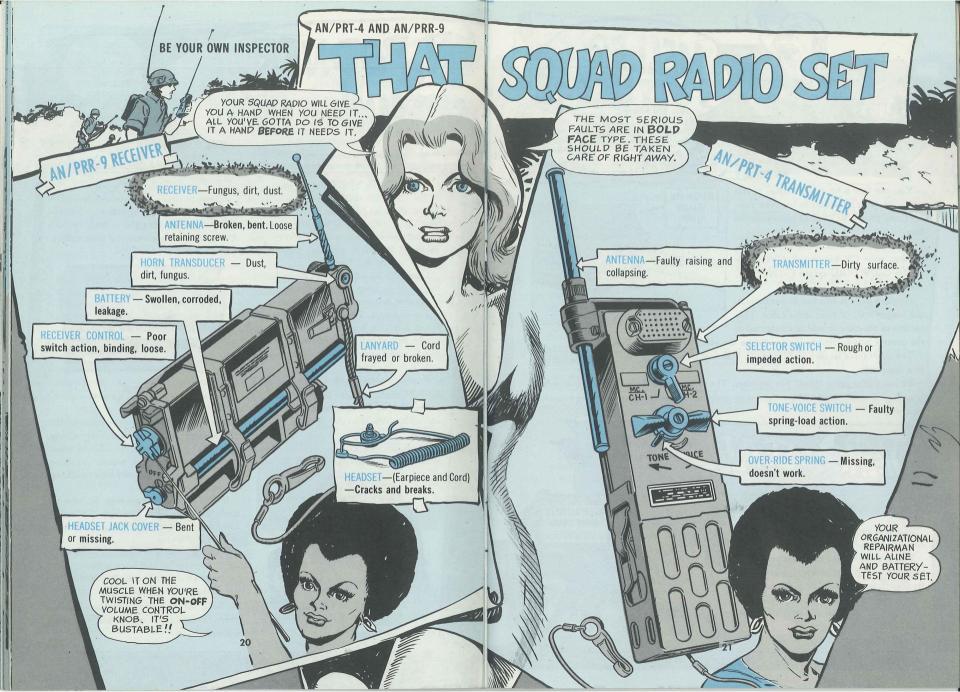
USE YOUR BUBBLE PACK

The main thing to keep in mind is: SB 38-100 can point you toward such packing items as folding boxes, fiberboard solid boxes, regular wooden boxes, excelsior packing, and just about any other packing aid you may need.

If you need any know-how on how to apply these materials, consult TM's 38-230-1 and 38-230-2. Preservation and Packaging and Packing.

And don't forget to mark the boxes with the stock number and nomenclature. Better make sure it's addressed properly, too, if you want DS to get it. MIL-STD-129, Marking for Shipment and Storage, explains markings to apply and marking materials to use.

111 ... 111





MATCH THE

YELLOW

STRIPS

You can lose a lot of "air time" if you cross the cable connections between your CVC and your AN/VRC-12 radio's control box.

MELLER YELLER is the key when attaching your CX-8650B/GR CVC cable to the C-2297/VRC or the C-2298/VRC control box.

A vellow band is attached to one branch, the longer one, of your mike cable. This section of the cable should be connected to

the control box receptacle located below the yellow strip on the box.

The other cable section is solid black. It should be attached to the remaining control box receptacle.

Ya say you're color blind? No problem. The yellow band is the only band on either branch of the mike cable. The yellow strip is the only light color found above a control box jack.



Moisture and fungus plaguing your radio

You need air-drying electrical insulating varnish for a tight seal at connection points. Be sure to keep it away from the contacts.

FSN 8010-515-2487 gets you a one-pint spray can. For a gallon, use FSN 5970-548-9520.





GET LOST, POLL! KEEP THAT STUFF AWAY FROM MY TELETYPE

"Coffee, tea or me?" said the AN/UGC-4 teletypewriter set.

Fact is, you could add milk, Coke or other sticky syrups and come up with the same question. Drip 'em into the guts of your teletypewriter, and you'll sure enough stop the action.

Same goes with the "lard." Too much oil, or not enough, hurts. If you need some hints on the constant touch, flip TB 11-5800-204-20/1 (Feb 66).

The adventurous should remember that motor speed and rangefinder adjustments are about all the operator is supposed to do. Wandering fingers make big repair jobs. Avoid the problem.

But use fingers on the motor speed adjust. Pliers make problems, like burrs which cut fingers.

Otherwise, keep it clean-by using the dust covers on the TT-98.

Finally, to insure proper operation and to prevent damage, stick the right power lead into the right receptacle. If you've got questions para 2-6 of TM 11-5815-200-12 can set you straight.

Here's the right way to take the BA-4534/U battery out of your AN/PRR-9 (XE-9) radio receiver.

Move the battery gently in the same direction as the contact pin, making sure most of the battery slides through the battery retaining clip. If you need a little boost to start the BA-4534 moving, you might use a makeshift non-metallic wedge to loosen the battery from the contact pin.

The idea is to avoid forcing the battery sideways out of the battery retaining clamp. That can damage the battery contact pin.





AMPLIFIER . . .

THIS

NEW

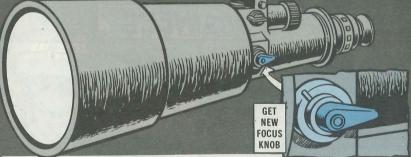
GUARD

Keeping the water out of your AM-1780 amplifier while it nestles under the right side assistant gunner's seat of your M107 or M110 SP howitzer is as simple as requesting guard, FSN 5830-179-7736.

Not only does the guard keep the water from settling in the rim of the amplifier, but it also protects the connectors from the crew's boondockers, which frequently stomp the connectors into the repair shop.

So the guard saves inside and outside amplifier damage. Your authority for asking for it is SB 11-131, since the cover has been added to the installation kits for the VIC-1 intercom sets that go in the SP howitzers.

TVS-2 FOCUS KNOB FSN



Getting red in the eyes trying to dig a focus knob FSN out of changes to TM 11-5855-202-13 (on the TVS-2 night vision sight)?

Rest 'em. FSN 5355-924-8938 gets the knob for the TVS-2 plain model, and FSN 5355-018-4523 brings the knob for the -2A and -2B models.

If you're still using a 5-amp F102 fuse on the RT-752 control panel of your AN/PPS-4A radar set, you're not with it, Jack.

Use a slo-blo 2-amp fuse, FSN 5920-228-7882, in that F102 slot, since that's all it takes to protect the power converter setup.

Mark "2 AMP" near the F102 slot, using the kind of marker that does the job for you best. The set'll get permanent markings when it makes the depot scene.

The change from the 5-amp to the 2-amp fuse is an offshoot of MWO 11-5840-211-45/1, which decreased the power consumption but did not scale down the power fuse rating.

The full scoop is on page 12, TB 750-911-2 (Feb 71).



Here's how to help your
AN/TPN-18 radar set stay away from

down-time doldrums:

Clean the threads of the external power connectors

USE

2-AMP

FUSE

NOW

and all other external connectors.

Then, apply silicone compound . . . very lightly.

Wipe off all the compound except a thin protective film.

This gives you a better seal and discourages moisture and corrosion.

You can get an 8-oz tube of grease with FSN 9150-257-5358.

REMEMBER THAT SILICONE T FSN!





Find the shop that has a good PP-4763()/GRC power supply, and you'll find a real with-it commo mechanic.

Find the guy who reversed the connection on the DC terminals, and you'll find some fried contacts.

Simplest way to avoid that is to match up the + (plus) output terminal to the + load terminal and the - (minus) output terminal to the - load terminal when you get ready to hook 'em up after removing the output terminal access plate in the rear of the power supply.



Don't cross 'em ... and save a few contacts.

Also, eyeball the link settings spelled out in para 2-4 of TM 11-5820-765-12 (Oct 68) to be sure you're set up for using either 115-volt or 230-volt power.



Next time you're having trouble locking in the frequency on your RT-524 or -246 receiver-transmitters, just wiggle.

The MC and KC tuning knobs must be properly seated so that your set can lock in the frequency. Give these tuning knobs a little wiggle to help seat them.

26





Haphazard handling can fritz the ground power and control cable between the AM-2060/GRC and the RT unit in the AN/VRC-53, -64, AN/GRC-125, and AN/ GRC-160.

A loose or broken ground wire can breed troubles . . . like disabling the intercommunications controls, affecting the keying circuit, causing loss of side tone.



Before putting the cable on, see that every single pin in the cable connector is straight. If one is slightly bent, it misses the hole and goes into the rubber of the receptacle and you'll never know

Then, ease up on the heavy hand by lining up the big keyway and pressing the connector in all the way. Finish off by twisting the cable lock till it catches.

YOUR PINS, MAN, YOUR PINS...WOT A MESS!

The connector of the CX-4655 power cable has a way of binding with the AM-2060 receptacle, which has a hardholding rubbery plastic base.

The trouble comes when you try to work the CX-4655 power cable connector loose. Too much pressure botches the receptacle pins and causes breakage in the metal power out plug.

Try a light application of silicone grease on the outside of the receptacle on the AM-2060 after you have gently worked off the cable connector.

While you're at it, take the cable off the RT's receptacle and apply a small amount of grease on the outside of the RT unit cable receptacle.



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Jun 71), and Ch 3 (Dec 71), TM's, TB's, etc.; DA Pam 310-6 (Jul 71) and Ch 2 (Jan 72), SC's and SM's; DA Pam 310-7 (Oct 71), MWO's: and DA Pam 310-9 (Nov 71), COMSEC Pubs.

TECHNICAL MANUALS

TM 3-1330-203-10 Feb Launcher and Grenades Smoke HC and WP M176 TM 5-3655-218-12 Jan Charging Plant Liquid Carbondioxide Mod CMST-300 TM 5-4120-334-14 Jan Air Cond 115 Volts 9000 BTU/HR Ther-Air Mod TM 5-4120-335-14 Jan Air Cond 6000

BTU/HR 115V Therm-Air Mod CE-6A-60A2 TM 9-1005-224-24 C2 Feb 7 62-MM

TM 9-1015-203-12 C1 Jan M101 M10141

TM 9-1025-200-12 C8 Feb 155 MM M114 and M114A1 M123A1 TM 9-1025-200-12 C8 Feb 115 MM M114 and M114A1 M123A1 TM 9-1340-418-12 Feb Ballistic Aerial Target Sys (BATS) TM 9-1425-300-L Jan SERGEANT

Artillery Guided Msl Sys TM 9-1440-301-12 C6 Feb XM504 Sys TM 9-1440-380-14 C6 Feb Erector-Launcher XM 790 TM 9-1425-381-10 C10 Feb Pershing 1A Field Artillery Msl Sys TM 9-1425-470-12 Feb TOW Heavy

Antitank/Assault Weapon Sys TM 9-2320-218-20P Jan Truck 14-Ton M151-series Utility M151A1 MISTAIC TM 9-2320-224-10 C9 Jan

M114/M114A1/M114A1E1 TM 9-2320-260-10 Jan Truck 5-ton TM 9-2330-255-24P Jan Trailer Low

Bed Guided Msl 7-Ton M529 TM 9-2350-217-10 C3 Feb 105MM M108 M109

TM 9-2350-230-12 C10 Jan 152-MM TM 9-4910-496-10 Dec Towbar

Motor Veh TM 9-4931-333-14 Jan AN/TPM-23 TM 11-5855-202-13 C3 Feb AN/TVS-2 and AN/TVS-2A

TM 11-5855-203-13 C4 Feb AN/PVS-2 and AN/PVS-2A TM 11-5855-209-10 C3 Feb AN/PVS-3

TM 55-1510-205-PMP C4 Feb U-1A TM 55-1520-206-20 C1 Mar OH-23D, F. G. TM 55-1520-209-20-1 C37 Mar CH-47A

TM 55-1520-214-10 C8 Jan OH-6A TM 55-1520-217-10/1 C9 Jan CH-54A TM 55-1520-217-20/1-1 C7 Jan

CH-544 TM 55-1520-217-20/2 C8 Jan

CH-54B TM 55-1520-225-20 C5 Jan OH-13S TM 55-1520-227-CL Dec CH-47B TM 55-1520-228-PMP C1 Feb OH-58A TM 55-1520-228-20P Jan OH-58A

MODIFICATION WORK ORDERS

9-1240-287-30/1 C1 Feb Modif of Case, Sight Unit M166: to Prevent Damage to Sight Unit M53 9-2350-230-30/8 Feb 152-MM, M551: Instal of Improved Attaching Hardware for Elevating and Traversing Mechanisms 55-1500-206-20/3 C1 Feb Closed Circuit Spillproof Refueling Receiver for the UH-1B/C/D/H/M and AH-1G/TH-1G Helicopter 55-1510-209-30/23 Jan Instllation of Mounting MT-3949A/U and Modification of the AN/APX-72 Transponder Wiring Harness (U-21A. RU-21A, RU-21B, RU-21C, RU-21D and JU-21 Aircraft) and Installation of Connector 94-621 to Kit-1A/TSEC Wiring Harness (U-21A and JU-21A Aircraft) 55-1520-217-20/5 C1 Mar Improved Antenna Inst for AN/ARN-83 Directional Finder Set (CH-54A and B)

55-1520-221-30/12 C2 Feb Modif to Accept the Increased Capacity Main Rotary Inverter (AH-1G Helicopter) 55-1520-221-30/13 C3 Mar Update Prov for AN/APX-72 Transponder (AH-1G and TH-1G Helicopters) 55-1520-221-30/21 C2 Mar Control Sys AH-1G Helicopters 55-1520-221-30/26 C2 Feb Imp Homing Antenna AH-1G/TH-1G

55-1520-221-30/28 C1 Feb Cockpit Lighting AH-1G/TH-1G Helicopter 55-1520-227-20/3 C1 Mar Nylon Snubber Between Quill Shafts and Pinion Shafts CH-47C Helicopter 55-1520-228-30/5 Mar Standby Compass OH-58A Helicopter

SUPPLY CATALOGS

SC 4910-95-CL-A74 Jan Shop Equip Auto Maint and Repair No. 1 Common SC 5180-97-CL-E27 Jan Tool Kit. Welders SC 6545-8-CL-H19 Jan Medical Equip Set, Field Hospital Unit SC 6675-97-CL-E13 Jan Repair Kit, Stereoplotter Proi Supplementary Multiplex Equip SC 6675-97-CL-E27 Jan Surveying Set SC 6675-97-CL-E39 Jan Multiplex Section Topographic Mapping Set, Trk

SC 6675-97-CL-E40 Jan Photomapping Section, Topographic Mapping Set, Trk Mtd SC 8465-90-CL-PO4 Dec Survival Kit, Individual Over-Water

MISCELLANEOUS

LO 5-2410-233-12-1 Jan Tractor FT DED Model D7 F, W/Engine Cat Model D333CT LO 5-2410-233-12-2 Jan Tractor FT DED Model D7 F, W/Engine Cat Model LO 5-3805-250-12-1 Jan Loader Scoop 21/2 Cu Yd Case Model MW-24 W/Eng Model 504-BD-T LO 10-3930-242-12-1 Feb Truck Lift Fork RT 6000 lb Models MLT-6, MHE 200 MLT-6CH MHE 202 ARTFT-6 MHE 222 W/Eng Mod 5043-7000 DA CIR 750-37-5 Mar Sample Data Collection Truck 5-Ton 6x6 M809 DA CIR 750-37-6 Mar Sample Collection, Truck, Cargo 11/4 Ton 6x6

MWO Of The MONTH



HIGH IN THE DESERT SKY, WINGED SCAVENGERS CIRCLE SLOWLY... MARKING TIME ... WAITING ... WATCHING





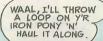






WAAL, THE LEAST WE KIN DO IS HAVE YEW OVER T'OUR PLACE T'VISIT, Y'CAN WORK IN TH' SHADE







Y'SEE, SON, BACK AWAYS WHEN 'WE WERE SOLDIERIN' Y' FOUND OUT RIGHT SOON WHO Y'R BEST PAL WUZ.













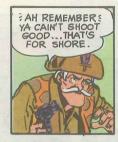






















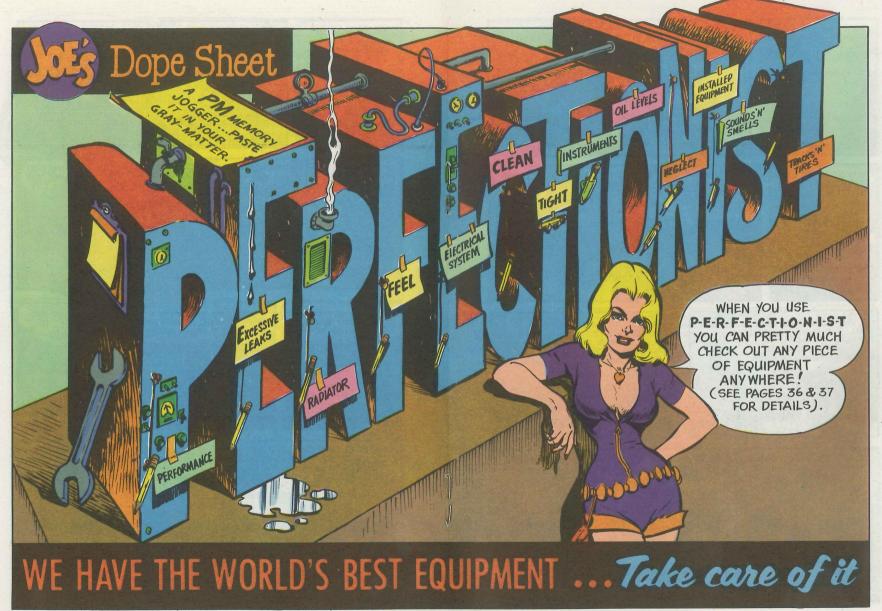


"THE CARE AND SERVICIN' BY PERSONNEL FOR THE PURPOSE OF MAIN ; ER; MAINTAININ' EQUIP... EQUIPMENT AND PA-FA-FACILITIES IN SATISFACTORY CONDITION FOR ? THIS IS A REAL MOUTHPUL ... ?



... FOR SYSTEMATIC INSPECTION, DETECTION AND CORRECTION OF INCIPIENT ... ; AUH & INCIPIENT FAILURES EITHER BEFORE THEY OCCUR OR BEFORE THEY DEVELOP INTO MAJOR DEFECTS.







































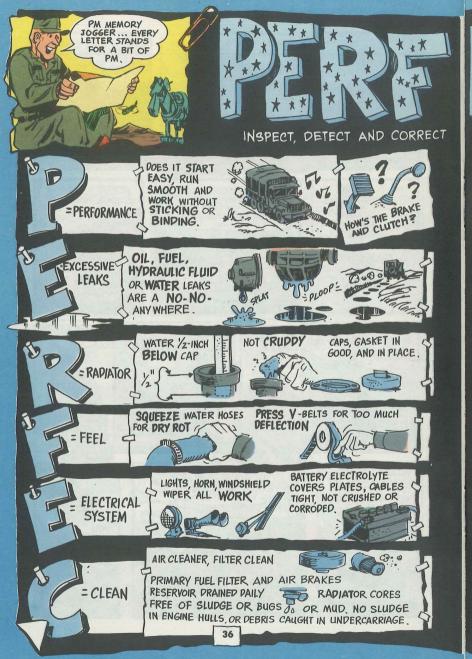














= INSTRUMENTS

EVERY GAGE SHOULD READ IN THE NORMAL RANGE AFTER EQUIPMENT

REACHES OPERATING TEMPERATURE



= OIL LEVELS ENGINE CRANKCASE, TRANSMISSION, TRANSFER AND HYDRAULIC FLUID RESERVOIRS ALL AT

OPERATING LEVELS.

FULL

ACHIRPS ACHIRP:

= NEGLECT

ANY SIGNS OF OPERATOR ABUSE TO BLIKE JACKRABBIT STARTS ZOOM NOT IDLING BEFORE SHUTDOWN NOT KNOWING EQUIPMENT MAXIMUM RPM LIMITS, LUGGING ENGINE, BROKEN GLASS TORN CANVAS

INSTALLED EQUIPMENT ALL BII PRESENT, AND IN PLACE INCLUDING LOG BOOK AND OPERATORS MANUAL

HEATER, RADIO, WINCH, ETC. ALL IN WORKING ORDER.

SOUNDS AND SMELLS PATTLE SQUEAKS

SHOULD BE OR SUSPICIOUS OPORS

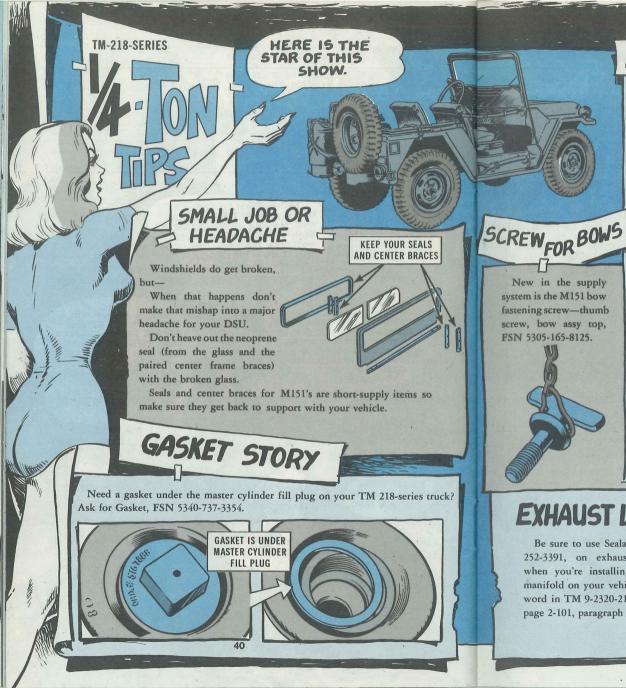
INVESTIGATED, THEY ARE ALL POSSIBLE SOURCES OF TROUBLE,

DEEP CUTS . TIRES T AND TRACKS L

TIRES WORN BEYOND RETREAD

BROKEN END-CONNECTORS TRACKS TOO SLACK OR TIGHT.





FREE TRAVEL INFO

All good 1/4-ton drivers know the clutch needs from 11/8 to 11/2 inches of free travel to be in the groove. Right? Right!

Then why are so many clutch cross shafts getting clobbered from faulty clutch link adjustment? Maybe you should eyeball that clutch free-play right now.

Place a little pressure on the clutch pedal with your finger. It should move without too much effort. When you feel it stop you have reached the end of the free play.

Do it again—this time with a ruler. Measure from start to the finish of the free travel. This distance should be between 11/8 to 11/2 inches.



If it's not, you've been doublecrossing the cross shaft. Yell for help from your mechanic.

EXHAUST LEAK?

New in the supply

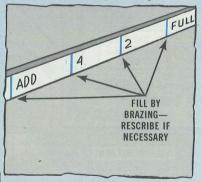
Be sure to use Sealant, FSN 8030-252-3391, on exhaust port areas, when you're installing the exhaust manifold on your vehicle. That's the word in TM 9-2320-218-20 (Sep 71), page 2-101, paragraph 2-40a.





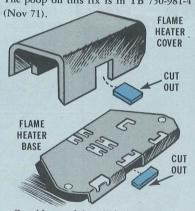
A broken crankcase dipstick just has to The poop be high on the list of things nobody (Nov 71). needs. But it's been happening on 2½-ton and 5-ton multifuel trucks.

You can head 'em off at the pass with a 2-minute checkover. Scan the lower end to see whether the FULL or other marks are cut too deeply. If the notches amount to much more'n shallow marks on metal, fill by brazing or request a replacement.



Then be sure you pull the stick straight up out of the tube to keep from bending it.

And if you have a 2½-ton job with the LD-465-1C multifuel engine, you may need some barbering on the flame heater cover so the dipstick will come out easier.



On older model multifuels, you'll want to get a dimple cut around the dipstick hole in your oil pan baffle the first chance you get. The next time you have to switch a gasket or pan seal, get support to make 5/16th-in slots around the baffle hole, then bend the tabs down.



WATER IN ENGINE OIL?

There's more to checking your crankcase oil level than just seeing if you've got enough oil.

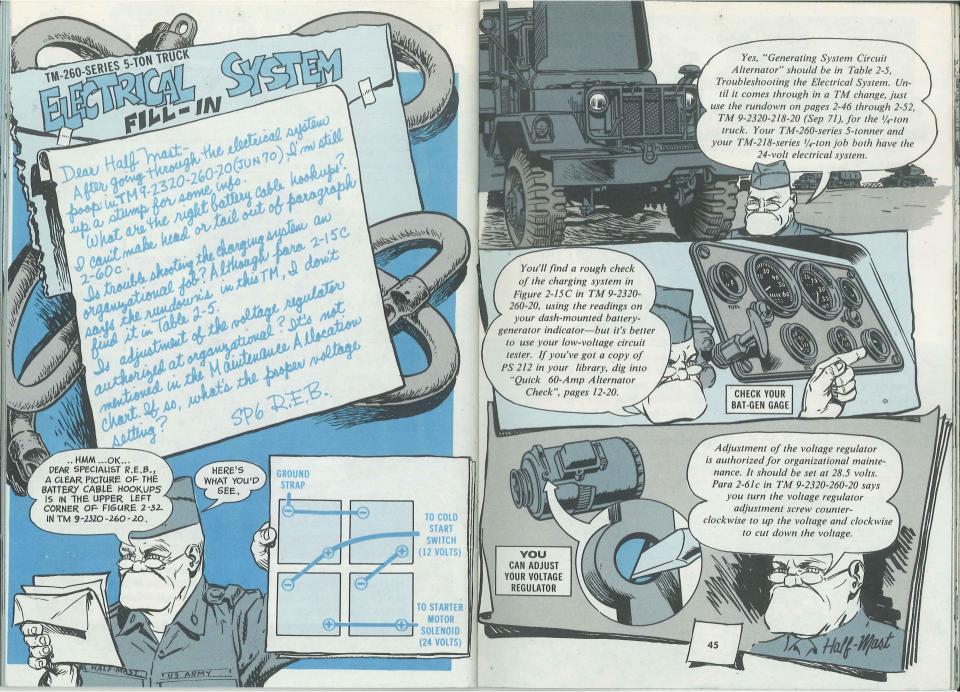
TM-244-SERIES 11/4-TON TRUCK . .

9-2320-244-10 (Aug 68).

Look closer. Maybe you've got a coolant leak in your engine. You can tell if there're little blobs of water on your dipstick.

If so, get that truck right into DS. Chances are the cylinder head's not down snug. Maybe the head bolts are wrong—not enough threaded area or too long.







Your 5-ton dump truck is a tough baby OK, but watch out for the twin-cylinder hoist assembly.

The lift rods will bend or buckle if you handle 'er rough.

This usually happens if the dump body is hoisted with a lopsided load, especially with big rocks . . . or if you rock 'er with the lifts in high position.



You add insult to injury if your tailgate wings are hooked up while dumping. Uneither.

So play it cool. Keep your eye on the loader. See that he spreads the load an outsize load but for dumping make evenly.

If you're dumping in motion, hold your speed down to cut the bouncing or rockeven terrain, deep holes or being up ing. Never "jack" a bulky load in the against a hillside don't help matters high dump position. And never try to raise the dump body more than 7 ft.

Your tailgate wings help you to haul sure they're out of the way, safely harnessed along side of the dump body.





If you have a supply puzzle trying to replace the flasher unit for your 5-ton wrecker's fender-mounted warning light, take hope.

FSN 5945-296-8464 gets you the older type with male metal terminals that plug in a harness. FSN 5945-066-3984 gets you the newer one that plugs into a receptacle without outside wires. It's waterproof. You can't switch over from one to the other without a rewiring job from support.

C. CHIMINITATION





RIGHT CABLE FOR 10-TON TRACTOR

Right now, take a close look at that wire rope on your 10-ton tractor truck's rear winch—or winches.

You may have the wrong one—with a hemp, fiber or nylon core. It's not safe. It won't stand up to the strain your winch can put on it.

So how can you tell which you've got?

If the strands in your cable are all twisted in the same direction, you've got the wrong cable.

The right cable—with a steel core—looks kind of like a "herringbone" pattern, with one strand twisted to the right and the next one twisted to the left 'n' so on.

Here's the setup for all those rear winches (single or dual) on 10-ton tractor trucks—M123, M123C, M123A1C, M123E2:

• Wire, rope, steel, 3/4-in dia, 250 feet long, FSN 4010-400-7146

Clevis Assy, FSN 4030-706-5553

Chain Assy, FSN 4010-133-6704



PAIN-SAVER FOR 10-TON GEARING

You should use 3rd High Range or 5th Low Range for slow speeds—like 12 MPH blackout drive—on 10-ton M123-family trucks. It gives a better balance between engine RPM, cooling capacity and gear loading.

So stick with the speed/RPM table for those vehicles on blackout travel—but do watch that engine temperature gage. Slow driving in any gear on long trips is rough stuff.



ARMORED CARRIER PUBS . . .

ALL IN THE M113-M113A1 FAMILY YOU MAY HAVE SEVERAL BROTHERS, BUT THAT DOESN'T MEAN YOU ALL WEAR THE SAME SIZE CLOTHES. THE MII3/MII3AI FAMILY OF ARMORED CARRIERS INCLUDES A VARIETY OF VEHICLES, THEY'RE ALL IN THE SAME FAMILY, BUT THEY DON'T ALL HAVE THE SAME PUBS, CHECK THESE OUT!



TECHNICAL MANUALS

M113 APC

M577 Command TM 9-2300-224-10, Post Ch2 5 & 10

Ch2, 5, & 10 TM 9-2300-224-20, Ch1, 2, 5, 10 & 13

M132 Flame Thrower

Carrier

M106 Mortar

You need these manuals, too: M577....TM 9-2300-224-10/3/2, Ch1 TM 9-2300-224-20/3/2, Ch1 and 2

M106.... TM 9-2300-224-10/3/3, Ch1-3 TM 9-2300-224-20/3/3, Ch1-3

M132....TM 9-2300-224-10/3/4 TM 9-2300-224-20/3/4

PARTS MANUALS

TM 9-2300-224-20P/3, Ch1-8, comes in several parts. Here they are:

For the: You need:
M113 Part 1 only
M577 Parts 1 and 2
M106 Parts 1 and 3
M132 Parts 1 and 4
XM474E2 Parts 1 and 5

DIESEL

TM's AND PARTS MANUALS

MÌ13A1

M577A1 TM 9-2300-257-10, Ch1, 2 & 3

M106A1 TM 9-2300-257-20, Ch1 & 2 M132A1 TM 9-2300-257-20P, Ch1

M125A1 *XM741

*Operator's Manual is TM 9-2350-300-10.Ch1

GASOLINE & DIESEL

LUBE ORDERS

M113, M577, LO 9-2300-224-12, M106, M132 Ch1 and 5

M113A1, M577A1.

M106A1, M132A1, LO 9-2300-257-12

M125A1, XM741

XM474E2 XM741 L0 9-2300-224-10/1 L0 9-2350-300-10

EQUIPMENT SERVICEABILITY CRITERIA

M113, M577, TM 9-2300-224-ESC M106, M132

M113A1, M577A1.

TM 9-2300-257-ESC, Ch1

M106A1, M125A1, M132A1

XM741 TM 9-2350-300-ESC

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M548 CARGO CARRIER

If you have the M548 6-ton tracked diesel cargo carrier then you've got your own special deal on manuals. It has manuals numbered like this: TM 9-2350-247-, with a -10, -20, -20P, -12 LO and an ESC.

Aim a tight eye on DA Pamphlet 310-4 to keep up to date with changes on your carrier's manuals.

GET A WARM FEEL

Wrap your hand around the shock absorbers on your M113-series personnel carrier after she's been runnin' around for awhile. Grab the lower part—the piston end.

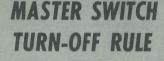
Feel warm? Good.

Cold? Bad.

A FEEL

Instead of waiting until the ride's mushy or jarring the teeth out of your head, check your shock absorbers after every operation. If the shock doesn't feel a little warmer than the chassis, that shock's shot. It's not working. Get it replaced.

Do you see a little dampness on the shock? It's OK. But if it's sloppy wet or dripping, that shock's had it. Get a new one.



M113A1 driver, left hand!

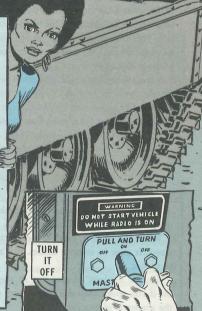
Before you park your little jewel, reach down with that left hand and turn off that master switch. Otherwise, one of 2 things will happen, both bad:

The roving night patrol will see those brake lights shining in the dark—if you followed SOP and left your light switch on—and the staff duty officer will have to roll out, get keys, unlock your vehicle, and pop the switch.

Of if the master has been on long enough, your rectifier will heat up . . . heat a little more . . . and finally burn out. That's a couple of days' down time, \$26 worth of rectifier, and a battery charging job.

So that master is down low, hip-pocket level, and it can be overlooked . . . and the warning light can be burned out.

And none of the excuses will make up for the trouble you can cause yourself and your APC. Turn it Off.





To be sure your transmission brake works OK, check the operation of the clutch under load.

While you're at it, don't forget to check the clutch pedal free travel. It must be about 2 inches. If it's not, tell the mech to hop to it too.

'Course the best adjustments in the world won't help you a bit if you speed shift the gears or try to jam it in reverse while the grader is in motion. CLUTCH— 2-INCH FREE TRAVEL IS A MUST

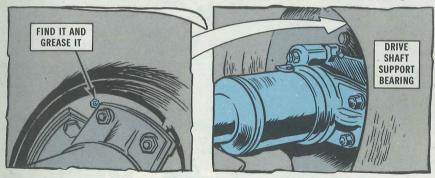


You and your diesel wheeled tractor can be a happy combo if you know where to find the grease fitting for the drive-shaft-support bearing and how to lube it.

You won't see this fitting if you don't look for it. It's way back in the dark recess of the heavy casting above the rear drive shaft support bearing. It's usually buried under dirt or mud.

Then, too, you can be thrown off base by another fitting which sits a few inches in front of it on the "U" joint.

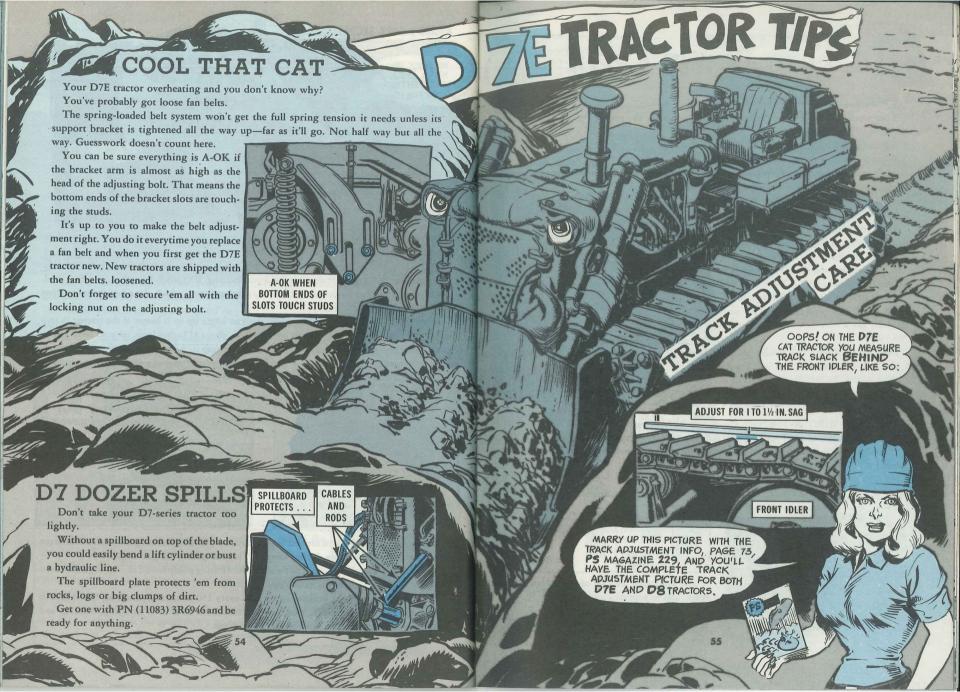
After you've spotted the right fitting you can angle up to it better if the tractor is in a jack-knife position. To reach it, put an extension, about 11 inches long, on your hand grease gun. This'll also give you plenty of elbow room to pump it. A flexible extension works great.



If the diesel tractor has just arrived in your outfit, it probably has old grease that caked in the drive shaft support bearing during storage. This old grease has got to go.

Your best bet here is to force it out with the lubricating pump found in your organizational common tool kit—where the extensions are, too.

The drive-shaft-support bearing needs lube every 150 hours of operations, like it says in LO 5-2420-213-12-3 (Dec 69). Don't let the failure to do a little stooping, bending and fishing for the right fitting put you out of business.





AH WHAT A RELIEF

Your small Mil Std Engine (6 HP or less) depends on the rocker arm cover valve for relief.

It looks like an innocent cap screw. Don't let it fool you.

When this safety valve is stuck, you've got troubles.

A big buildup of pressure takes place in the upper chamber, shutting off the lube supply to the vital engine parts. This'll kill your engine for sure.

There's only one way out. The relief valve must be free and working at all times.

You can check it by pulling the center part out with your fingernails, a screwdriver or any sharp object.

If it's corroded and stuck your engine is headed for a dead end.

Cleaning it in solvent will help a lot. A touch of oil may set it free. If it has seen its days, get a new one with FSN 4820-799-5589.



Don't be satisfied with a substitute. The safety valve you want has a preset setting of 1 to 2 PSI. A higher PSI just won't work.

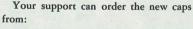
CRANE ROTOR CAPS

Your Model M320T 20-Ton crane shovel may be heading for a downfall.

Check the records to see if your support put new valve rotor caps on the carrier engine.

If not, get 'em to hop to it now, 'cause the old caps fail under fatigue, dropping the valves into the cylinders . . then wham!

I'M GONNA FALL INTO TH'CYLINDER! GET THAT NEW VALVE ROTOR CAP.



U.S. Army Mobility Equipment Command ATTN: AMSME-MMC-C 4300 Goodfellow Blvd St. Louis, MO 63120

Tell 'em to ask for a set of caps for each crane, and be sure they give the USA number, the end item and carrier engine serial numbers of each crane.

NEW NOZZLE DISKS

Here're your new disks to stop those free-flowing nozzles on the Highland Model 2000 truck-mounted and the Model 2500 trailer-mounted tank and pump units.



These disks are softer and thicker to make sure the leaking nozzles behave.

You get the new major valve disk with FSN 5330-169-1918 (PN13219E2824-1) and it's FSN 5330-169-1919 (PN13219E2824-2) for the new relief valve disk.



Use Routing Identifier A12. Put 'em on like it says in para 3-38 of TM 5-4930-227-14 (Jun 69). IF YOU DON'T WANT TO BLOW YOUR COOL, KEEP 'ER DRAINING,

The ghost of a neglected vertical 18,000-BTUH air conditioner will never haunt you if you give the unit good drain-

Put one or more drainage lines at its base and say good-bye to water buildup inside and rust and corrosion.

A single 4-ft tube with fittings will do the trick if your unit is level or if the drain is at the lowest point of a tilt.

If you need more drains, go as many as four. They all can have a common outlet, too.

Copper or plastic tubing and fittings are A-OK, but'most any material works. Clear tubing is great for detecting a stoppage.

A drainage tube should not be larger than 5/16 inch (inside diameter). Big ones act like air inlets, keeping the water from flowing out.

If you decide on only one drain, put it on a side. The rear drain hole gets too much blow from the condenser coil.

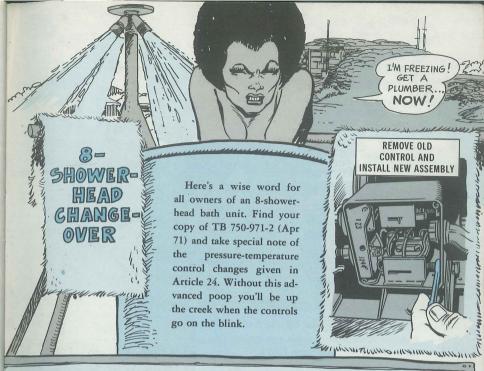
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Your ENG-3 lube and servicing unit needn't be slowed down when its lubrication pump's vent piping gets damaged. The hose, tees and elbows making up that air discharge system are not really needed—it's just a nice-to-have venting system. Previous models don't have it.

So anytime the vent piping cops out, just remove it. Then keep any moisture or oil from the air exhaust wiped off daily.

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PURELY FOR THE ROAD

Never let the water purification van's right door handle put one over on you.

Padlock it so it won't vibrate loose (down) while the vehicle is in motion.

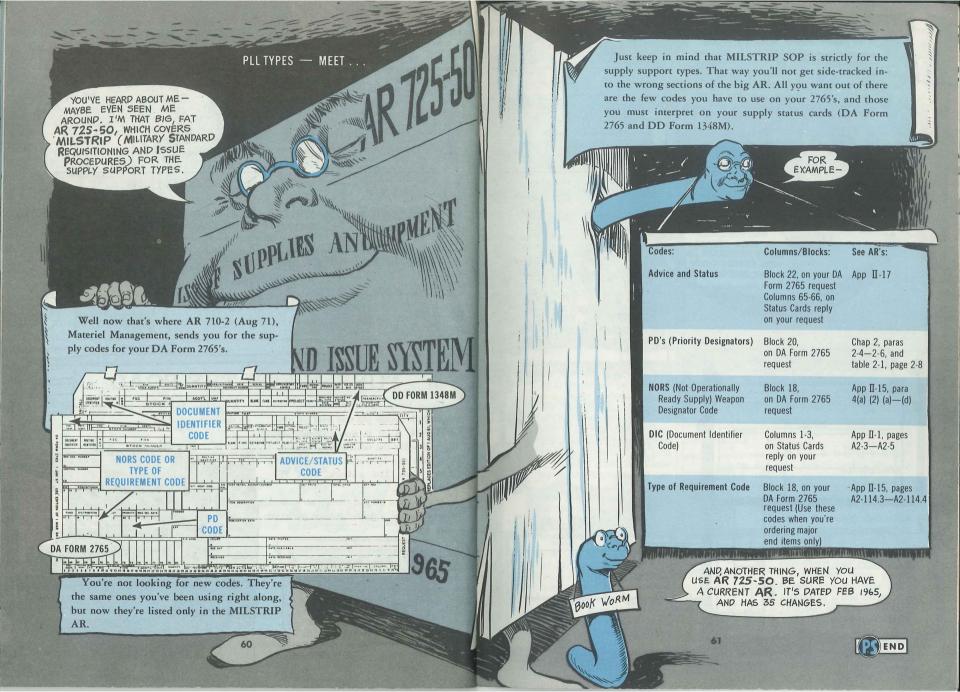
It's the best insurance against the door flying open. Use padlock, FSN 5340-664-1322.

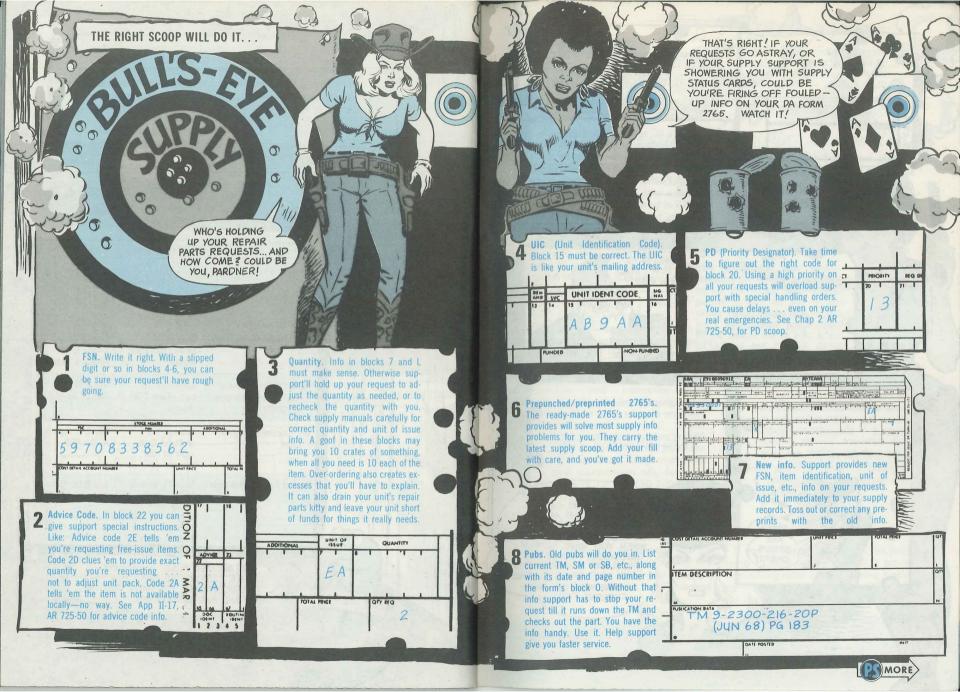
If you gotta go and there's no padlock around, make a safety pin to latch the door shut.

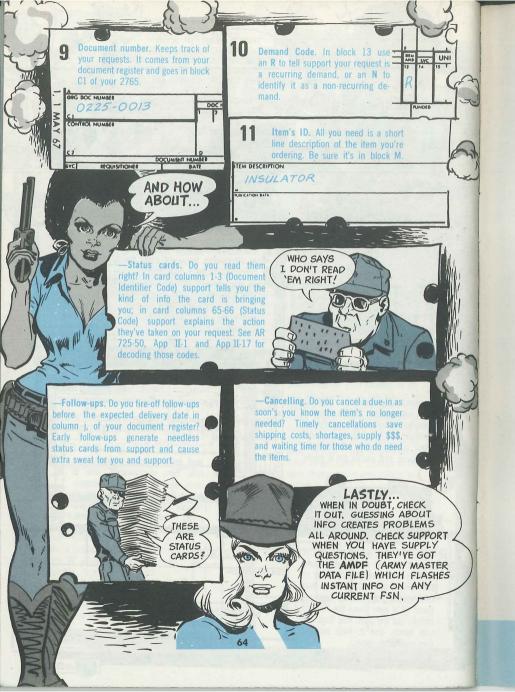


A welding rod or any heavy wire will do the trick.











Commercial Warranty

There's some new guidance in the TB governing commercial vehicle warranty provisions—TB 9-2300-295-15/9 (Jan 72). So, scan this new edition. It details the actions required in CONUS and OVERSEAS. Addresses of manufacturers of most vehicles with warranties also are listed in the TB. The new west coast IHC address is: International Harvester Co, ATTN: District Service Manager, 825 Navy Dr, Stockton, CA 95206.

Call MAJT

That's right—any company CO can call MAIT if he needs maintenance or supply help or training. The latest word is in AR 750-51 (Mar 72). It spells out just how the Maintenance Assistance and Instruction Team wants to join you in keeping equipment ready.

· Juel, Oil and Stuff

For the word on using aircraft engine and transmission oils, fuels and additives eye TB 55-9150-200-25 (Oct 71), birdmen.

MWO Control

If there's a published MWO that's due to go on your equipment, cast an eye on DA Cir 750-39 (Nov 71). It's the latest word on MWO management and control and applies to all units and activities.

Seat Pin . . . For Real!

Here it is—that holddown pin for front seats in the M151 and other TM-218-series ¼-ton trucks:



FSN 2540-815-5725 gives you Pin, Snap-Over Ring and Chain.

Green Does Mean Go

Scratch the green run sheet poop in PS 231, Page 9. You do use those engine performance data sheets when your tech manuals refer to 'em for the TEAC—Turbine Engine Analysis Check.

If green run sheets are not available, the data plate on your Lycoming or Pratt & Whitney turbine engine may have the data you need.

True Blue

If you air types get blue in the face trying to hunt up Prussian Blue paste for marking rotor blades during tracking—relax! FSN 8010-247-8706 will get you a 2-oz tube of the paste.

Would You Stake Your Life on the Condition of Your Equipment?

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