

**PREVENTIVE** MAINTENANCE

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#### **ISSUE No. 250 SEPTEMBER 1973**

#### **GROUND MOBILITY**

2-15, 26-35

| BYOI M114A1E1    | 2-15  | Windshield        |       |  |
|------------------|-------|-------------------|-------|--|
| Cargo Trailers   | 26-29 | Bumpers           | 33-34 |  |
| Cam Dwell Angles | 30-31 | Fire Extinguisher | 34    |  |
| M 390 Trailer    | 31    | Fuel Line PM      | 35    |  |
| ight Switch Tip  | 32    |                   |       |  |
|                  |       |                   |       |  |

#### **FIREPOWER**

16-25

|               | 16-18, 19 | M60/M48/M728 Replen- |
|---------------|-----------|----------------------|
| M551 Sheridan | 20-23     | isher Elbow 24-25    |

#### COMMUNICATIONS 45-51

| RT-246, -524    | 45    | AN/GRC-122, | 51 |
|-----------------|-------|-------------|----|
| BYOI AN/GRC-106 | 46-50 | -142 RTT    |    |

#### AIR MOBILITY 52-67

| No overflying | 52-53 | OV-1D         | 59    |
|---------------|-------|---------------|-------|
| AH-1G         | 54-56 | M35 Subsystem | 60-63 |
| OH-58A        | 57    | M200 Rocket   |       |
| CH-47         | 58    | Launcher      | 64-67 |

#### COMBAT SUPPORT

| New Publications<br>Model 440HA Grader<br>Cat 120 Grader<br>2380, 2385 & | 36<br>68<br>69 | Immersion Heaters<br>DA Form 2404<br>DA Form 2406 | 72,73<br>74-80<br>80 |
|--|----------------|---|----------------------|
| 2360 Cranes 70.  | 71             |   |                      |

MSG Half-Mast PS Magazine Lexington, Ky.

Department of the Army, 11 April 1972.

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YOUR

Everybody loves the circus. Right? Well, your M114A1E1 Scout is a circus on tracks. The maintenance show is the big act in the center ring-and that's where you, the lucky crew, come in. You're the ringmas-

So be hip and snap your whip. If you find anything wrong, correct it if you can. If it's a job for the mechanic, let him do it. What you can't handle, report on your DA Form 2404.

Serious faults, (the deadline-until-fixed) kind, are in hold type. Look at: FRONT

DRIVING LIGHTS-Painted over, loose on mounts, not working, glass cracked. Leads loose or Wires Exposed (check inside and out).

SURFBOARD-Broken, won't work, Hinge twisted/jammed, Latch lever broken.

MASTER ENGINE WARN LIGHT-Shield mashed, broken, face blocked off.

TOWING LUGS—Welds cracked. Broken/missing. Eye jammed.

HULL FACING-Cracked, plates damaged. Bolts or rivets missing.

AIR GRILLE-Blocked, broken, Not fastened tight.

BILGE PUMP OUTLET—Crushed. blocked.

GEARED STEER OIL ACCESS COVER-Pivot pin, locking pin missing or broken.

7.62-MM-GUN MOUNTS- Damaged, parts missing or broken.

> ANTENNA-Loose on mount. Insulator cracked. Parts missing.

> > AIR VENT-Blocked, damaged.

EXTINGUISHER RELEASE HANDLE -Missing, loose, broken,

blocked. Not safety-wired.

HATCH COVERS—(Check all) Won't latch securely. Hinges or springs broken. Vision guards crushed. Glass facings blocked (check periscopes separately).

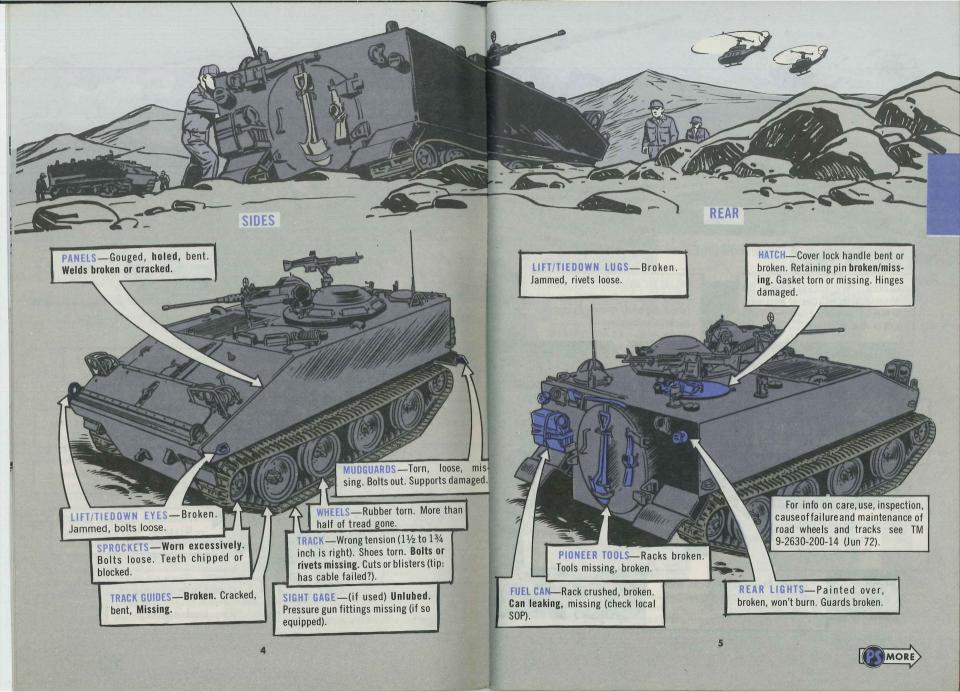
FUEL FILLER COVER—Top missing. Damaged/open. Won't fasten tight.

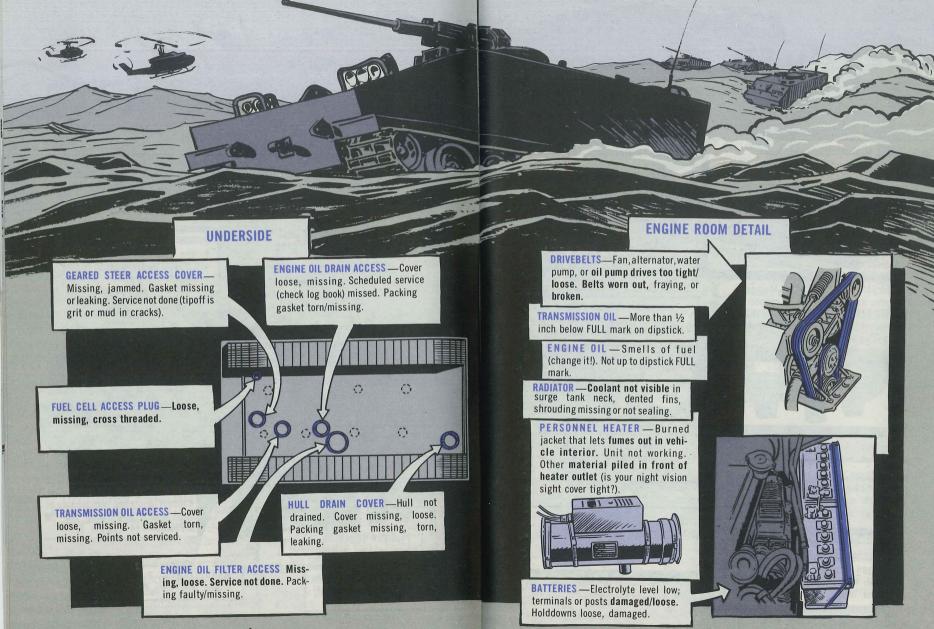
DRIVER'S HATCH LATCH—Broken,

won't hold, pin missing. Worn out.



3





### INSIDE

RADIO MOUNT—Damaged, loose, footings broken. Supports missing, damaged.



COMMO CONNECTORS—Mating faces damaged. Wires or connectors damaged, frayed, missing. Contact pins bent, broken. Switch handles broken, missing.



LOADING—Cargo in hull not secure; heavy gear jammed toward rear hatch, unbalanced, obstructing operation.

FIXTURES—Hold-down straps frayed, broken, missing. Racks bent, loose. Stowage spaces cluttered, dirty. PAULIN—Not folded or stowed properly. Dirty, torn, missing.

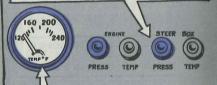
BII—Tools missing, loose, disorderly. Survival gear (if required) missing.

PROPERTY PROPERTY PROPERTY LOSS.

BOOKS, CHARTS—Records, logs, combat charts/grids missing, torn, dirty, out-of-date.

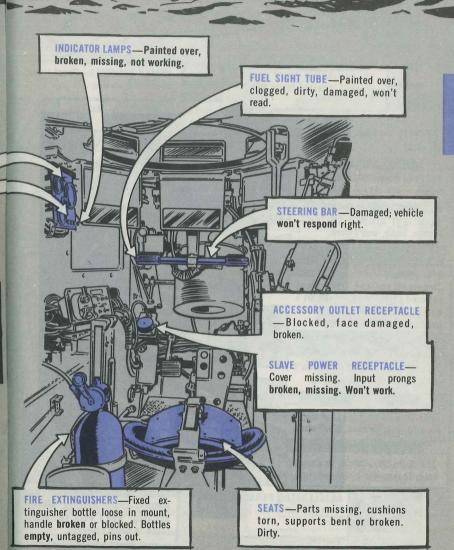
WARNING LIGHTS—Burning in operation; not working at all (panel lights won't respond to push test). Painted over or missing.

PRESSURE GAGES—Painted over, readings erratic or low on lubricant in engine or geared steering.

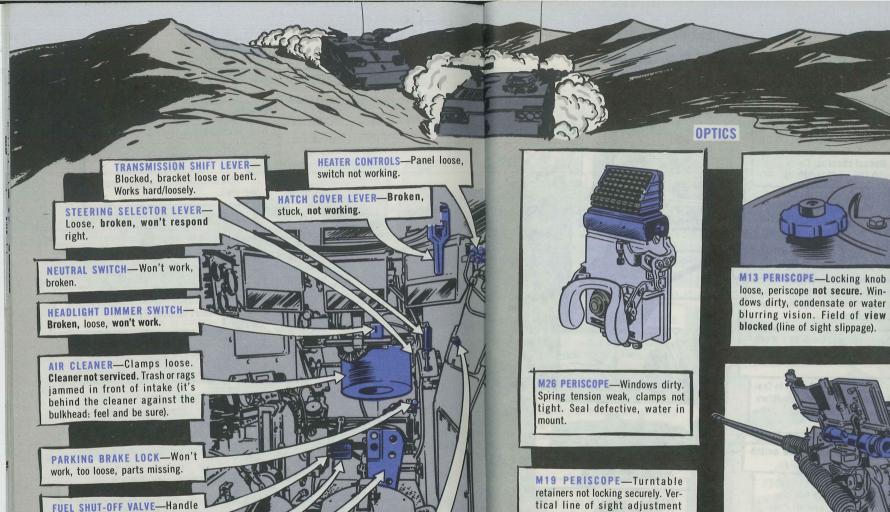


TEMPERATURE GAGES—Too high on engine coolant or geared steering. Erratic.

FUEL FILTER—Leaks, drain cock broken.







M120 TELESCOPE—Dirty, wet, not stowed in dry place. (Check mount out by-10 TM Table 21 and Fig. 99 of that TM).

mtg Periscope—Turntable retainers not locking securely. Vertical line of sight adjustment slipped. Power cable connection to scope loose/defective. Glass faces dirty, damaged. Water or condensate impairing vision.

NIGHT SIGHT-Broken, won't work.

bent, brakes won't respond right.

ACCELERATOR PEDAL—Rattling loose on mount, bent, jamming, too

tight.

missing, bent, broken. Won't work.

BRAKE PEDAL-Loose, jamming,

CHOKE & THROTTLE CONTROL KNOBS —Parts missing, broken. Sticking, won't work smoothly. Loose in panel openings.

SIGHT ASSEMBLIES—Parts loose, damaged. Out of alinement.

FIRING MECHANISM—Safety catch won't work right. Continuity check won't read right on electric fire. Manual checkout (Table 17 of your -10 TM) won't match up.

FEED CHUTE AND COVER — Damaged, worn. Zipper jamming, toothy, sticking. Spring latches or links loose, damaged.

COVER PLATES—Seal torn, leaky; door plates won't lock tight.

CHARGING MECHANISM—Jerky, sticking. Manual or electrical operation not smooth.

SAFE/FIRE LEVER—Won't work easily. Detent pin won't catch in both positions.

WIRING HARNESS—(Cupola to Cradle) Leads worn/frayed. Connectors loose, **broken**. Excess wear, damage.

FEED BOX—Door latch missing, stuck, broken. Last-round switch not working right. Box dirty.

#### GUN CRADLE RECOIL GUIDES

—Need lube. Too much side play. Bind in moving fore and aft (take out pins and recoil adapter to make once-over).

LINK ALINER/LUBRICATOR—Parts loose or missing. Locking latches not catching right. Lubricator plungers not delivering lube. Parts worn excessively.

EQUILIBRATOR/ELEVATING CYLINDER—Won't work smoothly.

EJECTION CHUTES—Parts damaged. Door loose, sticking, jammed.

CRADLE COMPONENTS

Right after your cradle checkout and run-thru on your optics, make sure of your M148 scope mount and M52E1 instrument light. Your telescope has to lock in and stay set in the mount. You have to have good batteries and healthy lead wires on the light, rheostat knob working and wing nut tight.

M139 20-MM AUTOMATIC GUN

13

GENERAL—Parts cracked, rusty, bent, missing, loose.

BARREL—Plugged, dirty, rusty inside or out. Not locked to receiver right.

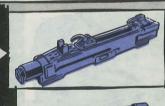
RECEIVER—Won't operate smoothly on manual check, charging and releasing bolt.

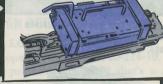
FEEDER—Transmission shaft working hard, jerking.

RECORDS—Rounds not properly entered from last firing; gun not shown safe to fire. Replacement parts schedule not kept up/followed.

LUBRICATION—Any part of complete system not according to LO 9-2320-224-12.

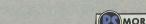
ADAPTER—Leaking hydraulic fluid.











# POWER CUPOLA

GENERAL—Water in or around components or cupola recesses. Rusty, lubrication deficient. Hydraulic leaks showing anywhere.

ELEVATING MECHANISM—Won't fully elevate or depress; not smooth and easy to work. Catches, grinds, slows down, works hard.

TRAVERSE MECHANISM—Won't go thru full 360-degree range both ways freely. Hard to work at any point.

SIGHT LEVEL—Window dirty, fluid level low.



INTERRUPTER VALVE—Override button won't work right over zone stops.



HANDLE CONTROL BOOT— Cracked, broken, leaking water.



INTERRUPTER BRAKE—Lockwire broken, screws holding disc plate loose.

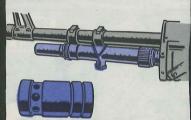


CONTACT RING/BRUSHES—Out of line, dirty (never wipe up and down—always sidewise to clean). Varnish or corrosion showing on mating surfaces.

#### M60 7.62-MM MACHINE GUN

**GENERAL**—Rusty, dirty, not lubed right.

GAS CYLINDER—Not fitted right, lock wire broken/missing.



Piston sticking

OPERATING ROD—Sear not locking rod in place correctly.

**RECORDS**—Rounds used notations not made right.



FEED COVER—Not working right on dry run. Latch loose.



SAFETY LATCH—Not positive, slipping, broken.



**LUBRICATION**—Grit in lube. Not enough lube in right spots. Service not done.

#### **PUBLICATION POOP**

For hydraulic and lube points, see LO 9-2320-224-12.

Basic driving and maintenance dope is in TM 9-2320-224-10, with Ch 6 thru 9. There's a whole new procedure in Ch 9 that's a must. Also in the -10 is the Table 25 gun-cradle matching recipe.

For night-vision sight, AN/TVS-2A, see TM 11-5855-202-13.

For 20-MM main gun, rely on TM 9-1005-246-24.

For 7.62-MM gun, use TM 9-1005-224-10.

Shop mainstays are TM 9-2350-244-24P and TM 9-2320-224-20 (W/Changes 1-5).



that aims it.

That holds whether the eve is human or electronic.

So, is there a better reason for you to protect the AN/VPS-2 radar set on the XM163 and -167 Vulcan ADA systems?

#### VPS-2 ANTENNA

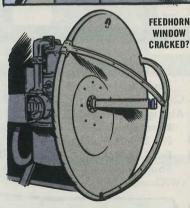
When you release the antenna assembly from stowed position, or when you return it to stowed position, hold the stow bolt and its retaining cable clear.

Otherwise, the bolt dangles in the assembly. Sometimes the cable breaks off; sometimes the assembly is damaged.

For best performance, each time you're about to use the weapon, make a PM check of the 2 feedhorn windows at the end of the antenna feedhorn.

If the windows are cracked, broken or missing, get them replaced.





The RT-860, Unit 2, needs some special attention when you're hosing down the weapons systems from a muddy day in the field.

Keep high pressure hoses away . . . and keep any kind of water away from the air filters on the side of the unit. Water gets in, corrodes and shorts, and puts your radar down.

#### **POWER SUPPLY**

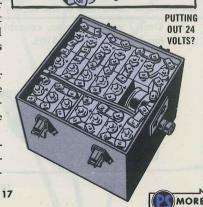
Tired batteries and less than adequate electrical adjustments can put down your PP-4812 power supply (Unit 5); even burn it out.

So, if your set's not getting the power it needs, or if the power supply is failing, have your unit repairman check out the nickel cadmium battery to be sure it's putting out at least 24 volts.

Eveball electrical connections for tightness, corrosion or damage. Make sure the charging system is functioning right. And be careful with the water hose, too.

For maintenance of nickel cadmium batteries see TM 11-6140-203-15-1 and TM 11-6140-203-15-3.







#### ALL COMPONENTS

The external shields for the components are held in place by thumb-screws... which work loose during transit.

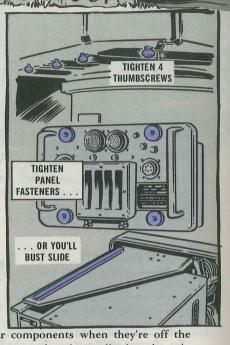
Whenever you install the power supply, receiver or range computer in their cases, be sure to fully tighten the 4 fasteners on the panel of each component.

Otherwise, the chassis ride loose . . . and you can bust up the plastic runners on the sides . . . or maybe even bounce a chassis off the ground.

If you lose the screws, replacements are hard to come by. Besides, you might also lose a EMI shield. All of which are pretty good reasons for tightening the screws before you leave the garrison... and before you start back.

Excellent protection for the radar components when they're off the weapon and out of their cases comes as cheaply as slipping them in the reusable cases now in the supply system.

For Unit 2 you need case, reusable, FSN 1285-151-4104. Units 3, 4, and 5 need FSN 1285-151-4103.





# M551 SHERIDAN... OSTURATOR

SEAL SHOWDOWN

Having problems with the obturator seal?

It should "snap into place" like you read about on page 5-23 of Ch 9 to TM 9-2350-230-12 (Jun 66).

But what if it won't?

First off you have to make sure the seal locking groove is free from rust, nicks, burrs, crud or anything else that could prevent a complete, continuous retention of the obturator with its locking groove.

The sealing surfaces on the rear of the gun tube, front of the chamber assembly, and the mating surfaces of the obturator seal must have no rust, pits, nicks, burrs or anything else that could prevent a continuous gas tight contact. If you're not sure these surfaces are OK, have your friendly company mechanic look 'em over.





Get the carbon out with a bristle brush and rifle bore cleaning compound (RBC). If you can't get a bristle brush, a tooth brush or typewriter brush'll do fine.

Never, but never, use steel wool, emery cloth or any other kind of abrasive when cleaning the obturator seating groove in the gun tube, the obturator seal itself or the chamber mating and sealing surfaces.

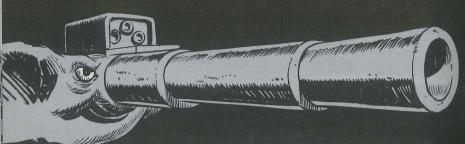


You know your obturator seal is seated right when you snap it into place easily and when you can rotate it with your finger tips after it's in place.

If your obturator seal has been abused, (say by being removed often with a straight screwdriver), it could wind up stretched out of shape so it won't fit back in the seat. Get a new one.





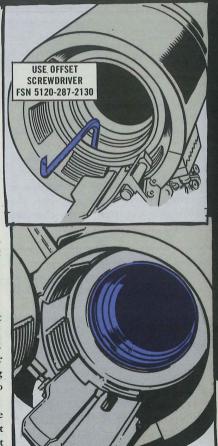


Always use offset screwdriver FSN 5120-287-2130 to get the obturator seal out. Put a blade of the screwdriver behind the seal and gently pull it toward you. Be very careful not to damage the seal when you pry it out. If it sticks, work gently until it loosens. Be careful not to use too much force. Remember, a regular screwdriver is no good for this work.

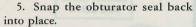
If your offset screwdriver is missing, order a new one. It's listed with your primary armament tools and equipment on page B-9 of Ch 9 to your TM 9-2350-230-12 (Jun 66). Store it in the tool bag.

Once you get the obturator seal and its seat in good shape, keep 'em that way with cleaning and lubrication, like so:

- 1. Open the breech and take out the obturator seal.
- 2. With a soft rag, wipe all dirt, powder and crud from the obturator seal, seal cavity and surrounding exposed surfaces. Remember, no steel wool or other abrasive.
- 3. Look everything over. Make sure it's clean. (You need all the light you can get for this. If you can't get more than a flashlight, at least get one with fresh batteries.)

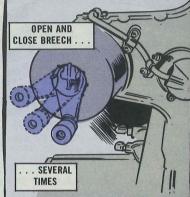


4. Put a coating of lubricating oil (PL-S) on all the cleaned areas, spreading it evenly with a rag or brush. Make sure you get plenty of lube on all faces of the obturator seal and make sure the seal seat is well lubed. (If you don't plan to fire the main gun for a month or more, use grease, aircraft and instrument, (GIA), instead of the PL-S.)



6. With the hand crank, open and close the breech chamber several times to make sure it works in a smooth and normal way. (The breech will not completely close if the seal is not firmly seated in the gun/launcher tube retaining groove.

7. Leave breech backed out but not rolled over. (This lets air circulate and reduces condensation.) Return the hand crank to about the 12 o'clock lockout position.



KEEP BREECH

**BACKED OUT** 



If you're in a place where variations in temperature create a lot of condensation, take off the gun launcher dust shield and dry everything that's wet. Make sure the exposed part of the recoil mechanism sleeve has no corrosion or rust. You can give the external surface of the exposed sleeve a thin coat of MIL-G-81322 grease. FSN 9150-181-7724 gets you an 8-oz tube.





Outta sight, outta mind.

Pity those poor li'l trailers . . . sittin' off in a corner of the motor park . . . forgotten . . . neglected . . rusting . . . goin' to pot . . . money down the drain . . . no-go when it's time to go. . . .

There's no need for it. PM's not all that tough. They don't ask for a lot of care—but they sure need what you're s'posed to give 'em.

This goes 'specially for those 2wheel cargo trailers like the M416 1/4-tonner and the M101A1 3/4-ton and M105A2 11/2-ton jobs.







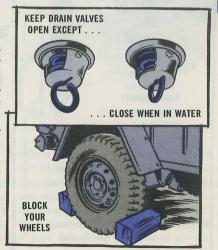
First off, it's up to you to know what the TM's call for in the way of operator PM-

- -For the 1/4-ton, TM 9-2330-251-14 (Oct 70) w/Ch 1.
- -For the 3/4-ton, TM 9-2330-202-14P (Aug 62) w/Ch 1.
- -For the 1½-ton, TM 9-2330-213-14 (Aug 72).

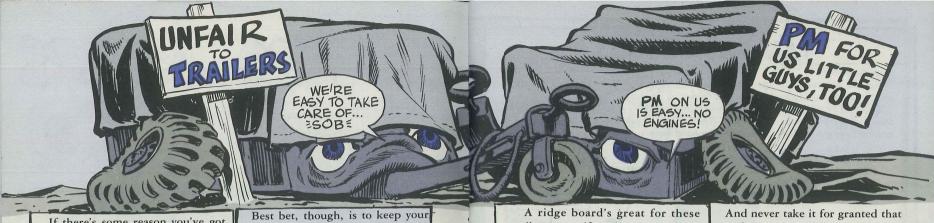
Then you put the whipped cream on the cake—you show you really care-

Always park an open-top trailer so water won't sit in the box and rust it.

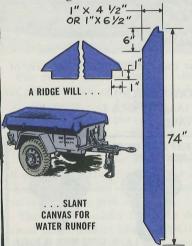
Keep the drain valves open on your M416. You close 'em only when this li'l amphibious job is being floated across a stream. And block your wheels so you won't have to leave the handbrake on. Otherwise, you may find the brakes stuck on when you go to get your trailer for an operation.







If there's some reason you've got to keep the canvas on, rig a ridge board on edge under it. This'll slant



the canvas so water'll run off and not rot it. Use a smooth board  $4\frac{1}{2}$ -to-6 inches wide and as long as the trailer box. Cut off the top corners of the board at 'bout a 45-degree angle and notch the bottom corners to let the board lock into the top edges of the box—front to back. Then snug your canvas down over the board.

Best bet, though, is to keep your canvas folded neat and stored where it's clean and dry—until you really need it.

Your ¾-ton or 1½-tonner should be parked so the box is tipped up at the front. This'll let rain or melted snow run out the back.

TILTED UP . . .

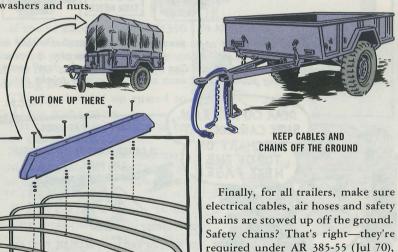


... RAIN AND SNOW WILL RUN DOWN

Set the caster wheel or landing leg up on a block about 6 inches high. Put a block or rock behind each wheel. Release the handbrake. Open the tailgate. A ridge board's great for these trailers, too, if you've got to leave the canvas on. Use a board 2 inches wide and long enough to reach from the top of the front bow to the back bow. Slant the ends so they won't dig into the canvas. Drill a ¼-in hole in the top center of each bow and matching holes in the edge of the board. Mount the board with ¼-in carriage bolts, flat washers, lock washers and nuts.

And never take it for granted that your drain setup will keep your trailer box from rusting. It only helps. You've got to make sure there's no bare metal to rust. If you spot any place where paint's missing, get it painted.

SPOT PAINT BARE PLACES



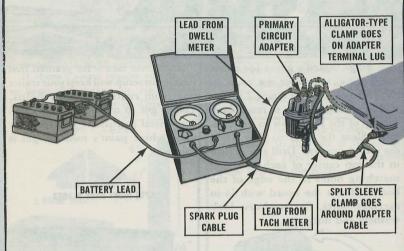
para 7-5.

## CAM DWELL ANGLES

Dear Half-Mast,

We are encouraging our automotive mechanics (MOS 63-series) to use the troubleshooting gear in their automotive common tool sets.

This test equipment saves time and parts and does a better job. But using the Tach-Dwell Tester, FSN 4910-788-8549, to check out and set gasoline engine ignition systems is giving us a hard time.



Finding the exact cam dwell angle for each series of tactical trucks is like looking for that needle in a haystack. Some manuals give it, some don't. And some give conflicting info. Can you give us the cam dwell angle and the corresponding point-gap for each series of tactical trucks using gasoline engines?

DEAR CAPTAIN R.C.M.,
SURE CAN. LOOK AT
THE CHART ON
TOP OF THE
NEXT PAGE:

POINTS CLOSED

POINTS OPEN

TO INCREASE ANGLE ... INCREASE POINT GAP
TO DECREASE ANGLE ... INCREASE POINT GAP

| TACTICAL VEHICLES     | DISTRIBUTOR<br>Model No. | MAKE       | CAM DWELL<br>ANGLE                                    | POINT GAP     |
|-----------------------|--------------------------|------------|---|---------------|
| 1/4-Ton M151 - series | IAU-4020-UT              | Auto-Lite* | 39°-46°   | 0.017022      |
| 3/4-Ton M37-series    | IAU-4005-UT              | Auto-Lite* | 37°-40°   | 0.020± 0.002  |
|                       | IAU-4007-UT              | Auto-Lite* | 37°-40°   | 0.020± 0.002  |
| 1 1/4-Ton M715-series | IDA-4601-UT              | Prestolite | 38°-44°   | 0.020 + 0.002 |
| 2½-Ton M35-series     | 1111556                  | Delco-Remy | 31°-37°   | 0.022         |
| 5-Ton M54-series      | 1111561                  | Delco-Remy | 31°-37°   | 0.022         |
| 10-Ton M123-series    | 1111605                  | Delco-Remy | 28°-30°   | 0.016-0.019   |
| XM706 Commando Car    | IDA-4801-UT              | Prestolite | One set 27°-30°<br>Both 34°-40°                       | 0.016-0.021   |
| M113 Carrier Series   | IBF-4004-UT              | Auto-Lite* | One set 27°-30°<br>Both Sets 34°-40°<br>(at 1000 RPM) | 0.016-0.021   |

\* Now Prestolite



If you've got one of those M390 or M390C 2-ton trailers, make a note for yourself—give a shot of oil to the adjusting nuts on the leveling jack swivel shaft.

They're showin' up rusted so bad they won't move.

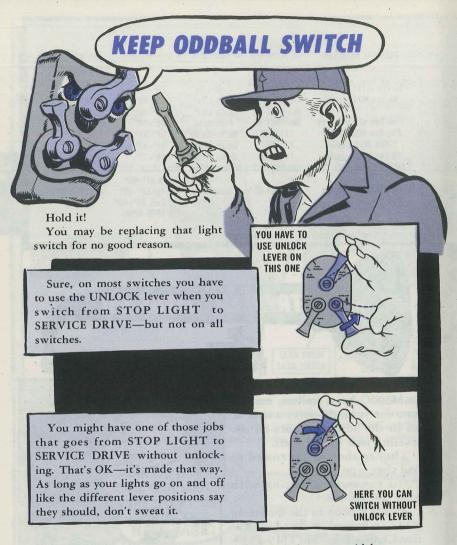
Hit the swivel housing with your oil can, too.

Add this poop to the quarterly "Oil Can Points" in your Lubrication Chart—Fig 3-2 in TM 9-2330-235-14 (Nov 72).

Remember, you've got 10 of those nuts on your M390—2 nuts for each of the 5 leveling jacks. And the M390C has 12 nuts—4 for each of the 3 jacks.

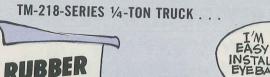




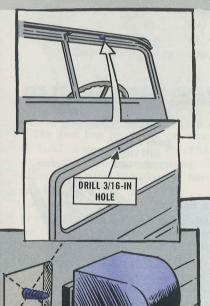


Watch it! If you're used to that oddball switch, you could bust one of the other kind. You might try to force the lever from STOP LIGHT to SERVICE DRIVE without using the UNLOCK lever. Best bet is, make it a habit to always use the unlock lever.

You may get either switch under FSN 2590-307-8856. That oddball has been around for years—and is even showing up on new equipment.







**RUN SCREW INTO IT** 

Like a mosquito in the dark, little problems can just about drive you buggy.

Like those rubber windshield bumpers on your TM-218-series 1/4ton vehicles—the square plug-in job on the M151A1 or the round screwon type on the M151A2.

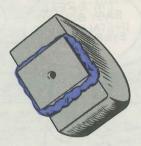
They fall off. Anyway, whatever happens to 'em, they're often miss-

Here're some ways to help keep 'em in place:

For the square bumper, drill a 3/16-in hole through the back of the windshield frame. Get it right in the center of the bumper hole. Now plug in your bumper. Then run a screw into it from the back-through the drilled hole. Use Screw, FSN 5305-855-0959.



A LITTLE EPOXY GLUE . . .



. FOR INSURANCE

Careful! If you turn the screw too far, you'll tear it out of the bumper. A shallow pilot hole drilled into the exact center of the bumper will help guide the screw.

For extra insurance, dab some epoxy cement on the back edges of the bumper before you plug it in. Get Adhesive, FSN 8040-081-2166.

Use this same cement on those round bumpers. Unscrew the bumper, put a little cement on the back where it hits against the windshield frame. Then screw it back on.

Need a new bumper? They're both in TM 9-2320-218-20P (Jan 72).

The square one comes under FSN 5340-463-4605.

Order the round bumper with FSN 5340-008-5831.

The screw for this bumper comes under FSN 5305-044-4162.

## FORGET SPARK ARRESTOR MUFFLER

You don't need exhaust system spark arrestors on your trucks if you're hauling or working around explosives or stuff that has flammable vapors.

But you do have to carry a heavy duty fire extinguisher—rated 10-B:C or higher—when you're in the ammo or fuel-hauling business.

So you go to TB 5-4200-200-10 (May 72), Hand Portable Fire Extinguishers Approved For Army Users. There you'll find a 10-B:C-rated extinguisher—a 15-lb, carbon dioxide (CO<sub>2</sub>) type —Under FSN 4210-202-7858.

DA message DAPE-MPS 161925Z Jun 72 put out this word.







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 72), and Ch 3 (Feb 73), INM, 18's, set., DA Pam 310-6 (Jul 72), and Ch 3 (Apr 73) SC's and SM's; and DA Pam (C) 310-9 (Mar 73), COMSEC Pubs.

#### TECHNICAL MANUALS

TM 5-1450-204-20P May Power Station, PERSHING

TM 5-3800-203- ESC May Crane Shovel, 20 Ton TM 5-4310-280-20P May Compressor,

TM 5- 4310-280-20P May Compressor, Rotary, 600 CFM Worthington Mod 2016 TM 5- 4310-346-20P May Compressor, Stewart-Warner Mod 12021A

TM 5-4310-348-14 Jun Compressor, 5CFM TM'5-6100-224- ESC May Power Plant,

TM 5- 6675-200-14 May Theodolite
TM 9-1005-257-12 May Armament POD,
M18/M18A1

TM 9-1220-221- ESC May Computer, Gun Direction: M18

TM 9-1440-200-14P May 2.75-Inch Aircraft-Rocket Launchers, M158A1, M200, M200A1

TM 9-2350-230-10/2-1 Mar M551 Sheridan TM 11-5810-214-14P Apr TSEC /

KW-26A/B/C TM 11-5820-247-24P Apr Radio Set AN/FRC-15

TM 11-5855-239-10 Apr Metascope AN/PAS-6

TM 11-6625-2609-12 May Electronic Equipment MK-1004A /ARC \*TM 32-5410-214-15 May Shelter, Elec-

trical Equip S-457/G \*TM 32-5815-201-15 May Demultiplexer Set, AN/TRQ-25A

\*TM 32-5835-220-14 Jul Recorder-Reproducer Set, Sound, AN/UNH-16 \*These pubs gyallable only from US Army

\*These pubs available only from US Army Security Agency, Materiel Support Command, Vint Hill Farms, Warrenton, VA 22186

TM 55-1510-204-20P May OV-1A, OV-1B, OV-1C, OV-1D

Ch 2 TM 55-1510-209- CL /3 Feb U-21G and RU-21E Pilot's Checklist TM 55-1520-210- L May List of Pubs for

UH-1D, UH-1H Ch 2 TM 55-1520-210-20P-1 May UH-1B, UH-1C, UH-1D, UH-1H, UH-1M

#### LUBRICATION ORDERS

LO 5-4310-345-12 Mar Compressor, Rotary, 250 CFM, Davey LO 5-4320-260-12 Apr Pump Centrifugal, POL, John Reiner Md1 GP 58 LO 9-1005-262-12 Apr Armament Subsystem, M23, M24, M41

#### MISCELLANEOUS

DA Form 2715 Jul Unit Readiness Report DA Poster 750-16 Apr PM Time DA Pam 740-1 Jun Packaging and Packing TB 9-1055-454-25 Jun Report Maint Actions on All Aircraft Subsystems

#### NEW MOVIES

TF 11- 4533 Intro to Radio Set AN/GRC 106 & AN/GRC 106A TG 10- 4-14 Care, Use of Sleeping Bags TG 17- 6-5 Tank Gunnery: Detection and

Correction of Tank Gun Malfunctions

## Tank Turret Mechs

Have you heard?

MOS 45K20 now belongs to the turret maintenance types in support shops. And, organizational level tank turret mechs have been reclassified to: MOS 45N20, MOS 45P20, MOS 45R20.

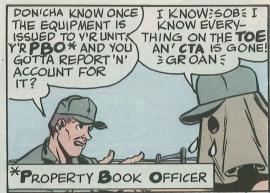
The reclassification scoop's in DA Cir 611-18 (Mar 73). See its page 7, and don't miss the early implementation note at the bottom of the page. Check with your unit's personnel types.

# MWO Of The Month

A mighty important mod is MWO 55-1520-221-40/3 (Oct 70) with Ch 4 (Feb 72). Get your support unit to add an improved anti-torque system to your AH-1G and TH-1G, if your Cobra doesn't already have it. The bird will have improved directional control when hovering in side wind conditions. It could save some equipment. . .maybe even your hide!





























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

WELL, THAT'S UP TO THE COMMAND'S SOP. FORM 2062 ... IF THE USER PLANS TO KEEP IT A SPELL.





NOW, IN YOUR CASE ... STOLEN, PESTROYED OR LOST ITEMS GOTTA BE REPORTED ON DA 3906-R.IN DETAIL! RIGHT DOWN TO THE NITTY-GRITTY.













OH - KAY! THAT'S IN

THE MILL ... NOW ...

THE LOT SHOULD BE







=50B=

EVEN

REMEMBER THESE IMPORTANT HINTS. 250B3 DIG IT ... =50B=











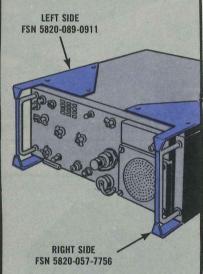








# HANDLES FOR AN RT



Dear Half-Mast.

Can you quote me the stock numbers for the ruggedized handle assemblies that go on the RT-246 and RT-524 receiver-transmitters?

CW2 G. O.

Dear Mr. G. O.,

FSN 5820-057-7756 gets you the handle and hardware for the right side, and FSN 5820-089-0911 gets the one for the left side. The handles are for the plain model RT's only. The FSN's are listed on page 447 of SC 5820-IL-1 (Dec 68).

The A models have improved guards and don't need the extra handle assemblies.

Half-Mast

# GIVE THE DETAILS

When you write to MSG Half-Mast at PS about problems with your gear, be sure to give the details. Give model, make, FSN, nomenclature or whatever info you can get. It'll help him help you.

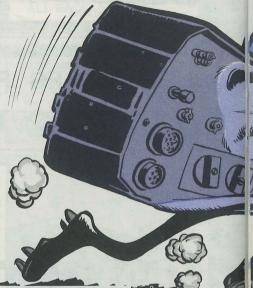
SHUT OUT TROUBLE ON YOUR ANGRY - 106

A good infielder always charges any ground ball he can. He doesn't wait for it to come to him.

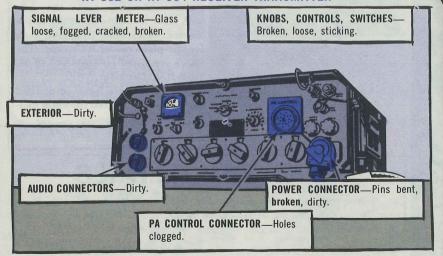
If you want to shortstop trouble on your AN/GRC-106() radio set, you can't wait for trouble to come to you.

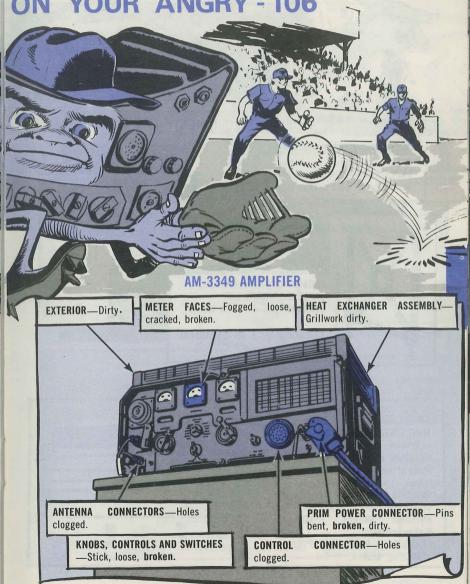
Give the eagle eye to TM 11-5820-520-12 (Feb 71) and follow its signals. It's the written umpire on operating and taking care of your Angry-106().

To give you the jump on trouble, here's a roster of places where it's likely to roll past you. The problems that'll go for extra bases are in **bold** type. Get the glove on them soonest.



RT-662 OR RT-834 RECEIVER-TRANSMITTER







CABLES—Kinked, frayed, broken. CABLE/CONNECTORS—Loose, broken, dirty, pins bent or broken



CROSSBARS—Bent, broken.
CAPSCREWS, NUTS, AND
LOCKWASHERS—Broken, missing.

ADJUSTING NUTS ON CROSSBARS — Over-tightened.

#### WHIP ANTENNA EQUIPMENT

CW-206 BAG \_\_Torn.

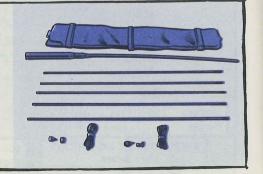
MAST SECTIONS OF WHIP ANTENNA
—Broken.

TIE-DOWN FOR WHIP ANTENNA—Made of metal (shorts whip), nylon fraved.

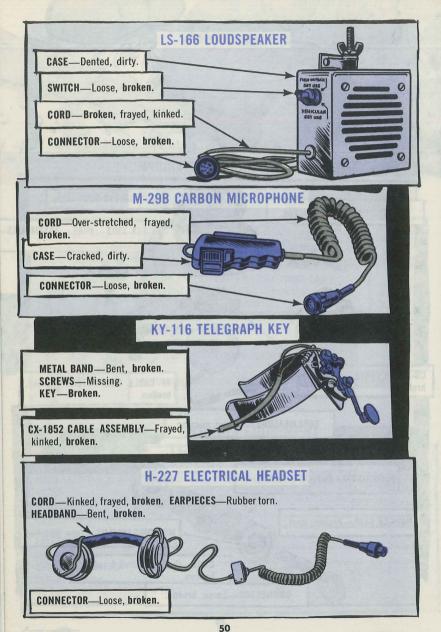
ANTENNA ROPE CLAMP—Missing, broken.ANTENNA COVER—Split. ANTENNA SHEATH CLAMP—

Broken, missing.

UG-306B and UG-201A ADAPTORS
—Missing, broken.







# RTT PM CHECK



-142 radio teletypewriter sets.

The brushes, FSN 5977-686-4476, are to be checked on the plain model RTT's only. If you have less than 7/32 of an inch left on the brushes, your unit repairman puts on new ones. When they're under 7/32, chances are good that the fan motor will fail before the next quarterly.

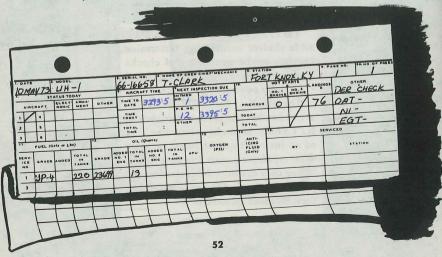


Overflying an intermediate, periodic and special inspection can buy you the farm if your baby augers-in, bird types. Can happen!!

Which is why TM 38-750 (Nov 72) on TAMMS now backs up para 2-1c in TM 55-1500-328-25 (Jul 72) on maintenance management.

A scheduled Preventive Maintenance Intermediate and Preventive Maintenance Periodic inspection will not be overflown except when an actual operational emergency exists.

Focus in on para 4-2c(1)(a)3 of TM 38-750, for real. The bird gets a red "X" symbol when a PMI or PMP is "due" but has not been completed.







Never let the word "due" throw you. It means the exact hours shown in block 9 of the DA Form 2408-13.

Say, for example, an inspection is coming up. If the bird time to date, block 8, is the same as the inspection due time in, block 9-or exceeds it-your bird is red "X'ed".

'Course, any maintenance type worth his salt is going to schedule inspections a few hours before they are due. So, how do you handle the paperwork? Easy!

Put a red diagonal status symbol in block 16. No red "X" is needed.

In block 17 put a statement like, "PMP No. 4 in process" or, "No. 4 PE in process." Use of the diagonal is similar to the procedure spelled out for the continuous inspection method. That set up is explained in para 2-2e of TM 55-1500-328-25.

When you uncover the first condition that renders the bird unsafe to fly, then make with the red "X" symbol.

NO. 12 IN PROCESS

DA FORM 2408-13, 1 DEC 66 REPLACES EDITION OF 1 JAN 64, WHICH WILL BE USE



# GARL OUT

Wait one, Knucklebuster. Before you install those explosive cartridges, run a continuity check on the 4 empty racks. Here's how:

Flip the selector switch and jetti- breech.

SWITCH ON THE . . . . JETTISON SWITCH AND SELECTOR SWITCH PROBE TO FIRING CONTACT PROBE TO BREECH **LOOK FOR 18-30 VOLT READING** ON MULTIMETER

Wait one, Knucklebuster. Before son switch ON. Close jettison circuit u install those explosive cartridges. breakers.

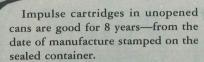
Touch one multimeter probe to the firing contact and the other to the breech.

You should get an 18 to 30-volt reading on the multimeter. If the needle stays put, check the electrical connectors and connections.

Para 12-54h and section IV, chapter 14, TM 55-1520-221-20 (Sep 71) has the homework on how to check out the system from A to Z.

Remember—those cartridges come out every time you hangar your 'Cobra for long term storage or maintenance. Keeps you, your bird and equipment out of the world of hurt.

You can leave the cartridges in if your C-birds are hangared overnight—or for the weekend. Like maybe to keep 'em out of the weather. In such cases, be sure both circuit breakers are open, ground safety pins are in place, jettison switches OFF, and the 'Cobra has a placard saying the jettison system is armed.



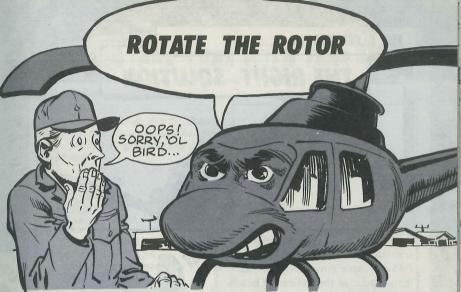
If the can is opened, the cartridges are good for 1 year.

Tip: When you take the cartridge out of the can, mark the date on it with indelible ink. That way you'll be sure not to use an outdated explosive.

Store cartridges you take out of the ejector rack in the original metal can and keep the container under lock and key . . . just like any small arms ammo.







When you Kiowa (OH-58A) pilots cranking up the bird, focus in on the main rotor-for real.

Para 3-11 of TM 55-1520-228-10 (Sep 72) says to rotate the blade 90 degrees. You have to hand-rotate the blade backwards to make sure the N2 is free before starting, for good reason.

engine shutdown.

Which is the reason why you abort make your exterior check before a start if the main rotor is not moving by 30 per cent gas producer speed

> If you continue the start past 30 per cent, the N2 will suddenly let go. The impact torque could damage the engine or power train.

A binding N2 can cause all sorts of grief for maintenance types. The N2 can hang up following So-o-o-o, rotate the blade before every start, hot pilots.



# TAKE CARE WITH TARE

Dear Windy,

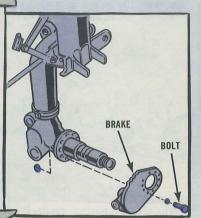
When installing the hydraulic brake on the axle of our Mohawk (OV-1D) landing gear we go by the book.

The poop on page 4-138B of TM 55-1510-204-2011-1 (Feb 70) says to secure the brake with bolts, washers and nuts. The nuts are torqued to 60-85 inchpounds.

The trouble is, the bolts rotate in that torque range.

Is the torque spec on those nuts correct, Windy?

**SP6 R. B. W.** 

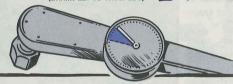


START NUT ROTATING
EXAMPLE: 15 INCH-LBS) (EXAMPLE: 15 INCH-LBS)



TORQUE SPEC FROM TM (60-85 INCH-LBS)

FINAL TORQUE FIGURE (75-100 INCH-LBS)



Dear Specialist R. B. W.,

Yes, indeed!

Remember that those nuts, FSN 5310-807-1469, are a self-locking type. Para 6-152k in TM 55-1500-204-25/1 (Apr 70) on general practices says self-locking nuts have an internal friction element. The torque of this friction, called tare torque, must be measured on the wrench as the nuts are turned on the bolts before contact with the washers.

So, add the tare torque you read on the wrench to the 60-85 inch-pounds to get your final torque figure.



SUBSYSTEM

The action slows . . . finally stops. Whether you fired a single round from each barrel or 1,000 rounds from all 6 barrels, your M35 subsystem gets a real good PM wring-out after each day's operation. You want it in mint condition for the rest of the mission-or for your next training caper.

You're looking for broken, missing, damaged parts and assemblies that'll knock your M195 gun out of action. Service or replace the bum items authorized at your echelon. Yell for help to DS for other repairs.

Hold it! Never start poking around this 6-shot biggie until you've made it safe and grounded your bird and all equipment.

Be extra careful handling those electrically-fired 20-MM rounds. Never touch the primers with your fingers.

Same careful handling goes for any object that can make an electrical spark-or carry a current to the primer.

Now, by the numbers, look for these no-go conditions:

CHECK YOUR M35 . . .

... KEEP IT IN GOOD CONDITION



WIRE ROPE ASSEMBLY—Cotter pin missing. Spring loose, broken. Screw loose, missing. Nuts loose. Threads burred, damaged.

FAIRING ASSEMBLIES—Damaged; rubber seals missing, cracked. Fasteners unlocked on left/right fairings.

ASSEMBLY AND

MOUNTING PINS



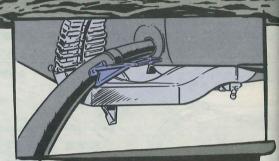
AMMO BOOSTER ASSEMBLY-

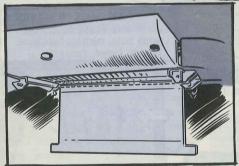
Damaged, cracked, burred. Gears and shafts badly worn. Assembly and mounting pins damaged, bent, missing.



# CHUTE SUPPORTS—(left/right hand)—Damaged, bent, quick release pins bent, damaged.

CROSSOVER FEED CHUTE ASSEMBLY—Damaged, bent, binding. Quick release latches bent, damaged.







#### FEEDER GUN CHUTE ASSEMBLY

—Damaged, bent, binding. Quick release latches bent, jammed. Dring attachments broken, loose. Ammo chute binding.

Be sure the open side of the chute is up. Watch your colors! Gun feeds from green to red.

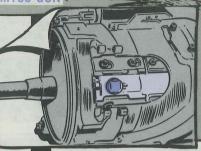


#### FIRING CONTACT ASSEMBLY\_

Safeties missing, broken on 2 socket head cap screws. Wrong screws.

Safeties missing, broken on housing cover lock pins.

BREECH BOLTS, TRACKS—Dirty, unlubed. Wash 'em with RBC. Wipe 'em dry, then let 'em dry thoroughly. Lube with LSA.



#### EJECTION CHUTE ASSEMBLY-

Safeties missing, broken on 6 cap screws. Cap screws missing; wrong kind.

Safeties missing, broken on electrical connector P273(firing).



#### **DELINKING FEEDER ASSEMBLY**

M87—2 feeder mounting pin safeties missing, broken. Safeties for 4 machine screws securing delinking ejection chute missing, broken.



GUN MOUNT ASSEMBLY — Missing, broken safeties on 8 gunmount-to-wing bolts.

#### WING ATTACH ADAPTER \_\_

Mounting bolt safeties missing, broken.

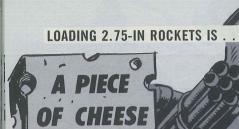


#### **PUBLICATIONS**

Missing, torn, worn unreadable, outdated. You need TM 9-1005-299-12 (May 72) and LO 9-1005-299-12 (Jun 72) for this after-operation, look-see, clean up, lube-on PM deal.

EQUIPMENT

Page B-3 and figure B-1, in the Dash 12 shows what you need. Any missing items—you replace 'em pronto.



LOVE THIS 2.75 CHEESE

That's right, Rocketmouse. Loading M200 series rocket launchers right is as easy as eating cheese. Safe, too, if you load 'em from the front only, and take care not to damage the launcher's detent and igniter arm while you're at it.

'Course, your rocket and launcher have to be in mint condition for this PM picnic.



MAKE STRAY VOLTAGE CHECK

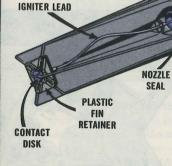
Start by pulling a stray voltage check and a firing voltage test. Then make sure your bird is grounded and pointing toward the boonies. Find a secluded spot—away from operating RF energy transmitting equipment—pull the circuit breakers and turn all armament switches OFF. Now you're cheddar-sharp for some real cheesy loading.





William Handalling

When you take the rocket out of the container, eyeball it for defects. A broken, bent, or out-of-line fin calls for a rocket reject slip. Same goes for rusty, corroded rockets. Dents, deep scratches, gouges or cuts are no-no's, too.



EXTERIOR

No breaks or abrasions allowed on the exterior igniter lead.

Be sure the nozzle seals are in place and undamaged.

The plastic fin retainer must be on tight; not broken or cracked. A clean contact disk is a premium piece of cheese.





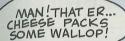
Eyeball the launcher tubes for damage from rocket blasts and foreign gunk.

Grease, gook or corrosion on an electrical connector sidetracks the firing circuit every time.

Rotor blast builds up sand and dirt in the front and rear of the tubes slows the rocket's takeoff. Runs' Cobramouse's pucker factor almost out of sight!

LOADING PM CHEESEBITS

Pull outward on the igniter assembly—turning it clockwise till it's clear of the tube opening. With the igniter arm out of the way, you're not likely to ram it with a rocket. A bent igniter arm won't touch the contact disk. No contact—no blast off.



Igniter heads must be clean. Crocus cloth or fine emery cloth does a fast touch-up job. Keep the heads cleaner longer with a dab of corrosion preventive compound. FSN 8030-838-7789 will get you a 16-oz pressurized can.



Move to the front of the launcher. Stand to one side of it to load the rockets.

Wait one, 'Mouse. Touch the shorting clip to the launcher to ground out any stray voltage. You could end up looking like a Swiss cheese!

Take off the shorting clip. Ease the rear of the rocket into the muzzle end of the launcher.

Push the rocket gently down the tube until the fin retainer is flush with the breech end. (If you're using rockets with M151 warheads, use the loading tool.)

N-e-v-e-r jam rockets down the tubes. You could damage the tube if you do—and who needs a hot rocket in his "pocket"!

Pull outward on the igniter arm assembly. Swing it counterclockwise until the igniter head touches the contact disk on the fin retainer. You'll hear a "click" when the arm is in place. Push-pull the rocket to make sure the detent's seated in the retaining groove.

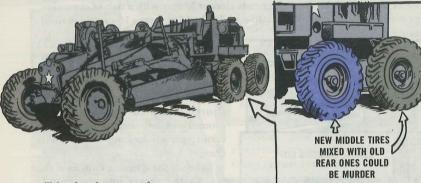
You'll never drop the cheese—er, rocket—if you have TM 9-1090-203-12 (Apr 70) and TM 9-1340-201 (Apr 71) handy during the rocket launcher loading or unloading biz.





THE MODEL 440HA ROAD GRADER . . .

# BREAKING POINTS



Take the gleam out of your eye, man. No hot rodder ever made it with the Model 440HA road grader.

The braking system can't stand the gaff.

There're only 2 wheel cylinders to stop the 26,500-lb baby. They're on the middle wheels.



Slamming on the brakes at a high speed can cause failures.

So, be nice. Keep the speed down.

'Course, the brakes can fail from other bad treatment, too.

Check especially for uneven tires on all the tandem wheels.

New middle tires with old rear ones can be murder.

Braking with 'em lifts the rear wheels off the ground, then down again. The chatter here shocks, loosens or shears off the backing plate mounting bolts.

With no bolts the backing plate turns with the wheel pulling the brake hose in two.

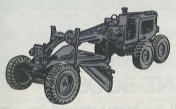
That means no brakes, man!

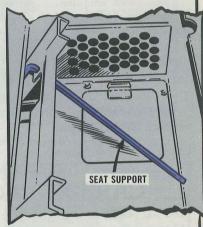
# GIVE YOUR SEAT A

Dear Editor,

Battery servicing on a Cat 120 grader is more likely to get done when it's made easier.

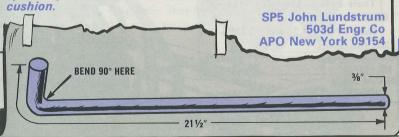
A simple seat support does the trick. It's just a 21½ in length of ¾ in steel rod. You bend it 90 degrees an inch or so from the end. Stick that end into the hole already in the seat's bottom frame. When the seat's tipped forward for battery servicing, position the rod so it keeps the seat forward.





When you're through using the prop, swing it around under the seat and let the seat back down.

But the seat should be kept propped forward when you're not operating. Then rain, dew and snow won't sit on it and rot the cushion



(Ed Note: Sounds like a good deal, considering the few cents for a piece of rod and the little work involved. In a pinch you can use a piece of rope to tie the seat up to the steering wheel.

#### YOUR CRANE'S PINION GEARS NEED YOU . . .

## LOVE 'EM AND LUBE 'EM

Stark naked pinion gears lead the Models 2380, 2385 and 2360 cranes to ruin.

You can stop 'em by putting enough lube on 'em so no bright metal

Then, check 'em often . . . at least every 10 hours of operation.

Never let the countershaft pinion spur gear get away without lube. It'll wear down fast and throw other gears out of kilter, too.



PINION GEAR SHOULD BE WELL LUBED

A lopsided engine could damage

This could mean days of headaches, downtime and manhours to put 'em back into shape again.

So, get the good word from Note 3 of LO 5-3810-232-12-3 (May 70) and LO 5-3810-227-15-2 (Jan 64).

It tells you how to take care of the pinions and the exposed gears.

### CARRIER ENGINE BOOST

Did you get the word?

If you haven't replaced 'em, get Change the rear engine mounts on support to do it now. your Model 2380 crane carrier.

High temperatures and humidity the carrier components. won't hurt the new ones.

Their FSN is 5340-073-9361, PN CB1009-10 (76005).





Play the cool cat with your Model 2385 20-ton rough terrain crane. Check the hydraulic tank oil level daily.

Do it by the numbers, though . . . follow the tank's instruction plate.

Most important, make sure you relieve the pressure inside the tank by extending all the outriggers and dozer cylinders. Then, you unscrew the cap-dipstick, but s-l-o-w-l-y.

If you go at it any other way, you could miss the mark by far and get drenched with hot oil to boot.

'Nother thing, watch out for those cap-dipstick marks. Originally, they were wrong. The "add" mark really should be the "full" mark.

**CHANGE "ADD" MARK** TO "FULL" MARK







Make this change the soonest. You can get the how-to-do-it details from para 27 of TB 750-971-2 (May 72) or page 19 of PS Issue 241.

# THE RIGHT TOUCH COUNTS

#### Dear Half-Mast,

Our mess-hall personnel get themselves into a lot of hot water every time they paint their immersion heaters. Some inspectors say the paint line is too high, and others say it's too low. Where do you draw the line?

MSG W. M.



BELOW HERE IS A NO-NO!

DRIP

VALVE

Dear Sergeant W. M.,

The line is clearly drawn in the specs MIL-H-43540 (Sep 67). It's 6 inches below the top of the burner tube.

Actually, you paint all the outside of the heater body down to that line, except for a few parts.

You never paint the screw threads of the hanger assembly, the wick and the retainer spring of the igniter, the drip valve of the fuel tank and the instruction plate on the hood.

Matter o'fact, you never paint the identification plate on the flue pipe or the fuel tank, either.

The filler plug and the vent plug of the fuel tank are painted but in a closed position.

Half-Mast

FUEL TANK WITH WICK IS A BOMB . . .

WHO NEEDS IT?

COOL IT ON THAT WICK BUSINESS, SARGE!

Dear Half-Mast,

What's the story on using wicks to empty fuel tanks of equipment going into storage? Put me on the safe path before I store my immersion heater, field range, lanterns, small engines and such.

SSG R. F. P.

Dear Sergeant R. F. P.,

Soon as you forget those wicks, you'll already be on the royal road to safety. No DA pub says to use 'em.

A wick in a fuel tank is like a fuse on a bomb. It's a bigger hazard

than the one it tries to get rid of.

Here's how to clean out a fuel tank:

- 1. Drain it, if required (and if you can).
- 2. Run the equipment to get out all the fuel from the system.
- 3. Leave the cap off and ventilate the tank out in the open air.
- 4. Replace the cap and store the equipment.

That's it . . . the only way to go . . . no wicks.

Half-Mast





# HOW TO DA FORI KEEP SCORE 2404



Team scores, in most sports games, flash like magic on a lighted board. But on equipment you operate you still keep score on DA Form 2404. There's no electronic shortcut.

That DA 2404 scoresheet is the form where you put down the daily checks you make on the equipment—before you operate, while you operate and before you tuck it away at the end of the day.

Use pen, pencil or other approved entries—as spelled out in para 1-7a(2) of TM 38-750.

You use DA 2404, too, every 90 days—or oftener if equipment status changes—to "pull" an ESC (equipment serviceability) check, point by point as laid down in the ESC TM in the equipment log.

For both the DAILY checks and the ESC rating you fill out blocks 1 thru 3 the same.

| EC                             | UIPMENT   | INSPECTI | ON AND MA<br>(TM 38-75 |        | CE WORKSHEE      | T    |                |
|--------------------------------|-----------|----------|------------------------|--------|------------------|------|----------------|
| 1. ORGANIZATION  Co B. 3RD INF | BN        |          |                        |        | MISIA            | on d | or beneat or   |
| 3. REGISTRATION/SERIAL/FEN     | 48. MILES | b. HOURS | C. ROUNDS              | d. HOT | 5. DATE          | 6. T | YPE INSPECTION |
| 7,                             |           | APPL     | ICABLE REI             | ERENCE | The State of the |      |                |
| TM NUMBER                      | 1         | M DATE   | TM                     | UMBER  |                  |      | TM DATE        |

Block 3 entries depend on the type of equipment. If equipment has a serial number, enter that—except for commercial vehicles (for these use the USA registration number). If equipment has no serial number, enter the control number from the DA 2408-8 or DA 2408-9 permanent

log copy for items that have these forms (if only an FSN is available for the item, enter that).

Block 4 gets whatever entries apply to the equipment—miles, hours, rounds or hot starts.

Block 5 now gets a calendar date, regardless of use of the form.

After that, entries for the DAILY DA 2404 and the DA 2404 ESC rating are different. When you're making the ESC Rating—

Block 6 gets "ESC."

Block 7 gets the ESC TM for the equipment and the TM date. List changes, too, if there are any. The second TM box is left blank even if there is mounted equipment because any mounted end items are rated on a separate DA 2404.

|                | . MILES | b. HOURS  | FIRED    | d. HOT | 18 JUN 73 | 6. TYPE INSPECTION   |
|----------------|---------|-----------|----------|--------|-----------|--|
| 7.             |         | APPLIC    | ABLE REF | ERENCE |           |  |
| TM NUMBER      | 1       | TM DATE   | TM N     | UMBER  |           | TM DATE  |
| 9-2320-218-ESC |         | 11 OCT 72 | 2        |        |           | A STATE OF THE PARTY OF THE PAR |

Here're the rules on use and disposition of the ESC rating form and on making the remaining entries—

#### **USE WHEN**

You make an ESC rating (for items reportable on DA 2406) every 90 days. (Oftener if item status changes or if command requires it.)

#### **OPERATOR ENTRIES\***

Col a—ESC item No.
Col b—ESC rating (GREEN,
AMBER or RED).
Col c—Item rated.
BI 8a—Rater's signature

and rank.
BI 10—Overall item rating
(lowest rating in col

Bottom of form—System rating if 2 or more ESC TM's apply to system.

#### DISPOSITION

To maintenance supervisor for checking. Rating is entered on DD 314 if item has it. Retain DA 2404 till next rating. Meanwhile the rating will be kept current.

\*Aircraft ESC ratings are made on a single line, based on the aircraft's status as shown on its DA 2408-13. But installed subsystems and components are rated by rules in their own ESC TM's and separate DA 2404's are used.





For equipment with separately rated subsystems or components, separate DA 2404's are stapled together and overall system rating entered on the top DA 2404 (at the bottom of the form). The system rating is that of its lowest-rated subsystem or component.



Here's how to complete the operator/crew entries for the DAILY checks

for different groups of equipment (aircraft PMD checks are not recorded on DA 2404 but go directly on DA 2408-13).

If your maintenance SOP (or word from your CO) permits, no entry is required in blocks 4 and 5 of DA 2404 until you find a fault you can't correct or one you correct by replacing a reportable part.

On days when no faults are recorded, you enter the calendar date in column c and your initials in column e. Hold the DA 2404 for use the next day.

Here are the entries required in the heading for the DAILY-

Blocks 1-3—Same as for the ESC form.

Block 4—Blank until a fault is recorded, then enter the miles, hours, or rounds that apply to the equipment.

Block 5—Blank until a fault is recorded, then enter the calendar date.

Block 6—The entry is "DAILY."

Block 7—The entry is the operator's TM with date. If there is a change, (or changes,) add w/c (with change) and list only latest change date in TM date block. (The operator TM normally is a -10, -12 or -14.) If there is installed or mounted equipment that has a separate TM, that TM also is entered in the right half of block 7.

| L          | CO E             | 3, 3RD INF E  | 2 .                  | ON AND MAINTENANCE WORKS             | SHEET       |                          |
|------------|------------------|---|----------------------|--------------------------------------|-------------|--------------------------|
| 3.         |                  |   |                      | 2. NOMENCLATURE AND MODEL            |             |                          |
| -          | 2F86             | 112   | MILES b. HOURS       | I ROUNDS THE ROCK, MIST              | AI          |                          |
| 7.         | NUMBER           | 11)   | 562.                 | FIRED STARTE S. DATE                 | -           | PE INSPECTION            |
| -          |                  |   | AP.                  | PLICABLE REFERENCE                   | W 73        | DAILY                    |
| 1          | 9-2320           | 1-218-10  |                      | TM NUMBER                            |             | - NILY                   |
| -          | _                | -10-10  | 8560                 | 7/                                   | 17.         | M DATE                   |
| IN:        | STRUCTION        | IS-Perform  |                      | ap. able to the inspection perfo and |             |                          |
| CO         | LUMN - F         | , complete form as fol  | listed in the TM     | ap cable                             | DECEMBER 1- |                          |
| CO         | LUMN b-E         | ter TM item number.  Inter the applicable conster deficiencies and sh | iows:                | able to the inspection perfo ned     | Followi     |                          |
| CO         | LUMN c-Er        | nter the applicable con<br>ster deficiencies and sh                   | dition status symbol | ol. COLUMN d_cL.                     | Tollowing ( | he sequence listed       |
|            | J#7 1            | shelles and sh  | ortcomings.          | MAKE ENTRIE                          |             | acy or short.            |
|            | AL               | INSPECTION  | ALC: NO THE          | act I was a second to se             |             |                          |
|            | IN               | L INSPECTIONS AND EQUIP<br>ACCORDANCE WITH DIAG                       | MENT CONDITIONS P    | WHEN FORM IS TU                      |             | d corrective             |
| Ba: SIC    | SNATURE ( Person | ACCORDANCE WITH DIAG  | - ones               | MAINTENANCE SI                       | JPERVISOR   | of Case II               |
|            |                  | opittion)   |                      | Sichur                               | <u> </u>    |                          |
|            |                  |   |                      |                                      |             |                          |
|            |                  |   |                      | SONATUR Supervisor)                  | 96. TIME    | Tio.                     |
| 4          | 2                |   |                      | Supervisor)                          | 96. TIME    | 10. MANHOURS<br>REQUIRED |
| TM<br>ITEM | STATUS           |   |                      | Supervuor)                           | 9b. TIME    | 10. MANHOURS<br>REQUIRED |
| TM         |                  | DEFICIENCIES AND  | SHORTCOMINGS         | Supervior)                           | 96. TIME    | 10. MANHOURS<br>REQUIRED |
| TM<br>TEM  | STATUS 6         | DEFICIENCIES AND  | SHORTCOMINGS         |                                      |             | REQUIRED                 |
| TM<br>ITEM |                  | DEFICIENCIES AND  | SHORTCOMINGS         | CORRECTIVE ACTION                    |             | REQUIRED INITIAL WHEN    |
| TM<br>ITEM |                  | DEFICIENCIES AND  | SHORTCOMINGS         |                                      |             | REQUIRED                 |
| TM<br>ITEM |                  | DEFICIENCIES AND  | SHORTCOMINGS         |                                      |             | REQUIRED INITIAL WHEN    |
| TM<br>ITEM |                  | DEFICIENCIES AND :  | SHORTCOMINGS         |                                      |             | REQUIRED INITIAL WHEN    |

Here's the word on use, entries and disposition of the DA 2404 for DAILY checks.

#### FOR EQUIPMENT WITH LOG (EXCEPT AIRCRAFT)

# USE WHEN Making daily checks on

items that have a log (ex-

cept aircraft) each day

DA FORM 2404

used.

#### **OPERATOR ENTRIES**

#### Col c—Date only, with initials in col e, if no fault found or faults found are corrected without use of reportable part.

- Once a fault must be recorded—
- Col a—Operator TM item
  No.
- Col b—Fault status symbol.
- Col c—Brief description of fault.
- Col e—Initials of operator who entered date.
- BI 8a—Operator signature and rank (at time form is turned in to supervisor).
- BI 10—Manhours if required locally otherwise leave blank.

#### DISPOSITION

Hold for use next day if no fault recorded (if CO approves).

After fault is recorded, to maintenance supervisor for checking and further action if needed.

- BI 9a—Supervisor will sign if required locally.
- Col d—If corrected, mechanic makes entry in columns d and e.

If not, supervisor enters form the fault is transcribed to and initials column e.

|                   |        | on(s) performing inspection)  8b. TWE  Hines, Sp 4 | The same     | (Maintenance Supervisor)  M. Baldwin 55 | 96. TIME | 10. MANHOURS<br>REQUIRED     |
|-------------------|--------|--|--------------|---|----------|------------------------------|
| TM<br>ITEM<br>NO. | STATUS | DEFICIENCIES AND SHORTCOMING                       | GS           | CORRECTIVE ACTION                       | 4        | INITIAL<br>WHEN<br>CORRECTED |
|                   |        | 18 JUN 73  |              | ATTURE T                                |          | RRH                          |
|                   |        | 19 JUN 73  | The state of |   |          | RRH                          |
| 8                 |        | GAS CAN MISSING                                    |              | A FORM 2408                             | -14      | SOU TO                       |
| 16                | ×      | HANDBRAKE WON'T HO                                 | LD ON D      | A FORM 2407                             | (SPT)    | Jan 18                       |
|                   |        |  |              |   |          |                              |
|                   |        |  |              |   |          | 100                          |

#### FOR EQUIPMENT WITHOUT A LOG

#### **USE WHEN**

#### Making daily checks on items that don't have a log (use separate form for each day of use if command requires it). May use 1 form for several like items.

#### **OPERATOR ENTRIES**

When command permits use for more than 1 day: Col c—Date only if no fault found that operator can't correct—with initials in col e.

Once a fault is found that operator can't correct:

Col a—Operator TM item No.

Col b—Fault status symbol.

Col c—Brief description of fault.

Col d—Actual corrective action.

Col e—Initials (after correction of fault).

BI8a—Signature and rank.
BI 10—Manhours, if required locally—

blank.

otherwise leave

#### DISPOSITION

Hold for use next day if no fault recorded and CO approves.

After fault is recorded, to maintenance supervisor for checking and further action if needed.

| 3      |              |   |             |                |  | THE RESERVE OF THE PERSON NAMED IN        | AND DESCRIPTION OF THE PERSON NAMED IN | Section 2 in such section 2 |
|--------|--------------|---|-------------|----------------|--|---|--|-----------------------------|
| F.     |              |   |             | APPLICABLE     | REFERENCE  | Salara                                    |  |                             |
| 1/     | M NUMBER     |   | TM DATE     | 1.86           | TM NUMBER  | CHIEF RE                                  | TM DATE                                |                             |
|        | 0-1          | 005-213-10  | 12.7        | NT 68          | THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN C |   | 715 100                                | 1 3                         |
| -      | 7-70         | 003-213-10  | -           |                |  |   |  |                             |
| ***    | MATHEM / Por | rson(s) performing inspection)  | Bb. TIME    | 9a. SIGNATUR   | E (Maintenance Supervisor)   | 96. TIME                                  | 10. MANHOURS                           |                             |
| 1. 310 | POATURE 1 PM | Sou(1) perjorming inquition,  | 10.174.13-1 | 12 12 12 12 12 | (1) 130 Vez-ycor   | P. S. | REQUIRED                               |                             |
| 5      | - A. A       | P. John SP4   | 38 B 86     | (5) 30 1       |  | THE R                                     | neacqu                                 |                             |
| _      | ,            |   |             |                | - In the second  | -   | INITIAL                                | 40.74                       |
| TM     | STATUS       | STATUS DEFICIENCIES AND SHORTCOMINGS  b  2.5 JUN 73  REAR SIGHT GRIMY |             | 63.61          | CORRECTIVE ACTIO   | WHEN                                      | 1                                      |                             |
| NO.    | 6            |   |             | 779            | d  | ,   | 1                                      |                             |
|        | 1            |   |             | HERE           |  |   | 8 P.J.                                 |                             |
| 5      | /            |   |             | ST DE LOS      | CLEANED  |   |  |                             |
| -      |              |   |             | - Vess III     | ADJUSTED   | TANK I TITLE                              | E.P.J.                                 | Reg ]                       |
| 1      |              | HEADSPACE EXCESSIVE   |             |                | 7202.22  |   | 1                                      |                             |

Normally the operator or crewman who finds a fault makes entries in columns d and e only if he corrects the fault. Otherwise, column d and e entries are made, normally, by mechanic or maintenance supervisor.





When uncorrected faults are transcribed to DA Form 2408-14 (permissible for aircraft faults with red slash and red dash symbols and other equipment faults up to those with circled X symbols), the operator or crew should check DA 2408-14 before making entries on DA 2404.

Uncorrected faults on DA 2408-14 don't need to be re-listed day by day on DA 2404. Of course such faults should be re-listed on DA 2404 if found to be more serious than the symbol on DA 2408-14 indicates.

Besides keeping an eye on DA 2408-14, you need to watch other log forms—such as DA 2408-1, DA 2408-4, DA 2408-5, and DA 2408-10.

The DA 2408-1 daily and monthly, f'rinstance, will tell you how your equipment stands on periodic PM services—including miles and dates when they're due. DD 314 is the official schedule of periodic PM.

## NOT FOR SYSTEMS, SUBS

Dear Half-Mast,

I assume PS 244, page 80, didn't mean to imply that an ESC rating can be dropped for a component of a reportable system when the component itself is not reportable on DA Form 2406?

Mr. H.P. C.

Dear Mr. H. P. C.,

Right on! It sure didn't.

You can drop the ESC rating for an item no longer reportable on DA Form 2406, if your command agrees—but only when the item is not reportable either (1) as an individual item, (2) as a component of a reportable system or (3) as a substitute for another item which is reportable.

Those added details are needed to complete the picture.

Naturally, if the item is a component of a reportable system, para 3-6b(6)(k) of TM 38-750 and para D-2c (12) of AR 220-1 apply.

A component of such a system must be rated so that the status of the entire reportable system can be determined—even tho the component item (such as an electronics item) may not need to be rated when not a part of the system.

And substitute items must be rated if they, or the items they substitute for, are reportable. See para D-2c(3) of AR 220-1.

Half-Mast



# Larc - 5 Pub Change

If you're in the amphibious lighter (LARC-5) business, make a note on page 9 of TM 55-1930-205-20P (May 72). The stock number for Rubber, extruded, Bulk, needed for each gasket, P/VO5-003-050, is FSN 5330-917-3645. It'll come in handy for making a new gasket for your cargo hatch cover.

## All Pencil Work

On your DA Form 3318, Record of Demands — Title Insert cards, you make all entries in pencil. That goes for both sections — your record of demands info and your title insert fill.

The note at the end of the instructions on setting up the form, Fig 2-27, AR 710-2, OK's the pencil work.

### 1/4-Ton-V-Belts

The right FSN for your ¼-ton's 100-AMP generator 4-belt set, FSN 3030-811-4980, is on page 269 of TM 9-2320-218-20P (Jan 72) under 100-AMP generator non-illustrated parts. FSN 3030-832-5671 will get you the 3-belt set for a 60-AMP generator.

## 5/4 Lube "Note"

No need to be confused by that subnote in Note 10 on the back of LO 9-2320-244-12 (Oct 67) — that bit about 3,000-mile lube intervals for the M715 and other 1 ¼-ton TM-244-series vehicles. Forget it. That subnote won't be in the revised LO coming out.

# Carbon Monoxide Checker

With the M23, carbon monoxide detector kit, FSN 6665-618-1482, you can check inclosed areas for concentrations of carbon monoxide. The kit's authorized by CTA 50-914 (Sep 72), and is covered by SC 6665-94-CL-E07 (Jan 65). See also TB Cml 93 (Jun 62), and para 8 in TB Med 269 (May 68).

Instructions come with the kit.

## Chemical Stuff

TM 750-5-15 (Aug 72) is a handy reference pub for chemical items. It lists filter units, masks, dispersers, flame throwers, compressors, kits, ammo, the works. It illustrates items and lists FSN, item description, publications and basis of issue.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1973 - 758-438/2

Would You Stake Your Life night now the Condition of Your Equipment?

