

Issue 318

PS

May  
1979

# THE PREVENTIVE MAINTENANCE MONTHLY

STARSHIP IN POSITION,  
SIRE!! THE  
OPTIMUM MOMENT FOR  
"OPERATION EARTH STRIKE"  
IS *NOW*...

BUT...

INEXPLICABLY,  
NONE OF OUR ATTACK  
FORCE IS OPERABLE...

GEAR COMPONENTS  
ARE RUSTED, SHORTED-  
OUT OR FOGGED-UP!!



**WATER  
DAMAGE!!\***

GET THAT  
☆!!\* EARTH  
"MIND-SLAVE,"  
SPEC KLUTZ,  
UP HERE...

**IMMEDIATELY!**

\* See Page 29.

# You're the One... ARE THE ONLY ONE!

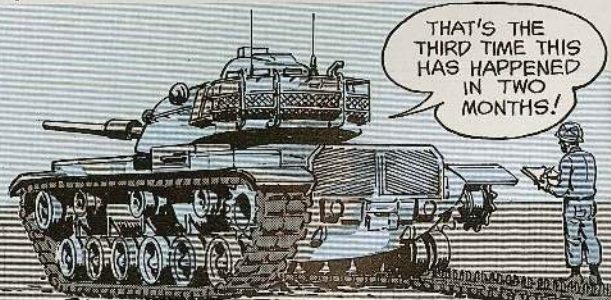
Why do I have to fill out all those #!\*&)+! forms?

So who cares what I put on those forms anyway?

Are we trying to drown our enemies in paperwork?

Sound familiar? A lot of people seem to think that filling out forms and records is a waste of time. But don't you believe it! The forms you fill out on your equipment are far more important than you might think.

They provide vital information that can only come from you.



You know what your equipment'll really do—



instead of just what it's supposed to do.

The info you feed into the Army's Maintenance Management System under TM 38-750 tells commanders all the way up the line how ready your equipment is.

LOOK AT THE DOWNTIME ON THIS TANK!

It also gives the designers and analyzers real info to use in improving your equipment.

THESE EIR'S TIE IN WITH OUR 2406 AND AOAP INFO...



The final feedback from the system on your info, though, is the Army's readiness. And since some pretty hairy decisions may depend on your info, keep it clear, keep it straight, keep it accurate!

ARE YOUR UNITS READY?

YES SIR!!



## PS THE PREVENTIVE MAINTENANCE MONTHLY

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

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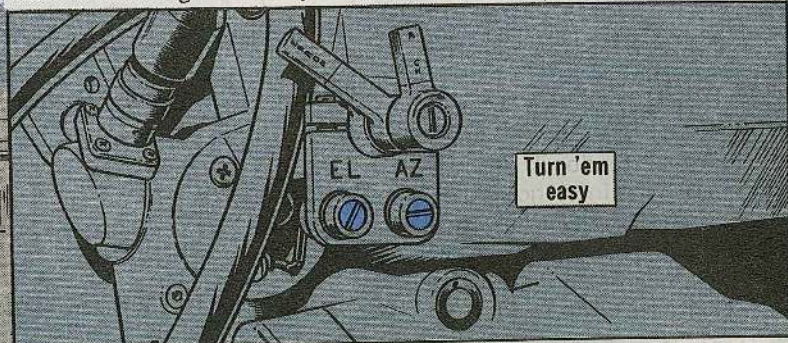
# Shillelagh

## SURE SHOTS

KEEP IT SHORT,  
KEEP IT LIGHT...

YOUR AZ AND EL  
SHAFTS WILL BE  
ALL RIGHT!

That's the AZ and EL shafts on your M149 and M153 telescope mounts used with the Shillelagh missile system (Sheridan/M60A2), of course.



If you get brutal and turn beyond the stops on the shaft screws, you'll damage them. The turning radius is short. Stop when you feel resistance.

Try not to shove the screwdriver through the screwhead, either. Save damage by using just enough pressure to turn the shaft. Go light, right?

### KEYWAY'S THE WAY

When you install the W6 or W36 cables on the telescope mount, line up the connector keyways before you twist. That saves damaged connectors and jacks.

Rule of thumb: If you can't screw the connectors on with your fingers, back off! Something's wrong...probably the key and keyway are not lined up.



### TRANSMITTER DOOR

Go easy with the transmitter door control handle when you close or open the door. You've got to turn the handle at least a  $\frac{1}{4}$  turn to lock or unlock the door, so be sure you turn it far enough.



No hard pulling, punching, pushing or other mayhem on the handle. Just be sure it's turned enough.

Remember, too, that in order to get a missile ready light, the door must be all the way open before you lock the handle. Part way open means no ready light and no action.

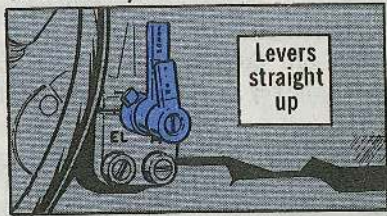
NOPE--NOT CHRISTMAS LIGHTS--  
IT'S TH' NO GO LIGHTS--HIS  
DRIVER MUSTA LEFT HIS ALIGN  
AND ERROR LEVERS IN TH' WRONG  
POSITION AGAIN!

?



## SYSTEM SELF TEST

Before you start a System Self Test, be sure the ALIGN and ERROR levers on the telescope mount are full clockwise (sticking straight up). Otherwise, NO GO lights will come on all over your TCP.

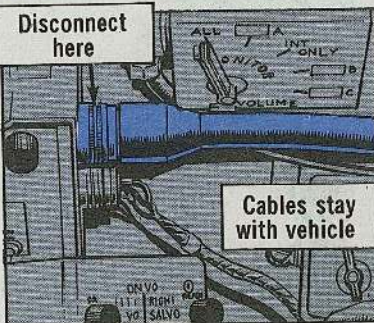


## CABLES

Turret mechanics can change the boxes (like power supply, TCP, SDC, modulator, rate sensor, transmitter and tracker) if necessary, but hold it right there.

The connecting cables don't go with the boxes. Just disconnect them at the boxes and let them lie. Cable dismantling is a support job, so if you think you've got cable problems, let support handle it.

Fact is, if you've got missile system problems and you can't solve them after going through Steps 115 through 121.3 of Table 8-4, TM 9-2350-230-12, get your contact support team on the horn.



## WASHING

Some troops do it, but...it should go without saying that you do not wash the inside of a turret with a hose.

Water gets to electrical and electronic components, cables and wiring quick-like, causing corrosion, shorts and deterioration. A quick hose job adds up to faulty electrical and weapons systems.

WHATSAMATTER  
WITH HIM,  
CONNIE?

HE OBVIOUSLY NEEDS  
A THOROUGH BATH!

HALP!  
CONNIE,  
SAVE ME!



PS END

## M163A1 Cable Fix

You can protect the W3P2 cable on your M163A1 SP Vulcan with a quick strap fix.

The cable, which connects to the firing contact assembly, dangles when disconnected. It gets damaged when it tangles up in system components.

To prevent damage, get strapping, NSN 5340-00-081-5169 and button stud, NSN 5325-00-027-0191. Allow just enough loose cable to reach the firing contact assembly. Wrap the strapping around the flex drive adapter and strap the cable to the



adapter.

The headshed is working on a permanent fix to protect the cable and connector. Until it's fielded, you can use the strap method.

## M60 Feed Cover Service



Dear Half-Mast,

Change 6, page B-2, to TM 9-1005-224-24 changes the MAC authorization whereby crewmen or armorers no longer can clean or lube the feed cover assembly of the M60 machine gun. Everything's moved up to DS level. That doesn't make sense.

SSG J. F. B.

Dear Sergeant J. F. B.,

You're right. The change is wrong. Cover codes in the Maintenance Allocation Chart on page B-2 of the basic TM are correct. The crew tests, services and installs the cover assembly. Support repairs it. The next change to the TM will straighten it out.

THE USING  
UNIT CLEANS  
AND LUBES  
THE COVER  
ASSEMBLY!



Shillelagh

# Make It GO Without the WOE

TO USE A SHILLELAGH, FIRST YOU'VE GOT TO LIFT AND AIM IT... AND THEN KEEP YOUR EYE ON THE TARGET UNTIL YOU HIT THAT TARGET! YOU DON'T WATCH THE CLUB!

MAYBE THIS WILL IMPRINT SOME SHILLELAGH PM IDEAS IN HIS HEAD...

Same goes with your Shillelagh missile system. First, you sight in on your target, fire the missile...and keep your crosshairs on the target until the missile impacts.



In short, you do not track the missile or follow the missile down. Keep the target in the crosshairs until impact or you'll waste a missile.

Some guys hit dead center. Other guys waste missiles. Your choice.

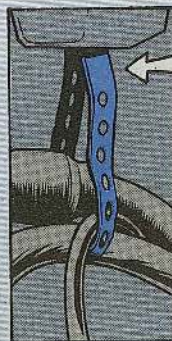
## REALINE TRACKER

Whenever you fire conventional ammo through the gun tube (about once a year for most troops), you must realine the tracker for missile use. Otherwise, you could be off target.

## CABLE TIEDOWNS

If you have trouble with the wide, perforated tiedowns breaking, try using strap, tiedown, NSN 5975-00-451-5001, on your Shillelagh cables. They're especially good on the Sheridan, and they're great for telescope mount cables.

The tiedowns are strong, long and adequate. Attach them and cut off what you don't need.



Got perforated tiedown troubles?

Use solid tiedown!



SO THAT'S HOW THEY TEACH SHILLELAGH PM!!

## MAKE THOSE TESTS

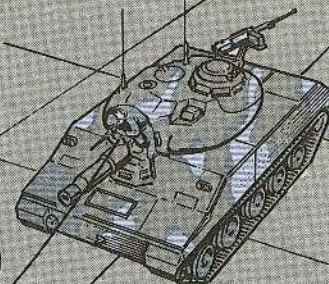
Getting ready to turn on main power in the Sheridan?

Think about, and do, your before-operations checks...for the good of the vehicle and your missile system.

Another test you don't want to forget is the "lollipop" test...the transmitter alinement check which is required quarterly, or whenever alinement is in doubt.

Para 10-4 and Fig 10-20 of TM 9-2350-230-12 give you the word.

Troops forget the lollipop test, which realines the reticle in the transmitter, and crews miss targets. Save a missile miss and an unnecessary trip to support. Make the check when necessary...and at least quarterly.



MAKE YOUR "LOLLIPOP" TEST, SOLDIER!

RIGHT ON!

## BATTERIES

Use your TM and, for top maintenance, use DA Pam 750-34 on PM of Lead Acid Batteries.

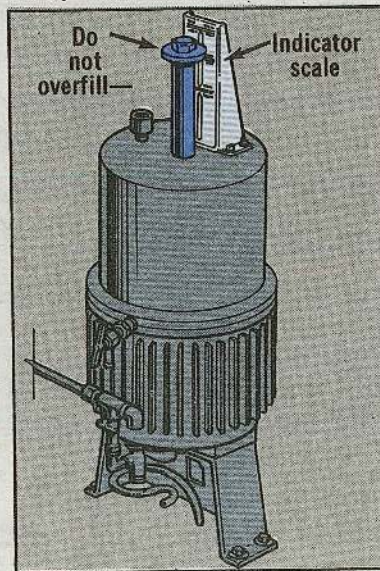
BATTERIES MAKE YOUR SYSTEM GO, SO WHATEVER YOU DO TO THEM, DO IT RIGHT... AND BY THE BOOK!

## Lance Boom Fluid

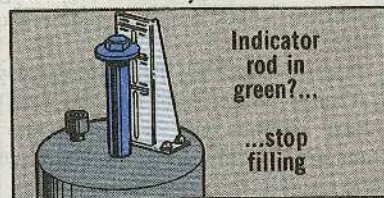


Too much of a good thing can be almost as bad as too little when it comes to the hydraulic fluid reservoir for the boom assembly of your Lance missile system.

If you overfill the reservoir with fluid, you can damage the diaphragm.



Fill the reservoir until the indicator rod rises into the green on the indicator scale. If you follow the word



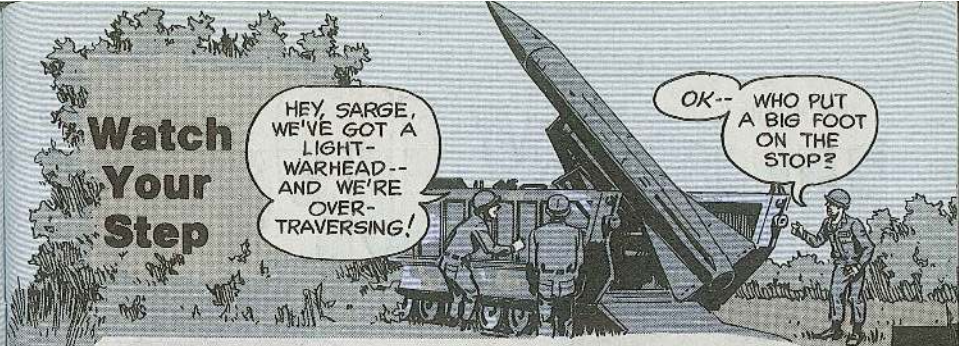
in para 3-22, page 3-33, TM 9-1425-485-10-2 (Jan 74) on filling the reservoir, the indicator rod will clue you on what you need to know about over-fill and under-fill.

A good clue aside from the rod is a leaking breather filter (PN 10163312)



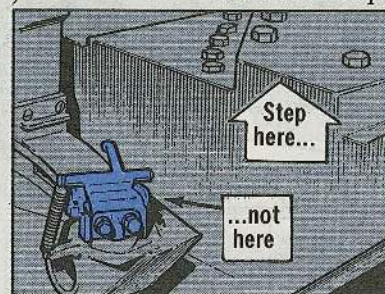
on the reservoir when the boom is put in stowed position.

## Watch Your Step

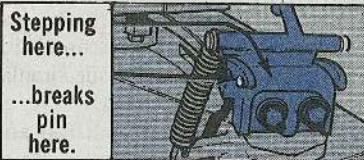


Take one giant step upward when you board the M752 self-propelled launcher (SPL).

If you take 2 small steps, you may just tread on the traverse limit stop.



A big foot on the stop is a sure way



to break the spring pins inside the block. A stop with broken pins causes over-traversing.

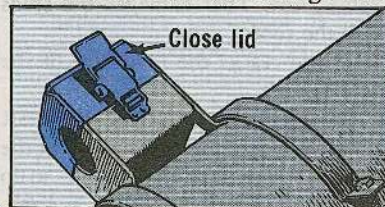
Over-traversing a missile with a light warhead can put a big dent in the side of the SPL—not to mention your efforts to get the missile to the target.

So, think big...and step up smartly.

## Lance Umbilical

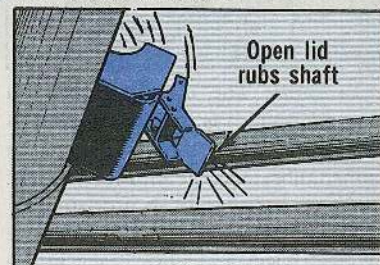


When you remove the short umbilical cable from its stowage con-



tainer (rear support container) on your Lance system launch truss, close the container lid.

An open lid rubs on the elevation linkage shaft...which helps neither the lid nor the shaft.



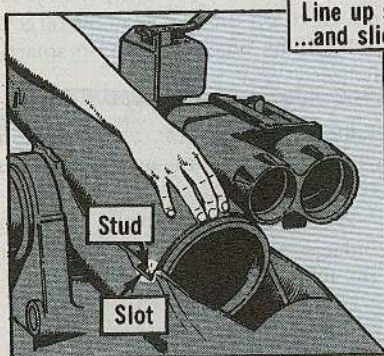
TOW Missile System . . .

# HURRY UP

You've gotta move out fast sometimes to make good scores with your TOW missile or missile simulation round (MSR).

The trick is to move out fast and right. Forgetfulness, hurry-up procedures and strong-arm tactics can damage the missile system or training equipment.

## MSR



Line up stud, slots...  
...and slide MSR home



same time. That damages the studs and the tube.

It also cracks the rear edge of the launch tube.

So, line up the studs, slip the MSR all the way into the tube, and lower the MSR in place. It takes no longer to do it right than it does to do it wrong.

Example: The missile simulation round. The idea is to line up the studs on the MSR with the grooves on the launch tube, slide the MSR all the way forward, and then push it down.

Some troops start the studs in the grooves, slam and push down at the

&

# TAKE IT EASY

HEY, MISSILE TYPES--  
HERE ARE SOME TIPS TO  
KEEP YOUR MISSILES  
SAFELY IN TOW!

IT'S  
BONNIE--  
LET'S  
GO!

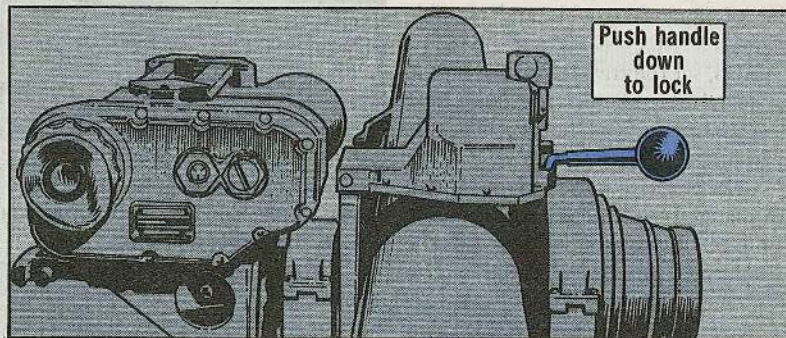
WOW!  
SHE'S  
MY  
FAV'RITE  
MISSILE!

SHE AIN'T NO  
MISSILE, YA DODO!

RIGHT!  
SHE'S A  
MSILE!

## Bridge Clamp

Remember to lock the locking handle on the bridge clamp of the traversing unit—when you close the bridge clamp.



That's extra important if your TOW is mounted on an APC. If you don't lock the handle all the way down, you can break the handle when you lower the hatch.

Hatch or no hatch, things bounce loose with an unlocked handle.



## Pedestal Lock Ring

Eyeball the pedestal locking ring to be sure it's open before you set the

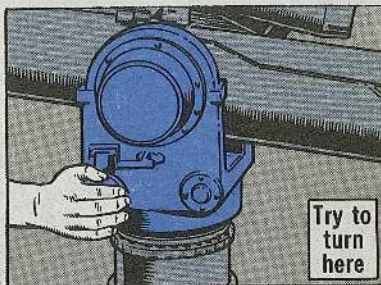
Be sure ring is open



traversing unit in place. That saves a lot of obvious trouble and possible damage.

Also, set the traversing unit on the pedestal easy-like, so you don't burr the parts that touch. Burrs could cause you problems in tracking.

Once you've got the traversing unit in place, clamp the locking ring shut. Engage the azimuth lock on the

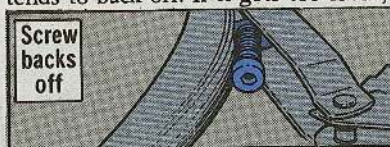


Try to turn here

traversing unit. Try to turn the traversing unit on the tripod or pedestal. If it doesn't slip, you're OK. If it does, your support will have to adjust the locking ring.

The socket head screw on the ring tends to back off. If it gets too loose,

Screw backs off



the traversing unit can fall off the pedestal...particularly on an APC.

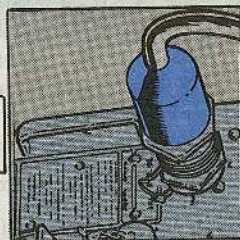
So, check the ring each time you install the traversing unit.

MGS

Easy with the W2 cable connector that attaches to the J1 jack on the missile guidance set (MGS). The connector sticks when you try to remove it, but a strong arm on the cable itself won't help anything.

Grab the connector and pull. Avoid yanking out the wires.

Pull off by connector - not cable

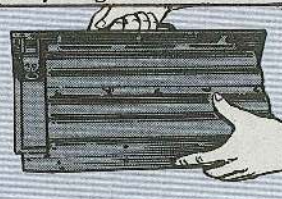


## Batteries

When system batteries are out of components or stowage brackets, be careful not to bang them against each other...or anything else. The metal

batteries are locked in the stowage bracket or the MGS. If the wingnut fasteners aren't snugged down, the

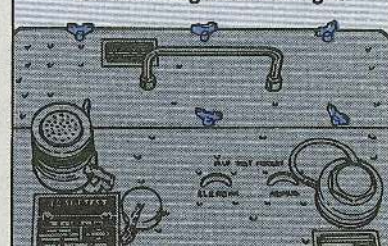
Don't bump it!



cases may look rugged, but they damage easy.

If your system's mounted in an APC, double-check to be sure the

Be sure wing nuts are tight



batteries can fall out when you start rolling. Scratch one battery!

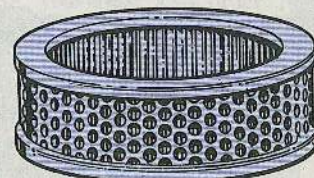
## Target Parts

Been looking for parts for the infrared transmitting set, plus fluorescent paint for the target board?

Hang in there. Fluorescent paint, red, NSN 8010-00-082-2421 (1 gal) got lost in the maze in a pub's change. You can still get it with that NSN, but ask for "coating compound."

You can get your filters, lamps and such for the target transmitting set in

Need a filter?



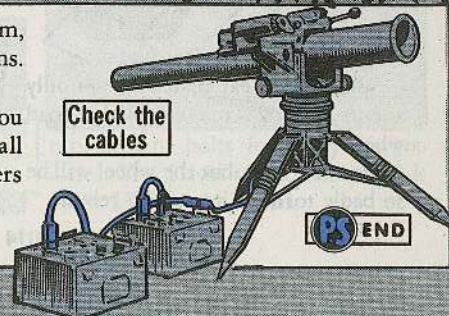
TM 9-6920-480-24P-2 (May 75), a combination Dragon/TOW parts manual.

## Missillaneous

Before you operate your system, eyeball all cables, connectors and pins. If you spot damage, get it fixed.

Also, if you've got a problem you can't figure (or shouldn't try to), call your DS. Untrained do-it-yourselfers and TOW systems are a bad mix.

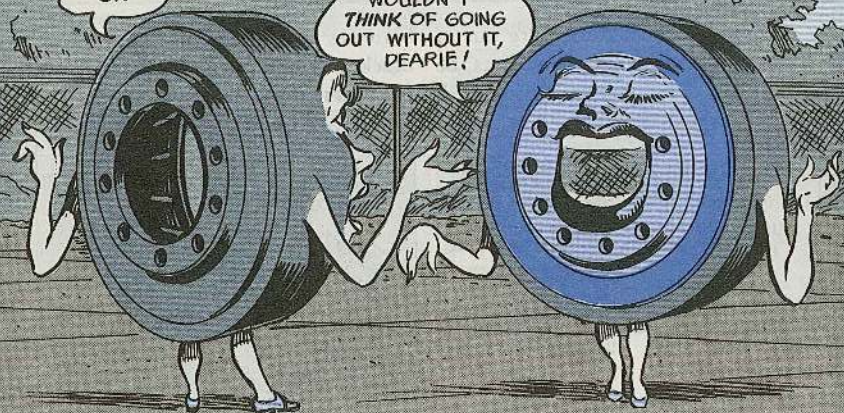
Check the cables



# WEAR THAT WE AR PLATE

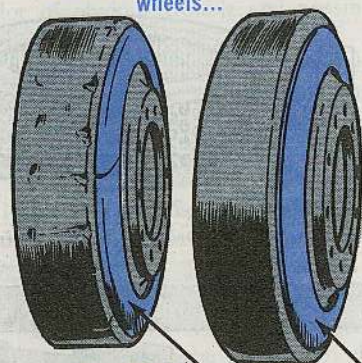
OH HHHH-- YOU HAVE YOUR WEAR PLATE ON--

WOULDN'T THINK OF GOING OUT WITHOUT IT, DEARIE!



When you run an aluminum road wheel without its wear plate, you screw up the road wheel.

**Don't run aluminum road wheels...**



**...without their wear plates**

Without a wear plate, you get only about 20 to 25 miles out of a road wheel.

Not only that, but the wheel will be so badly torn up it can't be rebuilt.

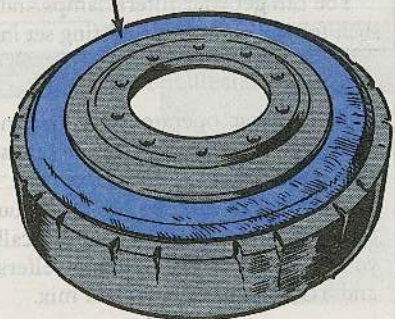
Since the wheels cost over \$200 each and there are 24 of them per tank, you could mince up more than \$4,800 worth of road wheels in only 25 miles.

So watch it, huh?

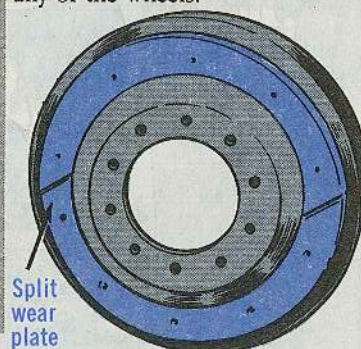
Replace worn road wheels the way it tells you in your -20 TM. Always put on new wear plates when you put on new road wheels. NSN 2530-00-250-0977 gets you a wear plate kit.

You may have either a solid or a

**Solid steel wear plate**

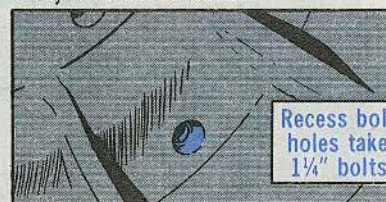


split wear plate, but either one will fit any of the wheels.



**Split wear plate**

You can get any of 3 types of road wheels—all with the same NSN. One type has a raised boss where the wear plate bolt goes thru the wheel. These wheels take a 1 1/4-in bolt. The other 2 wheel types have recessed bolt holes. They take 1/4-in bolts.

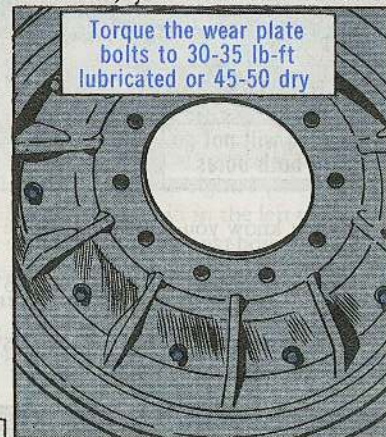


**Recess bolt holes take 1/4" bolts**

The headshed decided, because it makes supply support easier, to use only the longest bolts in all the wear plate kits.

If you have one of the wheels with the recessed bolt holes, cut off the protruding 1/2 inch of the bolt so the center guides won't catch it. This is the cheapest and quickest way to do it.

'Course, you could also order 10



**Torque the wear plate bolts to 30-35 lb-ft lubricated or 45-50 dry**

replacement bolts for every kit you order. The 1/4-in replacement bolt is NSN 5305-00-269-2804.

# DOUBLE TROUBLE

You've checked bushing wear on your single-pin track shoes with the Go-No-Go gage.

You get a check where the gage won't fit into both bores.



So you know you have to replace a shoe, right?

But which shoe? The one with 3 bushings or the one with 2?

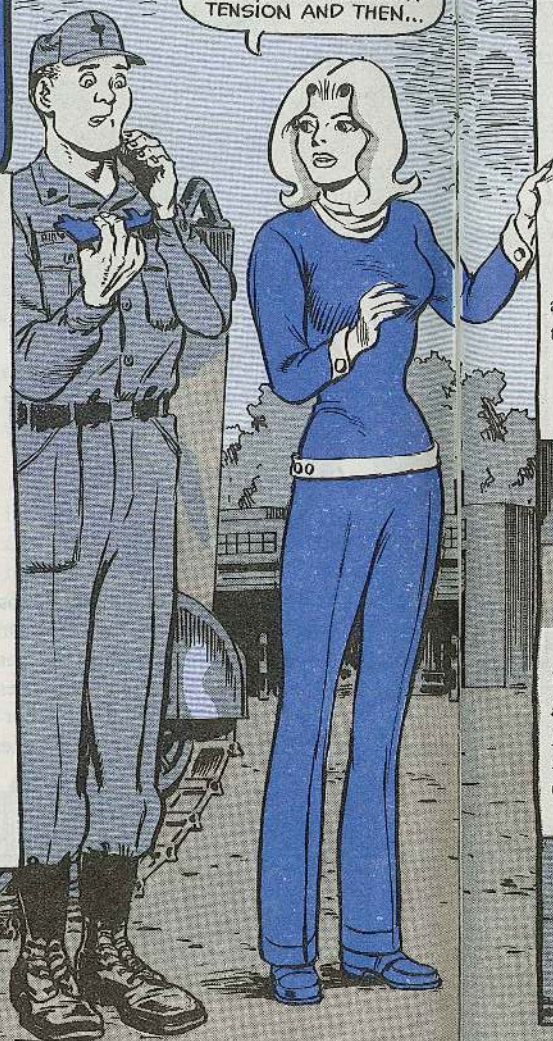
That depends on which shoe has bad bushings.

DID YOU USE THE GO-NO-GO GAGE RIGHT?

ERR...

WELL... HERE'S HOW YOU FIND THE BUM SHOE...

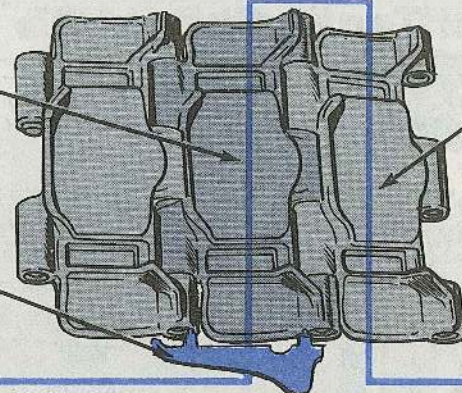
FIRST, ADJUST TRACK TENSION AND THEN...



3 bushing shoe

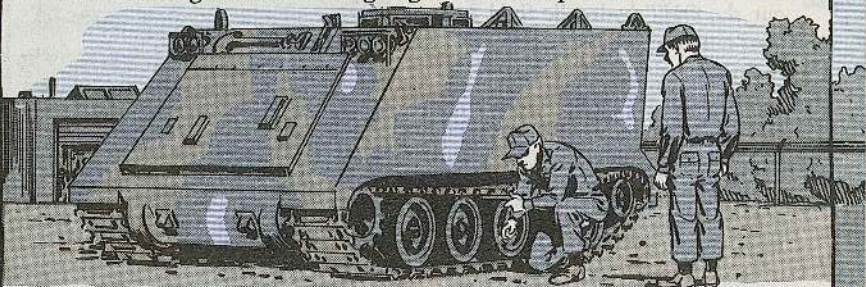
2 bushing shoe

Always start your check with the left end of the gage!!



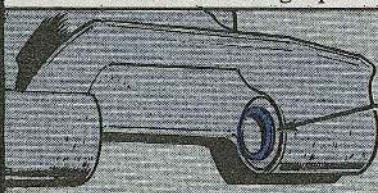
NO-GO check here?— Examine bushings in both shoes and replace shoes with bad bushings

Move the vehicle forward on a hard surface and coast to a stop without applying the brakes. Measure on the straight line of the track. Don't measure the shoes on the ground or shoes going around the sprockets.



Start measuring the top strand of shoes...from left to right. Mark a pad on top so you'll know where you started. Put the dowel pin in the left end of the gage in a bore. Try to fit the pin in the right end into the next bore. If the gage pins go in both bores, the bushings are OK. If not, the bushings in one shoe—maybe both—are bad. Mark the pin at the right end of the gage with chalk. Check the entire track before making any repairs.

Now disconnect the single pin track shoe at the marked pins.



Check for gouged out or loose rubber... crushed or deformed shape...rotating bushing. Replace bad shoes

HEAR  
YE~

## All Tanks Change To FRH

HEAR YE  
HEAR YE!

YAY!

'RAY!

GREAT!

The NSN's for FRH oil, MIL-H-46170 Amendment 1, are:

NSN 9150-00-111-6256—1 qt  
NSN 9150-00-111-6254—1 gal

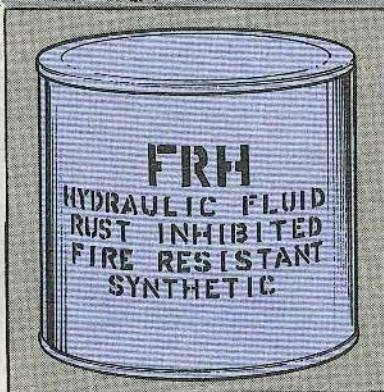
The word is in TB 43-0001-36-3 (Oct 78).

It says your direct support will flush out the OHT hydraulic fluid now in your tank and replace it with FRH fire resistant hydraulic fluid.

This will be done in place of the annual hydraulic oil change called for in the LO for your particular tank.

After the change to FRH, future annual changes of hydraulic oil will be made at organizational level.

Once the change to FRH has been made, crewmen must use FRH when adding small amounts to keep up the hydraulic level. However, in an emergency, small amounts of OHT can be used although the mixture will not be very fireproof.



This switch to FRH applies to tanks only. Self-propelled artillery and other vehicles will continue to use OHT until further notice.

## 44 Free Copies

She'll send you the 44 copies of back issues of PS if you'll jot a note to Bonnie, PS Magazine, Lexington, KY 40511.

M113A1 Family...

## AOAP Sampling Aid

TAKIN' YOUR  
OIL SAMPLE GIVES  
ME A PAIN!

THEN  
THERE'S  
A TB YOU  
OUGHTA  
CHECK  
OUT!

Getting your oil sample from the engine in the M113A1 family of vehicles can be a headache.

You need help. And help—a neat sampling valve—is shown on pages 2-51 and 2-52 of TB 43-0001-39-1 (Apr 78). This valve makes the job of getting your oil sample for the oil analysis program much easier.

Watch it, tho. The TB says the job of putting the valve in belongs to your unit mech. Not so. It's a DS job.

M110A1/M578 ...

## Spade Cylinder No-Step

...AND THAT,  
SPECIALIST,  
IS HOW YOU  
DO THE  
NO-STEP!

HEY--IT'S  
REALLY  
SIMPLE!

THANKS,  
BONNIE!

You can't dance it in your favorite disco, but you need to practice the spade cylinder no-step.

It's easy! Just hoist yourself aboard your howitzer or recovery vehicle without putting your foot on the shiny metal of the spade cylinders.

This'll keep off the dirt and sand that scores the cylinders and makes the seals leak.

Feet off  
shiny  
metal of  
spade  
cylinders



# KILLING

IT'S HIS BIRTHDAY,  
SO I GAVE 'IM 2 QUARTS  
OVER THE FULL MARK  
'STEAD OF THE USUAL  
1 OVER!!

I DUNNO-- I ALWAYS  
GIVE MINE AN EXTRA 1-  
FOR- THE- ROAD, BUT  
LATELY HE'S BEEN  
RUNNIN' WORSE  
INSTEAD O' BETTER!

M' GOSH--  
HE THINKS  
HE'S DOIN' ME  
A FAVOR!

Maybe it's kindness that makes some people overfill an engine crankcase with oil. Y'know, "If up to the FULL mark on the dipstick is good, more should be better."

Or maybe they think overfilling is a good way to carry extra oil—especially if the engine's an oil-user. They figure this's extra protection against running out of oil.

Or maybe they just don't poke their nose into their equipment's LO and TM to learn the right way to check their engine's oil level.

Whatever the reason, they're ruining their engines!

Instead of helping the engine, that extra oil makes friction and heat worse. It builds other trouble in the engine. It even steals engine power needed for operation of the equipment. And it's a pure waste of oil.

YER DOIN' PRETTY GOOD, BABY!  
KEEP IT UP 'N' I'LL GIVE YOU AN  
EXTRA QUART O' OIL WHEN WE GET BACK!

GET BACK?  
NOT LIKELY! I  
CAN SURVIVE THIS  
CLIMB, BUT MY  
OVERFULL CRANKCASE  
IS KILLIN' ME!

# with KINDNESS

THANK GOODNESS I'VE GOT A DRIVER  
WHO GOES BY THE BOOK-- THE -10 TM  
THE LO AND THE FULL AND ADD MARKS  
ON MY DIPSTICK!

MAYBE HE'S FINALLY  
WISING UP. MY PLUGGED  
PCV VALVE IS GIVIN' ME  
A SINUS HEADACHE!

Believe it! The engineers who designed your engine figured just how much oil's needed for lubrication and cooling—yes, cooling. This's up to the ADD mark on the dipstick in most engines. Below ADD is not enough. Anywhere between ADD and FULL is safe. That ADD-to-FULL range is all of the "extra" oil your engine can live with.

Instead of just dipping into the oil, the engine crankshaft is forced to drive through that overfill. This's work for your engine—so it robs your equipment of engine power. This extra work makes the crankshaft bearings hotter. The oil gets hotter. As

Too much  
means...

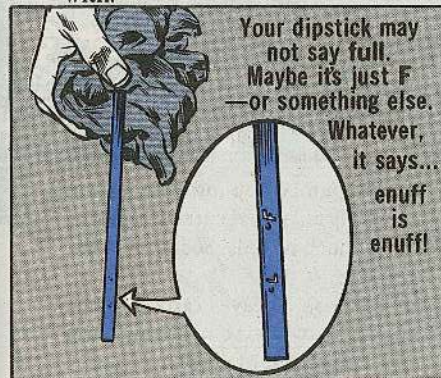


...the crankshaft  
is forced to  
fight through  
the oil.

Between full  
and add on  
the dipstick...



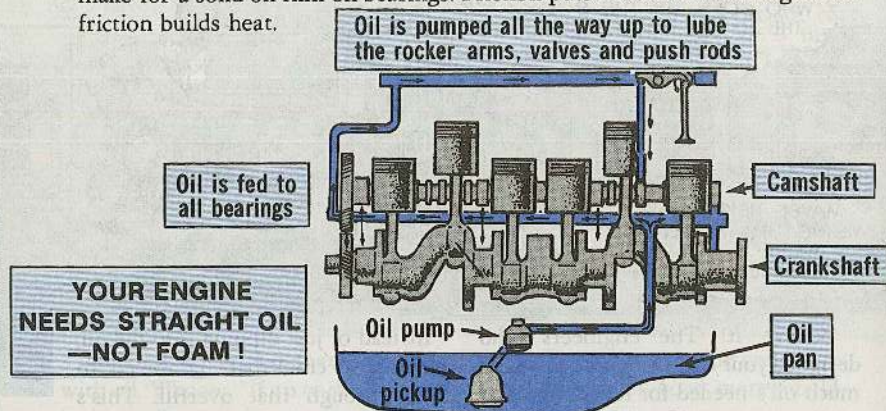
...the  
crankshaft  
just dips  
into the oil.



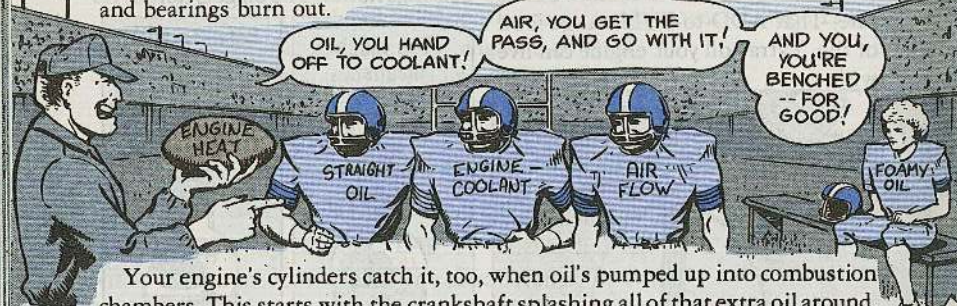
When you go over that limit, things start going bad. The more you go over, the worse things get.

oil temperature goes up, pressure in the crankcase goes up. Seals can't take it—they leak.

Even worse, the crankshaft churns the oil into foam 'n' froth. The oil pump picks up this bubbly stuff—instead of straight oil—and sends it around through the engine where lubrication and cooling are needed. Those tiny bubbles don't make for a solid oil film on bearings. Friction puts the bite on bearings. And friction builds heat.



Foam 'n' froth don't carry away heat like straight oil does. Oil picks up heat as it flows through the engine. Then this heat is carried away by the engine cooling system—either liquid or air or both. With bum cooling, oil gets thinner and bearings burn out.



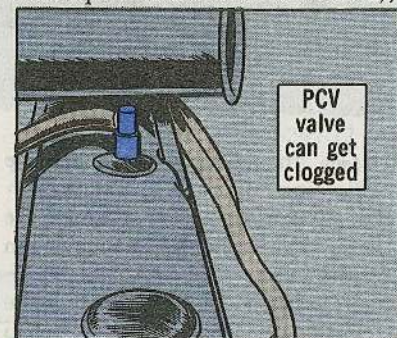
Your engine's cylinders catch it, too, when oil's pumped up into combustion chambers. This starts with the crankshaft splashing all of that extra oil around. Oil scraper rings on the pistons can't handle so much oil splashed up into the cylinders—so the oil is carried on up.

This oil burns, but it's the wrong kind of fuel—so it leaves carbon in the combustion chambers. Then you've got hot spots that'll cause misfiring. And spark plugs in gasoline engines foul fast under this load of carbon.

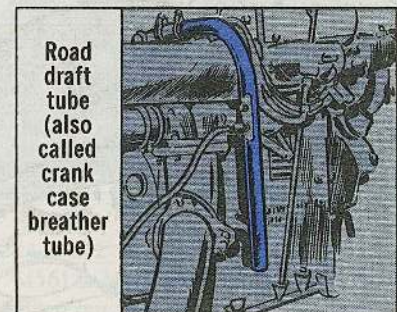
Oil pumped up into the cylinders of a diesel engine upsets the air-fuel balance. Besides being the wrong kind of fuel, it's too much. Engine power goes to pot.

And in some diesel engines, the oil gets into the air box through the cylinder ports. It's too much for the air box drains to handle, and then someone's got a messy job of cleaning the air box.

Your engine's ventilation system picks up that splashing oil, too. The vent system's already got a big job carrying condensation, blowby and such out of the crankcase. In most gasoline engines, this stuff is sucked out by way of the PCV valve (PCV means positive crankcase ventilation),



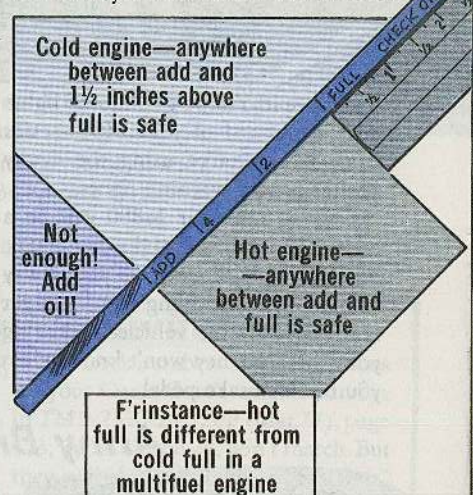
carburetor and intake manifold and gets burned in the combustion chambers. In diesel engines, it's dumped out the road draft tube.



But an overloaded vent system spells trouble in the making. Pretty soon your PCV valve plugs up with this mixture of oil and condensation. And you wonder why your engine's running 'so poorly.

Also, sludge builds up in your crankcase—because the vent system can't get rid of that condensation and blowby.

Get it straight! All engines are not the same. All dipsticks are not the same. So you don't check the oil level



in all engines the same way. Your engine may even have different "full" oil levels—depending on whether you're checking hot or cold.

You've got to go by the LO for the engine—and only that engine—in your equipment. You've got to "read" the dipstick just like the LO tells you.

Enough oil? Too much oil? Get it right!

## Hazard Flasher Hazard

YA BLINKIN' IDJIT--  
DIDN'T YA SEE MY  
STOP LIGHTS?

NOPE! YOU SAID THE  
WORD... *BLINKING!*  
THAT'S ALL I SAW!

Believe it! You've got no stop lights on the tail-end of your M880-series truck when you're using the 4-way flasher hazard warning lights.

So you and your M880 can be a hazard—to yourself and other traffic on the road—if you use the 4-way flashers while traveling. You could get rear-ended by the vehicles following you—because they won't know when you hit the brake pedal.

Get the straight word in the "Warning" on page b, TM 9-2320-266-10 (Jan 76)—"Do not turn on the hazard lights when you are moving in traffic."

Pretty much the same story is in the "Warning" on page 2-12 in Ch 3 to your -10 TM.

## Army Brake Fluid



YES, VV-B-680  
IS AS GOOD AS--  
OR EVEN BETTER  
THAN-- DOT-3!

Dear Half-Mast,

The master cylinder on my M880-series vehicle calls for DOT-3 brake fluid. Can I use Army brake fluid, VV-B-680?

SP4 W. H.

## Gama Goat LO Update



Two wrongs don't make a right—and 3 goofs don't change the Army policy on engine oil change intervals.

The engine oil change interval for the M561 and M792 1¼-ton trucks is 12,000 miles or 12 months—not 6,000 miles or 6 months like it says in PS 311, page 23, and in LO 9-2320-242-12 (Apr 72), Notes 12 and 14. The same bum steer in TM 43-0143 (Jun 77), para 2-13e is being corrected by a change to the TM.

The Gama Goat LO will be changed to specify the 12,000 miles or 12 months interval. Natch, oil can be changed more often if there's a real need for it.

## Tailgate Handle Switch



The stock numbers and descriptions for your Gama Goat's tailgate handles in TM 9-2320-242-20P (Mar 77), page 223, items 22 and 28, don't match. But they will if you shift the words "left" and "right." Order the "right" one to get the "left" and vice versa.

## Rope's Not for Goat

Forget about that Wire Rope Assembly on page B-5 in your TM 9-2320-242-10 (Mar 77). It's not for the M561 or M792 1¼-ton vehicles. It'll be taken out of the TM.



# M172A1

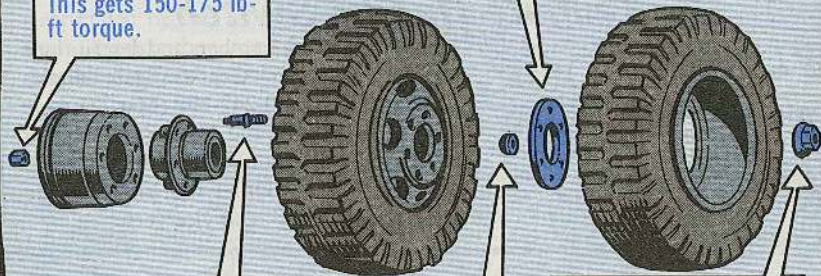
## Wheel-Mounting Hardware

HERE'S THE LATEST SCOOP ON WHEEL--MOUNTING HARDWARE FOR YOUR M172A1 25-TON SEMITRAILER...



Nut, plain, hex, brakedrum, NSN 5310-00-850-6993. This gets 150-175 lb-ft torque.

Spacer, NSN 5365-00-177-9262.



Stud, shouldered and stepped, right-hand thread, NSN 5307-00-075-7185; Left-hand thread, NSN 5307-00-075-7186. Studs are pressed into the hub.

Nut, hex, right-hand thread, NSN 5310-00-078-7025; left-hand thread, NSN 5310-00-078-7026. Give 'em 300-350 lb-ft torque.

Nut, single ball seat, hex, right-hand thread, NSN 5310-00-847-2733; left-hand thread, NSN 5310-00-861-9125. The torque spec is 450-500 lb-ft.

I AIN'T MOVIN' OUT WITHOUT MY SAFETY CHAIN!



## M796 Trailer Chain

I MEANT TO ORDER IT...

Use NSN 4010-00-182-8790 to get a safety chain for your M796 4-ton bolster trailer. Jot the number down in your TM 9-2330-287-14 (Oct 71), page 74—and cross out 2540-741-1027.

## Tailgate Chain Clank Stopper

Noisy tailgate chains on your 2½ or 5-ton trucks can be silenced with Cover, tailgate chain, NSN 2540-00-594-0475. For trucks bigger'n 5-ton or smaller'n a deuce-and-a-half, have your DSU make 'em up from canvas, NSN 8305-00-170-4956.

IT'S SO QUIET BACK HERE--  
AH-- YOU ARE HERE!



## 5-Ton Decal Goof



Your 5-ton multifuel engine truck may have a "multifuel ailments" decal on the driver's door—like shown on page 2-47, TM 9-2320-211-10 (Nov 77)—but you can't get a new one. The decal's no longer available.

## 5-Ton Brake Pin

Use NSN 2530-00-137-9275 to get the brake shoe guide pin for your 5-ton truck. The NSN in TM 9-2320-211-20P (May 73), item 20, page 2-103 is wrong.





This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Dec 78), TM's, TB's, etc.; DA Pam 310-5 (Jul 78) and Ch 2 (Jan 79), SC's and SM's and DA Pam (C) 310-9 (Nov 78), COMSEC pubs.

#### TECHNICAL MANUALS

TM 5-4320-274-14&P Nov Pump, Centrif. (Schleyer Pump Co. 4M-SE2000)  
TM 5-5430-210-12 Nov Tanks, Fabric.

Collapsible, POL, 3,000-, 10,000-, 50,000-Gal  
TM 9-1425-480-24P Jun Dragon  
TM 9-1425-585-L Aug Chaparral, FAAR, Redeye, BATS  
TM 9-1425-650-12 Sep AN/TSQ-73  
TM 9-1430-651-12 Sep AN/TSQ-73  
TM 9-1430-656-24P Jul AN/TSQ-73  
TM 9-1430-652-10-1 Oct AN/TSQ-73  
TM 9-2350-222-10-HR Nov M728 CEV  
TM 9-2350-230-10-HR Oct M551, M551A1

TM 9-2350-232-10-HR Nov Tank, M60A2  
TM 9-2350-247-10-HR Oct Carrier, Cargo Tracked, M548  
TM 9-2350-258-10-HR Oct M48A5 Tank  
TM 9-2320-258-10-HR Nov Truck-Tractor, 22½-Ton, M746

TM 9-2320-269-10-HR Nov Truck, Tel Maint, XM76  
TM 11-1520-209-20P Oct Electronic Epl for CH-47A, B, C

Ch 6, TM 11-2134 Jan SB-96/P Switchboard  
TM 11-4940-246-24P-2 Nov AN/ASM-190A Semitrailer Mounted Electronic Shop

Ch 7, TM 11-5805-262-12 Oct SB-22/PT and -22A/PT Switchboards  
TM 11-5805-695-20P Nov SB-3614/TT Telephone Switchboard

Ch 9, TM 11-5815-331-14 Dec AN/VSC-2 Radio Teletypewriter  
TM 11-5815-331-14-HR Dec AN/VSC-2

Ch 9, TM 11-5815-332-15 Nov AN/VSC-3  
TM 11-5815-332-15-HR, Nov RATT AN/VSC-3

TM 11-5820-477-20P Aug AN/GRA-39, -39A and -39B Radio Control Groups  
Ch 9, TM 11-5820-520-12 Nov AN/GRC-106, -106A Radios

TM 11-5820-520-12-HR Nov AN/GRC-106, AN/GRC-106A  
TM 11-5820-538-20P Dec AB-577/GRC Mast, MK-806/GRC Mast Extension Kit

TM 11-5821-277-20P Dec AN/ARC-134, -134A and -134B Radio Sets  
TM 11-5840-298-12-HR Dec AN/PPS-5, AN/PPS-5A, AN/PPS-5B

TM 11-5940-295-20P Nov AN/PPS-5, 5A, -5B Radar  
TM 11-5915-223-12-HR Nov MX-7778/GRC

TM 11-5985-355-23P Nov AS-2731/GRC Antenna  
TM 11-6140-214-23P Nov BB-643/PPS-5

Battery Assembly  
TM 11-6655-230-20P Oct AN/PDR-27R Radiac

Ch 2, TM 38-750 Oct TAMMS  
TM 55-1510-216-10 Dec U-3A, B

TM 55-1520-209-23-1 Dec CH-47A  
TM 55-1520-209-23-3 Dec CH-47A  
TM 55-1520-209-23-4 Dec CH-47A

TM 55-1520-227-CL-1 Dec CH-47B  
TM 55-1520-227-CL-2 Dec CH-47C  
TM 55-1520-236-20P Nov AH-1S (Prod)

TM 55-1520-236-23P-2 Nov AH-1S (Prod)  
TM 55-1520-237-23P Dec Utility Tactical Transport UH-60A

TM 55-1520-237-PMS-1 Dec 10-Hr/5-Day Inspect Checklist UH-60A  
MISCELLANEOUS

AR 700-4 Dec Log Assist Prog  
DA Form 12-40A, Sep 78 Artillery, Small Arms & Conventional Ammo Pubs (Pinpoint Order)

DA Form 12-43A Aug COMSEC Pubs (Pinpoint Order)  
SC 3940-90-CL-NO1 Nov Sling Set, Cargo Univ

SC 5180-90-CL-NO5-HR Sep Tool Kit, Master Mech  
SC 5180-91-CL-RO3 Nov Tool Kit, Battery Svc TK-90/G

SC 5180-91-CL-RO3-HR Nov TK-90/G Battery Service  
SC 5180-91-CL-RO7 Dec Tool Kit, Electron Equip TK-105/G

SC 5180-95-CL-A12-HR Dec Tool Kit, Artillery Mechanic's  
SC 5180-99-CL-A01-HR Nov Tool Kit, Aircraft Mech Gen

SC 6210-97-CL-E04-HR Nov Light Set, Op Area, Aircraft, ½-KW, Hellport  
SC 6230-90-CL-NO1 Nov Light Set, Chart, Field, Port, CP

SC 6230-90-CL-NO1-HR Nov Light Set, Chart, Field, Port, CP  
SC 6230-97-CL-E01-HR Nov Light Set, Gen Illum 25-Outlet

SC 6230-97-CL-E02-HR Nov Light Set, General Illum 15-KW  
SC 7380-90-CL-NO2 Nov Range Outfit, Field, Gasoline

TB 43-0144 Oct Painting of Vessels  
Ch 2, TB 55-1500-337-24 Oct Phased Maint Sys  
Ch 2, TB 55-9150-200-24 Oct Engine and Trans Oils, Fuels and Additives for Aircraft

**JOE'S**  
**DOPE**  
**Water Damage from Hosing Equipment**

THEN... TAKE HIM!  
DONE, SIRE!



### Maintenance... Upward!

Your company or battery commander, and your commanders up the line—battalion, brigade and division—will be taking a new, strong interest in maintenance. The Pentagon is sending out the word on the Army's Maintenance Management Improvement Program. And, when they say "Management," they mean "Commanders, this is your job!" Here are the high points on this new maintenance action:

- Strengthen command attention and emphasis
- Upgrade maintenance operations
- Strengthen maintenance training
- Improve management of people
- Improve publications, tools and repair parts support



MOMENTS LATER,  
22,300 MILES FROM EARTH...

HA!! THERE'S OUR  
GLORIOUS INVADER  
STARSHIP... ORDER  
MIND CONTROL UNIT  
TO STAND BY...

DONE,  
SIRE!

OUR LEADER  
RETURNS...

THIS  
PUNY  
ONE  
STRUGGLES,  
SIRE!

MMMMPH!

FINE! THAT MEANS  
HE'LL MAKE A GOOD  
"MIND-SLAVE"...

MIND CONTROL UNIT  
READY AND WAITING,  
SIRE!

STRAP HIM IN!  
DONE, SIRE!

HEY-- WAIT  
A MINNIT!

YOU CAN'T DO THIS  
TO ME-- YOU- YOU  
FUGITIVES FROM  
STAR WARS...

PRECISELY!

WE INVADE  
EARTH IN  
EXACTLY 66 OF YOUR  
HOURS BUT  
FIRST...

I'M A U.S. ARMY  
SPECIALIST...

... YOU ARE GOING TO INSTRUCT  
OUR PM ROBOTS IN U.S. ARMY  
MAINTENANCE TECHNIQUES SO  
THAT OUR INVASION FORCE WILL  
PERFORM AT OPTIMUM  
IN EARTH'S ALIEN  
ENVIRONMENT!!

NO  
WAY,  
BUSTER!

THROW  
THE  
SWITCH!

DONE,  
SIRE!

Y-YOU  
CAN'T MAKE  
MEEFEYAHN...

... TAKE ME TO YER  
PM ROBOTS, SIRE--  
WE GOT LOTSA  
PM T' PERFORM...

THIS WAY,  
SPECIALIST  
DOLTAN KLUTZ...

0900 MONDAY,  
FORT REDDY  
MAINT CLASSROOM...

'LO, SERGEANT  
CUTTS... THINGS ALL  
SET FOR OUR SESSION?

READY T' GO,  
CONNIE-- BUT  
PLEASE CALL  
ME DALTON!

TROOPS, CONNIE'S STOPPED  
BY TO GIVE YOU SOME SPECIAL  
POINTERS ON TH' USE OF  
HIGH PRESSURE WATER...

HUH! SPEC KLUTZ IS TH'  
ONE WHO REALLY  
NEEDS THIS INFO!

AN' HE  
AIN'T  
HERE!

WELL-- WE CAN'T WAIT  
FOR HIM--BAD AS HE  
MAY NEED T' HEAR  
THIS SPIEL...

RIGHT,  
DALTON!

PEOPLE-- THE USE OF HIGH  
PRESSURE WATER HOSES CAN  
BE EITHER BENEFICIAL OR  
DESTRUCTIVE...

THE KEY IS  
**PROPER**  
USE...

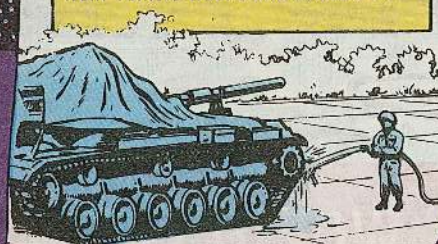
GO AHEAD,  
CONNIE!

I'VE BROUGHT ALONG  
THESE VISUALS TO  
SHOW **PROPER**...

... AND **IMPROPER** USE  
OF HIGH PRESSURE  
WATER!!

A high pressure hose is the only  
practical way to clean mud and gook  
from vehicle tracks and chassis...

... But the temptation to go overboard  
is overwhelming!! Everything gets  
hosed down--turrets, exhaust pipes,  
visual devices, radios and so on...



HERE'S A POSTER YOU  
CAN HANG IN MAINTENANCE  
AREAS-- IT SHOULD PROVE  
HELPFUL!!

# JOE'S Dope Sheet

Your high-pressure hose works to blow  
Off mud, trash, rocks, ice and snow:  
But nothing works faster  
To bring on disaster  
If you fail to keep it down LOW!

GOOD GOING,  
SOLDIER...

HIGH PRESSURE  
HOSING IS THE BEST  
WAY TO CLEAN TRACKS  
AND UNDER CARRIAGE.

THANKS,  
HALF-  
MAST!

HEY-- NO!  
**NEVER** USE  
HIGH PRESSURE  
WATER ABOVE THE  
IDLER WHEEL!

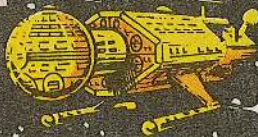
WE HAVE THE WORLD'S BEST EQUIPMENT ... *Take care of*

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

... WHILE 22,300  
MILES AWAY...

THE MOMENT IS  
NOW!!

LAUNCH  
THE INVASION  
FORCE!!!



6-GULP!  
SIRE... NOTHING  
WILL MOVE...



... ALL ROBO-TROOPS, ATTACK CRAFT,  
MISSILES, COMMO ... ARE ...  
**IMMOBILIZED!!**

\*#03!!  
HAUL THAT  
"MIND-SLAVE"  
DOLTAN KLUTZ  
UP HERE--  
AT ONCE!!



QUICKLY...

... SO, SIRE DARKIN  
VADER, SINCE ALL  
YER INVASION GEAR  
WAS COVERED WITH  
"SPACE-DUST" I  
HAD IT HOSED DOWN  
--BUT GOOD!!

**WATER  
DAMAGE!!**  
\*#03!!  
AND OUR  
SCANNERS  
DETERMINED  
YOU WERE  
EARTH'S TOP  
PM EXPERT!



? SOB-SOB: MY  
EARTH CONQUEST  
SCHEME-- RUINED--  
FOREVER!!

IT WOULD TAKE  
50 YEARS TO RETURN  
WITH ANOTHER  
INVASION FORCE!!

SCAN THE FORT  
REDDY MAIT  
CENTER-- I MUST  
KNOW HOW WE  
WENT WRONG...



DONE  
SIRE!

HEY-- IT'S SGM  
DALTON CUTTS  
AND CONNIE RODD!

SINCE DIRTY,  
MUDDY GEAR  
ROUND THE  
MOTOR POOL DRIVES  
COMMANDERS UP  
THE WALL...

...YOUR EQUIPMENT IS WASHED  
WHenever IT RETURNS FROM  
THE FIELD...

RIGHT, CONNIE--  
BUT APPARENTLY  
TROOPS THINK EVERY-  
THING IS WATERPROOF  
AND CAN STAND WATER  
UNDER PRESSURE--

? DALTON CUTTS...?  
DOLTAN KLUTZ...?



THE BAD THING IS, THE  
RESULTING DAMAGE  
MAY NOT SHOW UP FOR  
SOME TIME--USUALLY IN  
A CRITICAL SITUATION...

...TROOPS MORTGAGE THEIR  
FUTURE FOR THE SAKE OF A  
SPEEDY CLEANING!!



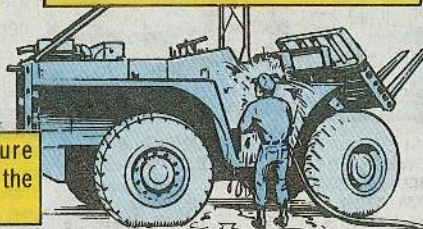
HERE ARE SOME  
SPECIFIC EXAMPLES  
OF EQUIPMENT THAT IS  
OFTEN DAMAGED BY  
HIGH PRESSURE WATER...



... MOST OF THIS DAMAGE  
IS IN THE FORM OF DUST  
AND ELECTRICAL FAILURES...  
BUT THERE ARE OTHER  
KINDS OF DAMAGE...

Trucks, forklifts, scoop loaders,  
cranes, graders, bulldozers,  
generators ...

Operators leave off battery box covers  
and electrical connector box covers...



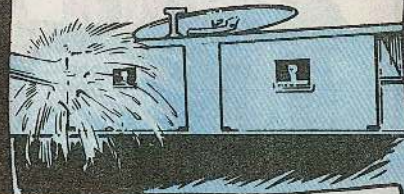
This lets the high pressure  
water/steam get in and damage the  
equipment.

All portable  
electrical  
generators  
can be damaged  
by cleaning with  
high-pressure  
water or steam ...

... a  
REAL  
NO-NO!!

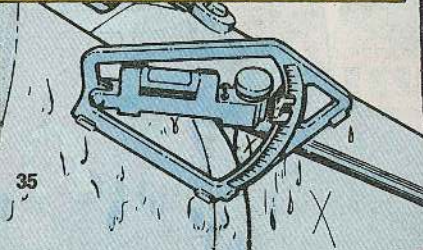


Water trapped in air cleaner containers  
and filter pacs (when they are not  
sealed well) cuts down filtering ability.

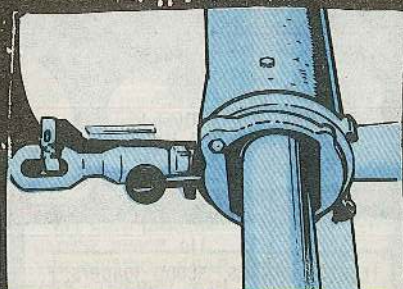
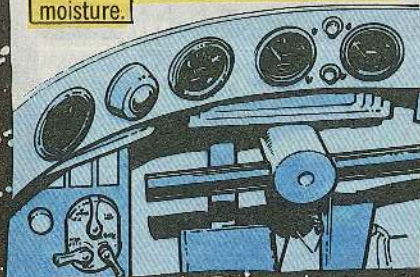


High pressure water (or hot steam used in steam cleaning) can get inside fire  
control instruments. Water fogs lenses of optical gear ... and it cannot be purged  
from the instrument with nitrogen ... the gear must be taken apart by support and  
dried.

Some elements in multi-element lenses  
are glued together and high pressure  
water softens the glue. It knocks them  
out of alinement.



Wiring harnesses, switches, terminals, contacts and battery posts can short out when flooded with water and are particularly vulnerable to rust and corrosion over a period of exposure to moisture.



The grease washed off gear leaves unprotected metal which rusts and corrodes quickly when not lubed ... freezing up gears, motors and other delicate mechanisms.

DISGUSTING! WE OBVIOUSLY GRABBED THE WRONG SOLDIER!!! RETURN HIS MIND TO NORMAL... AND BEAM THIS "KLUTZ" BACK TO HIS POST--



DONE, SIRE!

-- AND NOW, IT'S HOME FOR US... AT LIGHT SPEED!



... SO SUDDENLY, IN THE MATH CLASSROOM AT FORT REDDY...



HEY! DOLTAN IS HERE!

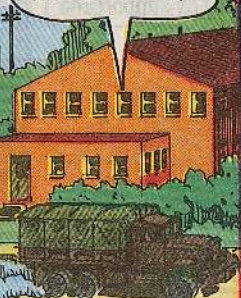
FUNNY-- I DIDN'T SEE HIM COME IN...

'LO, DOLTAN -- SHALL WE FILL YOU IN ON OUR HIGH-PRESSURE WATER DISCUSSION UP TO NOW?



NOT NECESSARY, CONNIE...

I'VE JUST HAD A SPECIAL "COURSE" THAT'S MADE ME A BELIEVER...



INDISCRIMINATE HOISING OF EQUIPMENT CAN HAVE A DISASTROUS EFFECT ON ANY ARMY...



...IT CAN SET EVEN THE MOST MODERN OF MILITARY FORCES BACK FIFTY YEARS...



FROM NOW ON, WHEN IT COMES TO PM... I'M A "KLUTZ" IN NAME ONLY!

## AIR MOBILITY

New Decals Coming!



FINE-- BUT WILL THEY MATCH OUR NEW BLACK LACQUER PAINT JOBS?

The old-type decals are fading from the picture, bird mechs, as the result of the new black lacquer paint job on the interior of your birds.

There was too much light distraction to pilots wearing night vision goggles. So new, low-reflective decals are being added by your support, along with the new paint job. Some decals are being removed completely, while other decal info is going into the log book.

You can read all about it in Para 6-34, TB 746-93-2 (Aug 78), on painting and marking of your birds.

The new decals are not in the supply system, tho. If any touch-up is needed, check with your support.

The only decals you can get are one's calling for hearing protection.

Para 7-17 in the TB has the poop on which size decal you need for your bird and where you should put it. The TB lists 'em by part number only, so...NSN 7510-00-629-6637 gets you PN 7690-EG-000-1 and NSN 7510-00-629-6638 gets you PN 7690-EG-000-2. Some birds use both decals.



LATCH ON TO THIS NEW DECAL--



For A Clean Engine . . .

# Shoot the Works

Setting up a schedule for regular cleaning of gas turbine engines is what preventive maintenance is all about.

A dirty compressor will give you higher turbine temperatures, which reduce the life of components. Severe engine surges from a dirty engine can even result in a loss of power and a forced landing...could ruin your whole day!

The T-63 engine needs washing every 50 flight hours. For all other turbines you set up the wash schedule based on local flying conditions.

ZERO IN ON MY T-53 COMPRESSOR, LADS-- AND KEEP THE AIR FLOWING SMOOTHLY!



## Safety-of-Flight Messages

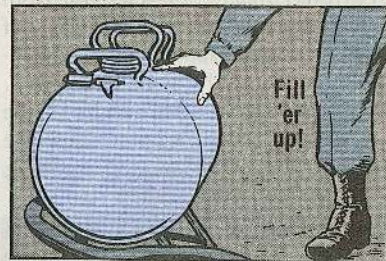
|             |                                                                                                                                                                            |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AH-1-78-21  | Maint Advis AH-1 Environ Control Sys DRSTS-MEU(2) 272055Z Nov 78                                                                                                           |
| CH-54-78-4  | Maint Advis CH-54 Series Svcd w/MIL-H-83282A Hyd Fluid DRSTS-MET(2) 212103Z Dec 78                                                                                         |
| OH-58-79-01 | Maint Advis Msg OH-58-79-01, OH-58A, B, C Replace TT Straps in Main Rotor Head DRSTS-MEL(2) 30200Z Jan 79                                                                  |
| CH-47-79-1  | CH-47, 1979-1 DRSTS-MET(2) 052150Z Jan 79                                                                                                                                  |
| OV-1-79-1   | Maint Advis Msg OV-1, RV-1 DRSTS-MEW(2) 251950Z Jan 79                                                                                                                     |
| GEN-79-01   | Maint Advis Msg for Aircraft and Servicing Eqp (OH-58A, UH-1B/C/D/H/M, AH-1G/T/S, TH-1, CH-47A/B/C, CH-54-A/B, OV-1, AF5, D5A/B, D6 and MSU-1) DRSTS-MEG(2) 041550Z Jan 79 |

## GET READY...

Fill the tank of a suitable sprayer with a mixture of 1 part cleaner, B&B 3100, to 4 parts water. You need about 2½ gallons. NSN 6850-00-181-7594 will get you a handy 5-gal can of the turbine engine cleaner.

'Course, you never spray cleaning solution or water into an engine that is running...could damage the compressor blades for real!

Never wash a hot engine because some of the internal engine com-



ponents could be warped in the process. Following operation, let 'er cool down for at least 45 minutes.

## GET SET...



Tote the bird to the washrack and wheel up an auxiliary power unit, when available.

Take off both halves of the particle separator.

Disconnect the fuel control pressure sensing line from the inlet housing. Cover the housing and cap the line.



Remove both halves



Disconnect line

Protect the starter-generator from water by placing a small piece of rubber sheet—about 6x8 inches—between it and the bleed band ports.

Disconnect the cabin heat line at the customer bleed air adapter. Close the fitting and cap the line with a suitable plug.



Disconnect here...

Disconnect the pressure hose at the air diffuser and cap fittings.



...and here

For a thorough cleaning job, and to prevent the cleaning solution from spraying out the air bleed ports, use metered compressed air to close the bleed band.

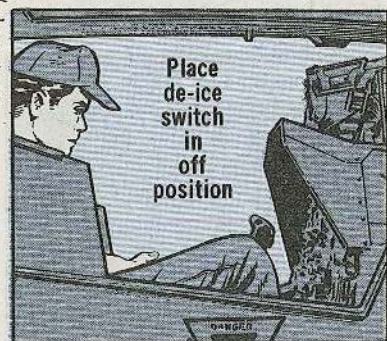
Just disconnect the pressure hose from the fuel control to the air bleed actuator and cap the union. Connect the compressed air hose to the pressure hose. Use 30-40 PSI air pressure to close the bleed band. Never exceed 60 PSI because you could rupture the diaphragm in the bleed band actuator.



Hook up compressed air line

# GO!!

Have your qualified buddy start the APU and plug it into your bird. He then heads for the cockpit to place the de-ice switch to the OFF position.



Place de-ice switch in off position

Also, have him pull the ignition system igniter solenoid circuit breaker and make sure the fuel switch is in the OFF position.

Pass the word up front to hit the starter switch, while you spray the



Spray around inlet

cleaning solution evenly into the inlet housing. Go completely around the housing so you get a uniform spray to all compressor vanes.

'Course, your helper in the cockpit does not overheat the starter by operating it for more than 40 seconds at a clip.

While the starter cools off a minimum of 3 minutes, run plain water over the fuselage where the cleaning solution runs off your bird. That cleaner is tough stuff and it'll take the paint right off your bird without a rinse job.



Rinse cleaner off skin

Spray the solution a second time while the engine is motored over and pay particular attention to the inlet housing struts and areas leading to the compressor.

Wash the solution off the skin of your bird again.

Eyeball the engine inlet and you'll find it's clean as a whistle—ready for the rinse cycle.

# DRY'ER OUT!

The starter can only be used 3 times in a 1-hr period. After the wash job, alert your throttle jockey that the aircraft is being towed to the flight line. The engine has to be run for a minimum of 2 minutes at flight idle with de-ice switch ON to dry it out.

Remove the protective caps and reconnect the remaining lines. 'Course, a tech inspector signs off on the wash job.

Yessir-e-e, there's no doubt about it! A good wash job will perk up your baby every time.

After the starter has cooled, have your buddy hit the starter switch while you spray clean water into the inlet. Use a minimum of 2½ gallons.

Wash the remaining solution off the engine and skin of your bird.



Wash off cleaner

Have your buddy unplug the APU and shut it off.

Remove the compressed air line and reconnect the cabin heat line. Remove the rubber sheet from the starter generator and reinstall the particle separator.



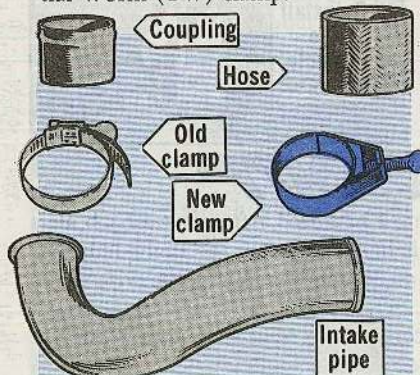
Reinstall the particle separator

## Easy Does It!



The next time you Seminole types replace an intake pipe on your O-480 engine, go easy when tightening the clamps at the sump. Otherwise, you'll end up with a fuel leak and a grounded bird.

A Radial Machine (RM) screw clamp has now replaced the Tangential Worm (TW) clamp.



If the RM clamp is over-tightened, tho, you'll get uneven pressure on the

coupling. The coupling will then wear into the engine sump, giving you a



leak. When that happens only your support can stop the leak...tightening the clamp further won't hack it!

Getting the right torque the first time around is mighty important. So, make up a slotted socket wrench so you can insert it over the clamp screw.

When you install the intake pipe, plug the socket into a torque wrench and tighten the clamp to 20 lb-in—no more!

## Send the Housing!



Have you Huey and Cobra mechs ever wondered why the T1 temperature sensor element is inclosed in the housing assembly when you unpack a T53 fuel control?

It's because the element will flop around and get broken during shipment if it's not secured to the shipping plate!

That's why you want to ship a removed fuel control back to depot with the element in its housing—bolted down.



Fact is, depot is running out of element housings. Send 'em back every time.

## "Let George Do It"



During a UH-1 or AH-1 pre-flight, some pilots grab the tail rotor drive shaft between the gear boxes and make with the muscle. It's not necessary!

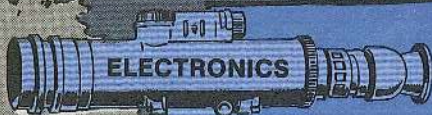


Their idea of using upward pressure on the shaft is to see if the helical spring and spacer used in the 90-degree gear box quill is "present 'n' accounted for."

Without the spring and spacer, the upper coupling clamp could hit the gear box studs and that could spell real trouble.

It's the mech who checks for proper spring action, tho, when greasing the shaft couplings or changing the gear box.

To head off spirited debates, and unnecessary writeups, mechs make the check.



Night Vision Sights . . .

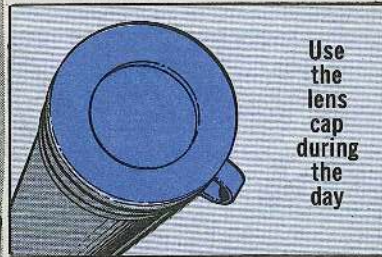
WHEN THE **BIG** SCENE COMES--GOOD NIGHT SIGHT PM COULD BE YOUR TICKET BACK!



A lot of fun and games takes place at night...and you want to see what you're doing, right? Not necessarily, you say? Well, you sure do if it's military action—where seeing means survival.

It's no sweat keeping your night eye in sharp focus. Just follow a few simple PM principles.

F'rinstance, you know you have to use the lens cap during the day, right?



Use the lens cap during the day

That bright ol' sun can zap your sight's image intensifier assembly. Well, bright night lights—of the head and

44

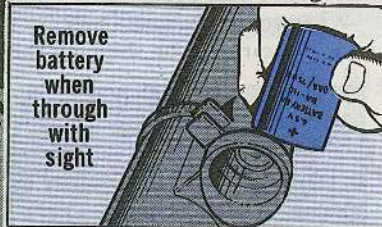
# Keep Your Eye Open

flash varieties—will do it in, too. Keep those beams away from your objective lens.

When you're done with your sight for the day (or night), remove the battery. Corrosion does a j-o-b on the battery compartment.

Getting a weak or blurred image—or worse, no picture at all? Try another battery before turning in the

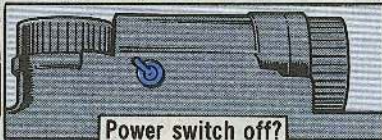
Remove battery when through with sight



sight. Could be just a weak power source: A quick substitution could save everybody some trouble.

If you're still not sure you're getting the right image, use the test in TB 11-5800-212-24 (Aug 73).

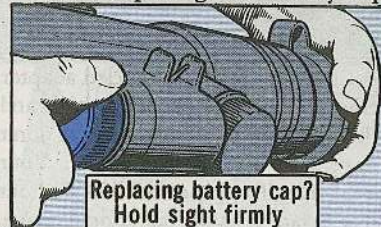
Hold one before you put in that new battery, tho. First, be sure you've got the sight's power switch on OFF.



Power switch off?

Then, eyeball the compartment. It shows you which way to install the battery.

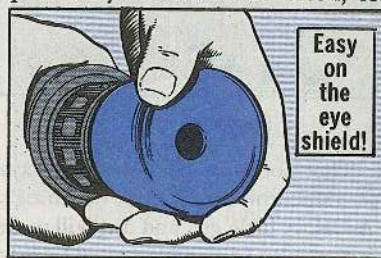
When replacing the battery cap,



Replacing battery cap? Hold sight firmly

expect some resistance. Hold the sight firmly. Be sure the cap is straight. If it's not, you'll ruin some threads. The battery won't make contact, either.

Protect the rubber eyeshield. It protects you. From rifle recoil, for



Easy on the eye shield!

instance. It also keeps image intensifier light from escaping and giving away your location.

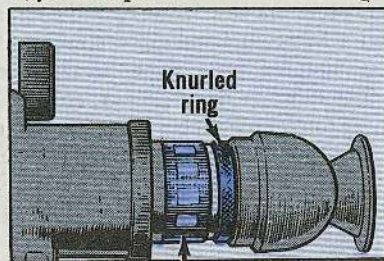
You protect it by not using it as a handle. Or playing with the leaves which open up when your head presses on the eyeshield. Pencils, sticks or fingers can damage the leaves or the lens. Go easy when storing the sight in the case, too. You have to compress the eyeshield to make it fit.

45

\*◎☆!! SIGHT WAS  
OK A MINUTE AGO--  
WHAT HAPPENED??

ER-- TH' LENS WAS  
A LITTLE DIRTY SO I  
WIPED IT WITH MY  
SHIRTTAIL ...

Check for a green knurled adapter ring between the rubber eyeshield and the eyepiece assembly. If you don't have one, turn in the sight. Your support will apply an MWO. Without it, you face possible radiation damage.



Focusing ring

That focusing ring won't always turn smoothly even when everything's A-OK. A little grit and dirt will make it turn even harder. You could force it, of course. But you might break the ring or damage the lens. If the ring's dirty, turn the sight in to support maintenance.

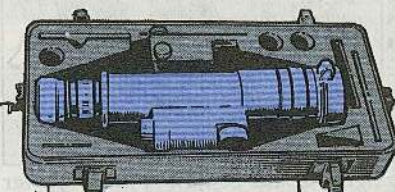
Small things—like power switches—are important. Lay off the muscle. They move easily. They break the same way. Keep the rubber boots on, too.

Protect the objective lens at night. Setting the sight down on the lens can

damage it. So can pointing it into the wind when dust is kicking up.

Finally, use the right cleaning equipment. If you have dirty glass, use the brush or lens paper to clean it. Shirttails or handkerchiefs can do more harm than good.

When your sight's not in use, store it in the carrying or shipping case.



Store sight in its case.

PROPER STORAGE  
IN CARRYING CASE  
GIVES YOU DIRT AND  
MOISTURE PROTECTION!

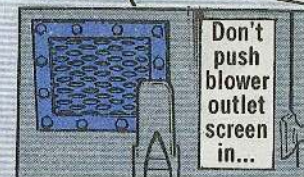
## Lights Out

A pushed-in screen can put your AN/VSS-1 or -2 searchlight out of commission. It could do the same to you.

A careless kick or bump can push in the blower outlet screen on your big light. It doesn't take much to dent the soft metal.

The screen can short out the igniter relay panel. That will blow the light. It could put out your lights, too.

The answer is to handle the searchlight with care when mounting, dismantling or moving the set.



Don't push  
blower  
outlet  
screen  
in...

... SUCH A PUSH  
CAN SHORT THE  
IGNITER RELAY  
PANEL BEHIND  
THE SCREEN--

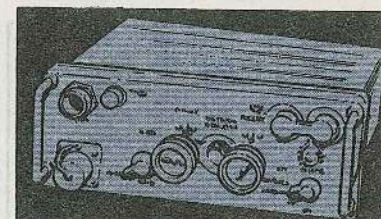
THEN  
IT'S LIGHTS  
OUT!



## It's No Match

WILL YA  
BE MINE,  
WILHELMINA?

NO  
WAY!!

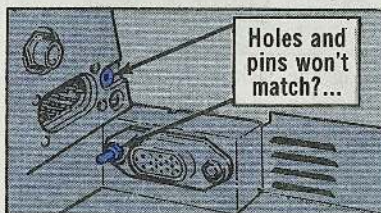


OA-3633/GRC Amplifier

If your OA-3633/GRC amplifier power supply group won't mate with its MT-1029 mount, check the nameplate.

Guide pin holes on some OA-3633's built by Amex Systems, Inc, don't match the mount's pins. They were built under Contract No. DAAB07-75-C-0145.

If that contract number and manufacturer are on your set, turn it in. Your DS will modify the pin holes.



Holes and  
pins won't  
match?...



AMPLIFIER POWER SUPPLY  
AM 2000A/GRC  
SERIAL NO. [blank]  
MANUFACTURED BY AMEX SYSTEMS, INC.  
ORDER NO. DAAB07-75-C-0145 U.S.

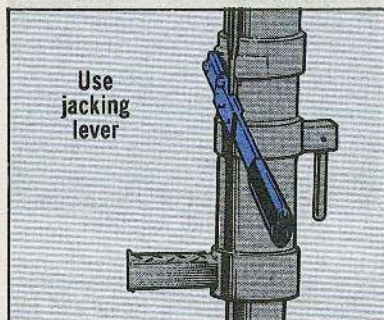
...Check  
your date  
plate

# SPEED KILLS



Trying to save a little time can cost you an AS-1852/GRC-103 antenna.

Like putting up those first few mast sections by hand. Sure it's quicker than



Use jacking lever

using the jacking lever. But a little horseplay, or a slip, and the assembly crashes to the ground.



If the launcher top plate breaks, you face a \$1,300 repair bill. Maybe a stay in the hospital if the mast falls on you. Hold down the speed when you take



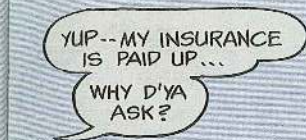
Broken plate = \$1,300

it down, too. You wouldn't just remove the guy wires and let it drop. Walking it down by hand can give you the same results.

That top-heavy load can easily get away. Or the wind could catch it. Remember that repair bill?

Bring it down the same way it goes up. Use the lever.

# ANTENNAS, TOO!



YUP--MY INSURANCE IS PAID UP... WHY D'YA ASK?

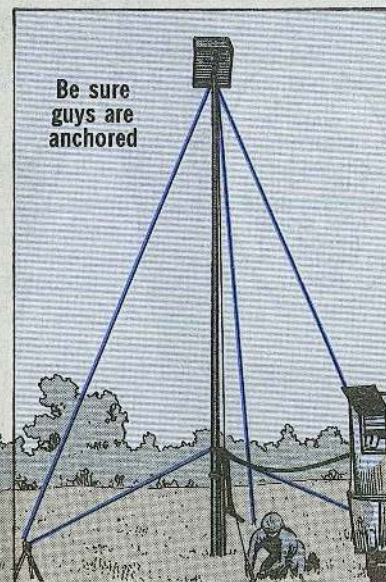
MORTON'S ALLUS FIGURIN' T' SAVE TIME--

YEH-- NOW HIS WIDOW FIGGERS T'SAVE HIS INSURANCE PREMIUMS!

'Course, while it's up, be sure the anchors are firm and tension is good on the guy wires. That 35 or 50-ft mast and reflector catch a lot of wind.

For more info on handling the antenna and getting a firm anchor, see TM 11-5820-540-12 (Dec 67).

Finally, watch your speed when you pack away the assembly in your vehicle. Secure it.

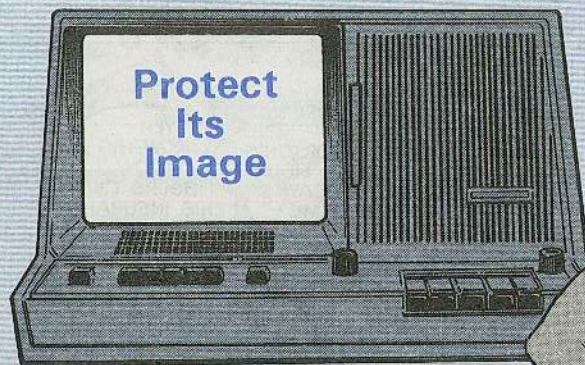


Be sure guys are anchored



Pack away carefully--protect reflector rods

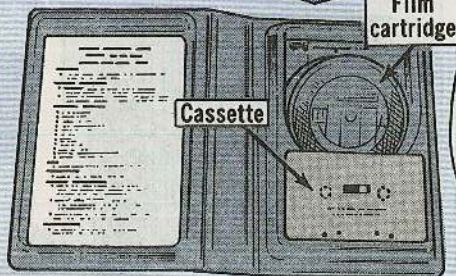
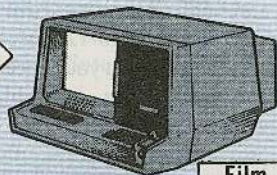
Otherwise, that loose load will bounce around and bang up your AS-2150 reflector. If the rods bend or break, you've lost signal strength.



Your learning center's Beseler Cue/See projector might look sturdy, but it takes your soft touch to keep its image.

Cue/See projector

Lesson kit



Film cartridge

Cassette

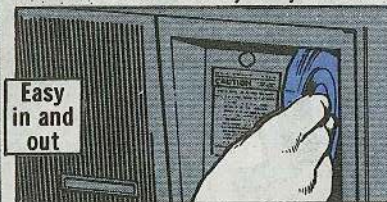
SO... IF YOU WANT A FIGHTING CHANCE AT THAT NEXT STRIPE, HERE ARE SOME THINGS TO WATCH FOR...

If that Cue/See isn't projecting, you're the loser. Its job is to show you all those Training Extension Course (TEC) programs in your learning center's library.

TEC teaches job skills—the kind you'll need to pass your Skill Qualification Test (SQT).



You can lose the big picture quick-like if you move too fast when you're handling the film cartridge. Push it in, and take it out slowly. If you don't,



you'll bend the unit's reflector.

That thin piece of shiny metal takes the film frame and puts it on the



screen. A spring moves it into position. If you go too fast, you'll either bend the reflector or slip the spring.

Either way, the projector has to go back to your local Training and Audiovisual Support Center (TASC) for repair.

Slam-banging the cassette tape can send your set to TASC, too. They'll be repairing or replacing a bent or broken drive claw.



Slamming cassette can damage take-up and feed wheels

Be sure you're putting the cassette cartridge in right, too. The open side faces you.

Go easy on controls. Too much



muscle can break the volume knob. If it goes, usually the wiring behind it goes, too. Another job for TASC.

There are 2 cleaning jobs you're responsible for. One you do, and one you anticipate.

About once a week, clean the cassette player's pinch roller. A cotton



swab soaked in alcohol does the trick. A dirty roller really pinches—and ruins—your tape.

Then, watch when you put the unit in AUTOMATIC mode. If the cassette tape doesn't advance the film on cue, your cassette playback heads probably need demagnetizing. That's TASC's job too.

Finally, let your set cool down before you remove a bad lamp. You can get a nasty burn if it's still hot.

**COMBAT  
SUPPORT**

Utility Power  
Plant (MUST)...

# U-PACK

Good operator PM makes all systems GO in the utility package (U-pack) that's the heart 'n' soul of your medical unit, self-contained, transportable (MUST) hospital unit.

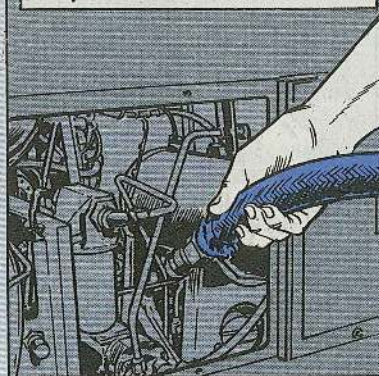
YOU'LL FIND THESE  
PM TIPS WILL KEEP  
YOUR U-PACK OFF  
DEADLINE...



52

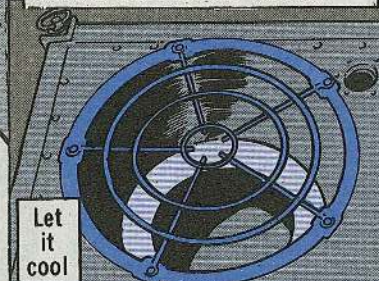
# PM

1. Use the bleed air hose during service periods to dry out each compartment in the unit.



2. Run your U-pack 1 to 2 hours during each service period to keep down condensation in the combustion compartment.

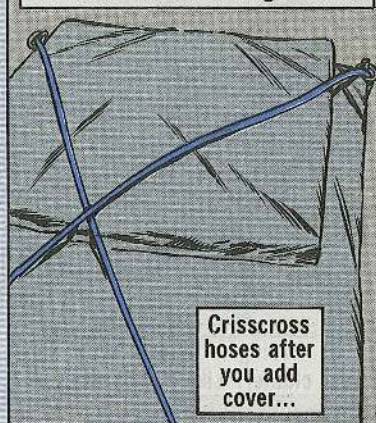
3. Don't be in a hurry to put the canvas cover on your U-pack after shutdown. The gas turbine engine exhaust will melt the canvas.



Let  
it  
cool

To replace the tiedown hardware for the canvas cover, use NSN 5340-00-764-2334 for the brackets, and NSN 5320-00-721-9062 for the rivets.

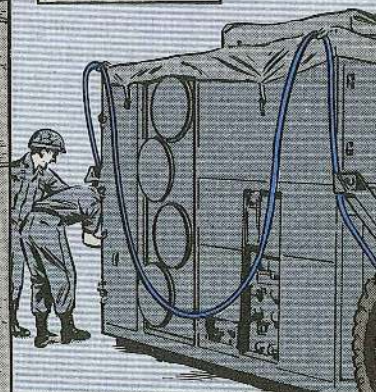
4. After you add the cover and get ready to move your U-pack, crisscross the brake connecting and electrical hoses after you run 'em thru the hoist rings. This'll



Crisscross  
hoses after  
you add  
cover...

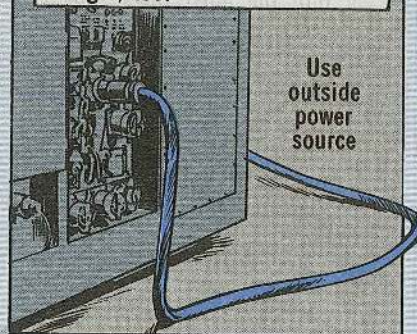
keep the lines from hanging over the sides, snagging on trees and other things. Tape the hoses together if necessary to keep 'em on top of the unit.

...to prevent this



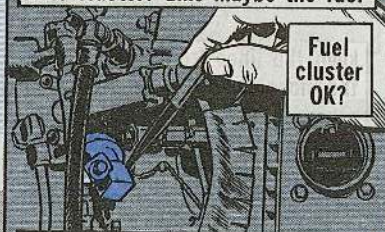
53

5. Use an outside power source—for instance, an M49-series tanker—for easier U-pack starts. Stops damage to the battery charger, too.



Use outside power source

6. Having problems with the fuel cluster? Like maybe the fuel



Fuel cluster OK?

filters get twisted and parts of the filters get into the cluster? Change the filters more often, say every 3 calendar months, rather than after every 250 hours of operation.

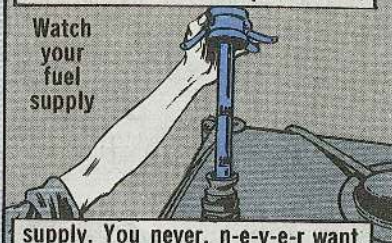
SPEC VENTURI-- WHAT HAPPENED?

A DS CLOWN'S IDEA OF HUMOR, CONNIE!...

HO HO! HA!

7. Keep an eagle eye on your AiResearch model U-pack's fuel

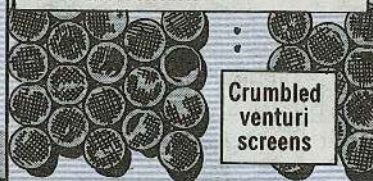
Watch your fuel supply



supply. You never, n-e-v-e-r want to let the pack run out of fuel. An empty day tank makes the fuel clusters a disaster area quick-like!

If you see the No Fuel indicator lamp light up, it's too late to check the fuel supply. There's no warning that your day tank's empty. When you're out, you're out! and the fuel cluster takes a beating. (Your Libby and Amertech models have a low fuel cut off switch and light in the fuel supply tank.)

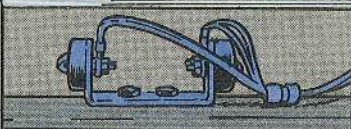
8. The turbine engine air inlet venturi plastic screens have a bad habit of crumbling. Ask your DS unit to make you a screen of 1/8-in wire mesh—or hardware cloth—to cover the venturi.



Crumbled venturi screens

Use 1/8" wire screen made by DS.

9. You'll get a faster, better test of the heating system during hot weather—85° to 90°F—if you'll cool the heat temperature sensors in the shelter return air system.



10. Be sure the shorting plug is installed in the remote temperature sensing connector. If you leave it off—or it's missing—your unit won't cool or heat.

Install shorting plug



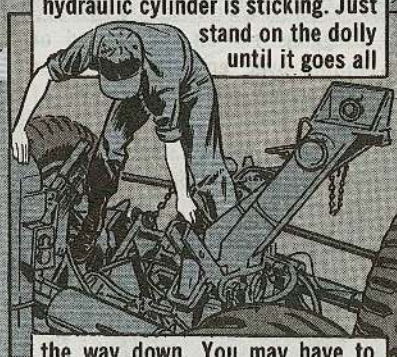
11. Lifting your U-pack with a fork lift? Be sure the forks go all the way thru the base. Use fork extensions, if necessary. 'Course, you use a fork lift with over 5,000-lb capacity.

### M689 DOLLY SET PM

Your U-pack won't help much if you can't get it to the field. This's why PM on your front and rear dolly trailers is important.

THESE TIPS WILL HELP YOU GET THE PACK ON THE ROAD...

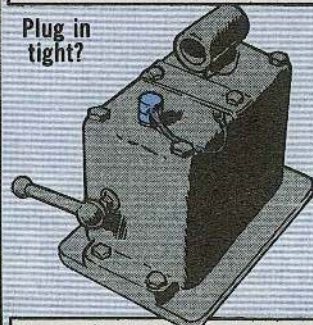
1. If the dolly set stops while you're lowering it to hook onto the U-pack, it's probably because the hydraulic cylinder is sticking. Just stand on the dolly until it goes all



the way down. You may have to jump up and down on it a time or two to get the job done.

2. Or, you could have moisture in the hydraulic pump, 'specially on cool days when condensation

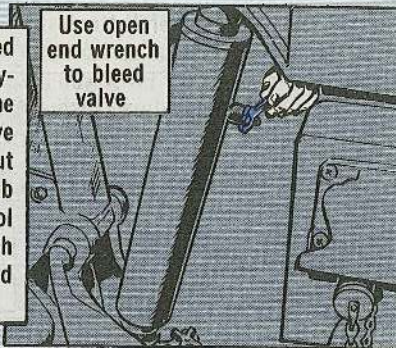
Plug in tight?



forms. Drain the contaminated oil and refill. Water also gets into the pump if the filler plug is not screwed in tight. An extra twist on the filler plug each time you move the dolly won't hurt.

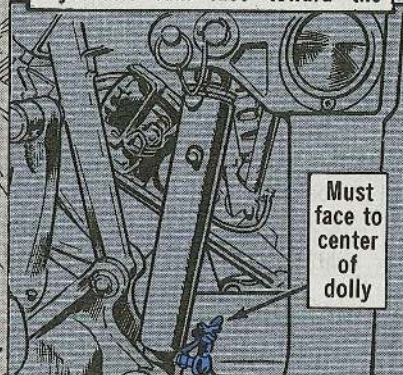
3. Take it easy when you bleed the hydraulic bleed valve. Heavy-handed musclemen break off the valve real easy. For this bleed valve job you loosen 2 nuts: A jam nut and a needle valve nut. Never grab just any size wrench from the tool box. Use a  $\frac{7}{16}$ -in open-end wrench and save some downtime and heartburn.

Use open end wrench to bleed valve



4. When you replace the cylinder, be sure you put it on right. The cutoff valve and hydraulic ram face toward the

Must face to center of dolly



center of the dolly. No Murphy here, or you'll break off the valve when you maneuver the trailers to mate 'em.

5. Moving the dolly set around the motor pool or out in the boonies? Be sure the air and electrical lines are coiled and strapped down out of the way.

Strap lines out of harm's way.

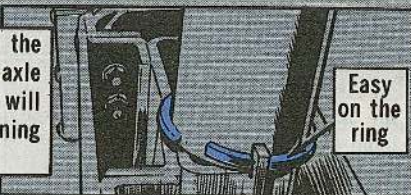


Dragging 'em on the ground or rolling over 'em with the trailer wheels will get 'em in a world of hurt.

Para 9e, TM 9-2330-275-14 (Jun 65) has the word on storing these cables.

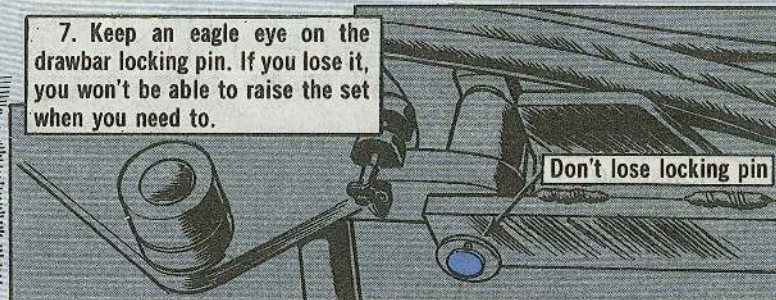
6. Be careful putting the telescoping bar on the rear axle assembly. A slam-bang deal will break off the aluminum retaining ring.

Easy on the ring



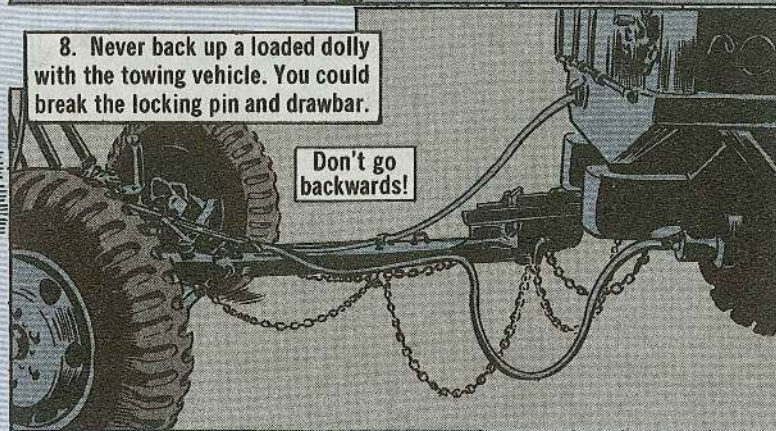
7. Keep an eagle eye on the drawbar locking pin. If you lose it, you won't be able to raise the set when you need to.

Don't lose locking pin



8. Never back up a loaded dolly with the towing vehicle. You could break the locking pin and drawbar.

Don't go backwards!



BE SURE TO KEEP MOUNTING BOLTS FINGERTIGHT...

...WHEN THE DOLLY IS NOT BEING USED!



PS END

# KEEPING

# IT TOGETHER

FIRST TRUCK ON TH' RAMP BROKE SOME BAY-TO-BAY CONNECTORS, CONNIE ...

TOWNSEND FAILED T' SWITCH TH' TRAFFIC CONTROL LEVERS TO "TRAFFIC" MODE!

?



Interior  
bays

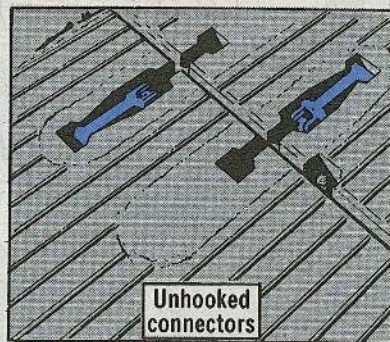
Roadway/ramp  
bay connectors

Hydraulic  
pump

Ramp end  
section

When you're putting it all together for Improved Float Bridge raft operations, be sure you keep all bay-to-bay and bay-to-end bay connectors (dogbones) connected. This makes the ribbon bridge or raft more rigid ...easier to handle with the bridge erection boat.

But if your thing is bridge operations, connect only the ramp bays to the first interior bay sections with the bay-to-bay connectors. This leaves the other interior bays flexible—like a ribbon—and held together only by the lower lock drive connecting pin.



Unhooked  
connectors

DID THEY SEND TOWNSEND TO TOWN FOR NEW CONNECTORS?

YUP...

BUT TH' OL' MAN IS SO TEED OFF TOWNSEND IS PROBABLY GONNA BE "SENT" IN OTHER WAYS B'FORE THIS BLOWS OVER...

## Hydraulic Pump Use

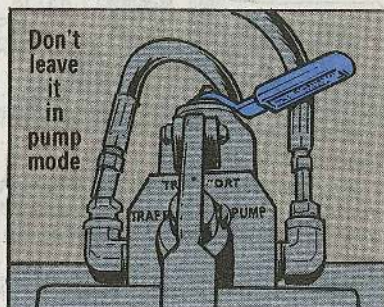
After you get the ramp bays into position with the hydraulic pumps and you're ready to start traffic across, don't forget to put the pump handle in the "traffic" position.

If you fail to switch the pump control levers to "traffic" mode, the

If you leave one pump control lever in the "pump" mode, hydraulic oil is



Switch  
lever  
to  
traffic  
mode



Don't  
leave  
it  
in  
pump  
mode

bay-to-bay (dogbone) connectors between the 1st and 2nd interior bays will break. Here's why: In "traffic" mode the hydraulic oil is equalized in both pumps and the ramp bay sections can be raised/lowered evenly until you have a smooth roadway surface between the ramp/interior bays.

cut off for the pump. You won't be able to raise/lower one side of the ramp bay. When traffic starts over the uneven bridge sections the strain will break the connectors.

**TIP:** Be sure both pump operators use even, matched strokes while getting the ramp bays into position. Those vehicle drivers need all the help they can get.

## Nickel-Iron Electrolyte

Need some electrolyte to refill nickel-iron batteries that power your electric-driven forklifts? Use NSN 6810-00-412-2081. This'll get you a 50-lb package of potassium hydroxide-lithium hydroxide solution. RIC is S9G.

# M3A3 CLAMPS

GRR-RR-RRR-RR!!

HE JUST SITS THERE--AND PUFFS SMOKE AT ANYONE WHO COMES CLOSE...

SAYS HE AIN'T BUDGIN' UNTIL WE SECURE HIS GENERATOR WITH PROPER CLAMPS!

Dear Half-Mast,

We need clamps for our M3A3 smoke generator mounts. We can't find stock numbers or dimensions. The clamps hold the generator to the mount. Please give us any necessary information on the clamps.

SSG W. A. F.

Dear Sergeant W. A. F.,

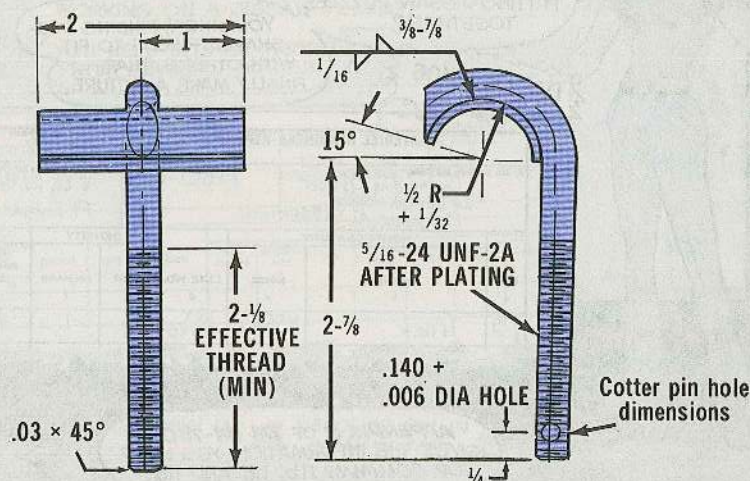
They're not in the supply system so have your maintenance support fabricate them. The dimensions and material you need are as follows:

Weld IAW Class I,  
MIL-STD 126!

Carbon steel bar, cold finished,  $\frac{5}{16}$ -in dia. Stock size C1015-C1020, Spec QQ-S-638, plating finish No. 1.1.2.3 or 1.9.2.3, MIL-STD-171

MOUNT CLAMP

Bearing plate STL strip, LC, HRCQ, PO Mill edge .065 NOM Stock thickness, Spec QQ-S-698



To save the clamps you have, be sure the cotter key, nut and washers are holding the clamp to the mount after you remove the smoke generator. If you forget the cotter key, the clamp can bounce out during transit.

If you have an old clamp, with no hole for the cotter key, be sure to run the nut up tight on the mount. First chance you get, have your support drill the cotter key hole.

YOU CAN GET THE COTTER KEY, NUT AND WASHERS WITH THESE NSN'S (1 each)...

|             |                  |
|-------------|------------------|
| Wing nut    | 5310-00-063-6717 |
| Cotter pin  | 5315-00-839-5821 |
| Flat washer | 5310-00-081-4219 |
| Lock washer | 5310-00-167-0721 |

## Missing Parts Cabinet

Those 429 components of the tube-pipe fitting kit NSN 4730-00-470-6625 in your No. 1 and No. 2 Common Shop Sets come in a 5-drawer steel cabinet. Trouble is, SC 4910-95-CL-A72 (Apr 78) and SC 4910-95-CL-A74 (Jul 77) do not identify the cabinet. You can get it with FSCM 30327 PN 51025-1. Use the SC as your authority for the cabinet and S9C as the RIC.

DA FORM 2406  
1 JAN 64

YOU KNOW, FINDING ODD-SHAPED PIECES TO FIT WITH OTHERS THAT FINALLY MAKE A PICTURE.

| MATERIAL READINESS REPORT                                         |           |            |               |           | I. PERIOD OF REPORT                                                  |                       |                       |  |
|-------------------------------------------------------------------|-----------|------------|---------------|-----------|----------------------------------------------------------------------|-----------------------|-----------------------|--|
| 4. TO: (Include ZIP Code)                                         |           |            |               |           | FROM: 8259                                                           |                       | TO: 8349              |  |
| Commanding Officer<br>2d Bn 11th Signal<br>Ft. Frymore, Az. 85364 |           |            |               |           | 5. FROM: (Include ZIP Code)<br>C Co, 2d Bn<br>Ft. Frymore, Az. 85364 |                       |                       |  |
| II. NOMENCLATURE                                                  |           |            |               | DENSITY   |                                                                      | EQUIPMENT             |                       |  |
| NO.<br>a                                                          | NOUN<br>b | MODEL<br>c | LINE NO.<br>d | AUTH<br>e | ON HAND<br>f                                                         | POSSIBLE<br>DAYS<br>g | AVAILABL<br>DAYS<br>h |  |
| 13                                                                | Truck     | M35A2      | HGX<br>40146  | 1         | 1                                                                    | 90                    | 64                    |  |

APPENDIX C OF TM 38-750  
GIVES THE INFORMATION YOU NEED  
FOR COLUMNS 11b, 11c AND 11d.

| TM 38-750 |        |                                                                       |               |                                                                                                                       |                                                               |                                                               |
|-----------|--------|-----------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| ECC       | LIN    | Nomenclature                                                          | Noun<br>abbr. | Model<br>number                                                                                                       | DA Forms<br>2406                                              | DA Form<br>2406-9<br>Use Data                                 |
| HB        | X60833 | Tactical Vehicles—Continued                                           |               |                                                                                                                       |                                                               |                                                               |
| HB        | X61244 | Truck Utility: 1/4 Ton                                                | TRK UTIL      | M161<br>M161A1<br>M161A2<br>M161A1C<br>M826<br>M274<br>M274A1<br>M274A2<br>M274A3<br>M274A4<br>M274A5<br>M725<br>M722 | X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X | X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X<br>X |
| HC        | X55627 | Truck Platform Utility: 1/4 Ton<br>4x4 W/E                            | TRK PU        |                                                                                                                       |                                                               |                                                               |
| HF        | X38961 | Truck Ambulance: 1 1/4 Ton                                            | TRK AMB       |                                                                                                                       |                                                               |                                                               |
|           |        |                                                                       | TRK AMB       |                                                                                                                       |                                                               |                                                               |
| HH        | X45434 | Truck Dump: 2 1/2 Ton W/W                                             | TRK DMP       | M342A2<br>M569<br>V17AMTQ                                                                                             | X<br>X<br>X                                                   | X<br>X<br>X                                                   |
| HH        | X58446 | Truck Maintenance: Telephone<br>Construction 2 1/2 Ton 6x6 W/W<br>W/E | TRK MTC       |                                                                                                                       |                                                               |                                                               |
| HH        | X63983 | Truck Maintenance: Earth<br>Borer Pole Setter 2 1/2 Ton               | TRK MT        |                                                                                                                       |                                                               |                                                               |
| HH        | X55216 | Truck Maintenance: Pipe Line<br>Construction 2 1/2 Ton 8x6 W/W        | TRK PLC       |                                                                                                                       |                                                               |                                                               |
| HH        | X57271 | Truck Tank: Fuel Servicing 2 1/2<br>Ton                               | TRK FS        |                                                                                                                       |                                                               |                                                               |
| HH        | X67408 | Truck Tank: Fuel Servicing 2 1/2<br>Ton W/W                           | TRK FS        |                                                                                                                       |                                                               |                                                               |

C-4 Change 2

62

# No More

YOU NEED BITS AN' PIECES  
FROM SEVERAL PLACES.

[illegible]

YOUR TOE/MTOE/TDA  
GIVES THE NUMBER FOR  
COLUMN 11e

THE PROPERTY  
RECORDS FILL IN  
COLUMN 11F.

[illegible]

FIGURE 2-2  
EQUIPMENT SYSTEMS

**PS MORE**

**EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET**

6020 DA 11th signal 126 10 Oct 76

TRANSFER DATES AND OTHER NORS/NORM TYPE INFO FROM DA FORMS 2404, 2407 & 2418... OR IF YOUR SUPPORT'S UNDER THE MAINTENANCE CONTROL SYSTEM, COMPUTER PRINTOUT -- TO DD FORM 314.

**DA FORM 2418**

**DA 2404**

**DA 2407**

THE NORS/NORM TIME FROM THE DD FORM 314 FILLS IN COLUMNS 11 AND 11 ON YOUR DA FORM 2406.

COLUMN 9 MINUS THE TOTAL OF COLUMNS 1 AND 1 EQUALS COLUMN h.

**ORGANIZATION PLUS SUPPORT DOWNTIME ADD UP TO THE NORS/NORM TIME YOU PUT ON THE DD FORM 314!**

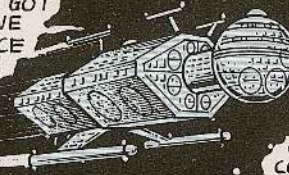
**EQUIPMENT AVAILABILITY**

| POSSIBLE DAYS | AVAILABLE DAYS | NON-AVAILABLE DAYS |   |               |   |
|---------------|----------------|--------------------|---|---------------|---|
|               |                | ORG MAINT          |   | SUPPORT MAINT |   |
| g             | h              | S                  | M | S             | M |
| 90            | 64             | 11                 | 3 | 7             | 5 |

64 PS END

## Connie's Mini Minis

SIRE, WE'VE GOT AN ION DRIVE MAINTENANCE PROBLEM!



CALL CONNIE RODD!

## Tent Cover NSN's

Some new numbers you can add to the General Purpose Tent stockage list on pages 56-57 in PS 316 are:

|             |              |
|-------------|--------------|
| Cover, Tent | NSN 8340-00- |
| G.P. Small  | 841-4648     |
| G.P. Medium | 262-2397     |
| G.P. Large  | 285-8432     |

Now you can replace oldies that are moldy.

## M200A1 Trailer Springs

Watch out for chuck holes when you're hauling your M200A1 2½-ton generator trailer.

If you hit a hole, the old-type rear spring shackle may poop out—and you'll wind up with a reverse bend in the spring. This's not so likely to happen when your trailer's got the improved shackle, NSN 2510-01-048-3785. This replaces NSN 2510-00-786-1587 in TM 9-2330-205-14 (Nov 72).

## Goat Steer Screw

NSN 5305-00-333-9535 brings the screw listed as item 3 on page 166 of TM 9-2320-242-20P(Mar 77). The NSN will get you the plastic machine screw to use in the Gama Goat steering column assembly. Use of a metal screw can cause an electrical short.

## M880 Loose Cargo Bed

If you have an M880, M881, M882, M890, M891 or an M892 1¼-ton cargo truck, check for broken spot welds between the cargo bed and the three mounting sills. If you find broken welds, get your DS/GS to fix your truck before hauling troops.

## M880 Battery NSN Switch

The stock number for the maintenance-free battery used in M880-series 1¼-ton trucks has been changed from NSN 6140-01-008-6044 to NSN 6140-01-032-1326. The new acquisition advice code is "L"—for local purchase.

## Let 'em Loose!

Scout around your airfield for any T53-L-11 engines with K-4 gearing and send 'em back to the nearest depot—now! They will be upgraded to T53-L-703 engines for installation in S-Model Cobras. Use shipping container, NSN 8145-00-772-7870, for these engines:

| MODEL      | NSN              |
|------------|------------------|
| T53-L-11A  | 2840-00-069-9472 |
| T53-L-11C  | 2840-00-102-3967 |
| T53-L-11D  | 2840-00-102-3968 |
| T53-L-11SA | 2840-00-875-9939 |
| T53-L-11B  | 2840-00-999-6228 |

U.S. GOVERNMENT PRINTING OFFICE: 1979-657-003/7

Would You Stake Your Life *right now* on the Condition of Your Equipment?

# NO NSN ?



## Got a good FSCM\* and PART NUMBER?

\* Federal Supply Code  
for Manufacturers

No sweat! The  
computer'll take  
your FSCM and  
part number  
requests NOW!



**DA Circular 700-27 has the word!**  
(15 Oct 78)