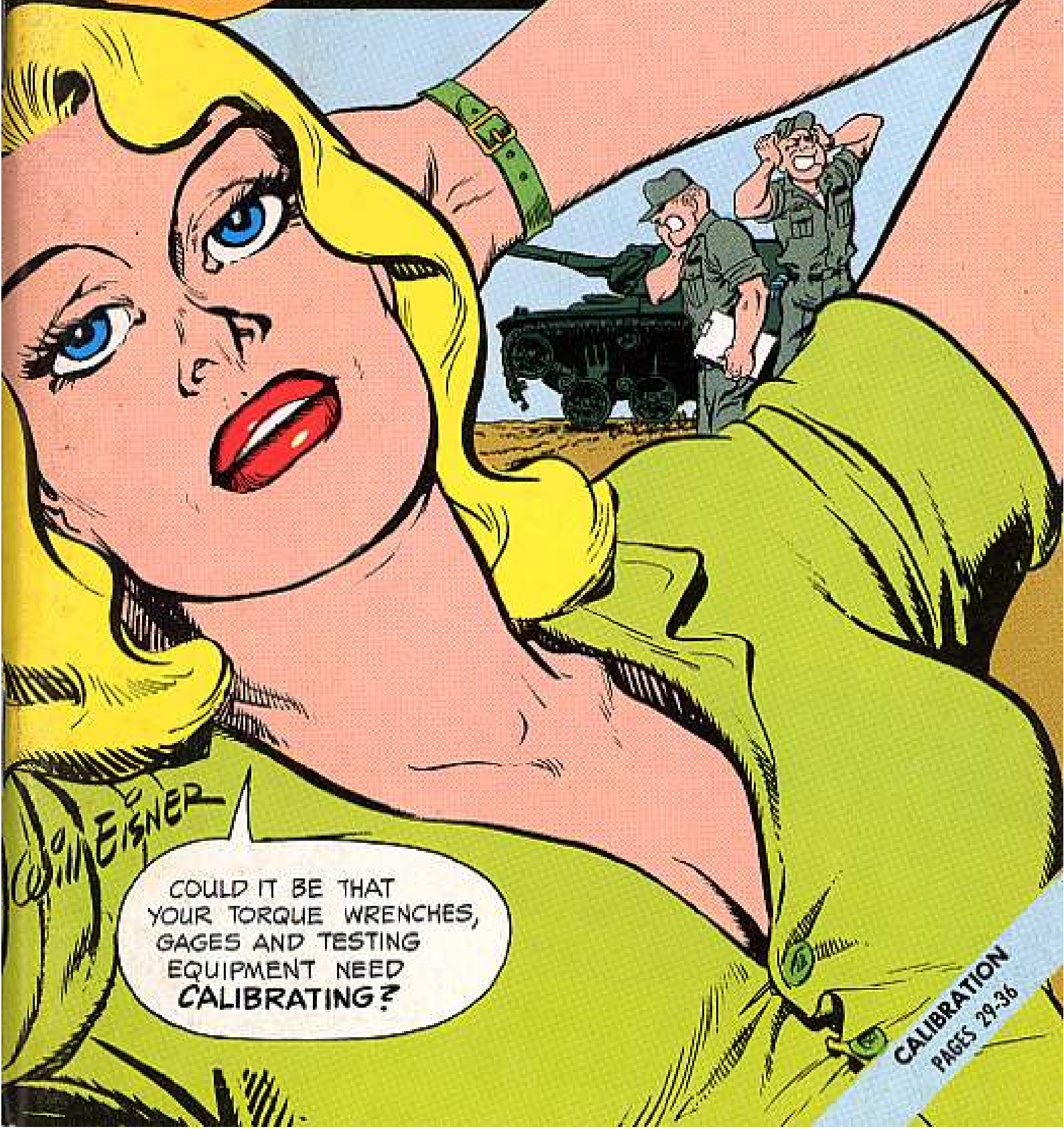


Issue 177

PS

1967 Series

THE  
PREVENTIVE  
MAINTENANCE  
MONTH



WILL EISNER

COULD IT BE THAT  
YOUR TORQUE WRENCHES,  
GAGES AND TESTING  
EQUIPMENT NEED  
CALIBRATING?

CALIBRATION  
PAGES 29-36



**YOUR ENGINES FUEL —**

Fuel is to your equipment's engine what food is to you.

# KEEP IT

YCHH

Food makes you go; fuel makes that engine go.

You never want dirty or spoiled food; it can make you sick or even kill you.

It's the same with that engine. Dirty fuel can make an engine mighty sick, even kill it... especially if it's a diesel or multifuel job. Those babies have powerful muscles, but weak stomachs. Dirty fuel is knocking a lot of 'em out.

**DRAIN THE ENGINE FILTERS DAILY!**

**DRAIN THE TANKS WEEKLY!**

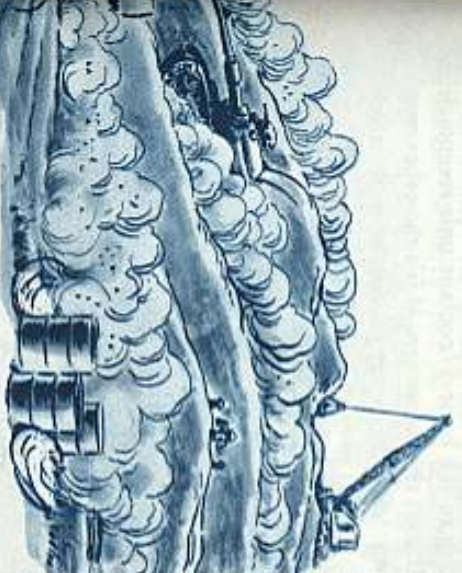


# CLEAN

That's why it's real important for you to see that only clean fuel gets to your engine.

There's one way to make sure your engine drinks only clean fuel, and it takes just minutes a day. It could pay off big for you... like seeing that you get through a real tough situation.

It's this: Drain your engine's fuel filters every day. And, drain the fuel



tank every week or so, depending on how wet your climate is. The warmer and wetter the climate, the more likely your fuel is to get all gummed up with bacteria and such scum. See your TM on how to do the draining.

Whenever the fuel at the filter looks like it's real dirty, call in your unit mechanic. He may have to get help from the direct support outfit.

Whatever you do, keep your fuel clean.



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THE PREVENTIVE MAINTENANCE MONTHLY  
Issue No. 177, 1967 Series  
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PS wants your ideas and contributions. Send to: Send to: Send to: your questions, ideas and suggestions, are 100% in confidence. Let's hear from you!

Sgt. Jeff-Mark,  
PS Magazine,  
Good News, Ky.  
#0121







**FIREPOWER**

An air defense guided missile system in a small package? Anybody who says it can't be done hasn't eyeballed the XM41E1 intercept-aerial guided missile system — Redeye, for short.

And a guided missile system that hardly needs maintaining? Again . . . that's the Redeye.

That doesn't mean you forget it's around until you go to use it. Not on your life. There are things to do to make sure that what's supposed to happen does happen before and after you squeeze the trigger.

So come along on an inspection trip around your weapon, the sort of trip that can help you head off trouble at the pass. As you check remember that the points in bold type want to be taken care of right away.

If you have a humidity indicator plug in the battery/coolant unit receptacle instead of a battery/coolant unit, we'll start the inspection. If it's the other way around, somebody's goofed. You never have the battery/coolant unit in the launcher unless you plan to shoot.

# DEAD EYE OR... WITH REDEYE

BE YOUR OWN INSPECTOR —

OR...

**LAUNCHER (OVERALL)** — Dented, punctured; dirty; wet; corroded; screws loose, missing; stenciled markings can't be read, missing; "confidential" tag missing (don't remove till you're ready to fire).

**SHOCK MOUNT** — Cracked.

**OPTICAL SIGHT ASSY** — Lens protectors torn, loose, hard to remove, missing, tab ripped off; front lens dirty, scratched, busted, moisture behind it; optical eyeshield stiff, ripped, cracked; lens dirty, scratched, broken, moisture on inside.

**BUTT BUMPER** — Cracked, loose, missing.

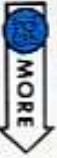
**LOUD SPEAKER** — Battered, dirty.

**GRIPSTOCK** — Contains water, cracked, busted.

**CAP ASSY** — Cracked, broken, loose, hard to knock off, missing, grooves on inside beat up (grooves needed to seat cap right way).

**AFT SEAL** — Frangible cap loose, busted; seal broken, embedded with dirt and stuff.

Incidentally, this piece deals with the Block I and Block II type Redeye. So, if you've got the latest configuration Block III — like with an open sight — don't worry, we'll take a close look at the differences in a later issue of PS.







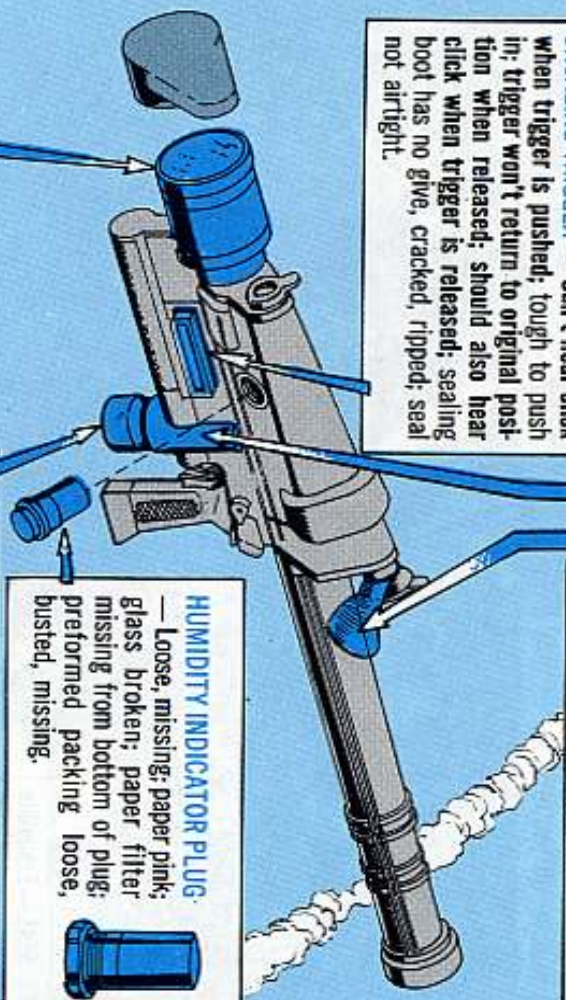
**EYESHIELD ASSY** — Can't be mounted (bad fit), broken, scratched, missing; positioning lug busted.

**HUMIDITY INDICATOR PLUG & BATTERY/COOLANT UNIT RECEPTACLE** — Inside dirty; prongs bent, broken; contacts dirty.

**UNCAGING TRIGGER** — Can't hear click when trigger is pushed; tough to push in; trigger won't return to original position when released; should also hear click when trigger is released; sealing boot has no give, cracked, ripped; seal not airtight.



**BATTERY/COOLANT UNIT** — One or more units missing (need three for each weapon); unit cracked, broken; contact rings corroded, gouged, shorted by metal scrapings (from the rings themselves); gas tube bent, busted, collar pushed down away from 2 holes in tube (collar protects holes till you put unit in receptacle . . . then it's pushed down and out of the way); preformed packing loose, cracked, busted; heat-insulated cap and case not held tightly together.



**HUMIDITY INDICATOR PLUG** — Loose, missing; paper pink; glass broken; paper filter missing from bottom of plug; preformed packing loose, busted, missing.

**RETAINER WINDOW ASSEMBLY** — Window loose, dirty, scratched, broken; seal between window and retainer ring broken, legs busted (legs go in grooves on launch tube cap to make sure seat right way).

**LAUNCHER HUMIDITY INDICATOR PLUG** — Loose, cracked, busted; preformed packing loose, busted; missing; center dot is lavender or pink instead of blue; same thing for the section marked 20 on the outer ring of the indicator card; glass broken; cap (removed for putting in desiccant) loose, missing.



**SLING ASSEMBLY** — Sling torn, busted, missing; sling adjuster does not work, broken; sling supports broken, missing; pin busted.

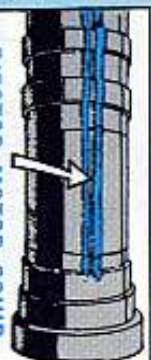
CHECK THIS ESPECIALLY

**FRICTION SCREW** — Loose, missing.

**PLASTIC BUMPERS** — Broken, loose, missing.



**EJECTOR MOTOR SQUIB IGNITER LEADS** — Fiber glass covering broken, missing, dented enough for the leads to have taken a beating. The last couple of inches of the leads are covered with adhesive tape, not fiber glass. Check the tape to see if it's peeling away from the launcher.



Here's the place to hang out the yellow caution flag as a double-check. That is, make sure you have a humidity indicator plug in battery coolant unit receptacle — not a launcher battery/coolant unit — before moving on to the safe and actuator device and firing trigger.

**FIRING TRIGGER** — No click heard when trigger is pulled all way to rear; trigger doesn't move back when released; no click when trigger is released; hard to pull to rear; busted; sealing boot stiff, cracked, torn; seal not airtight.



**SAFE AND ACTUATOR DEVICE** — No clicking sound heard when pushed out and forward as far as possible; after letting it go, lever won't return to safe position; no click heard on return; lever hard to move, cracked, broken; notch so dirty tip of lever won't go in; lever stop cracked, broken; spring weak, busted.





## SHIPPING & STORAGE CONTAINER—

Weapon supports loose, busted, missing; cover can't be closed; latches broken; handles broken, missing; markings can't be read, missing; water inside.



HOLD YOUR FIRE!

BE DARN SURE YOU **NEVER** SQUEEZE THE TRIGGER WHEN YOU HAVE ANY OF THESE 5 TROUBLES.



1 The front window is broken. Bits of the broken window can form a wedge between the missile and wall of the launcher—a wedge that might cause the missile and launcher to leave your shoulder if you try to fire the weapon. Believe it.



2 There are dents, cracks, breaks, punctures in the weapon.

3 You can hear a rattling sound in the optical sight assembly as you shake the launcher.



4 You find ice, mud and what-have-you embedded in the aft seal. It shouldn't be any problem getting rid of the junk.



5 You can't acquire your target. HERE I AM!



## HELPFUL HINTS

You don't have to treat your weapon as if it were a crate of eggs.



**But...** If you toss it up on the floor of a truck and knock the different interior components out of whack, the weapon will be safe. Trouble is, and here's the clinker, you'll wind up with just so much metal, plastic and what-have-you in your hands.

And what good is a safe weapon that can't do its job? It's like digging yourself a hole 200 feet deep. You'd be safe, but you wouldn't be hitting back at the enemy.



So . . . try to keep your missiles in their container when you're on the road. But, comes an emergency, if you and your Redeye are together in a vehicle, carry it on your legs to keep it out of harm's way. If you can't carry it, put something between it and the floor of the truck—like sleeping bags or blankets.

Whenever you put it on the ground, make sure—doubly sure—that it's on its right side—with the bumpers facing down. The bumpers are the only things that should touch the ground.

Always carry it with the seeker end skyward.



Let's say you acquire a target, the gyro spins up and then you get the word to "power down". Instead of swinging the launcher off your shoulder—a sudden movement that could damage the gyro—wait about 10 seconds for the spinning to stop, then lay it down.

### PUBLICATIONS

One thing you have going for you is the publications for Redeye—TM 9-1400-426-12 (Aug 66), and FM 23-17 (Dec 66). They're not loaded with pages, so you won't get bogged down in reading. But the scoop in them is real important. Take the time to read them.

TM 9-1400-426-12

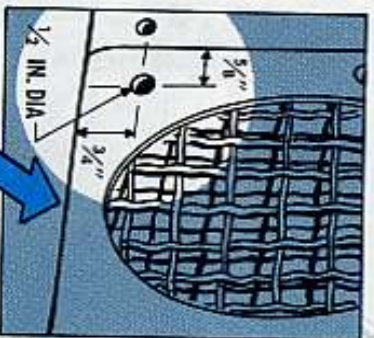


## M107/M110 DRAIN HOLE FIX

Your M107 or M110 SP artillery getting waterlogged from rain?

No problem. Drill two 1/2-in holes, one on the left side of the vehicle and one on the right. Drill 'em at a point 3/4 inch from the floor of the sponson and 3/8 inch forward of the weld seam.

Added to the three drain valves you already have on the vehicle—in the driver's compartment, power plant compartment and in the turret well—they'll let most of the water run out.



## RINGS' THE THING

An ounce of prevention is worth it when it comes to applying MWO 9-2300-216-20/7 (Jun 66) to your M107 SP 175-MM gun or M110 SP 8-in howitzer.

The MWO has you trade the two parking brake pins in the parking brake assembly for stronger ones. You don't get new place retaining rings with the new pins, though, and the chances of busting the rings when you go to remove the old pins are better than even.

So look ahead—have extra rings on hand before you take care of the MWO. They're on page 77 of TM 9-2300-216-20P (Jul 62)—under FSN 5340.720-8064 and FSN 5340-715-1152.



## A VIAL THOUGHT

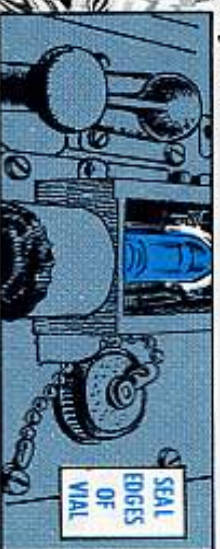
An M118 elbow telescope level vial that you can't read sure does you no good.

Maybe you've already found this out—if you're with the crew of an M108 105-mm SP howitzer or an M109 155-mm SP howitzer.

So happens that moisture and dirt can get down under the level vial. And enough of this unwanted stuff will keep the light from coming through to the vial.

There's a way out, tho.

Your support people can seal along the edges of the vial with locking compound—the kind that comes in a coupla containers under FSN 8030-275-8110. It's in Fed Cat C8000-II-A (1 Jan 66).

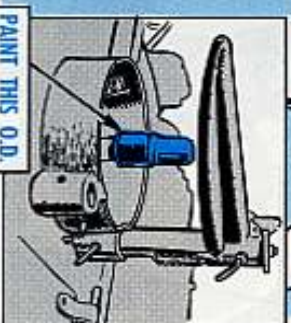


## PLAIN TO SEE

You're right... putting white paint on the rotating head of your M117 panoramic telescope does make it easier to spot the head when you're sighting on an aiming post at night—whether your shooter is the M108 SP 105-MM howitzer or the M109 SP 155-MM howitzer.

When you do, though, you're going against the rules. As it says on page 44 of TM 9-213 (Jul 62)—Painting Instructions for Field Use—"The part of the telescope or other fire-control equipment that extends outside of the tanks will be painted olive-drab." That also goes for other tracked vehicles, like your SP.

Painting the head white makes it easier for the other guy to see. And it means somebody will have to paint it again—with OD.





# COOKING WITH GAS

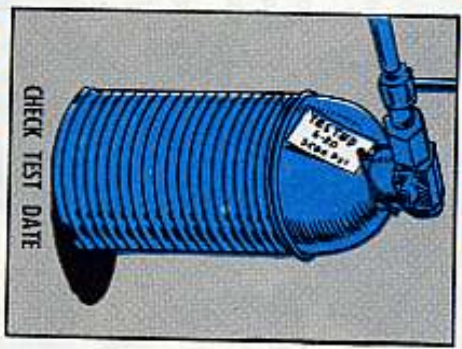
# NIKE HERC

# NOTES

Have you taken a gander of late at your Nike-Hercules launcher gas cylinder?

The cylinder is given a hydrostatic test by your support unit every 2 years. You find out when the cylinder was last tested by checking the date on the cylinder.

Course . . . if the cylinder looks beat or maybe is corroded, don't wait 2 years to shoot in a DA Form 2407 so it can be tested. Do it now.



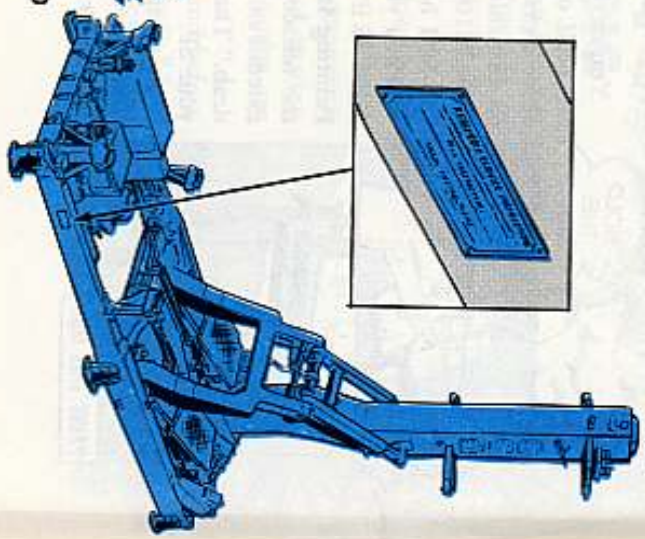
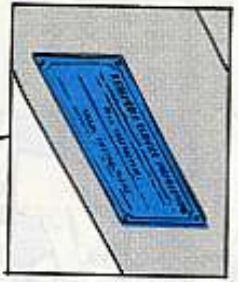
# PLATE TELLS ALL

Why guess at what you're supposed to do when it comes to filling and draining the hydraulic reservoir for your Nike-Hercules launcher?

If the instruction plate for the reservoir is missing (seems a number of launchers made it into the field minus the plate) . . . ask your support unit to make one for you. The scoop on putting the plate on the launcher base frame is in MWO Ord Y75-W63 (Apr 60).

You might mention to your DSU that in making the plate, the drain instructions should tell you to remove and replace the cap, not plug. MWO Ord Y75-W78 (Aug 63) changed the plug to a cap.

And instead of being torqued to 400 in-lbs, as with the plug, the cap gets torqued to 270 in-lbs. This scoop also wants to be on the instruction plate.



CHANGE PLUG TO CAP

CHANGE TO "270"

10



There's some good scoop for you Nike-Hercules guys in TB 9-1400-299-10/1 (Feb 66).

First instance . . . take a look at page 2-12—case Y075-19-C2-R1 (1-R). This section of the TB gives you the word on welding both sides of the clamps that you use to hold the cables in place when you march order the erecting beam.

Seems the welded end of the clamps are breaking away from the rest of the clamp . . . and having both sides of the thing welded will be a big help. A little care will also go a long way, like when you go to take off the clamps.



THAT WELDED END WILL BREAK!



LIFT STRAIGHT UP



Make sure you turn the handle far enough so's the clamp will lift straight up and off.

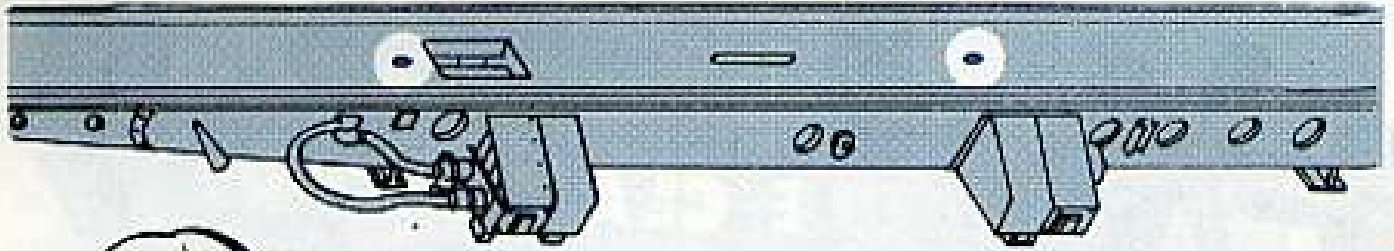


SOME OF YOU GUYS TURN IT JUST-SO-FAR... THEN PUSH UP ON THE HANDLE!! RESULT IS— THE WELDED END GETS CAUGHT ON THE LIP OF THE BEAM... SNAP! GOES THE WELD!

11

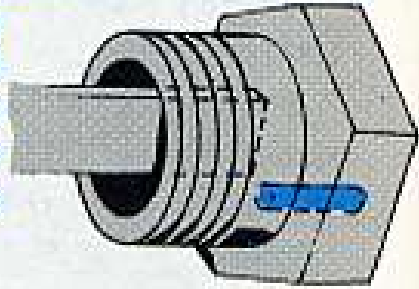


# HOLEY DIPSTICK



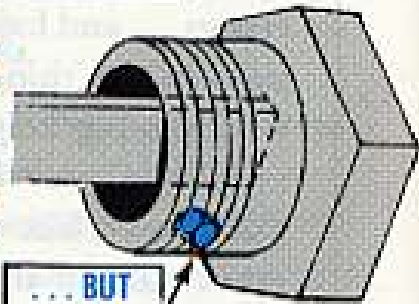
NOW,  
ABOUT  
THOSE  
**TWO**  
DIPSTICKS  
YOU USE  
TO CHECK  
HYDRAULIC  
OIL LEVEL  
IN THE  
DECELERATOR  
RESERVOIRS  
OF YOUR  
NIKE HERC  
RAIL...

You say they have a hole that starts at the top and comes out the bottom of the plug? And you figure the hole belongs there.  
Not so.



THERE SHOULD BE  
A VENT HOLE...

That kind of hole will let dirt, water and whatnot into the reservoir. You want to have the hole plugged, or get a new dipstick.



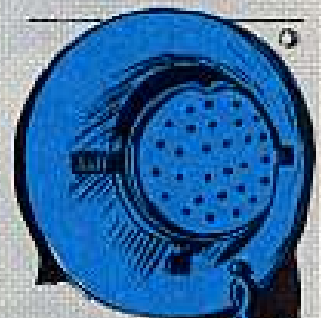
... BUT  
LIKE THIS

## TAKE A LOOK

Those quick-disconnect cable connectors for your Nike-Hercules launcher ... do you take a close look at 'em now and again? That goes for both the jacks and plugs.

It's a good idea. You might spot moisture, corrosion or bent or loose pins—things that could cause all sorts of trouble with the launcher or missile.

And be sure to get rid of any bugs that might've got hung up when the connectors were removed for a spell. Bugs? Right ... they can hold moisture.





# OPEN LETTER

To All Inspectors:

When you're checking out the 150-KW, 60-cycle diesel generator set (Cummins model NHRSSGA-601-150) at a Nike-Hercules site, look the other way when it comes to what Ch 2 (Jul 63) to TM 5-5274 says about the right reading for the fuel-oil pressure gage at idle speed.

The TM says the gage should read 10-to-15 PSI at idle. But it won't get much above "0" . . . and that's OK. That nothing reading won't hurt anything. Watch for the latest in TM 5-5274.

*Half-Mast*



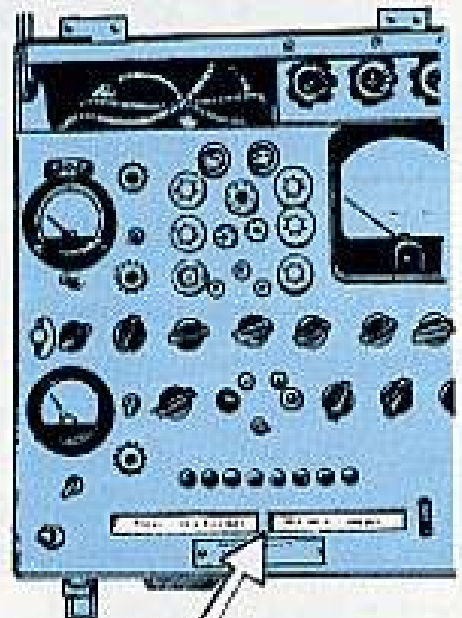
## NOT THE DATE

Dear Half-Mast,

Pages 10 and 11 of TB 9-1400-299-10/1 (Aug 65) talk about outdated roll charts for the Hickok tube tester, model KS15750-L2, that we use at our Nike-Hercules site. The TB says the number at the beginning of the chart, 3200, is supposed to be followed by the current year. In other words, it's saying that for 1967 the number should read 3200-67.

But our outfit and others that I know of get back the same number, 3200-54, after we send the tube tester out for calibration.

CWO N. W.



Dear Mr. N. W.,

You'll always find that 3200-54 number on the chart. The chart calls it a code number . . . and that goes for all 6 digits.

Current year shows up on the right side of the chart.

Model KS-15750-L1 and L2  
Code No. 3200-54

Tube Tester  
1-167

*Half-Mast*

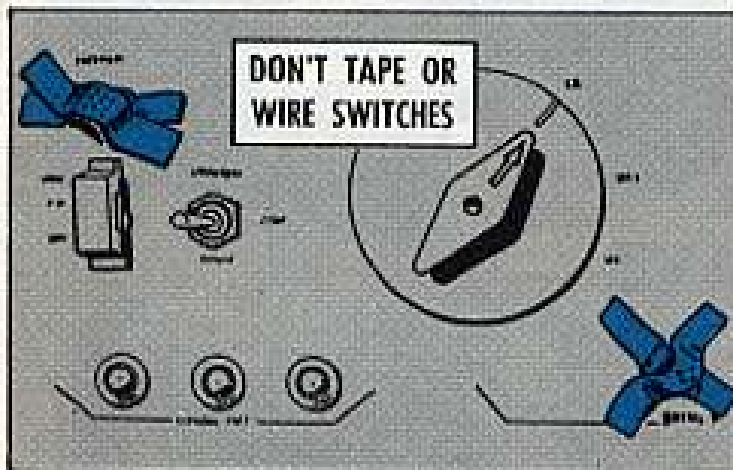


**LAY  
IT TO  
REST**



You say you haven't heard the word?

When you do . . . fight the temptation to go to your Nike-Hercules launcher control indicator with a fistful of tape or safety wire.



Some outfits have taped or wired fast 3 switches that're not used — test load, battery charge and external-internal. Seems there's a rumor that if the switches are put on accidentally, a BA-472 battery might be activated.

Not so.

On the other hand . . . taped or wired switches could put an inspector in a bad mood.

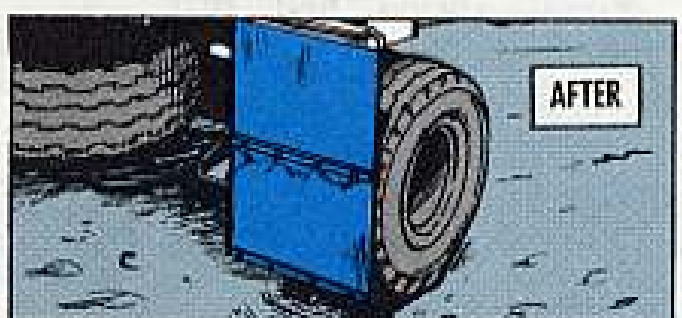
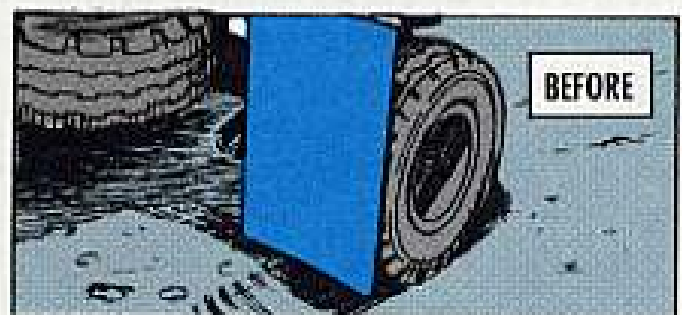
## **SPLASH GUARD SAVER**

Talk about unfair wear and tear of Nike-Hercules equipment.

The front splash guards on more'n one M529 ready-round transporter have been ripped to shreds by getting caught in the wheels. And there's no reason for it to happen.

That's right . . . MWO 9-2330-255-30/5 (5 Dec 62) gave the word on re-locating the splash guards and putting metal strips on them.

No MWO kit was involved . . . strictly a deal in which your support people latch on to the few needed parts through supply or locally.





**GENERAL  
& SUPPORT**

A JEALOUS SWEETHEART —

**YOUR  
NEW**

**290M  
TRACTOR**

YOU'RE  
GOING TO  
HAVE TO  
GUARD IT  
LIKE A  
JEALOUS  
SWEET-  
HEART!

So you've got a new 4-wheeled Clark 290M Tractor — all 54,000 shiny pounds of her. Pride is the word.

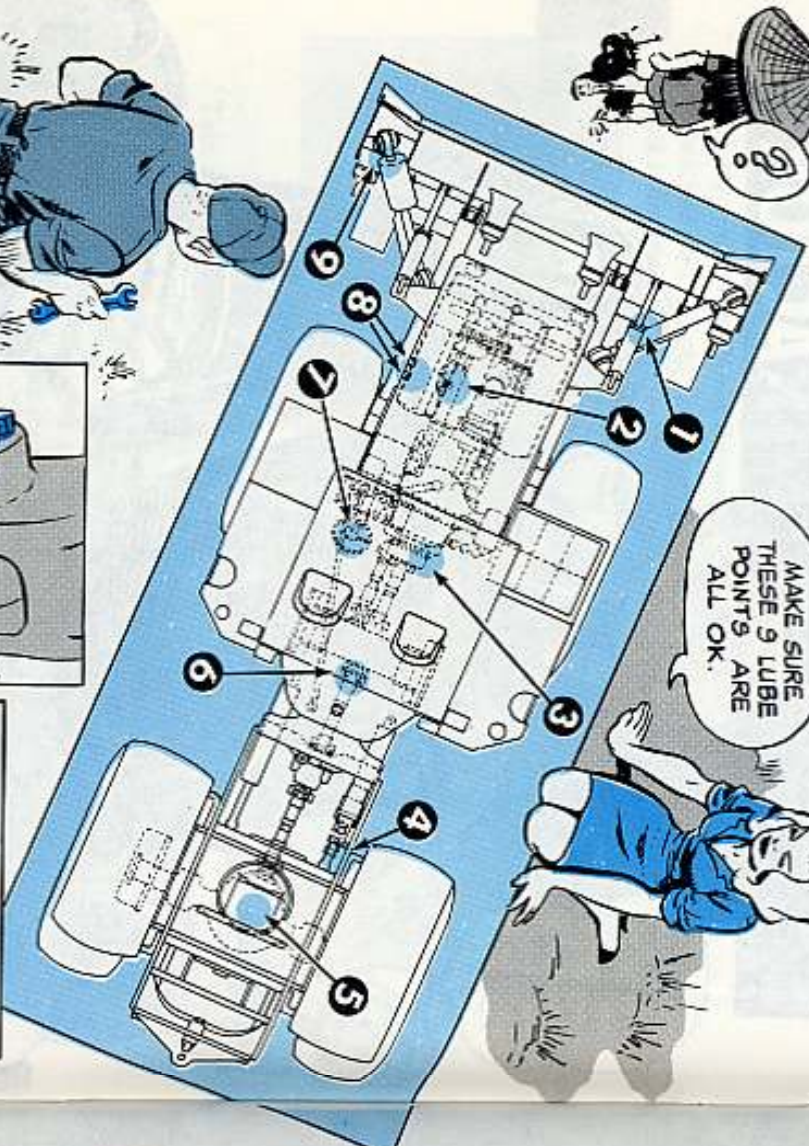
This tractor has what it takes. Dig out the TM 5-2420-206-15 (Jun 66) and help get it ready to barber the boondocks and level the bamboo with you in the saddle.



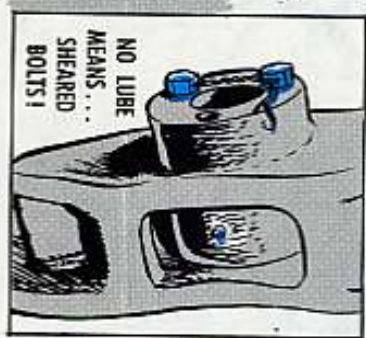
## PRE-OPERATION

**LUBE FITTINGS**—Some may have been left off, and every last one is necessary. Besides, a check-over with the LO and TM in your hand is a fine way to find out how this tractor is put together. Be sure you feel into the hard-to-reach spots. Some fittings you can't see, but you can touch 'em, like the one on the bottom of the universal coupler.

If any fittings have been left off, be sure they're in and used before you make a move to get power up and work done.



MAKE SURE THESE 9 LUBE POINTS ARE ALL OK.



NO LUBE MEANS... SHEARED BOLTS!

**SPECIAL PACKING**—Special covers or braces are on 9 spots. Save the scraper connections and guard those port openings.

## CHECKOUT

- ✓ **HYDRAULIC RESERVOIR**—Fluid, 125 gallons of it, should have been shipped in the tank. Make sure there's no water in the bottom, like by having support take samples. If you're where you can watch, be around to see that dipstick test to tell if the tank's full.
- ✓ **DIFFERENTIALS**—Front and rear take 69 pints apiece.
- ✓ **PLANETARY HUBS**—All 4 take 26 pints each.
- ✓ **BEARING BOX**—5 quarts will fill it.
- ✓ **BATTERY**—Electrolyte has to cover the plates.
- ✓ **STEERING LOCK LINKS**—Both have to be off before you move a peg. But no chucking them away, because they are permanent equipment.

- ✓ **BRAKE FLUID**—There are 4 reservoirs, and all have to be up to snuff. Just cupping fluid to the bottom of the inlet is right—no use running over and dripping. Look at items 26 and 30, LO 5-2420-206-15-2, and pages 37 and 38 of TM 5-2420-206-15, for all-season lube and hydraulic oil dope. If you have to use the Interim TM, you can still look the points and lubes up by name.
- ✓ **RADIATOR**—filled with clean water or coolant.
- ✓ **TIRES**—Take 45 PSI, but for long trips on hard-top roads, make it 50 PSI. For work in deep sand, 30 PSI is best, but change back for highway runs.
- ✓ **CRANKCASE**—Be sure all 9 gallons are at muster.
- ✓ **CYLINDER CONNECTING RODS**—Heavy grease has to be all off. Eyeball the lift, steering, and tilt cylinder connecting rods. Clean hydraulic oil, just a touch on the plungers, you'll use to coat the rods.



**MORE**



## RED-PENCIL STUFF

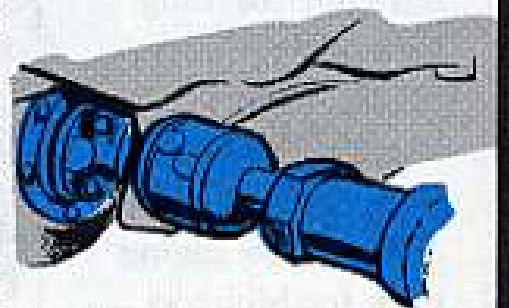
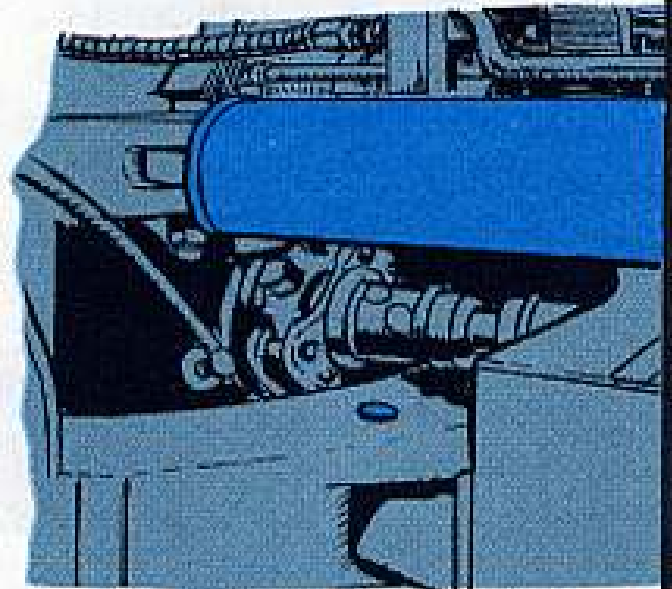
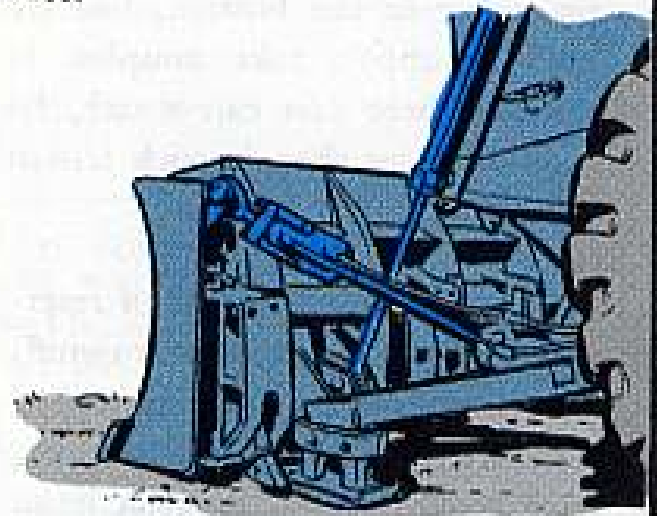
That's correct. Every 8 hours your 290M is on the job, you give these items a hard-nosed inspection, in addition to your daily PM service.

**UP FRONT** — Pitch strut, tilt cylinder and lift cylinders, push beams, and those cylinder rods get a lube check, and oftener under adverse conditions. Then take a close gaze at engine oil supply.

**MIDSECTION** — Hydraulic oil tank supply you'll want on the mark. Then those pivot hinge pins — take a make-sure by themselves. Steering cylinders come next to see if plenty OE 10 is inside, and if the 4 fittings got their doses of MIL-G-10924B.

**REAR END** — Cradle pins in both places get lubed whether or not they look dry. Else those hefty-looking cap bolts on the end will probably shear. There's no bigger must, next to engine oil and hydraulics. Next check and lube the universal hitch good. Then put transmission and converter fill on the got-to-scan list, and your red-flag roll is complete.

*Now you're ready for the final look-See* →





## STARTING UP



No matter if support readied your new honey and swore by all the BaMcBa barrels south of Bung Bung that the transmission fluid, or converter juice, got full inspection, take nobody's word. There are two places to look, and the TM's LO and TM show 'em as No. 24 on the chart. But to do it, you have to be running, and what's more, you got to be up to operating temperature.

So take the TM method and warm up until water shows about 180°F. Then check transmission fluid hot, with engine idling, in Neutral.

But while she warms up, which a coupla minutes will do, sit there in the saddle before the chute opens. Check the controls, see that they're free and working right. And if you don't have to get afield pronto, you can use colored paint or tape to make your own red-line indicators for gages to mark danger places by the TM.

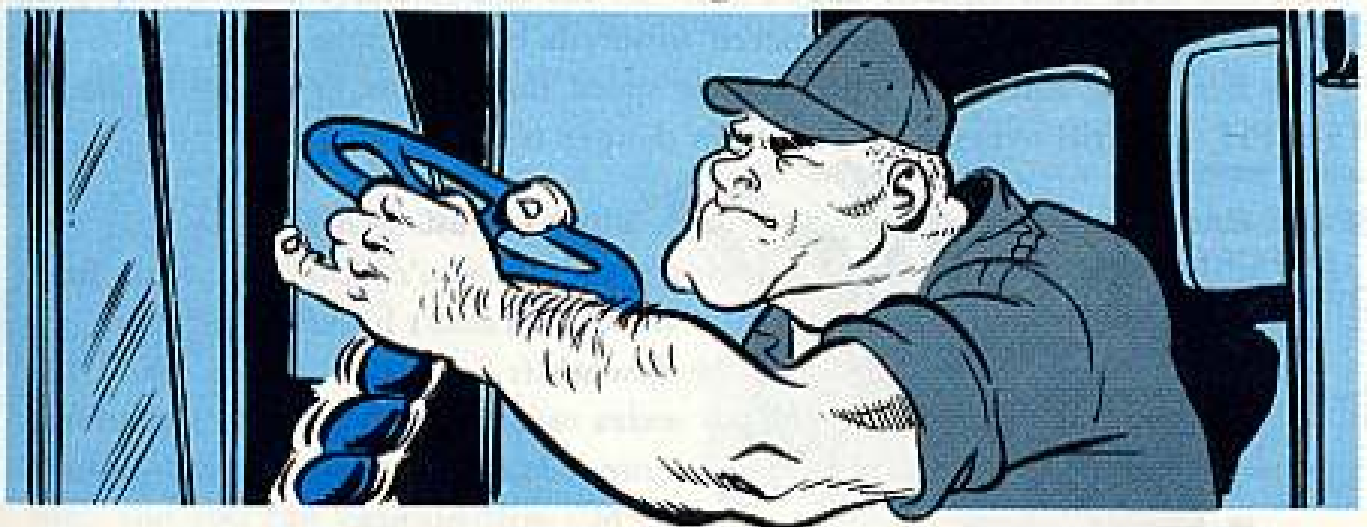
## NO SIMPLE JOB

Doing the wrong thing with this rig can be just plain dangerous. The main things you've got to be careful about are:



**STEERING**—This is a full-hydraulic system, and 5 gallons, give or take a few spoonfuls, go from cylinder to cylinder in a turn. That is, the power-driven pump shoves those gallons in a few seconds—and if there's no shove, there's no steering.

Your car back home had a manual override on steering. With engine off, you could still turn to the side of the road and park. But Samson himself couldn't wrestle this front end around with the engine dead.







Lose power, and you've got 27 tons of tractor, plus whatever tons of 18-yard scraper and dirt on behind, that you can't herd. Your only prayer is that there'll be air enough in the 4 reservoirs to stop you before you meet a mountain.

BUT THE **BIG** REASON FOR LOSING POWER ON YOUR 290M IS SPEED!



**OVERSPEEDING** — In plain English, that means running the engine too fast. You're in danger when you hit 2400 RPM, you're on the brink if you go to 2700 RPM, and miracles seldom happen to save you if you touch 3000 RPM.

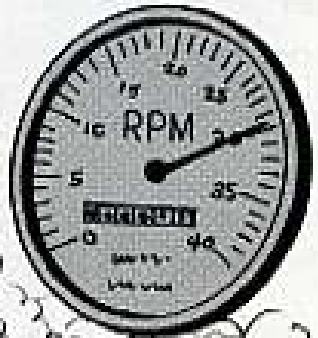
**BAD**



**WORSE**



**WORST**



The thing is, those 380 horses up front gather in 20 extra horses at the peak, and what's called a full-torque transmission is the harness between that herd of horses and the load — and more horses means more speed.

There's been a new set of extra-strong valve springs put in the 290M since it first came out, with tension upped from 85 lbs to 145 lbs. That's to help pull the valves back from being hammered to shreds by the piston heads.

But here's the catch — it's not vehicle speed that counts. You can be doing 15 MPH, and still overspeed. The main danger is —



**DOWNSHIFTING** — And using too low a gear. If you're running with high RPM, and don't brake back before you downshift to tackle a hill, those 20 extra wild horses and all 380 of the branded herd are going to kick up those RPM's still higher.



**NEVER  
DOWNSHIFT  
TO SLOW DOWN!**



This means one thing, which you'll watch like a hawk — Never, but not ever, will you downshift for braking effect. Instead of getting braking from the powerplant, you'll get engine speedup from the shove of your vehicle's weight. Your governor won't save you—all it does is chop the throttle at the top end.

Even if you're not feeding fuel from the accelerator, or as some throttle-jockeys say, "off-gassing," you can get overspeed in a split second.

There's a pair of helps on your instrument panel that could be your twin insurance agents against such calamity — your tachometer and your speedometer. Your tach will tell you when you're in any certain speed bracket at the moment. But your speedometer will tell you when you're going too fast to get down into a lower gear, because certain speeds in MPH are just too much for certain gear settings. If you're going faster than the next lower gear can allow, you don't dare downshift.

You do it by halves, so — Make up a table like this, and not only paste it on the dash, but in your mind:

| GEAR SET | NEVER GO OVER |
|----------|---------------|
| 4th      | 35 MPH        |
| 3rd      | 17 MPH        |
| 2nd      | 8 MPH         |
| 1st      | 4 MPH         |

NOW, HERE'S ANOTHER  
TABOO — NO COASTING!!

I'M DE-OIL-  
DRATED!



**FREE-WHEELING** — Kicking the clutch out, or going to neutral can be bad in 'most any heavy equipment if it's followed by going back into gear at good speed, because it's such a strain on shafts and gears. It's double poison on this 290M. True, there's no clutch pedal here, but —

Even if you brake down to go back into gear from neutral on this rig, that torque converter doesn't necessarily match the drive-shaft speed. Hitting the accelerator a fraction of a second early, before the engine RPM and vehicle speed settles back, just invites red-lining.

Besides, the oil pressure drops when the engine idles. That little red light in the middle of the left dashboard panel comes on when less than 20-PSI pressure hits, and you can get oil starvation fast when you rev up.



But let's say you get away with high RPM, brake back, and don't blow the top off the engine. There's still another piece of damage that can come from using the wrong gear. That one's big, too.

**OVERHEATING** — That torque converter can boil fast if you use too high a gear or lug along. About 200° or a shade over is normal, but if that hand starts reaching for 250°, watch out!



The thing to do is brake back, if you need to, and go to the next lower gear — never two gears at a jump.

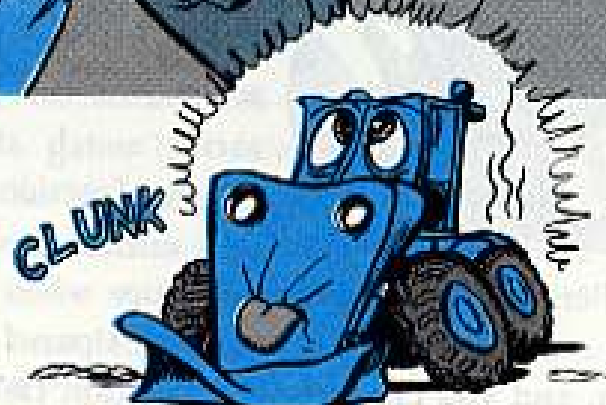


Then check the temperature again, along with a quick look at the transmission oil pressure gage.

If it's not at least 180 PSI, stop and shut off the engine, with a 3-minute idle period first—don't just chop the switch.



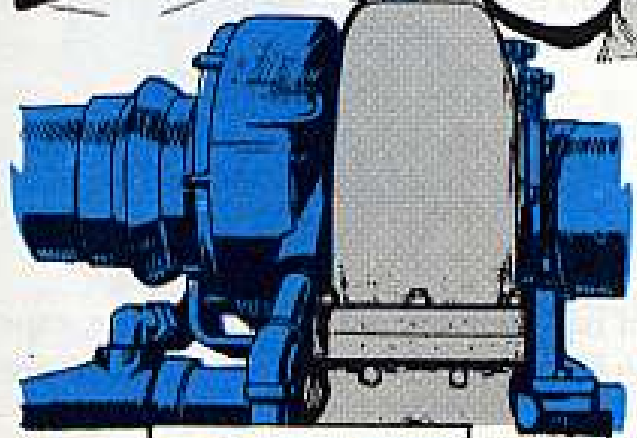
Still, your main worry here is what's called torque converter stall. You can even get it standin' still, using too high a gear to move out. It's bad because it overheats the oil, which means ruined seals and shot bearings.







BESIDES THE POWER-BRAKE COMPLEX AND SUCH DANGERS — HERE ARE SOME OTHER WATCH-OUT-FOR ITEMS.



NO GOOSING, PLEASE

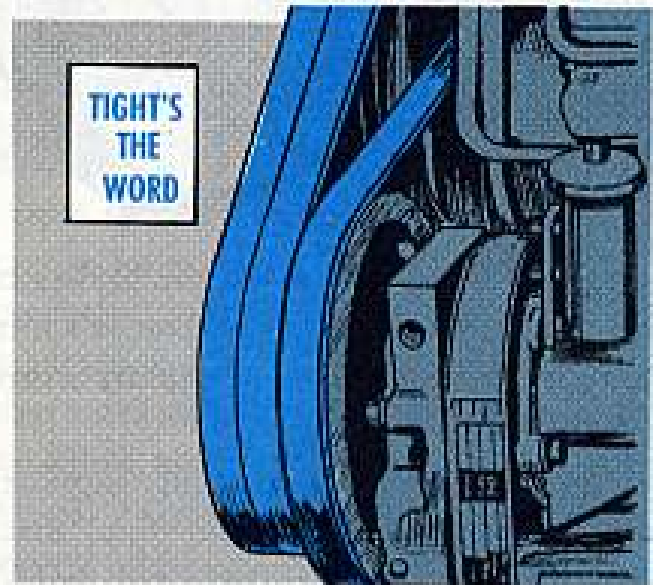
**TURBOCHARGER**—It's a 4-star performer, all right, because—brace yourself—it revs up to spaceman speeds, 55,000 RPM—and any little abuse can mean metal confetti.

The main way to keep the air-crammer from shredding is, to never goose the engine when you first start up, but let it idle easy, not over 1000 RPM. You let that go on for 3 to 5 minutes, letting the bearings get oil.

And when you quit for the day, you let the works idle down. You'll know never to kick up the RPM's and cut the switch, because oil is fed to that turbo-charger system from main engine pump supply, and it takes as long as 6 minutes for the supercharger blades to quit turning. Nothing that turns at such reach-for-the-moon speeds can stand 6 minutes with no oil pressure.

**BELTS**—Air Compressor and water-pump V-drives have to stay tight. Otherwise you lose generator charge and the compressor shaft wobbles into an oil leak and breakdown. Check compressor bolts close.

**FUEL LINE**—All support brackets have to be in tight, or the line will for sure break at the head. Check every day.



TIGHT'S THE WORD

### SAFETY FIX

That cable northbound out of the tachometer drive is vital. It hooks up to the overspeed governor on that bracket over the intake manifold. Keep it waterproof tight, else it'll rust inside. This dope's not in your TM 5-2420-206-15, but it's in the manufacturer's TM supplement in your overpack kit.







## SPECIAL CAUTIONS

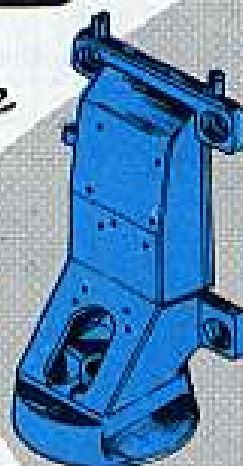
*Here's a list of Special-attention items you Should pencil in!!*

**UNIVERSAL COUPLING** — This big \$900 ball joint on the back can get you into all kinds of predicaments.

First off, take a glimpse at the tapped block, adjustment screw and coupling adjustment of the universal coupling.

They're meant to hold the coupler from banging around. Draping wire rope or cable on 'em could mess up the scraper eyes, so proper checks and maintenance is the answer.

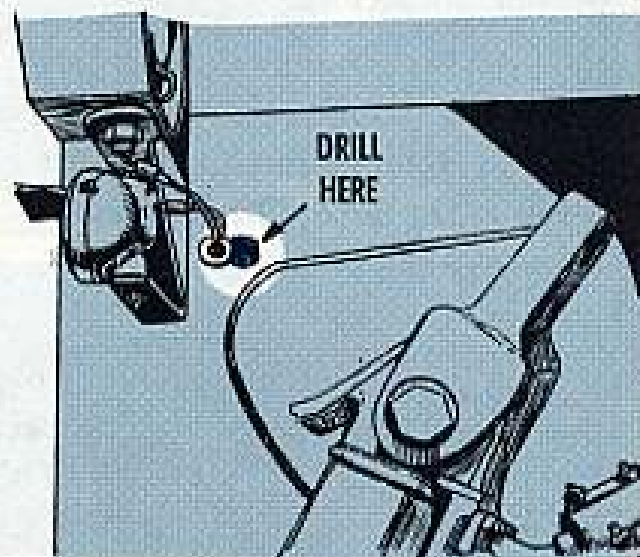
There'll be an even better lock for this coupler in the works soon, but for now the word is a sharp eye and regular attention.



**DIFFERENTIAL BREATHER** — That breather gets plugged, dirt and guck seal the air hole, and pressure inside forces GO 90 oil onto your brake drums. The preventive is, check that breather every day at the same hour, and oftener if the going is dirty. That baby is one of the worst problems you'll have.

But the cure for oil on the brakes can be only having your support replace the brake shoes, all 10 of 'em. It's a multi-shoe style brake, and all the blocks have to be equally new or equally worn.

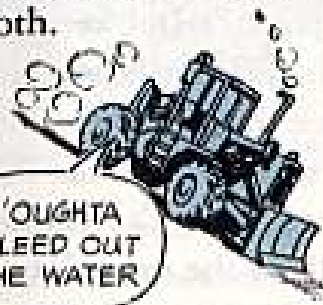
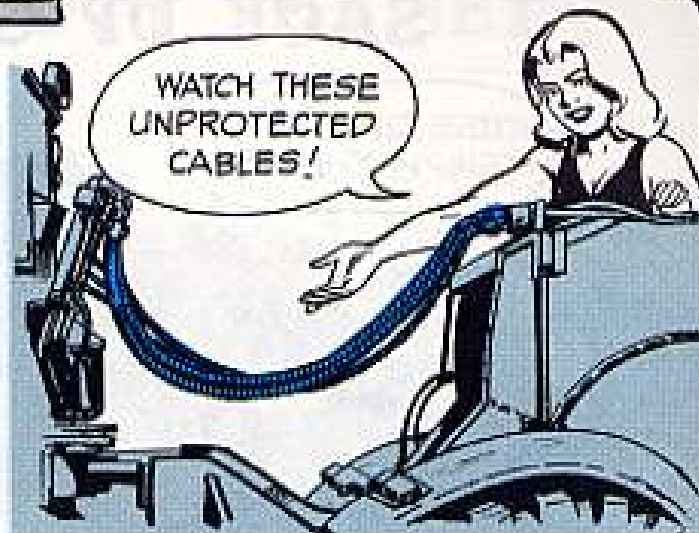
**HOOD REMOVAL** — Tip your support off, first time you're in the shop, that drilling a hole over the front hold-down bolts, right through the housing, can make it lots easier to get that hood off and on. Then a socket wrench can get the bolt easy, instead of  $\frac{1}{8}$  turn at a time.





### AIR-HYDRAULIC LINES AND COUPLINGS —

They go over like the cables of a suspension bridge behind you to that coupler assembly, but they can get cut by rocks and snapped in turns. If you get a break, the only thing to do is head for the shop, slow'n' easy, because you can't control that scraper without 'em. Besides, you'll lose fluid and pressure, or both.



**AIR TANKS** — Every time you start or stop work, use your dashboard reservoir drain lever to blow out the water. Otherwise you could have bleeder valve leaks or brake failure on a bad hill. Besides, replacing bleeder valves is rough: the bottom guard plate has to come off.

### SCARIFIER TEETH —

Cousins to the skid shoes, tie 'em in "up" position until needed. You can protect these gougers by always making sure your blade is up before you go to reverse gear.

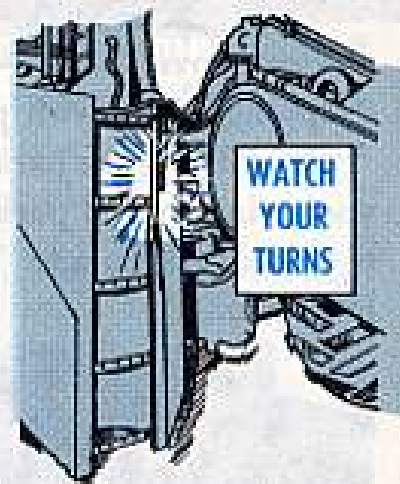


### SKID SHOES —

If you're not going to work in sand, take 'em off. Otherwise they'll break off.



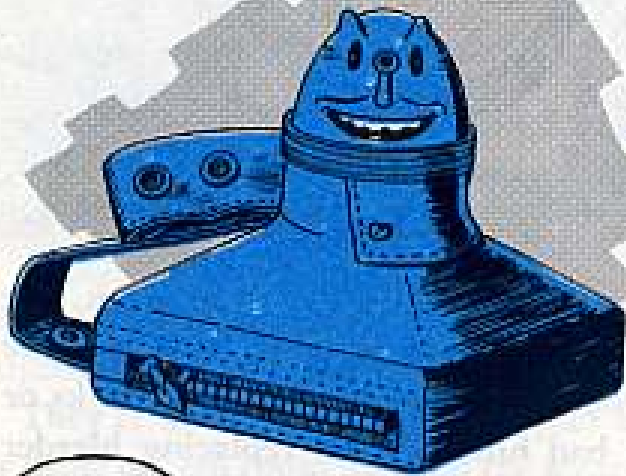
**FUEL AND HYDRAULIC TANKS** — There's no turn stops on either the 290M or the scrapers. Whether the name is Euclid, LeTourneau-Westinghouse, or something else, that scraper has no safety against turning too sharp. If you take a corner too sharp to the right (that's anything over 85 degrees), you lose hydraulic; if too much angle left, your fuel tank gets crushed. And if anybody's riding there when you do it, it's taps for sure. The only place to ride this vehicle is in the cab.



Sit down with support and turn to the overpack pages that tell about welding and the rods you have to have, if such repair gets necessary. Otherwise a whole new front end will have to come, and what femme wants to change clothes right in the middle of a dance?

# SACK UP CORROSION

USE THE PLASTIC SHIPPING BAGS!



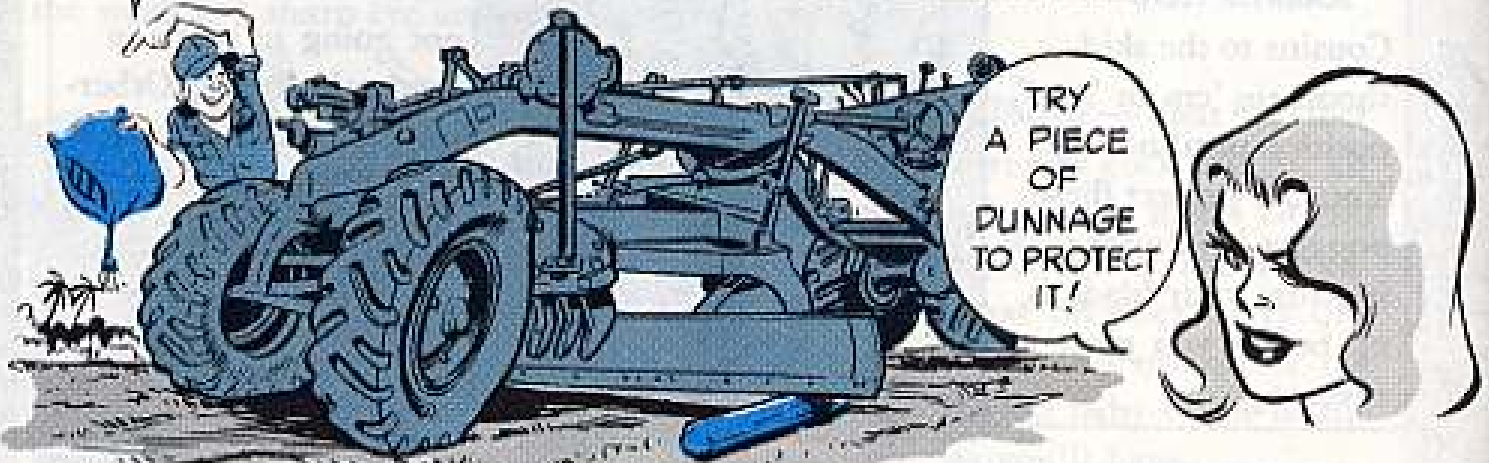
Want to stop green corrosion in battery cases on your emergency light set, FSN 6230-542-6680, or similar?

You can line the cases with the plastic shipping bags the batteries come in. When they're fouled up, replace with something like Bag, Plastic, Polyethylene FSN 8105-401-2010, in Fed Cat C8105/15-IL-A (Jan 67). But keep 'em pasted back for plenty ventilation, and change for clean ones every now'n'then.

Liners cut from sheet plastic like FSN 9330-756-2151 from Fed Cat C9300-IL-A (Apr 67) will do the same job.

HEY CONNIE!

# LOWER THAT BLADE



Earthmover blades—like on graders, scrapers and dozers—can be ruined by dropping. Even with power off, a yank on the wrong lever can do the damage.

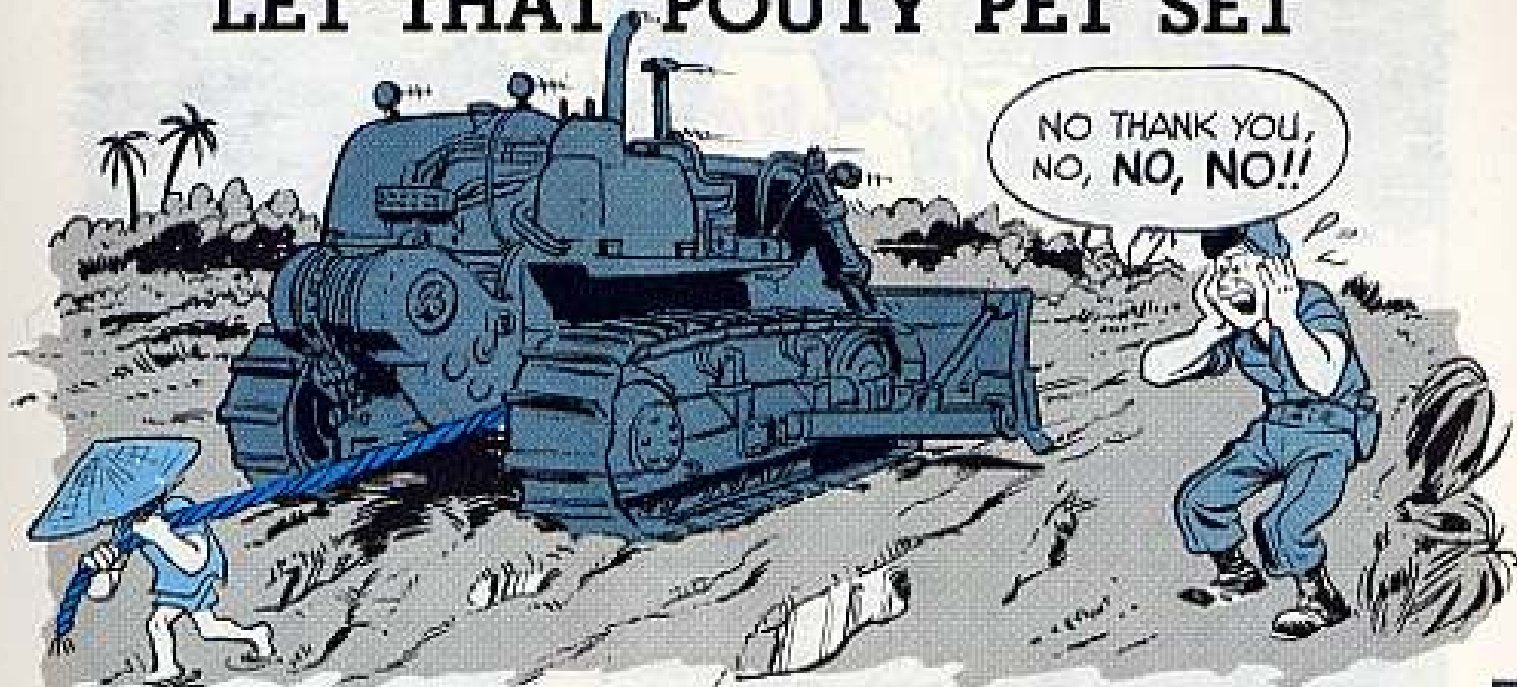
Blocking up in parking will stop such wrecks. Just let the blade down easy if you're in a paved parking lot. On unpaved ground, use timber or flat-faced rock to support the blade. This also helps to make the outfit stay put if it's not on level ground.

SAFETY NOTE!

"BLADE ALREADY ON GROUND HURT NO ONE"... ANCIENT SAYING!



# LET THAT POUTY PET SET



If it's a full-tracked tractor and she's conked on you, let nobody try to tow your mad machine . . . at least no further than up the ramp to the draggin' wagon.

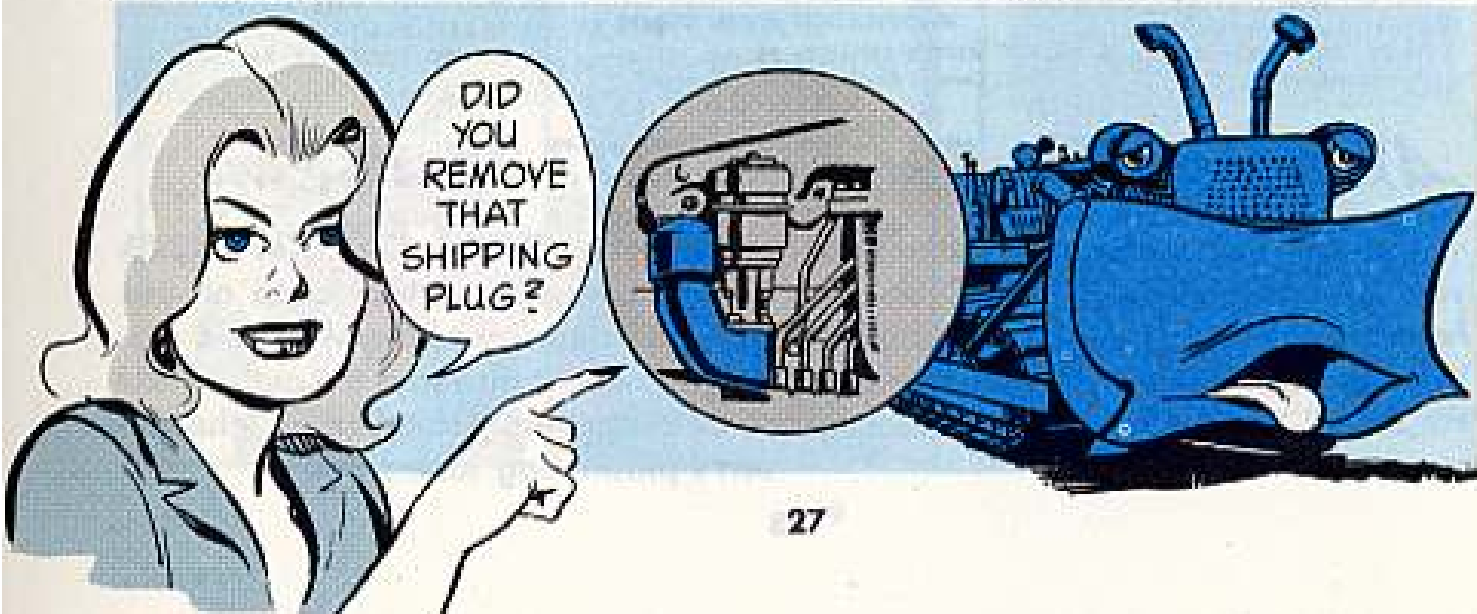
This breed of cat has a bad habit of burning out transmissions if towed without the engine running—same as a good many tanks.

What happens is, the oil pump won't go without the engine to horse it—and the transmission turns over whether there's oil in the bearings or not if you tow the beast. So no tow, no push.

## PLUG CAN BE A DRUG

Your D7E tractor can get drowsy from poor crankcase ventilation if the plastic shipping plug isn't taken out of the engine breather.

Those plugs are put in at the factory, for sealing purposes. If the D7E is run with the breather blocked, the air circulation to the crankcase will be cut off and pressure will build up and make oil gush past the rings—which means caking and excess oil burning. To take the plug out, reach up inside the breather pipe where it ends near the bottom of the engine block.







## PUBS

A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletins. For complete details see DA Pam 310-4 and Ch 4 (15 Dec 66) and DA Pam 310-6 and Ch 1 (1 Oct 66).

### TECHNICAL MANUALS

TM 5-3431-202-25P, Mar, Arc Welding Mach, Gen; GED, 300 AMP, DC, ARC, Hobart GHB31835.  
 TM 5-3805-237-12, Mar, Road Grader, Motorized; DED, W/Scarifier, LeLaurneau-Westinghouse 440HA.  
 TM 5-4310-204-25P, Jan, Compressor, Gas Eng., 5 cfm, 175 psi, Lerai-Westinghouse 1BYCH-33.  
 TM 5-4320-242-13, Mar, Pump Assy-Film Liquid, Bulk Transfer, GED, 350 GPM Cap at 100 Ft Hd, Whl Mtd, Gorman-Rupp 84C15-4A084.  
 TM 5-6665-200-25P, Mar, Mine Detecting Set, Trk Mid Aural and Visual, 24 V, DC, Bridge Type Detector, 1/2-Ton, M38A1 Werlitzer WC232.  
 TM 9-1005-297-20P, Apr, TAT-102A.  
 TM 9-1005-297-ESC, May, TAT-102A.  
 TM 9-1330-202-25, Apr, AH-1G.  
 TM 9-1410-250-15P/2/1, Feb, Nike-Herc, Nike-Herc Imp.  
 TM 9-1430-250-15P/3/2, Apr, Nike-Herc, Nike-Herc Imp.  
 TM 9-1430-502-12/1, Mar, Hawk.  
 TM 9-1430-502-12/3, Mar, Hawk.  
 TM 9-1430-513-12/2, Apr, Hawk.  
 TM 9-1440-250-15P/1/1, Mar, Nike-Herc, Nike-Herc Imp.  
 TM 9-1440-250-15P/4/1, Mar, Nike-Herc, Nike-Herc Imp.  
 TM 9-2320-218-ESC, Apr, M131, M131A1 1/2-Ton Truck.  
 TM 9-2320-244-ESC, Apr, Truck, M274.  
 TM 9-4925-304-15P/2, Apr, Sergeant.  
 TM 9-6920-461-12P, Mar, ENTAC.  
 TM 10-500-12, Feb, Airdrop, Rigging Typical Supply Loads.  
 TM 10-500-17, Feb, Airdrop of Supplies and Equip Rigging CW-SW Water Pretreatment Decantation Set.  
 TM 10-500-36, Mar, Rigging 1/2-Ton Weapons Carrier.

TM 10-500-39, Mar, Airdrop, Supplies and Equip Rigging Container Delivery Sys.  
 TM 10-3930-215-25P, Mar, Forklift Truck, Gas, 6,000-Lb Cap, Minneapolis-Moline MY60RS, MY60MC NRS, MY60MC RS, Army MHE 171, MHE 171A.  
 TM 10-4940-201-25P, Feb, Cleaning Mach, Barnes 4310CA, Army SPE 19, Barnes 15801CA, Army Mdl SPE 19A.  
 TM 11-1520-217-20, Mar, CH-54A.  
 TM 11-3895-203-15, Apr, Reel Equip CE-11.  
 TM 11-5805-367-25P/2, Mar, Multiplexer TD-204/U.  
 TM 11-5805-367-25P/3, Mar, Multiplexers TD-352/U, TD-353/U.  
 TM 11-5820-536-15, Mar, Repeater Set, Radio AN/TRC-109(Y).  
 TM 11-5820-613-15, Apr, Antenna Coupler CU-872A/U.  
 TM 11-5820-686-15, Mar, Radio Receivers R-1394/OR, R-1420-URR.  
 TM 11-5825-202-12, Apr, AN/GRN-6 Radio Beacon Set.  
 TM 11-5835-209-13-1, Mar, Recorder-Reproducer Set, Sound AN/TNH-4B.  
 TM 11-5895-266-15, Jan, Radio Term Set AN/TRC-117(Y).  
 TM 11-6625-1519-15, Apr, Voltmeter Model 128A.  
 TM 11-6760-213-12, Apr, Photographic Repeating LM-33 (1) Flash Unit.  
 TM 55-411, Feb, Maint & Info Guide for Aircraft.  
 TM 55-1510-201-20P, Mar, U-8.  
 TM 55-1520-209-20, Apr, CH-47.  
 TM 55-1520-210-20PMD, Apr, UH-1D.  
 TM 55-1520-210-20PMI, -20PMP, Apr, UH-1D.  
 TM 55-1520-211-20PMD, Apr, UH-1A-1B.  
 TM 55-1520-211-20PMI, -20PMP, Apr, UH-1A-1B.  
 TM 55-1520-221-20, Apr, AH-1G.  
 TM 55-1520-221-20P, Apr, AH-1G.  
 TM 55-1520-221-20PMD, -20PMI, -20PMP, Apr, AH-1G.

### MODIFICATION WORK ORDERS

MWO 9-2300-299-20, Apr, M728 Combat Engr Veh, Tank, Combat,

105MM Gun, M50/M60A1 and Tank, Combat, 90MM Gun, M48A1/M48A2C, M48A3.  
 MWO 9-2320-211-20/10, Mar, 5-Ton Cargo Truck, M54, M33; Chassis M61, M63, M139D; Dump; M51; Tractor M52; Van Expendable; M292; Wrecker, M543.  
 MWO 10-1670-207-20/2, Apr, Aerial Delivery Equipment.  
 MWO 55-1500-200-20/32, Apr, UH-1A-1B, UH-1D.  
 MWO 55-1500-208-20/1, Apr, CH-23.  
 MWO 55-1510-201-20/3, May, U-8.  
 MWO 55-1510-202-20/2, Apr, U-8.  
 MWO 55-1520-203-20/4, May, CH-37.  
 MWO 55-1520-204-20/8, Apr, CH-13.  
 MWO 55-1520-209-20/41, May, CH-47.  
 MWO 55-1520-209-20/51, Apr, CH-47.  
 MWO 55-1520-209-20/121, May, CH-47.  
 MWO 55-1520-209-40/3, May, CH-47.  
 MWO 55-1520-211-20/16, Mar, UH-1A-1B.  
 MWO 55-1520-211-40/2, Apr, UH-1A-1B.

### MISCELLANEOUS

AR 385-17, Apr, Fire Ext for Rail, Marine, Amphib and Off-the-road Equip.  
 FM 23-20, Mar, Davy Crockett Weapons System.  
 SB 9-196, Apr, Replacement of Tool, Kit, Armorer's By Tool Kit, Small Arms Repairman.  
 SC 1080-97-C-202, Mar, Camouflage Net, Single Eng Aircraft.  
 SC 5180-99-CL-A04, Apr, Tool Kit, Propeller and Rotor Repairman's Army Aircraft.  
 TB 9-1425-300-25, Feb, Sergeant.  
 TB 9-1425-425-25, Mar, Redeye.  
 TB 55-1520-214-20/6, Apr, OH-6.  
 TB 55-1520-214-20/8, Apr, OH-6.  
 TB 750-991-2 (INSTAG), Apr, A11 Fixed Wing.

## LARC on Pin-Point

You can now order publications for your Lighter (LARC-LX) BARC on DA Form 12-33 for pin-point distribution. It's authorized as a write-in item in Sect I of the 12-33. Don't forget your account number.

## M17 Mask Care

Change 6 (24 Feb 67) to TM 3-4240-202-15 covers the latest scoop on use, care and cleaning of the M17 field protective mask. It also says the outserts are to be permanently installed and the outsert's plastic bag tossed out.

**JOE'S  
DOPE**

# "C" is for CALIBRATION

CUT THE  
CHATTER,  
SONNY!  
I GOT A  
'Q' SERVICE  
TO  
FINISH!

GOOD EVENING, FOLKS. MAY WE  
INTRODUCE YOU TO KNUTBOLT TORK,  
TH' WORLD'S OLDEST ORGANIZATIONAL  
MECHANIC -- IN AN INFORMAL  
DISCUSSION OF  
"MAINTENANCE, PAST-  
AND-PRESENT!"  
GOOD EVENING,  
MR. TORK!!



HOW  
OLD ARE  
YOU,  
SIR!

2,943  
GIVE OR  
TAKE  
A FEW  
MONTHS!

WHAT DO YOU  
THINK IS THE  
GREATEST SINGLE  
DIFFERENCE  
BETWEEN  
ORGANIZATIONAL  
MAINTENANCE  
NOW -- AND WHEN  
YOU SOLDIERED  
CENTURIES AGO!

FEH!

NO,  
I GOT  
HEARTBURN.

YOU MEAN  
IT'S SO  
BAD?

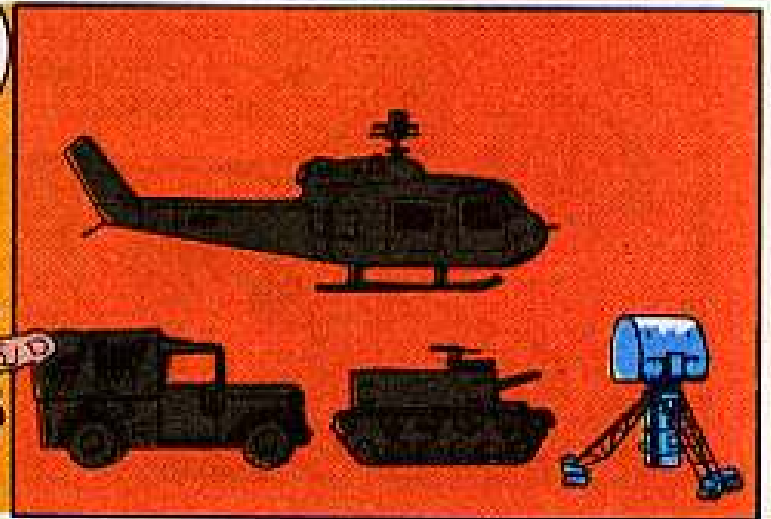
HOW?

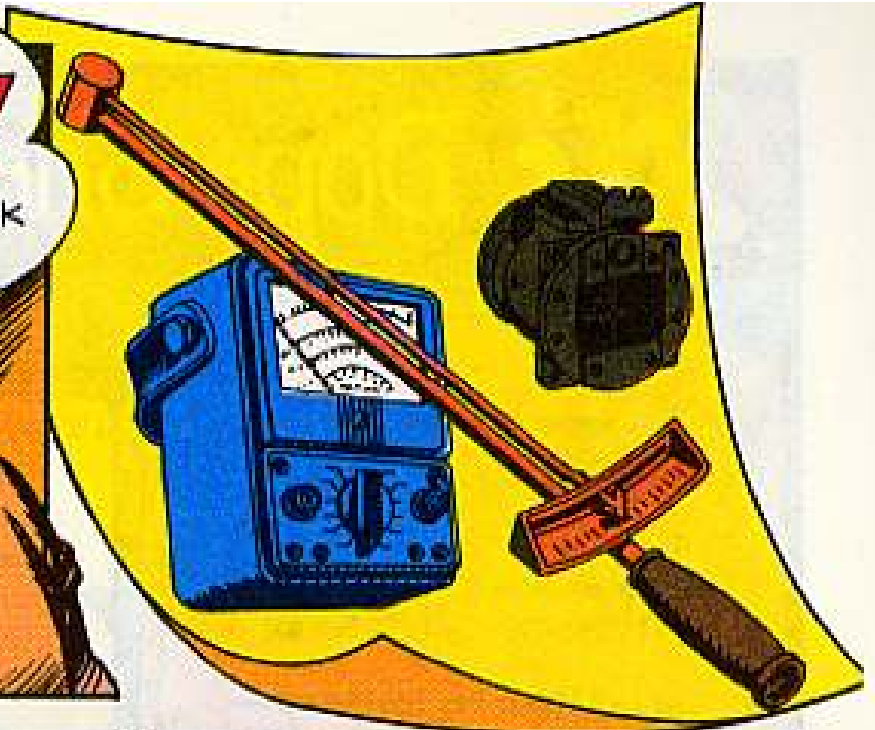
THINKING  
ABOUT THE  
JOB OF THE  
MODERN SOLDIER.

TELL  
US!!













# Dope Sheet

## ELECTRONICS COMMAND

Radiac Equipment —  
TB 11-6665-229-15/1 (14 Sep 65)  
Test and Measuring Equipment —  
TB 11-6625-692-15/1 (28 Jun 66)  
Sets, Kits and Outfits —  
TB 11-6625-692-15/2 (22 Jun 66)

## MOBILITY EQUIPMENT COMMAND

Tools and Support Items —  
TB 750-93-10/1 (19 Nov 64)

## ARMY SECURITY AGENCY

TB 750-32-1 (7 Feb 67)

## MISSILE COMMAND

Nike — TB 9-342 (28 Mar 66)  
Hawk — TB 9-4900-520-34 (25 Feb 65) and Ch 1 (10 Nov 65)  
Sergeant — TB 9-1400-300-15/2 (14 Jun 65)  
Pershing — TB 9-1400-376-15 (Interim Apr 65)  
M22 System — TB 9-4900-461-35 (5 Apr 66)  
Entac — TB 9-4900-455-35 (11 Apr 66)  
Light Target Missile —  
TB 9-4900-417-35 (16 Dec 65)  
Honest John — TB 9-1340-202-35 (27 Jun 66)  
Little John — TB 9-1340-204-35 (15 Dec 65)  
XMS Aircraft Subsystem —  
TB 9-1055-217-35 (16 Dec 65)

## MUNITIONS COMMAND

Special Weapons —  
TB 750-109 (14 Jul 66)  
Your support also may need —  
TB 9-6625-334-35 (21 Jul 65)

## TANK-AUTOMOTIVE COMMAND

Tools and Support Items —  
TB 750-112 (28 Oct 66)

## AVIATION COMMAND

Aviation Test Equipment —  
TB 750-931-10/1 (5 Oct 65)

## WEAPONS COMMAND

Tool Sets —  
TB Ord 1060 (20 Feb 64)

Each Army Commodity Command Now has One or More Lists on Hand. They Keep You Up-Dated On What's Calibrated Be it Torque Wrench or Aircraft Test Stand!

HEY, CHECK THAT PA LABEL 80 DECAL ON YOUR TEST EQUIPMENT TO BE SURE WHEN THE NEXT CALIBRATION IS DUE!

# WE HAVE THE WORLD'S BEST EQUIPMENT

# ...Take care of it

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



**NOW...** HERE'S WHAT HAPPENS!!  
THEY GET AN OUTFIT ALL  
TUNED UP AND READY  
FOR COMBAT!



OKAY... BY-THE-TM, LET'S GET ALL  
THESE NUTS 'N' BOLTS TIGHT-RIGHT!!  
ALSO TEST OUT ALL THE ELECTRICAL STUFF  
— WE WANT EVERYTHING RUNNING LIKE  
A PX WATCH!! THEY GOT A FLUSH 'N'  
CRUSH OPERATION TOMORROW!



...OUT THEY GO **ONLY**  
TO RETURN ALL BUSTED  
UP!! — THE POOR  
KNUCKLEBUSTER DOESN'T  
KNOW WHAT HE DID  
WRONG!!

WADDYA MEAN  
WE 'BUILT-IN  
A LOUSE?...?!!  
MY MEN USED GAGES  
'N' METERS ON EVERY  
COTTON PICKIN' NUT,  
BOLT CONNECTION AND  
ELECTRICAL PART!!



THE  
@\*#\*#!!  
ASSEMBLY  
SHOOK  
LOOSE.  
WHO  
TORQUED  
THESE  
BOLTS!?

YEAH?... BUT  
HOW DO YOU  
KNOW THEM  
GAGES ARE **RIGHT?**  
... WHEN WERE  
THEY  
**CALIBRATED**  
LAST?





NATURALLY HIS TEST EQUIPMENT WAS OFF KILTER... WHICH MADE EVERYTHING ELSE HE DID OUTTA WHACK TOO!!

LUCKILY AT THIS POINT CONNIE RODD COMES IN AND TELLS 'EM A FEW THINGS.

FIRST, LET'S LOOK AT THE LITTLE DECAL DA LABEL 80... YOU FIND IT PASTED RIGHT ON THE EQUIPMENT!

IT SHOWS YOU THE DATE OF THE LAST CALIBRATION CHECK MADE BY A VISITING CALIBRATION TEAM - OR YOUR SUPPORT! AND THE DATE FOR THE NEXT CALIBRATION CHECK.

| US ARMY CALIBRATION SYSTEM (FORM 117) (REV. 1-67) |                 |            |           |
|---|-----------------|------------|-----------|
| ITEM IDENTIFICATION                               | MULTIMETER      |            | Q         |
| IN STOCK  | 666 HH          | SERIAL NO. | 867       |
| BY WHOM   | TO ELE ARMY DEP |            | 10 JUN 67 |
| BY OPERATOR                                       | C. J. Roberts   |            | 10 SEP 67 |

EVEN IF THERE'S NO DA LABEL 80 YOU CAN TELL WHETHER IT NEEDS CALIBRATION BY CHECKING THE COMMODITY COMMAND TB.

... AND IT'LL ALSO TELL YOU IF THE CALIBRATION IS A JOB FOR YOU, YOUR SUPPORT, OR A CALIBRATION TEAM!

THE TB AND THE DATE ON  
**DA LABEL 80** TIE-IN WITH **DD FORM  
 314...** WHERE **C** STANDS FOR **CALIBRATION** ...  
 YOU CHECK WITH THE COMMODITY COMMAND'S  
 TB'S WHICH LIST THE ITEMS THAT SHOULD  
 HAVE A LABEL... OR, WHICH SHOULD HAVE  
 AN ENTRY ON THIS FORM!

| ITEM | DESCRIPTION      | DATE     | STATUS | REMARKS |
|------|------------------|----------|--------|---------|
| UNK  | MULTIMETER 666HH | 10/15/68 |        |         |

SUPPOSE IT DOES NEED  
 A LABEL... OR, MAYBE THE  
 CALIBRATION IS DUE...  
 OR OVER-DUE!

YELL FOR HELP  
 BY SENDING IN A  
**MAINTENANCE REQUEST**  
 (DA FORM 2407)  
 TO YOUR DIRECT  
 SUPPORT OUTFIT.

SQUAWKE  
 AND THAT, JUNIOR,  
 IS WHY MAINTENANCE  
 IS A LOT MORE  
 SOPHISTICATED TODAY  
 THAN BACK IN THE  
 OLD DAYS.  
 SKWAKKE

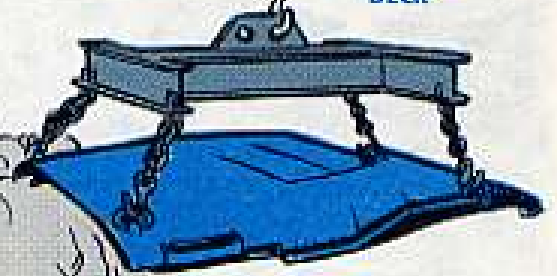






## M48A2 TANK MANIFOLD LEAKS

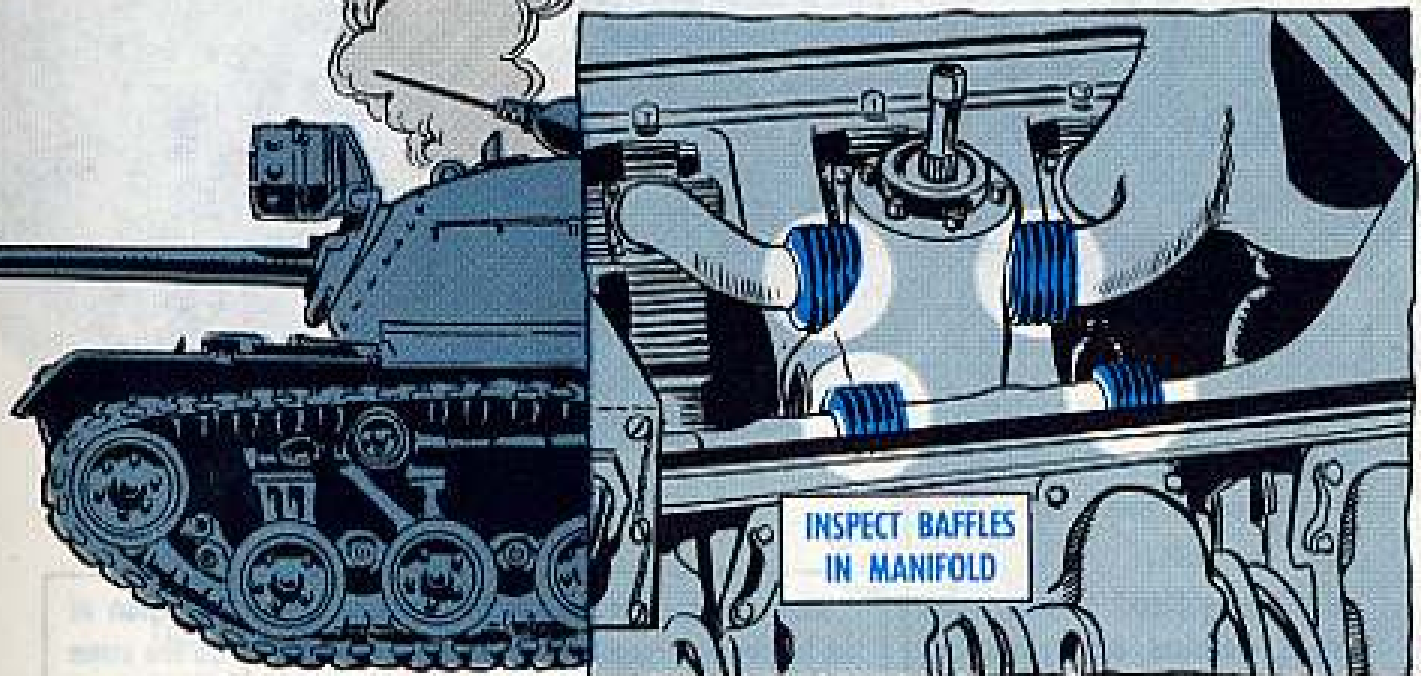
REMOVE  
THE  
ARMOR  
DECK



Every time you pull a Q (quarterly) maintenance on your M48A2 or M48A2C tank, check both exhaust manifolds for leaks.

You'll have to take off the armor deck, the fan guard and the fans. This is a little bit of trouble but worth it because one tank out of every 4 inspected recently had a leak in the baffle part of the manifold.

A LEAK  
IN THE  
MANIFOLD  
COULD  
BE A  
DISASTER!



A leak in the manifold is a down payment on disaster because the terrific heat of the power plant could start a fire that might burn up the whole vehicle.

Welding up a leak in an exhaust manifold is generally a waste of time . . . so if your manifolds are leaking, have your mechanic put in new ones. The left and right manifolds are the same, FSN 2805-333-0468.



WOITER THEY  
DOIN' TO MY  
RIGHT EYES?

# TANK HEADLIGHT

## HOE DOWN

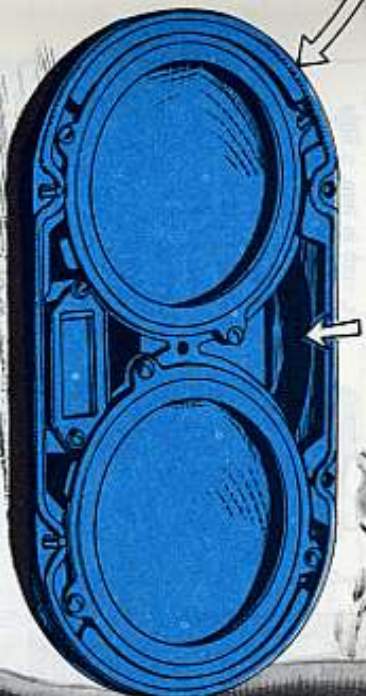
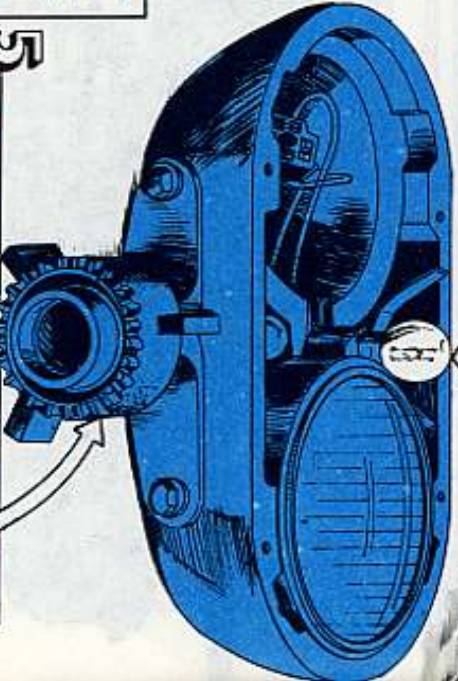
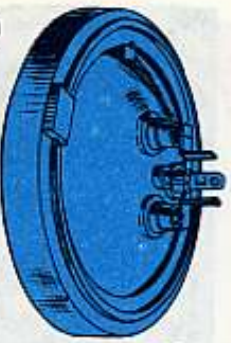
WATER IN THE HEADLIGHT HOLDERS OF YOUR M-48 AND M-60 SERIES TANKS, CAN SHORT OUT LIGHTS... ADD THIS 5-STEP ROUTINE TO YOUR REGULAR Q SERVICE!



1 Loosen the coupling nuts and take off the lights. If the nut is badly rusted you might have to give the nut flange a couple of gentle taps with a hammer.

2 Dry out the holder and body. A couple of hours in the hot sun will do the trick. (If there's no hot sun handy, open up the light and work it over with a dry, clean cloth.)

3 Get all the dirt and corrosion out of the holder, the coupling nut and the base with corrosion-removing compound (metal conditioner and rust remover, Type II FSN 6850-174-9672, 1 gall.



4 If your company SOP calls for them to be mounted outside most of the time, do this:  
Brush a light coat of insulating varnish, electrical, air drying FSN 5970-285-0271 (1 gal) inside the holder and coupling nut and around the threads of the base and attach the light before the varnish dries.

5 After the coupling nut is in position, seal the junction of the holder and coupling nut with the varnish and do the same for the area where the holder meets the body, both front and back.  
Make sure the screws on the light body are tight enough to make a good seal, but it's not necessary to brush varnish in the junction.  
This light work every Q service will make your lights work.

Once you have the headlights in good shape they'll stay that way if you keep 'em on the stowage brackets inside the tank when not in use like it says in your -10 TM.

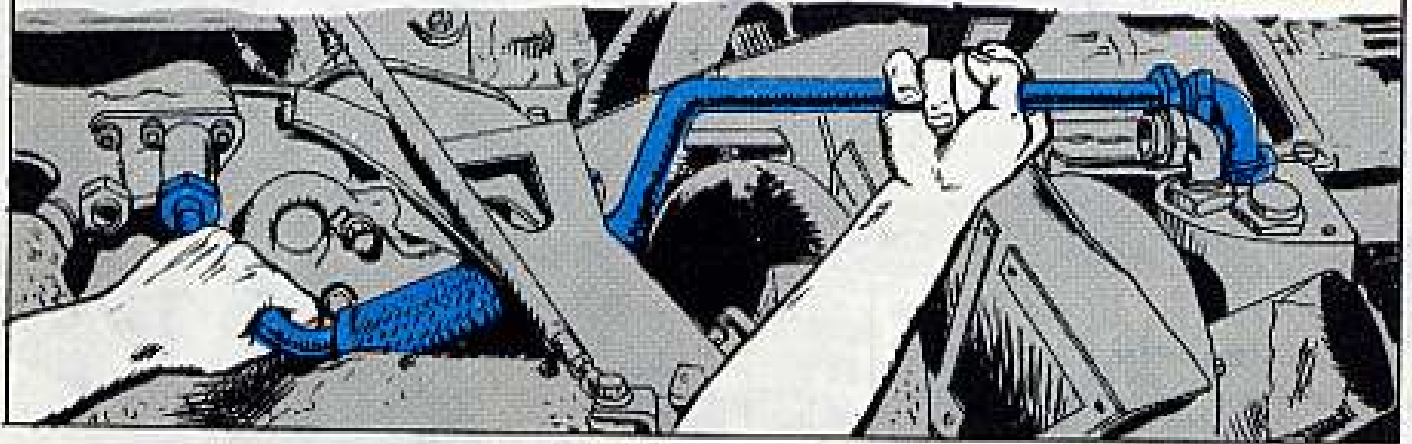


## OIL COOLER LINE DOPE

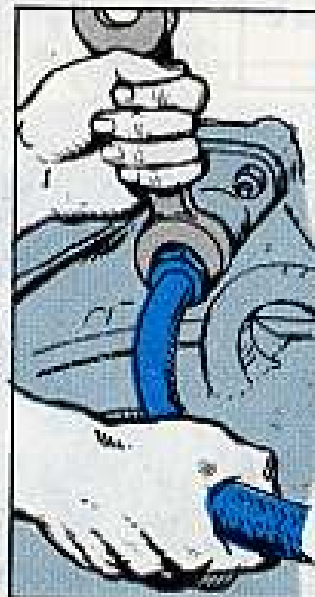
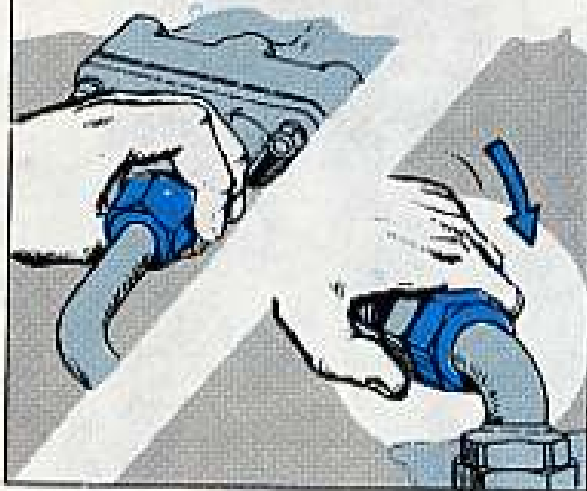
Installing the oil cooler lines (the -20P calls 'em tubes) on your CD-850-6 or CD 850-6A transmission takes a little more "smart" than you would think from reading about it on page 2-239 of your -20 TM.

Here's the no-sweat way to install lines . . .

1. With the coupling nuts hanging loose, fit in a tube so it won't rub against anything and the tube ends are squarely facing the transmission adapter at one end and the elbow at the other.



2. Finger-tighten both coupling nuts.



3. Now wrench-tighten both nuts, each in turn, a little at a time. To make sure the tube does not twist, hold it by hand or with vise grips or pliers. (If either end of the tube is twisted during installation, the bellows section is strained and the life of the entire tube is shortened.)

4. Now install the other tube on the same side in the same way, making sure that it will not rub against the first tube and that neither tube rubs against anything else, particularly in the bellows area.



NOW... DO THE  
TWO TUBES ON  
THE **OTHER** SIDE  
THE SAME WAY!



# TANK STARTER INSURANCE

If you have an M60, M60A1 or M48A3 tank, a CEV M728 or an AVBL launcher, your starter is a rugged piece of equipment, but it needs your help.

*Push My  
Button Right..*

*OR  
GOOD  
NIGHT*



Tap the starter button too gently like you were trying to send a message on a telegraph and your starter relay chatters and gives off sparks that can weld the relay to the contacts. When this happens you have a closed circuit that you can't open and the starter motor overheats and spins itself to death.

On 'tuther hand, you can get the same result by being too rough. Holding down on the starter for over 15 seconds at a time will overheat the starter. So, if your engine hasn't kicked in by 15 seconds, let your starter cool down for 3 minutes before you try again.

## HERE'S THE RIGHT WAY

The right way to use the starter is with a firm, steady pressure like you were ringing a door bell for not over 15 seconds.

Another thing you can do to insure your starter is keep your batteries up to full charge. Well-charged batteries help prevent relay chatter.

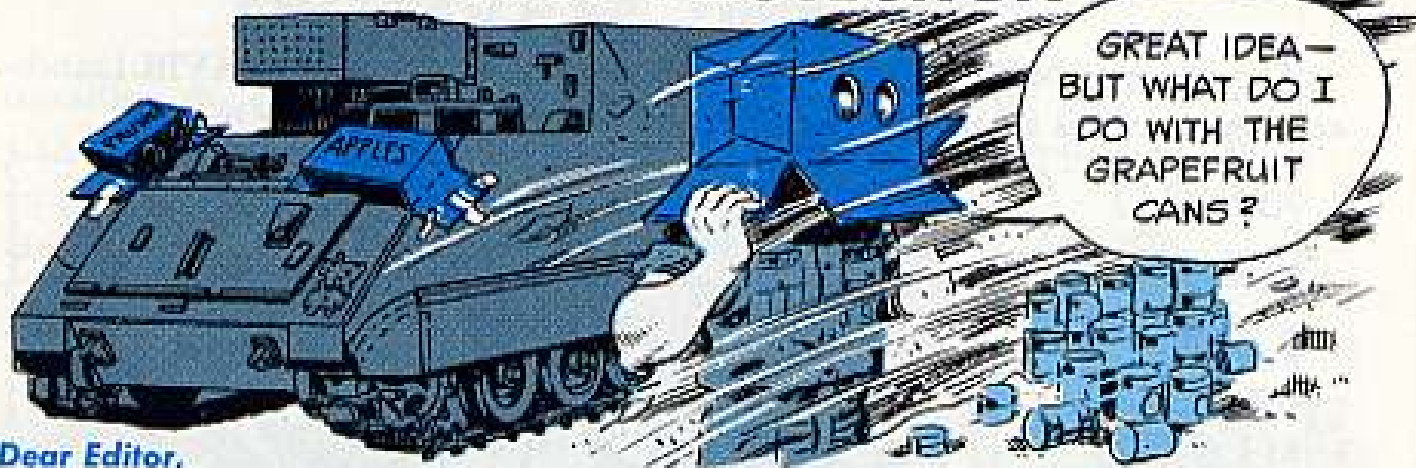
A new, positive, ON-OFF contact starter switch, FSN 2920-930-6203, (P/N 11599638) coming into the system by MWO action should give you more starter insurance.

The MWO will cover the M60, M60A1 and M48A3 tanks, CEV M728 and the AVBL launcher.

Until you have the new switch installed in your vehicle, you'll need a firm, steady thumb and fully-charged batteries.



# LOW-COST PROTECTION



Dear Editor,

*They'll never help the vehicles win a beauty prize, but that's not the idea of the strips of masking tape and pieces of corrugated carton.*

*We use the pieces of carton to cover things like headlights and vision blocks on our M577 command post carriers during sandstorms. The tape holds the things fast . . . and the whole works means no pitted or busted glass.*

**CWO Dwight Beck**  
Fort Carson, Colo.

*(Ed Note — Cheap insurance that can be used on other vehicles.)*



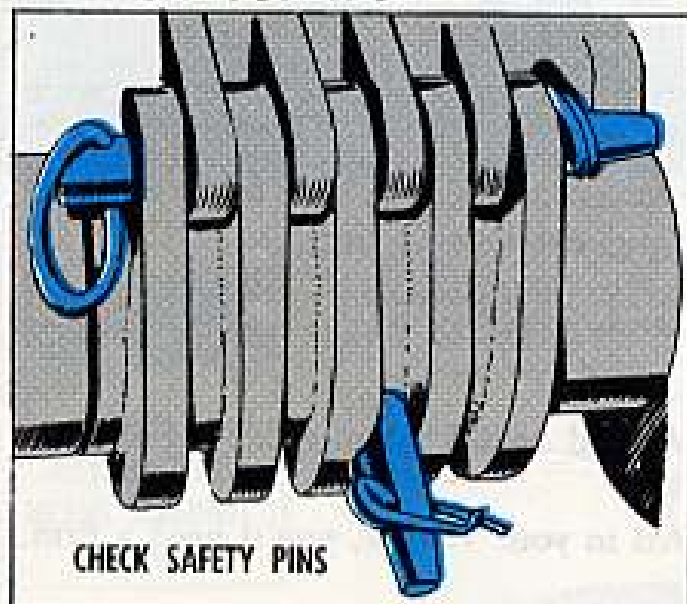
## OUT TO LAUNCH

If it hasn't happened to your armored vehicle launched bridge . . . read on so you'll know what to do so it won't happen.

Seems that the safety pins that go through the quadrant lock pin can unfasten — like when the extended bridge is dragged along the ground. The safety pins drop out of the lock pin. And the lock pin works its way out of the quadrant after the bridge has been folded.

Then comes the day that you go to unfold the bridge again. With the lock pin missing, the bridge collapses — leaving you with a pile of busted and mangled aluminum.

Sure pays to make a habit of checking the safety pins before you fold the bridge . . . and put 'em out of sight.



# A FLOAT PAD IS A BOARD



Dear Half-Mast,

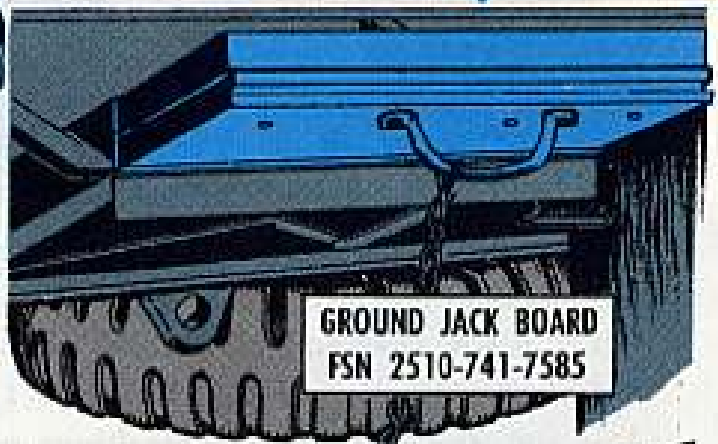
We've looked high and low for an FSN or part number for the float pad on an M127A1 12-ton stake semitrailer.

SSG G. H. R.

Dear Sergeant G. H. R.,

It may be a float pad without a number in TM 9-2330-207-14 (Jun 61) . . . but it's a Board, Ground Jack, FSN 2510-741-7585 in FSC C2510-IL-A (Oct 66).

*Half-Mast*



IF IT'S TOWED...

## NUMBER IT NEXT



The days of guesswork on numbering towed vehicles came to an end with the printing of Change 2 (Jul 66) to TB 746-93-1. Every towed vehicle must now take the number immediately following the number assigned to its prime mover. Para 9j (1) of the change puts it in black and white. No doubt about it.



## TRAILER MARKING SWITCH

Dear Half-Mast,

We just got some M107A1 1 1/2-ton water tank trailers with their "US Army" and National symbol side markings located just the opposite of our older trailers.

Which locations are right? If the new ones are, do we change the old ones to agree?

MSG M. D. L.



Dear Sergeant M. D. L.,

Both setups are OK. Ch 2 (Jul 66) to TB 746-93-1 shows the new locations — star on side-rear and US ARMY identification and registration number on side-front — for all trailer 1/4-ton thru 1 1/2-ton.

But you don't change the markings on your older trailers except as spelled out in para 4a in TB 746-93-1, that is, when the trailer needs repainting or the old markings are in such bad shape they need replacing.

*Half-Mast*

### WIRE ROPE LUBE ...

## GET FRESH

Use only new engine oil to clean and lube winch and crane cables.

Some tactical vehicle LO's still say to use old crankcase oil. Those LO's are being changed because used engine oil is contaminated with stuff like acids or alkalis. This is bad for wire rope — ruins the core and weakens the steel.

Trying to get double use out of oil can cut your cable's life in half.



BATTERY BOX DRAIN TUBE...

# PIQUED FOR A PIPE?

**3/4  
TON**

G741



**2 1/2  
TON**

G749



**2 1/2  
TON**

G742



I.D. 3/8"



FSN 4720-235-1776

I.D. 5/8"



FSN 4720-958-0339

**USE ROUTING IDENTIFIER CODE S9C**

NEED FLEXIBLE DRAIN HOSE FOR YOUR TACTICAL BATTERY BOX? NO SWEAT, JOE, TAKE YOUR PICK!



DON'T STENCIL COMMERCIAL VEHICLES...

# POST THOSE TIRE PRESSURES

Dear Half-Mast,

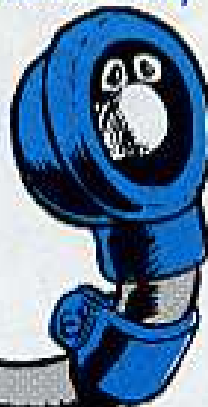
Is there a definite location for stenciling tire pressures on commercial design vehicles?

AR 58-1 says nothing and TB 746-93-1 only covers military design vehicles.

CW2 F. A. I.

CHEVY '67 32 LBS  
BICYCLE — 50 LBS  
FOOTBALL — 13 LBS

HOW'S THIS FOR HANDY?



Dear CW2 F. A. I.,

It's no longer a requirement to post tire pressures on commercial design vehicles.

Just post all the necessary tire pressures for your fleet on or near your motor pool's air outlet—you don't have to mess with vehicle stenciling, Sir. I think you'll like it better, too.

*Half-Mast*



## FIX FOR SCOUT

Save both time and money when your IHC Scout ¼-ton truck's sufferin' from a broken door window frame. A simple fix makes it good as new.

GET A 9" LENGTH OF 1" X 1/8" STRAP IRON AND TWO (NO. 8) 1" MACHINE SCREWS.



EIR DIGESTS ...

### "MODIFICATIONS" OR "IMPROVEMENTS"?



Dear Half-Mast,

What about those TB fixes, the ones in the Equipment Improvement Reports and Maintenance Digests?

Some of them involve drilling, cutting and welding. Doesn't this amount to work that usually requires a modification work order?

MSG L. D. G.

Dear Sergeant L. D. G.,

Those fixes in the EIR Digests are just recommendations.

They're considered simple improvements and changes which don't require an MWO. They're not controlled and not reported as MWO's are, and are considered normal maintenance actions.

Whether these simple improvements are applied to your equipment is up to your CO. The TB is his authority.

## A PLUG FOR TIGHT NUT



When you're replacing light switch, FSN 5930-307-8856, on tactical and combat vehicles, be sure to tighten the cable plug nut.

A final, good twist by hand ought to be enough to keep it from vibrating loose and causing arcing between the plug and switch contacts.

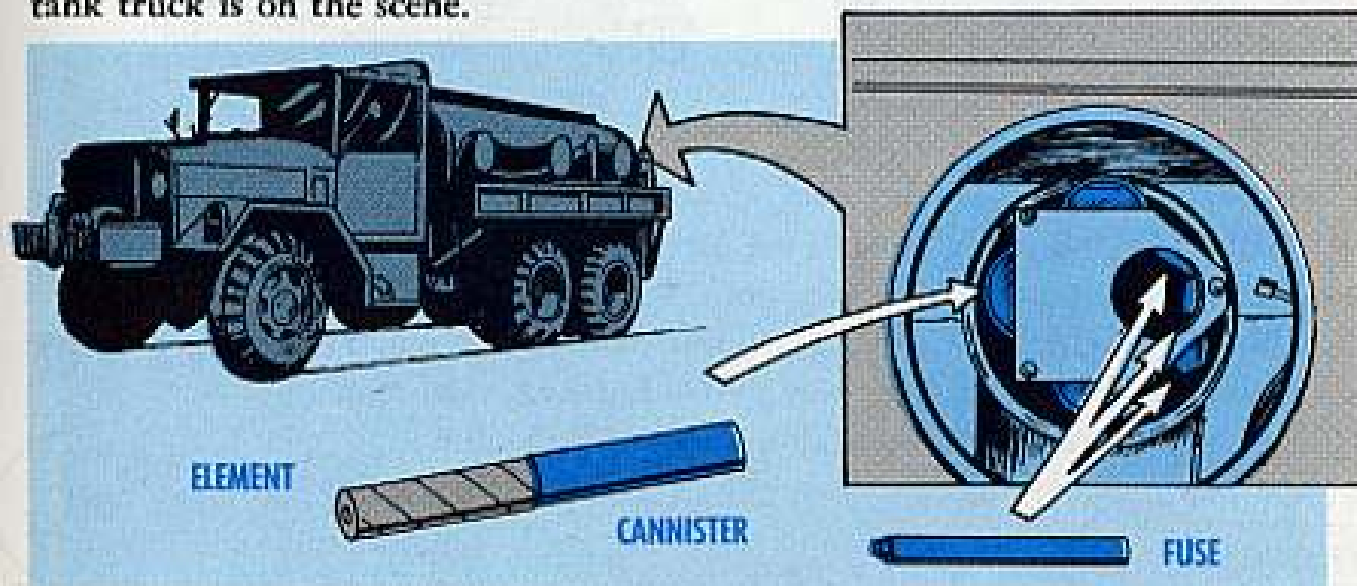
The spanner wrench in the Automotive Mechanic's Tool Kit also works on the plug, but you have to be careful behind the dash with it, what with all the wiring for the different switches.

It also pays to remove the battery ground cable.

**YOUR M49A2C  
TANK TRUCK ...**

## **FILTER BY THE NUMBERS**

Refueling of aircraft is gettin' better 'n better — less chance of water or other foreign stuff foul'n up the bird's works — now that the M49A2C 2½-ton tank truck is on the scene.



A new water separator-filter system, with go-no-go fuses, is among features of the M49A2C. You get all the dope in Ch 1 (May 65) to TM 9-2320-209-10 and Ch 1 (Jun 65) and Ch 2 (Dec 65) to TM 9-2320-209-20.

FSN's for the filter elements and go-no-go fuses will be in the newest TM 9-2320-209-20P.

They're already in Ch 2 (May 66) to TM 9-2300-223-20P as Element fuel filter, FSN 4330-983-0998, and Fuse Assembly, fuel filter, FSN 5920-903-0527.





HUEY (UH-1) HARNESS WON'T LOCK?

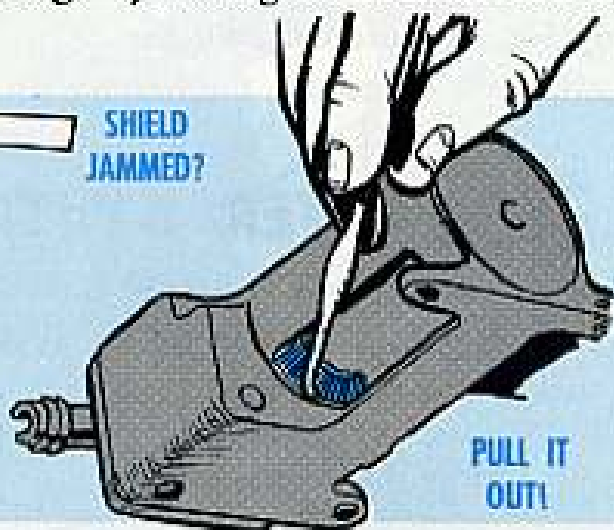
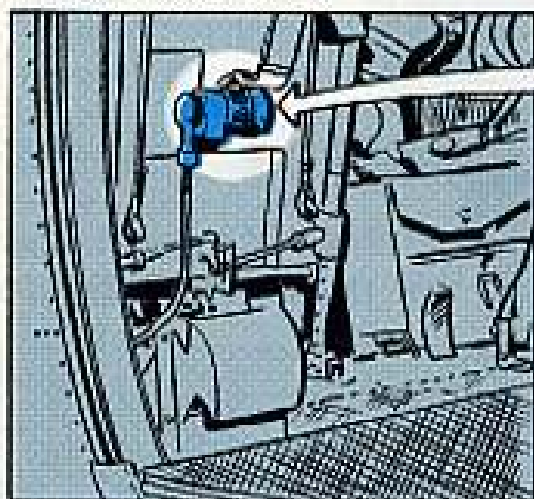
**TRY THIS FOR SIZE!**

A jammed inertia reel can ruin your whole day — and give pilots a real headache to boot!!

So, if your favorite throttle jockey says the reel won't lock the shoulder harness in either the manual or auto position, don't throw the whole kit-and-kabosh away! Could be that a simple operation will put it back in condition.

Inside the inertia reel housing is a roller drum that the webbing coils around. A webbing shield — either plastic or aluminum — keeps the webbing on the drum and out of the locking mechanism.

Reels, P/N 0106176-0, with serial numbers between 32,000 and 45,000, have a plastic webbing shield. This shield sometimes gets a wee bit out of shape. It can slide off the drum into the locking dog — jamming the reel for real so the harness won't lock.



When this happens, use a gizmo, gadget, or whatchamacallit to reach behind the shield and pull it back out of the locking dog area. If the shield comes loose don't fret — just push it back into position.

A No. 11 crochet hook makes an ideal tool for this job. You might even try a knitting needle — knit one, purl two — knit one, purl two. . . .

Reels with aluminum shields don't have this trouble.



# HUEY WHEEL LEAK-STOPPER



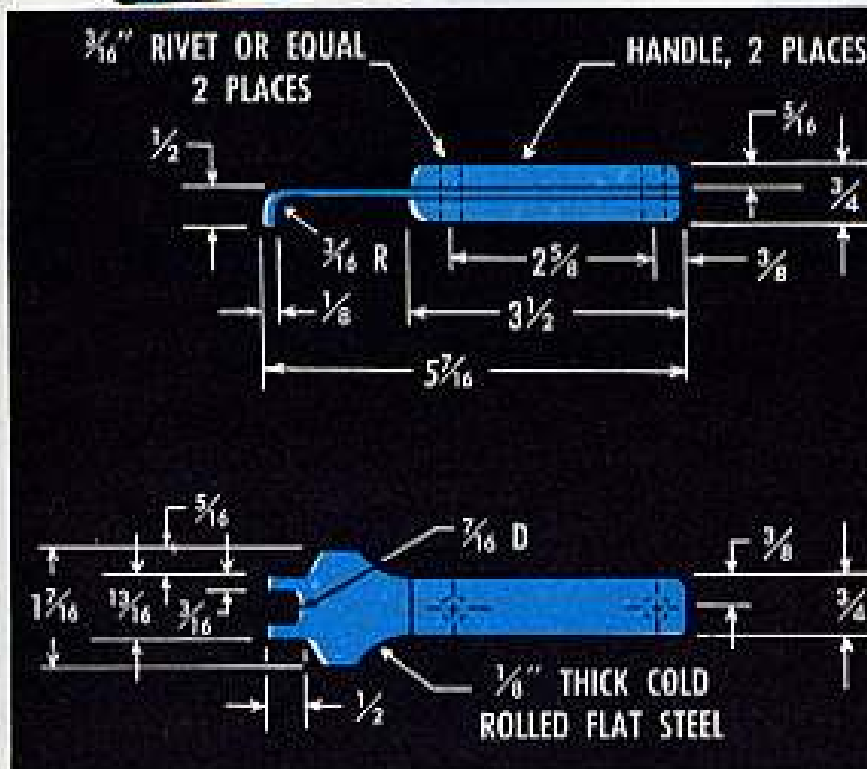
Dear Editor,

Comes the time when the Huey (UH-1) ground-handling wheels leak hydraulic fluid and you can't get pressure up, here's a nifty little tool to have on hand.

We found that the leak was caused by a loose gland nut so we made up this tool to solve the problem.

To use the tool you just insert the two prongs into the nut and make with the muscle. The packings then become compressed to form a tight seal against the pumphandle shaft, stopping the leak . . . works like a charm.

Robert Deleon  
Sharpe Army Depot



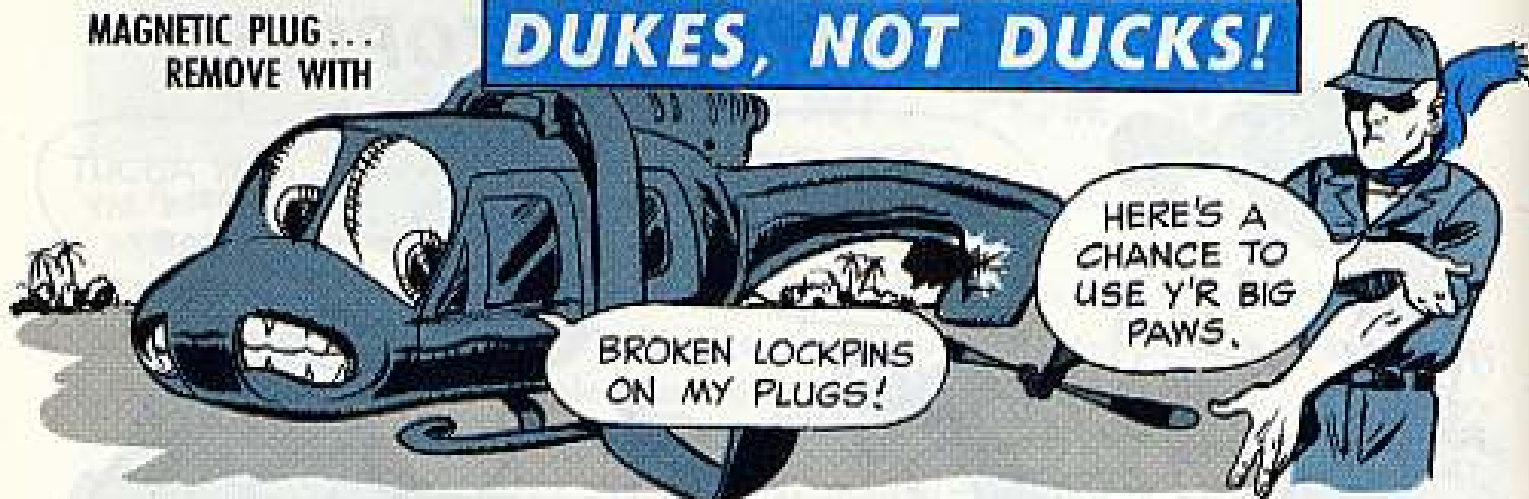
NOTES: 1. HANDLE CAN BE MADE OF PHENOLIC PLASTIC, HARD RUBBER, WOOD OR EQUAL.  
2. RIVET OR BOLT HANDLE TO SUIT.

(Ed Note—Good show! Sure beats using a hammer and chisel to tighten the nuts . . . ruins 'em every time.)



MAGNETIC PLUG ...  
REMOVE WITH

## DUKES, NOT DUCKS!



Removing the magnetic chip detector insert plug at the Huey (UH-1) 42° gear box is a hands-only job—not one for pliers!

Sure, it's a little hard to do—it was designed that way. But when you're pulling an Intermediate inspection on the plug you don't want to ground the bird because of broken lock pins on the plug.

So, when you lift the rubber cover to the plug, unhook the electrical wiring. With your fingers, try to push in the plug as far as it'll go.

Next, turn it counter-clockwise slowly to release the pins from the plug holder. If you push harder it's no-go.

PUSH IT IN ...  
E-A-S-Y!

OK ... NOW, TURN —  
S-L-O-W



Hold it! Don't grab a pair of duckbill pliers—or any kind for that matter—to turn the plug. You'll break the pins for sure and have some explaining to do.

If you're the butterfinger type, call your friend Grunt the Gripper to remove the plug by hand. Just don't use the pliers, p-u-l-c-z-e!

## PUB SNUB ... OR FLUB?

T-55 engine fuel control regulators have been left off some engines arriving at depot for overhaul, creating a shortage that holds up the works.

Change 1 (1 May 64) to TB AVN 24-16 added the regulator to the list of accessories to be shipped with gas turbine engines.

# REPLACEMENT FOR CRACKED HEADS



Dear Windy,

We do quite a bit of repairing with Riveter, blind hand, FSN 5120-357-6065, which is in our Aircraft Organizational Maintenance Tool Kit B.

Fact is, we have a few broken pulling heads we'd like to replace without requisitioning a new riveter. Where can I find the individual heads listed?

SSG K. A. B.

Dear Sergeant K. A. B.,

You'll find the stock numbers for these heads listed in Fed Cat C5120-IL-A (1 Jan 66) Vol 2, page 4.88.



| FSN           | NOMENCLATURE                           | P/N     |
|---------------|--|---------|
| 5120-620-3016 | $\frac{3}{8}$ Right Angle Pulling Head | RV380-6 |
| 5120-620-3017 | $\frac{3}{2}$ Right Angle Pulling Head | RV380-5 |
| 5120-620-3018 | $\frac{1}{8}$ Right Angle Pulling Head | RV380-4 |
| 5120-620-3024 | $\frac{1}{8}$ Standard Pulling Head    | RV355-4 |
| 5120-620-3023 | $\frac{3}{2}$ Standard Pulling Head    | RV355-5 |
| 5120-620-3022 | $\frac{3}{8}$ Standard Pulling Head    | RV355-6 |

Windy



## LESS MUSCLE, PLEASE!

Too much of a good thing is as bad, maybe worse, than not enough.

Talkin' about torque.

A Chinook (CH-47) went down in hostile territory recently and had to be retrieved because the forward transmission oil filter let go.

It seems somebody put so much muscle on the filter retaining nuts that the mounting studs actually pulled out of the transmission housing.

'Course the only way to tighten those nuts is with a torque wrench. Without one you never know how much muscle you're using.

The next time you take the filter out for inspection and cleaning, remember—those studs get lubricated with MIL-L-7808 and the nuts torqued to 35-50 inch-pounds . . . no more, no less.

## SURVIVAL

About those survival kits in your outfit . . . you won't find maintenance and inspecting info packed with them. TM 55-405-1 (21 Jul 66) on general aircraft practices should fill the bill, tho.

Chapter 6 has such poop as inspecting the AN/URC-4 radio, the cable assembly, and the BA/1264-U battery in the life rafts . . . eye it!

THESE SURVIVAL RATINGS ARE DELICIOUS! HOPE THEY KEEP ON FORGETTING REGULAR INSPECTIONS.



## ALAS—MAKE WITH THE GLASS!

When you pull your PM daily on the Chinook (CH-47), you hit all the areas called out in the checklists, that's for sure.

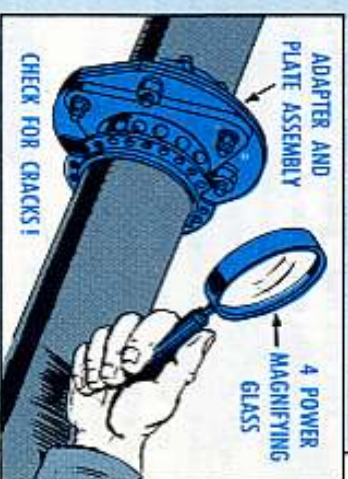
But there's one area (sequence 6.4) that needs more than a little looking into. Seems that the forward synchronizing shaft adapter and plate assemblies may develop cracks.

New assemblies are being beefed up and shot-peened for added strength. Until they get into the supply system, tho, be sure you use a 4-power magnifying glass.

When you eye the assemblies, P/N 114D3067-2, focus on the lug areas around the coupling attachment bolts, the key slot area and the coupling plates next to the adapter lugs. No cracks are allowed, natch.



HIT ALL AREAS ON CHECKLIST—  
ESPECIALLY . . .



## KIT POOP

"... AND HERE I AM WITHOUT A PADDLE!"



If you're the air-type in charge of the paracraft kit, leg holster kit or vest kit, better run thru a copy of the brand-spanking-new TM 55-8465-206-13 (Dec 66) on survival kits. Chapter 3 lists the PM inspection times and those items to be checked by the flight surgeon and avionics repairman.



OTTER THINGS...

# MAKE THE BOUNCE TEST



Dear Windy,

Is there another way to check for low pressure in our Otter (U-1A) tail wheel shock strut without jacking up the whole shebang and shooting in some air?

SP5 W. P. W.

Dear Specialist W. P. W.,

You can make a visual check without servicing the strut as called for in para 1-93 of TM 55-1510-205-20 (7 Jul 65).

Put a lifting bar thru the lifting tube in the rear fuselage. With a man on each end of the bar, bounce the wheel vigorously. If the strut doesn't bottom, it's OK.



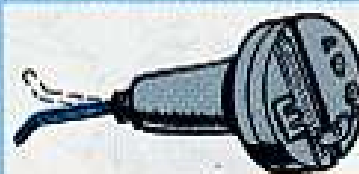
*Windy*

**IT'S DOWN WITH THE HOOK!**

Have you been tuning your Otter's (U-1A) R-1340 engine by the book, TM 55-1510-205-20 (Jul 65), but can't quite make it purr like a kitten?

Don't sweat it.

When you put the Time-Rite indicator in the spark-plug hole for an internal timing check, para 5-250f says that the hook end of the indicator's pivot arm must be UP.



**HOOK  
END  
DOWN**

Not so, wrench pullers. In order for the pivot arm to move the slide pointer to the exact timing position of 25° before top dead center, the hook end has to be DOWN.

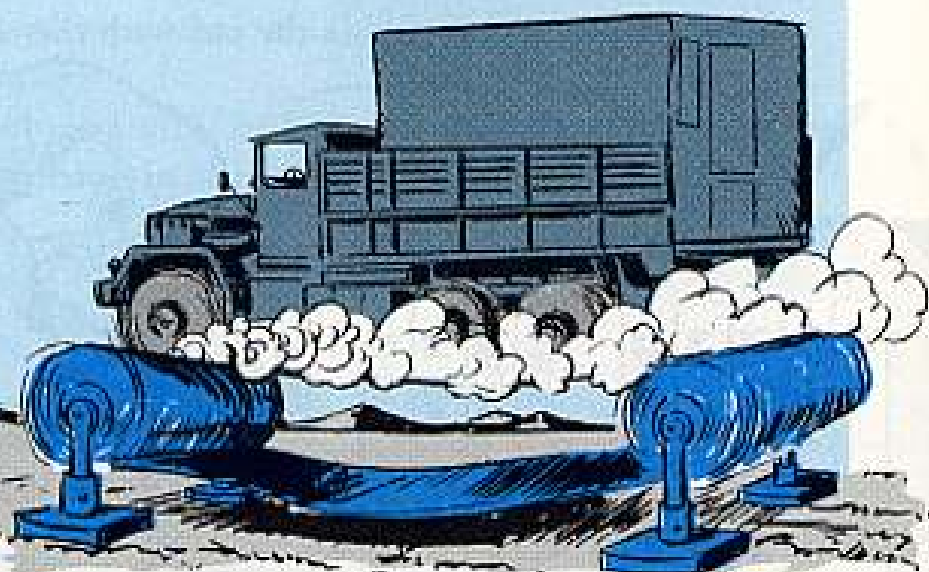
When the pub is revised this poop—and updated figs 5-42 and 5-43 showing the hook down—will be included.

Meanwhile, have another go at timing your Otterbird.



COMMO TRUCK...

## KEEP 'ER IN SHAPE



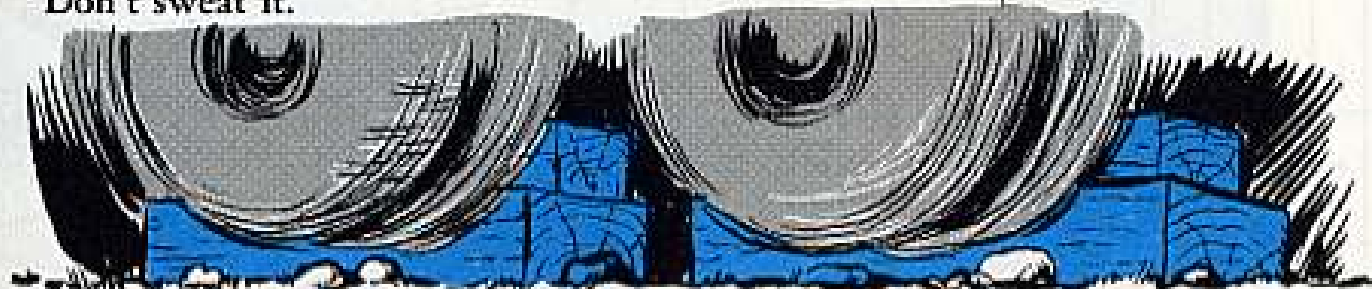
Hey, commo buddy-type!

While you're living that sheltered life atop the bed of a vehicle that's parked for a time to serve as a communications castle, remember the truck can get joint abuse from lack of use.

Take, f'rinstance, the AN/MRC-54(V) radio repeater set, AN/MRC-69(V) radio terminal set or AN/GRC-26() radio set on the bed of a 2½-ton truck or the AN/GRC-46() radio teletypewriter set nestled in back of a ¾-ton.

The truck needs preventive maintenance, too. You say you know it, but you can't move the truck because of the antenna cables, wires grounding rod fixes and need for continued equipment operation.

Don't sweat it.



Jack up the truck, put blocks under the axles to allow free turning of the wheels, start it up and get the drive train moving.

You can exercise your vehicle during the weekly PM period on the electronics equipment.

'Cause parking in one place a long time will allow rust and corrosion to creep in as well as stiffening of the joints and bearings. The brakes will rust and freeze.

And remember, when you're blocking up the vehicle make sure that it's stable and as level as possible.

TB ORD 1045 (Sep 62), Administrative Storage of Army Vehicles, fills you in with good stuff for a vehicle that stays put for a period of time.

# FOR COMPATIBLE FM SQUELCH...

Is squelch compatibility with the new FM family radio sets squeezing you for want of a handy reference telling you what goes with what?

Like are you trying to mix the old with the new and coming out blue?

CUT THIS OUT!

... AND PIN IT WHERE YOU CAN GLANCE AT IT WHEN YOU NEED QUICK SQUELCH DOPE!

HOW'S THIS, CONNIE?

FM SQUELCH CHART

| Radio  | Squelch | RT-246, RT-524 | PRC-25 | ARC-54 | ARC-44 | PRC-6 | PRC-9 | PRC-10 | RT-70 | R-442 |     |
|--------|---------|----------------|--------|--------|--------|-------|-------|--------|-------|-------|-----|
|        |         | Old            | New    | Old    | New    | Old   | None  | Old    | Old   | Old   | New |
| RT-246 | Old     | Yes            | No     | No     | Yes    | Yes   | No    | Yes    | Yes   | Yes   | No  |
| RT-524 | New     | —              | Yes    | Yes    | Yes    | No    | No    | No     | No    | No    | Yes |
| PRC-25 | New     | —              | —      | Yes    | Yes    | No    | No    | No     | No    | Yes   | Yes |
| ARC-54 | Old     | —              | —      | Yes    | Yes    | Yes   | Yes   | Yes    | Yes   | Yes   | Yes |
| ARC-44 | Old     | —              | —      | —      | —      | Yes   | No    | No     | No    | Yes   | Yes |
| PRC-6  | None    | —              | —      | —      | —      | Yes   | Yes   | Yes    | Yes   | Yes   | No  |
| PRC-9  | Old     | —              | —      | —      | —      | —     | Yes   | Yes    | Yes   | Yes   | No  |
| PRC-10 | Old     | —              | —      | —      | —      | —     | —     | Yes    | Yes   | Yes   | No  |
| RT-70  | Old     | —              | —      | —      | —      | —     | —     | —      | Yes   | Yes   | No  |

A few reminders:

The frequency range of the AN/PRC-8 doesn't match the new sets, so you can't communicate with it.

However, you can go with the AN/PRC-9 and -10.



As for sets not on the chart, namely, the Standardized sets using the RT-67 and RT-68, you can use the PRC-9 data for the RT-67 and PRC-10 data for the RT-68.

Any of the radio sets in the chart, or those using the RT-67, -68, can communicate with each other with both squelches off . . . providing, naturally, that they have the same frequency range.

The new AN/PRR-9 receiver and AN/PRT-4 transmitter are compatible with the sets in the chart for anything in the 47 to 57 megahertz (megacycle) range.

In retransmission, you've got to consider squelch compatibility of each pair of radio sets in a radio link.

## SB LENS SWITCHIN' TABOO

LENSES ARE  
**NOT...**

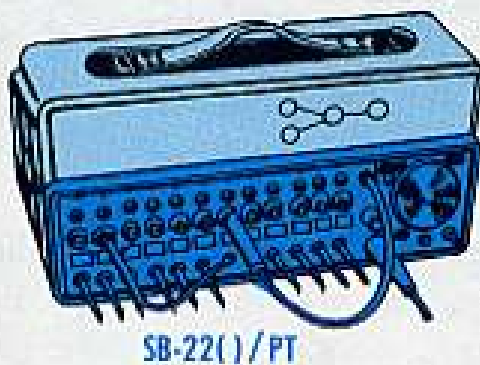


Never cross up  
a catseye cover on  
the SB-86/P  
switchboard's line  
signal with one from  
a SB-22()/PT  
switchboard.

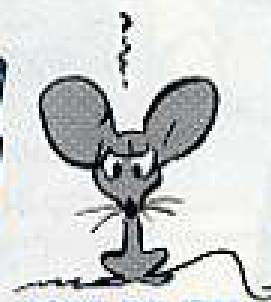


I REPEAT...  
**NOT**  
INTER-  
CHANGEABLE.

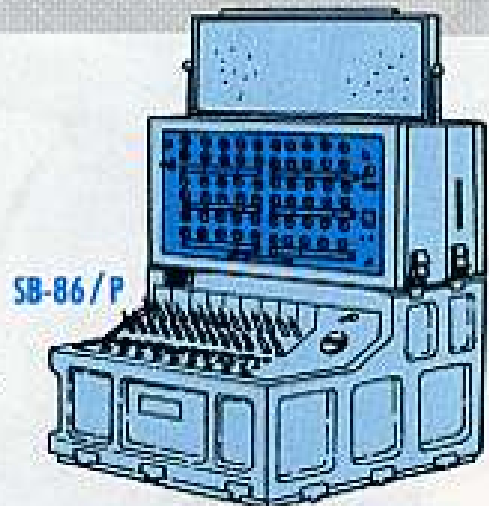
Sure, the SB-22 indicator light lens (FSN 6210-284-0389) mates with the SB-86 line signal lens (FSN 6210-500-2299), but they're as compatible as a cat . . . and a rat.



SB-22()/PT



DON'T MIX 'EM!



SB-86/P

The extra thickness or metal band around the SB-22 lens puts a strain on the magnetic attraction of the SB-86 catseye or line signal. It'll goof up the catseye so it won't roll around right or won't roll at all.

Besides the stock number, a couple of ways to tell which lens is which is that the SB-22 lens holder has a dull nickel finish and is thicker than the SB-86, one which has a paint finish.



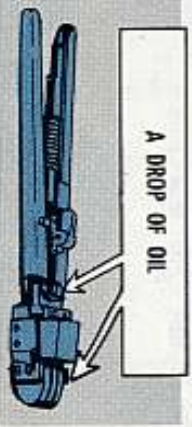
# CRIMPING TOOL NEEDS CARE, TOO



Are you fussin' when it comes to caring for your MK-356() /G wire splicing kit 'cause it doesn't hold a good splice?

Don't sweat it. Pull yourself together and beam your eyes on some simple service on the kit's WD-1/TT field wire TL-582()/U crimping tool that'll help give you the splice of your life.

Right off, you have to put a drop of oil in the head assembly's crimping



chamber and at the handle joints to keep rust and corrosion out.

Same's true for the rest of the splicer and magazine assembly. Using a lint-free cloth, a light overall lube job's needed, especially if you're going to put the kit aside or store it. O'course,



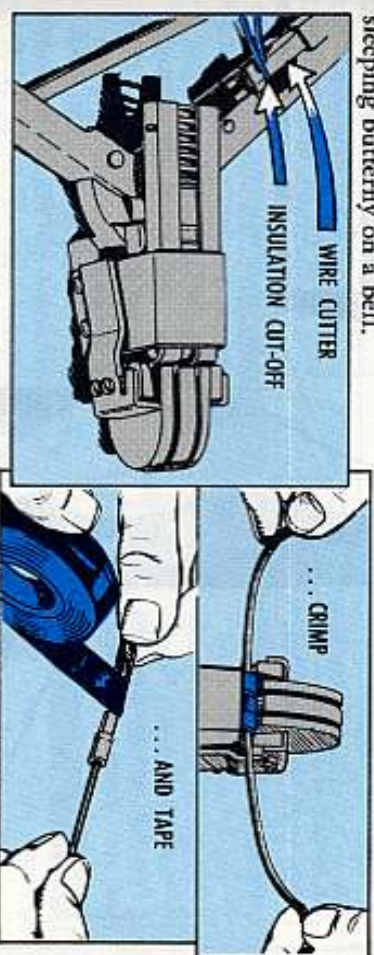
avoid the cake icing treatment with the oil or it'll goop up the tool and make for a real dirt catcher.

One other tip. Make sure the screws are tight . . . and present.

After cutting off the 3/8-in insulation and releasing the retaining slide on the magazine, see that the splicing sleeve (FSN 5940-818-1774) has dropped into the crimping chamber. You might have to jiggle the magazine in or out of the housing a wee bit but don't heavy hand it or you'll damage the magazine.

And, unless you have an extra hand your best bet's to let a wire team buddy-type hold the two ends of the wire together while you put the pressure on the handles.

Oh yes! Watch your fingers 'cause the alligator-like bite of those handles could make you give a yell that would shame a coyote howl to the likes of a sleeping butterfly on a bell.



Incidentally, the crimped sleeve splice is self-weatherproofing, but to play it doubly safe put a couple or three wraps of electrical insulation tape around the splice if you're in a humid region where the wire will wind up on the damp ground most of the time.

The kit, including sleeves, is in SC 5975-91-CL-DO1 (June 65).



**KNOW YOUR DA FORM 17**

You've got your Pinpoint Account Number so you think your publication troubles are over. Well, hold on! There's more you've got to know about getting pubs.

You'll want to know about DA Form 17, Requisition for Publications and Blank Forms, and DA Form 17-1, which is a continuation sheet for the 17. That's the form you use to ask for:

- A resupply of pubs.
- Pubs which you should have gotten on formula distribution but didn't.
- Pubs you got on pinpoint but didn't get enough copies of.
- Pubs that were published before your pinpoint distribution started working.



Never "cry wolf" and mark all your orders "Special"—only those you need in a hurry. When you need to replace a pub that has become greasy or torn, let that 17 take the "Regular" route.

When you didn't get enough pubs to make the distribution required by your CO, then order the needed copies on this form and check the SPECIAL block.

Leave this blank. If any of these apply, then put an X in the appropriate block.

This is where you send your order. When you order pubs listed in DA Pamphlet 310-4 (TM's, MW0's, 10's, etc.), and DA Pam 310-6 (Supply Catalogs and Supply Manuals) you send your order to the St. Louis Publications Center.

Your request for pubs listed in DA Pam 310-1 (AR's, DA Pans, DA Circulars, etc.), DA Pam 310-3 (FM's, TOE's, TA's, 10's, etc.) and DA Pam 310-5 (Index of Graphic Training Aids and Devices) and DA Pam 310-2 (Index of Blank Forms) go to the Commanding Officer, US Army AG Publications Center, 2800 Eastern Boulevard, Baltimore, Maryland 21220.

Total Number of Pages: If you have more than 1 page use DA Form 17-1 for additional sheets.

Be sure to give the reason for a special requisition. If it's needed to complete the initial distribution, then say so here.

If your outfit has its own Account Number(s), include it here.

If you need the pubs by a certain date, then put the date here — give AG enough time.

Current Date.

REQUISITION FOR PUBLICATIONS AND BLANK FORMS (AR 200-1)

REASON FOR SPECIAL REQUISITION: **ADDITIONAL COPIES ARE NEEDED TO COMPLETE THE REQUIRED INITIAL DISTRIBUTION.**

TO: **COMMANDING OFFICER  
US ARMY AG PUBLICATION CENTER  
1655 WOODSON ROAD  
ST LOUIS, MISSOURI, 63114**

| LINE NO. | NUMERICAL DESIGNATION OF REQUISITIONED ITEM (For Blank Items, include unit or issue) | QUANTITY REQUESTED | LINE NO. | NUMERICAL DESIGNATION OF REQUISITIONED ITEM (For Blank Items, include unit or issue) | QUANTITY REQUESTED |
|----------|--|--------------------|----------|--|--------------------|
| 1        | TM 5-6115-242-20P  | 25                 | 20       | NW0 9-1440-500-20/27   | 4                  |
| 2        | CI, TM 5-6115-242-20P  | 5                  | 21       | SC 4910-95-CL-A56  | 3                  |

Now for your listing. Arrange line items in numerical sequence within each category. And you have to list each change on a separate line. You'll save time if you check your indexes to see which changes are still good. Sometimes Change 2 to a pub, for example, will include the info that was in Change 1 so you'd only order Change 2.

Here's where you tell how many you need. (If you're using the old forms just forget about filling in 6c (unit) and 6d (due in).)

Your complete address goes here. And don't forget your zip code.



|  |                    |  |                         |  |
|--|--------------------|--|-------------------------|--|
| 17   | C3, TM 10-1101     |  |                         |  |
| 18   | TM 11-1090-269-25P |  |                         |  |
| TYPED NAME, GRADE AND TITLE OF REQUISITIONER |                    |  | SIGNATURE               |  |
| ROGER W HERRMANN, MAJ, AGC, ADJ              |                    |  | <i>Roger W Herrmann</i> |  |

DA FORM 17 NOV 64  
PREVIOUS EDITIONS WILL BE USED.

It won't be accepted unless it's signed. So typed name and grade of approving officer goes here.

Signature goes here.

WOW! 39-24-35!

NEVER HEARD O' THAT PUB!



No need to repeat your DA Form 17 order for the same pub to the AG Publications Centers unless you get the word from them (on your Shipping Document, AGAZ Form 944) that they cannot identify (CI) the pub you want. They keep your order on file and will ship it to you when they get it. It's listed on your Shipping Document as DO for Due Out.

When you repeat your order for an item that was listed as CI, be sure to quote your source so that the Center can check it out. If you got it from the AG Bulletin, then add in parenthesis after your listing, the Bulletin Number and the date of it.

Be sure to keep a carbon copy of the DA Form 17 you sent to the Center, because they refer to the number on your requisition (6 a). For instance, you asked for TM 9-2330-234-24P (Item 32) and C5, TM 10-3930-201-10 (Item 55) and your Shipping Document was marked CI for those two items. When you re-order, list the TM 9-2330-234-24P and C5, TM 10-3930-201-10 in their regular order on the 17. But after the TM 9-2330-234-24P (C4, 310-4), and after C5, TM 10-3930-201-10 (Bul No. 1, 2 Jan 67). That info in parenthesis will help the AG people identify the pubs.

If you're overseas, send your request airmail.



# EIR & MD TB'S

You've seen those abbreviations many times so, you know they stand for Equipment Improvement Report and Maintenance Digest Technical Bulletins. But did you know those TB's are now good for 1 year from date of issue? That's not all—they have a new numbering system.



...AND  
THEY  
COME OUT  
ABOUT  
EVERY  
THREE  
MONTHS!

| NEW NUMBER                            | OLD NUMBER        |
|---------------------------------------|-------------------|
| TB 750-942-1 (USAMUCOM)               | TB 3-600          |
| TB 750-951-1 (USAWECOM)               | TB 9-1000-200-15  |
| TB 750-921-1 (USAMICOM-Nike-Hercules) | TB 9-1400-299-10  |
| TB 750-922-1 (USAMICOM-Sergeant)      | TB 9-1400-324-10  |
| TB 750-923-1 (USAMICOM-Pershing)      | TB 9-1400-399-10  |
| TB 750-924-1 (USAMICOM-Hawk)          | TB 9-1400-549-10  |
| TB 750-911-1 (USAECOM)                | TB 750-101 series |
| TB 750-971-1 (USAMEC)                 | TB 750-932-1      |
| TB 750-981-1 (USATAC)                 | TB 750-933-1      |
| TB 750-991-1 (USAAVCOM-Fixed Wing)    | TB 750-931-1/1    |
| TB 750-992-1 (USAAVCOM-Rotary Wing)   | TB 750-931-1/2    |
| TB 750-901-1 (USASTRATCOM)            | TB Sig 361        |

The new numbering system gives you a clue as to which command is responsible for the TB. The numbering goes like this:

**TB 750-991-1**



|   |   |
|---|---|
| 90 — U.S. Army Strategic Communications Command | 95 — U.S. Army Weapons Command            |
| 91 — U.S. Army Electronics Command              | 97 — U.S. Army Mobility Equipment Command |
| 92 — U.S. Army Missile Command                  | 98 — U.S. Army Tank-Automotive Command    |
| 94 — U.S. Army Munitions Command                | 99 — U.S. Army Aviation Materiel Command  |

## SOMETHING NEW ADDED

You'll find that some of those TB's have new added features such as a listing of the current MWO's, as well as the forthcoming ones. There's also a new section called "Simple Changes to Equipment".

NO PUB'S THE RUB?

# WRITE TO THESE ADDRESSES

YOU CAN GET THE PUBLICATIONS YOU NEED ON ENGINEER OR QUARTERMASTER TYPE EQUIPMENT MOST OF THE TIME, EVEN IF THEY'RE NO ARMY TMs OR -P MANUALS PRINTED ON THE PARTICULAR ITEM YOU'VE GOT!

HOLD STILL WHILE I WRITE THE ADDRESS DOWN, CONNIE!

If you find no pubs listed in DA Pam 310-4, its changes, or the bulletins from the AG Publications Center in St. Louis, then you need to ask for a manufacturer's manual.

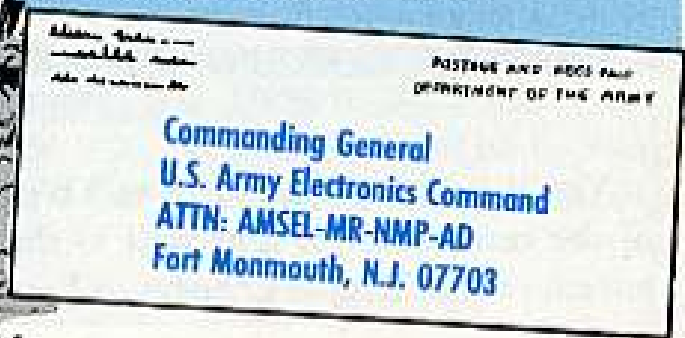
Order it just like you order a non-stocked repair part. Send the request to:



Give make, model, serial number, FSN, date of manufacture, and contract number of the item. Tell whether you need an operator's manual, parts list, repair and maintenance manuals, or all three.

### FOR COMMO-ELECTRONIC

For pubs on commercial-type electronic items used by the Army but without technical pubs, write to:





# Connie Rodd's BRIEFS

WE'VE GOT  
A MAINTENANCE  
PROBLEM!!



## *Pulled From Sets*

Hurry! Ask for DA Circular 725-11 (8 May 67) Removal of Components from Assemblages and Sets of Equipment. It replaces DA Circular 725-5 (30 Jun 64) as extended by TWX 11-409 AMSSM-ST-A (19 Nov 66). You'll need it for requesting, recording and reporting generators, compressors, pumps, chargers and other major components which will be known as "used with, but not part of" your sets.

## *Updated Records Rules*

Records up to date on all your equipment? Check it out in revised TM 38-750 (15 May 67)—effective 1 July 1967. It's a major re-write of rules on operational, maintenance and historical records—including those for ammo and for calibration actions. Two forms are combined, 4 are dropped, 1 (for aircraft) added, others are re-designed. Implementation instructions are in DA Cir 750-20 (5 Jun 67).

## *Getting Lit Up*

You say you've been looking for a teeny-weeny incandescent lamp (bulb) for that emergency marker light set, covered by SC 6230-93-CL-EO6 (Jun 66)? Sweat no more. FSN 6240-155-8681 will get a couple of 'em. You'll find the stock number in FED CAT C6200-IL-A, Vol 2 (Jan 66), on Page 4.326.

## *Not A Bum Steer*

Replacing the steering wheel of your tactical vehicle just because the jacket's cracked a little or the smooth shine is gone? World-wide TT-ATAC message 4-11839 (26 Apr 67) says such re-wheeling on all tactical vehicles up thru 10-ton is not necessary unless the wheel is bent so it's unsafe, or the inner steel core is cracked, broken, or corroded with rust.

## *M151 Moule*

For tips on safe handling of the M151-series ¼-ton trucks there's TF 55-3707. It's in color!

## *No More Shake, Rattle*

Your Beaver (U-6) develop a case of the shimmies because of the wrong size tail-wheel tire? Best eyeball TB 55-2620-200-15 (22 Mar 67) for the right one. Fact is, you'll find the proper tires and tubes listed for all birds.

## *Keep Appendix II*

Better make a notation on the front of your SB 700-20 (Jan 67), Army Adopted Items of Materiel, to keep Appendix II when this SB is superseded. That Appendix II is your Cross-Reference of your old LIN's to new LIN's and it's not going to be republished.

Would You Stake Your Life <sup>right now</sup> on  
the Condition of Your Equipment?

Whenever you're filling out a **DA Form 2407** (or writing to Half-Mast, for that matter,) give all the info including: **Nomenclature, FSN, Part No., Serial No., Manufacturer and TM Numbers.**

You can also help to get your pubs when your outfit changes its address (that includes a new APO number).

Let the **AG People** in **St. Louis** and **Baltimore** know about it. Be sure to include your **Account Numbers.**

YOU  
CAN  
HELP  
WHEN  
YOU  
ASK  
FOR

