

Issue 92

PS

1960 Series

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**



**SPECIAL ARTICLE
AIRCRAFT MECHANIC'S TOOL SET
SEE PAGE 52**

YOUR PREVENTIVE MAINTENANCE

Your Preventive Maintenance job is a big one. And it'll probably get bigger and more important as time goes by. If you're in an Infantry Division, here are a few of the items you and your buddies have to keep maintained and ready for the fight:

1455 RADIOS
2,260 TRUCKS
49 AIRCRAFT
2706 SETS
307 TRACKED VEHICLES
321 GENERATOR SETS
362 TENTS
1866 RIFLES
COUNTING (OR EQUIPMENTS)

And they're just samples of what ready to use, to shoot, to communicate or to roll.

That's why Preventive Maintenance has to be done every minute you're using your equipment... use it right, keep it clean as conditions will allow, lubricate as needed, and then, when a maintenance job comes up you can't do, you ask for help from your mechanics and armors.

Also, that's why you, your sergeant and your commanding officer have to keep right on-the-ball every day of the year to make sure the equipment is ever-

ready to use, to shoot, to communicate or to roll.

A tank deadlined and in your support unit's shop because somebody didn't keep it lubed right won't be able to fire one round when the times comes for a fight. A radio that's conked out because the battery was left in, swelled up and damaged the set won't get your message through for artillery support. And on and on. The story could be the same on just about any item your outfit's got.

You see, whether you've got nothing but a rifle to maintain or a gadget as

big and complicated as a tank, how well the maintenance job is done determines how well your unit can fight. Yours has got to be the best. Second-best just won't get it... not in modern warfare.

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PS wants your ideas and contributions, and is glad to answer your questions. Names and addresses are kept in confidence. Just write to:

*Sgt. Jacky Mast,
PS Magazine,
Raritan Arsenal,
Metuchen, New Jersey*

NO MORE CONFLICT OVER

468 v s 2028

There's no doubt now on when you use DA Form 468 (Unsatisfactory Equipment Report)—or DA Form 2028 (Recommended Changes to DA Technical Manual Parts List or Supply Manuals 7, 8 or 9).

The latest revision of AR 700-38 (4 Aug 59), which covers the UER, also gives you the scoop on the 2028 in paragraph (2). You haul out the 2028 whenever you feel an unsatisfactory pub of any type is to blame for improper operation, maintenance or handling of your equipment.

Naturally, the UER isn't built to cover all the different kinds of equipment failure reports needed by the Army. That's why specified electronic gear is also covered by AR 700-39 (23 Jan 59), which spells out the use of DD Form 787-1 (Electronic Failure Re-

port). TM 39-5-8 covers atomic weapons material and gives details on how to fill out the reports and when to send them. The 2028 is not used for reporting an unsatisfactory pub on atomic weapons material. The 468 is used in accordance with TM 39-5-8 for atomic weapons material.

When it comes to Ordnance guided missile equipment and material, AR 700-37 (27 Aug 59) says to use DA Form 9-110 (GM Component Evaluation Data Report) for adding info to what you've already got down on the UER.

Getting back to the original UER regulations, there're a few new reporting addresses and some changed ones in AR 700-38. Better play safe and check them out for yourself. If you're using any QM stuff, Change 2 (13 Jan 60) tells you where to report.



3



2



IN CASE YOU'RE WONDERING...

About those blocks of metal that may be fastened back near the rear of the launching beam on your M386 Honest John launcher. That's what your OVM list calls a rocket restraining assembly.

The only time you need it on the launcher is when you're using an XM50 rocket. Otherwise... it pays to store it—so's you'll have more time for maintaining the rest of the launcher.



ON THE LEVEL

It's a good idea, now and again, to check the two setscrews that hold the tube ball support in the stabilizing jacks on your M386 Honest John Launcher.



If the screws are loose enough to stick out beyond the surface of the jack tube, they'll gouge the tube housing. A loose screw could even keep the tube from moving up and down.

So make sure the screws are tight—and staked.

GET A NEW ONE

Don't fool around. With the socket wrench extension, (FSN 5120-385-8033), you use in tightening the fin bolts on your Honest John rocket, that is.

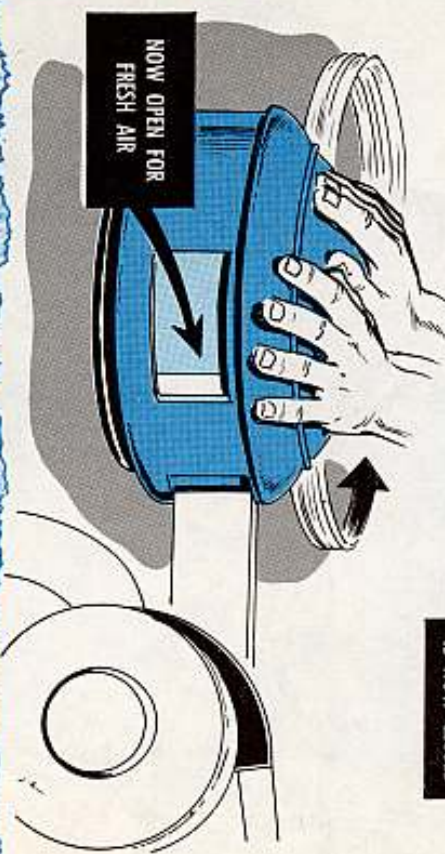
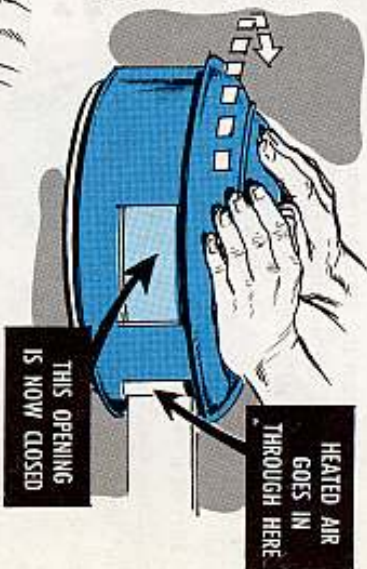


If the square drive part of the wrench is rounding at the edges, order a new one. They've been making the wrenches a lot harder lately... so you shouldn't have any trouble tightening the bolts once you get the new one.

COVER "AIR" RIGHT?

It's an easy thing for a man in an Honest John outfit to forget—but don't. On your M25 generator set... use heated air in your air cleaner when the temperature drops below 40° F, and unheated fresh air when it's above 40° F.

You turn the cover so's this opening in the cleaner is closed when you want to draw heated air from the duct in the muffler shield- ing. And you turn the cover counter-clockwise to get unheated fresh air through the opening.



PHONE TALK

BE YOUR OWN INSPECTOR
ON THE TA-1/PT FIELD TELEPHONE—

The kindly croak of your TA-1/PT field telephone when you're waiting for a message from headquarters is a mighty welcome sound. Same for the four white spots that show up when somebody wants to send the night word down the wire.

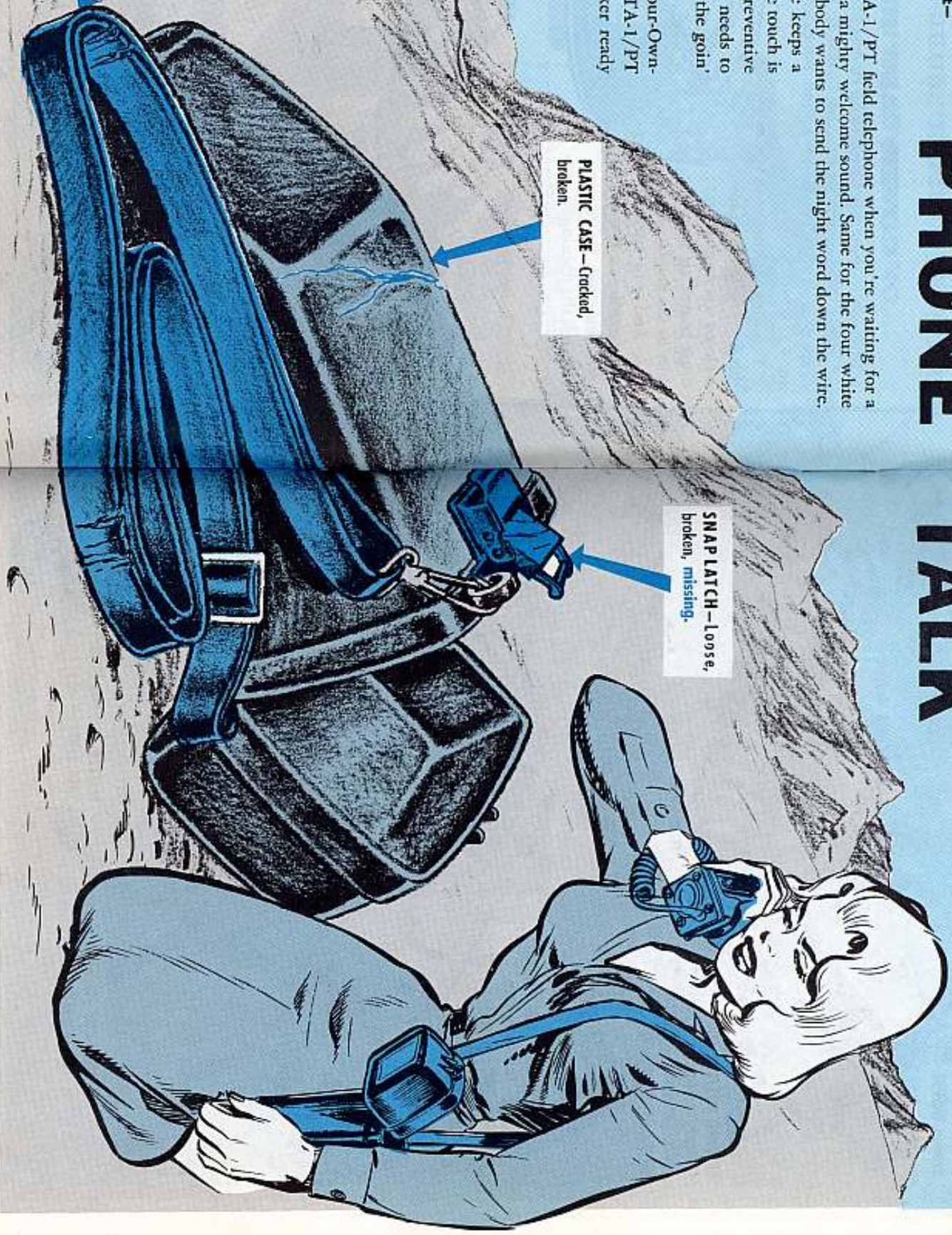
That sound-powered phone keeps a man in touch when the simple touch is all that's needed. So simple preventive maintenance is all the phone needs to keep the words flowin' when the goin' gets sticky.

Sort of look over this Be-Your-Own-Inspector check list on the TA-1/PT and help keep your field talker ready for talk, day and night . . .

CARRYING STRAP—
Cracked, mildewed, missing.

PLASTIC CASE—Cracked, broken.

SNAP LATCH—Loose, broken, missing.



CONNECTOR — Broken, cracked.

BINDING POSTS — Weak spring action, corroded.

HANDSET CORD — Froyed, cut.

PRESS-TO-TALK SWITCH — Missing, fails to make contact, rubber boot ripped or missing.

MICROPHONE ELEMENT — Cracked, broken.

RUBBER BUSHING — Cut, froyed, broken.

BELT CLIP — Spring weak, fails to grip belt tightly.

BUZZER VOLUME CONTROL KNOB — Hard to rotate, won't operate.

HANDSET HOUSING — Cracked, broken.

EARPHONE ELEMENT — Cracked, broken.

MOISTURE-PREVENTING DIAPHRAGMS — Missing, punctured.

VISUAL INDICATOR — Fails to operate, fails to return to non-operate position.

MOISTURE-PREVENTING DIAPHRAGMS — Missing, punctured.

GENERATOR LEVER — Missing, fails to make contact, rubber bootie ripped or missing.



The items in heavy type are serious deficiencies—which render the phone unsafe to operate or impossible to operate.

Pulling organizational maintenance on the TA-1/PT calls for nothing more than your TL-455/U screwdriver . . . the pocket knife and pliers in the TE-33 . . . and some lint-free cloth.

One little P5: Since these phones are lubricated by the manufacturer, there's no need to lube 'em after that.

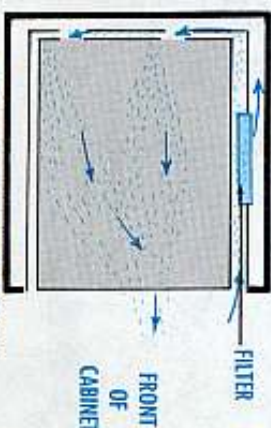
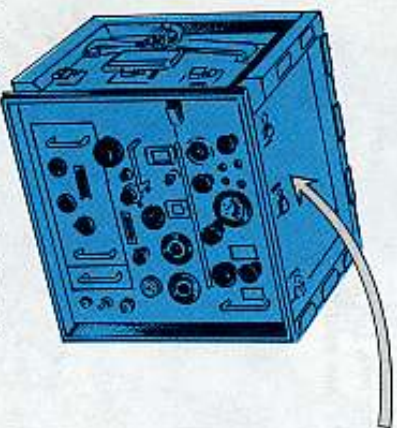


Out of sight, out of mind.

So goes the old saying.

And, who knows, maybe there's something to it.

Sure looks that way when it comes to the air filter for the T-302 Transmitter in your AN/TRC-24 Radio Set. That filter is pretty well out of sight—struck up there in the top of the carrier case that houses the T-302.



CHECK AND CLEAN FILTER EVERY 50 WORKING HOURS—IN DUSTY OR DESERT AREA—EVERY 20 HOURS.

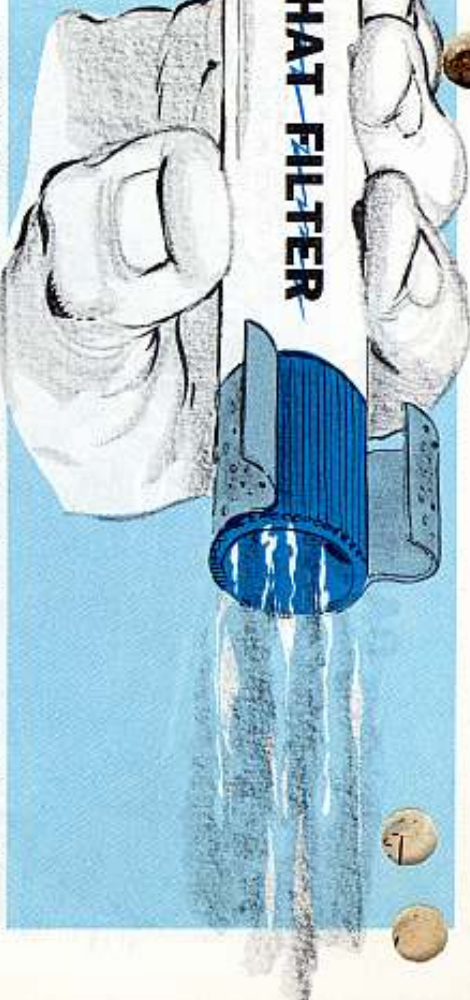
And if it gets out of mind things are gonna start to get out of hand. The transmitter will start running a high temperature that will soon leave your T-Track 24 with a dangerously overheated unit.

Worse still, the temperature inside the case will get hot enough to start the solder running on some of the smaller, more sensitive solder points—like the 4X150A electron tubes, for example.

The solder that secures the heat-dissipating fins to the tube can start to run. This causes some fins to collapse, shutting off the vital flow of cooling air. That finishes the tube. And the transmitter.

The whole air-cooling system in the transmitter is a pretty delicately balanced affair. In the first place, the compartment is so tightly packed that it leaves little room for even air to move

THAT FILTER



around. The blower has to be powerful. And the intake scoop at the top front of the case is small.

Even a clean filter will tend to slow down the flow a bit. And a dirty filter will easily slow down and block the air enough to trigger a quick increase in internal temperature.

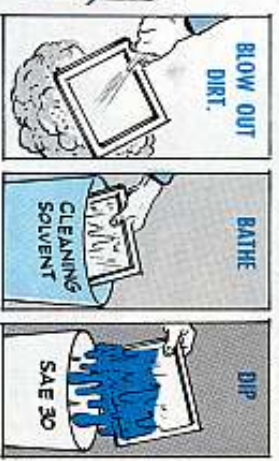


Naturally, local conditions have a lot to do with how often you check your filters. Fifty operating hours usually is the interval for checking and cleaning. But in a dusty, desert area, every 20 hours would be your best bet.

And in this case, you actually have to take the filter out in order to pull PM. After you've pulled the transmitter chassis out of its case, unscrew the front

bracket that secures the filter to the roof of the case and slip 'er out.

If there's an air pump around, blow out as much dirt as you can. Then bathe the filter in cleaning solvent (no gasoline or carbon tet, please) and make sure it dries out thoroughly. Dip it quickly in some clean SAE 30 and then put it in a paper bag or wrap it up in clean paper so it'll stay clean while the excess oil drains off.



Never put the filter back while it has excess oil on it. The intake action of the blower will blow oil into the wrong places and really gum up the works.

Keep this filter in mind... keep it in operating condition... and keep your equipment cool for the hot hours of operation ahead.

CABLE CLAMP

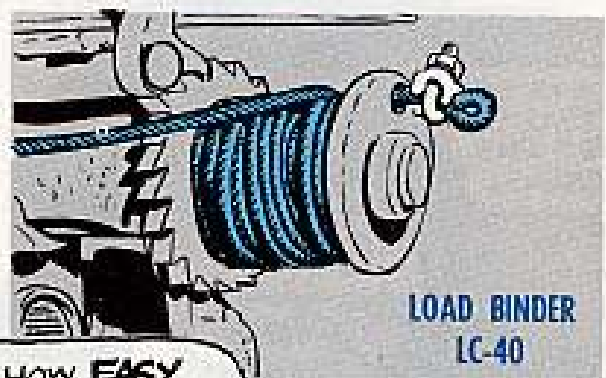


It's just too risky to do any way but the right, safe way.

Any time an outfit is handling poles and steel cable, even a short shift in the load or slight slip of a clamp can tumble everybody into a pile of trouble.

Especially so with your Load Binder LC-40.

These drum and ratchet assemblies



can latch a batch of poles to a truck and trailer as snug, tight and secure as you need. But the stories have drifted down about some of them slipping. And slip-pin' in the worst way.

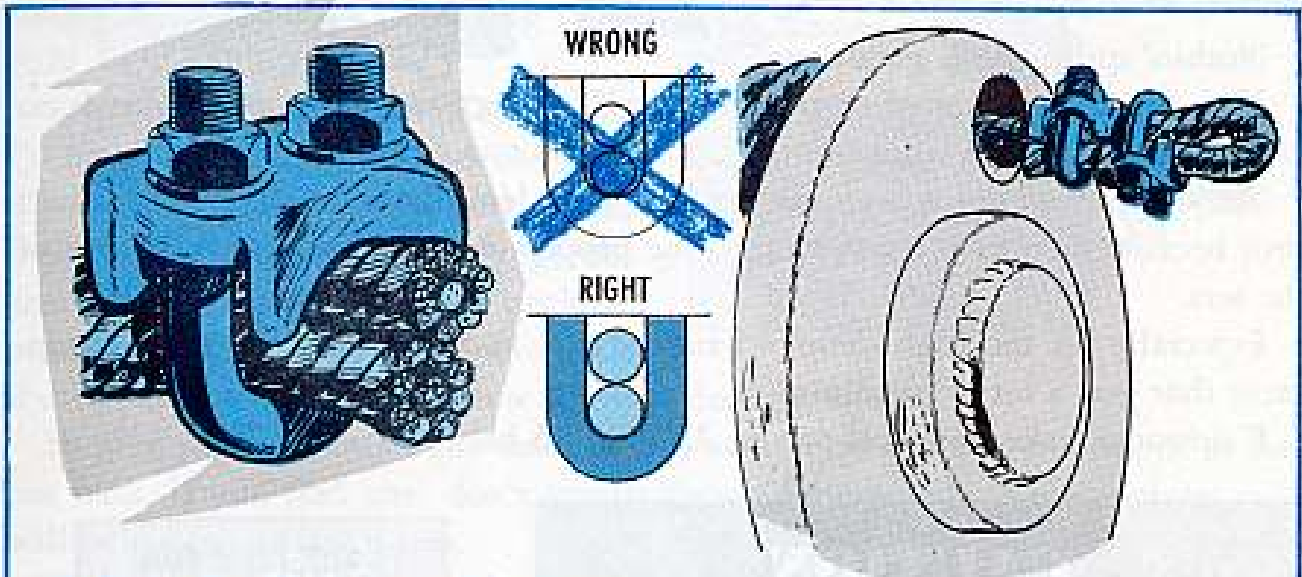
What happens is this: The cable pulls loose from its anchor point on the drum of the load binder. When that happens, the whole cable goes slack and the poles start rockin' and rollin' on the trailer.

And maybe ending up bouncing on the ground.

All because the clamps on the cable either haven't been tightened enough or don't match the size of the cable they're clamped to . . . or because the

cable hasn't been looped and passed back through the clamp to guarantee a tight grip.

Run a quick eye check of those load binders next time your outfit is ready to roll or unroll:



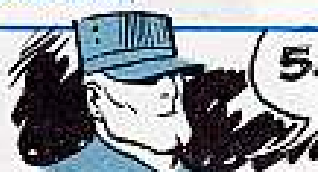
1. Be sure the cable clamps match the diameter of the cable. For instance, a $\frac{3}{16}$ -in diameter cable has to have a $\frac{3}{16}$ -in diameter clamp.

2. To secure the cable to the binder, loop the cable and pass it through the clamp twice.



3. Put at least two (and better still, three) clamps on the cable. Both at the end that's secured to the binder as well as the free end of the cable.

4. Before and during loading and unloading, look at the clamps to be sure they are still tight and haven't slipped.



5. ALWAYS REPLACE CABLE WITH THE SPECIFIED TYPE. STAY AWAY FROM USING MESSENGER CABLE. IT WON'T STAND THE STRAIN.

Watch out for the fatal mistake of letting a cable pull loose from its anchor on the load binder while lashed around a load. Which can happen simply by forgetting to loop the cable before putting on the clamps or using a clamp that doesn't match the cable.

VARNISH GARNISH



I AGREE, BUT WE GOTTA KEEP YOUR DECALS ON TIGHT.

Nothin' quite like a good layer!

Yes, sir, a thin layer of clear varnish will protect and preserve the decals on your communications equipment.

They're put where a man can see and read 'em almost with both eyes half shut because their message is vital to the proper maintenance and operation of the sets.

Especially on the high density hand-carried and back-pack portable equipment that gets a lot of handling.

F'rinstance, take the decal on the AN/PRC-6 handy talkie:

**CAUTION
OPEN AIR VALVE AT
LOWER END OF CASE
BEFORE OPERATING
EQUIPMENT.
CLOSE AIR VALVE
WHEN EQUIPMENT IS
NOT IN OPERATION**

TO KEEP DECAL FROM PEELING, GIVE IT A GOOD LAYER OF VARNISH.



The message that decal carries (like many others) is important. Which is why it's stuck right there on the front panel of the set where everybody can see it. And at the same time it gets lots of rough treatment and rough weather because it is in an exposed position. And so do lots of others.

So to keep those decals from peeling, or getting scratched, or maybe peeled or torn right off—give it a good layer. A

stroke or three of the brush will cover the subject nicely with varnish and keep the decal's message intact.

A pint can should do it nicely: varnish, moisture-and fungus-resistant (MIL-V-173A) FSN 8010-161-7375.

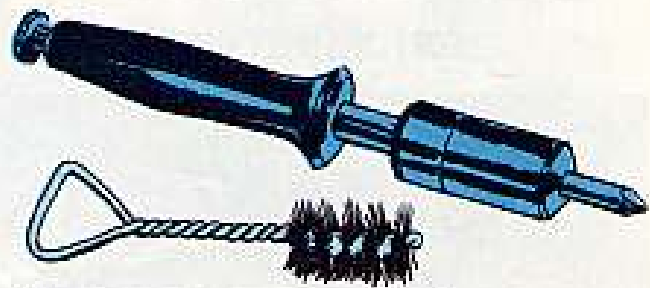
~~HOLD YOUR FIRE~~

You signalers who tote around the TE-41 tool equipment want to be extra careful with those cartridges that fit into your non-electric soldering iron, FSN 3432-589-1007.

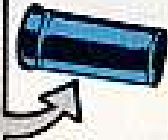
Some of these cartridges (Kenode No. Q. S. or equal, FSN 5410-569-9927) got into the field with exposed primer caps, which means they're dangerous and shouldn't be used. Most of 'em have been rounded up and disposed of, but there's always the chance a few are still floating around.

So give your cartridges the once-over to make sure you don't have one of the hot ones. If you find any, don't handle them unnecessarily. Your support unit will help you get rid of 'em.

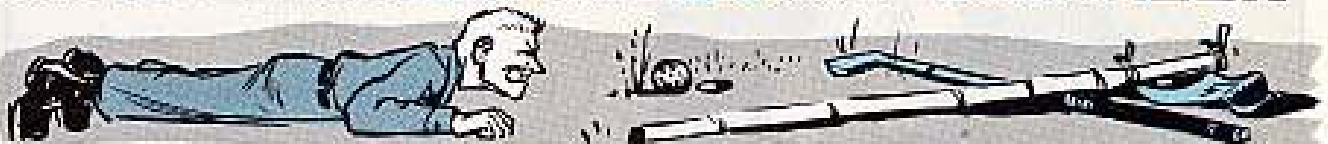
The right cartridge to use is issued as FSN 3439-711-0524.



IF THIS CARTRIDGE HAS AN EXPOSED PRIMER CAP, GET YOUR SUPPORT UNIT TO HELP YOU GET RID OF IT.



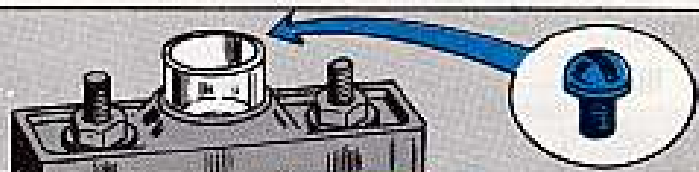
~~SOME HOLES ARE JUST SMALLER~~



It seems the collar on certain BB-403 battery cells (in the BB-401/U Nike batteries) is quite a bit smaller than on most others. Which means the standard size shipping plug just won't fit. It's way too big. And many an undersized collar has been busted open when someone tried to force the standard plug into it. It needs a smaller plug.

Best policy to follow, then, is to keep the two types of plugs separated. That way a man can lay his hands on the right plug without risking any damage to the smaller collars.

The standard size round head shipping plug answers to:
FSN 5305-297-7783.

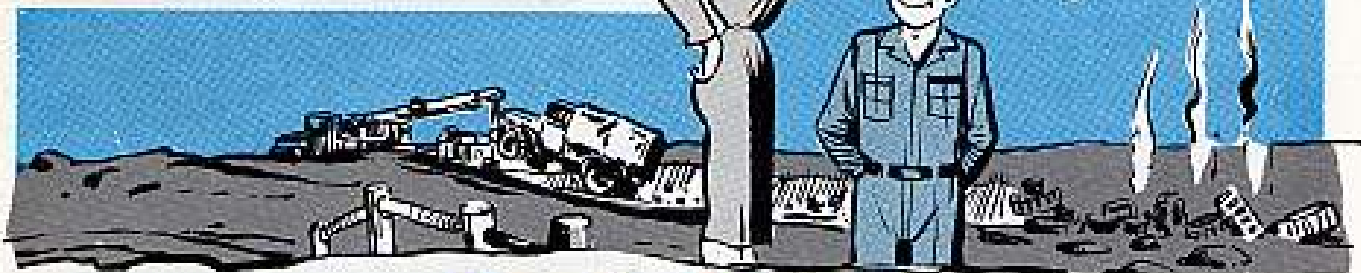


The smaller, filister head shipping plug answers to:
FSN 5305-022-4535.



Connie Rodd's

"SHORT 'N SWEET DEPT"



Watch the towing

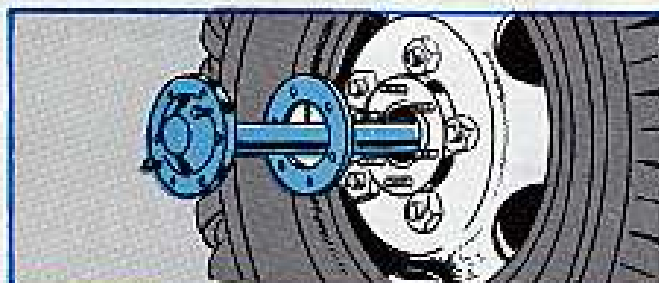
When you tow a disabled $\frac{3}{4}$ -ton G741-series truck or a 1-ton M601 cargo truck with their rear wheels on the ground, you'll hafta disconnect the transmission.

That is, if, the travel distance is over 5 miles, or the truck has not been in operation . . . like in storage.

The reason you hafta keep the transmission parts from moving is that nor-

mally the cluster gear does the job of splashing lube onto the synchronizer assembly, but when a truck's towed the gear does not turn. This causes damage to other moving parts in the transmissions due to the lack of lube.

When you find yourself doing a tow job—first, shift the transmission gear lever into neutral and the transfer levers into forward position. Then:



EITHER,

1. Remove the rear axle drive shafts (wipe off excess grease before laying them down in your truck).



OR,

2. Remove and tie the intermediate propeller shaft to the frame. Take it apart at the rear flange only.



OR,

3. Remove the rear propeller shaft at the differential and tie it to the frame.

If you choose to pull the axle drive shafts, then make sure to cover the hub hole with a piece of cardboard or tin. Cut holes in them to fit the studs, slip over the studs and you're in business.

TM 59 Ord 7 - Kaput



Your ORD 7 G280 (Jan 57) for the M59 APC is superseded . . . now that TM 9-2300-203-12 Change 1 (15 Dec '59) is on the stands.

This Change 1 lists the complete OVE—with the latest stock numbers—for the personnel carrier. It takes the place of ORD 7's Section I.

Section II of the ORD 7 was superseded awhile back when TM 9-2300-203-20P (29 Oct 58) came off the presses.

Who gets PS?



Been wondering why your company or battery does not get its share (15) copies of PS Magazine every month?

Wonder no more. Just get the word to your Post Publications Office. Tell the man there your company or battery rates at least 15 copies of PS Magazine each month. He'll be sure to include enough for your unit on his order (DA Form 12-4) to the publications depot.

Of course, DA Circular 310-72 (18 June 59) tells how to order periodicals.

Got a match?



More'n one guy has fought the .50-cal machine gun as he tried to get it mounted in the M13 cupola on his M59 APC or M84 SP 4.2-in mortar. If you mounted the .50 without any trouble one time and then were like to break your back the next time, could be you have mismatch troubles.

That's right . . . the tolerances of the gun and the cupola are close enough to make the difference between an installing job that is not too tough and one that is darn near impossible.

So keep track of the serial numbers of the gun and the vehicle to make sure you don't get them mixed up.

Weak pulley

There's a batch of weak generator pulleys mounted on the generators of many of the 2½-ton G 742-series trucks purchased from Curtiss-Wright Inc. on Contract DA 20-018-Ord-17270.



They're breaking at the hubs, so don't be a trustin' soul and get caught with a busted pulley.

If you have a deuce-and-a-half that came under that contract number and it has a serial number between M49301 and M51502 but doesn't have a yellow paint mark on its generator pulley, ask your support unit to write to Curtiss-Wright Inc., South Bend Div., 701 West Chippewa St., South Bend, Indiana, and get direct replacement free of charge for a new pulley, woodruff key, washer and cotter pin.

Before you do this though, check the armature shaft for wear or damage caused by these loose pulleys. If the diameter of the shaft (at pulley) is less than .6684 inch, then you can put in a claim for the whole generator assembly under the warranty clause.

Be sure to give your support unit the serial numbers of any truck you've got in your hands, so they can pass it on to the manufacturer, with their request for new parts.

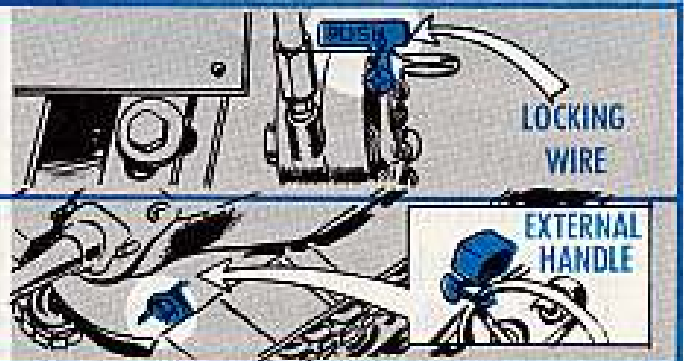
All the good pulleys will be marked with yellow paint—so look before you call your support.

The deal on the seals

You M103 heavy tank crewmen gotta check the seals and locking wires of your vehicle's fixed fire extinguisher system daily. Otherwise, you're liable to make things hot for yourselves.

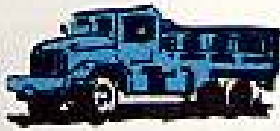
There are two places in the heavy tank where the extinguishers should have a locking wire installed and sealed.

1. On the crank safety pin on the control head of one cylinder—which controls all three cylinders in the vehicle. This is located to the left of the driver's seat.

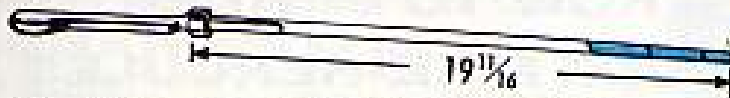


2. On the remote control (external) handle on the outside of the tank above the headlight brush guard.

Keep this in mind 'cause TM 9-7014 doesn't mention anything about locking wires and neither does the later manual on this vehicle, TM 9-2350-206-12 (Oct 58).



Read the oily end



Next time you check the oil level in that G744-series 5-ton truck, tractor or wrecker, take a look at the oily end of that dipstick to see if it reads: "Check Oil Level About One Minute After Stopping Engine—Do Not Screw In To Check Oil—Screw Tight After Checking Oil."

On this gage you'll find three level marks. When the oil's up to the top FULL mark, you've got 18 quarts in the crankcase. A reading at the middle mark means 14 quarts—4 quarts low but still safe. At the bottom LOW mark,



FULL MARK (18 QTS)

MIDDLE MARK (14 QTS)

LOW MARK (12 QTS) ADD OIL

you've got only 12 quarts. Add oil pronto.

Keep in mind that the engine's total capacity is 22 quarts of oil when FULL ... 18 quarts in the crankcase and 4 quarts in its oil filters and passages.

Might remember, too, your gage should measure 19-11/16 inches from the end of the blade to the top edge of the screw cap. If you need a new one, it's Gage, oil level, FSN 6680-737-6338.

See TB9-8028-5 (Sep 56).

Cracked caps

Take a second to check your distributor cap (FSN 2920-353-9919) at your next Q service for cracks. Don't take a chance of getting stuck out in the boondocks with a bad one.

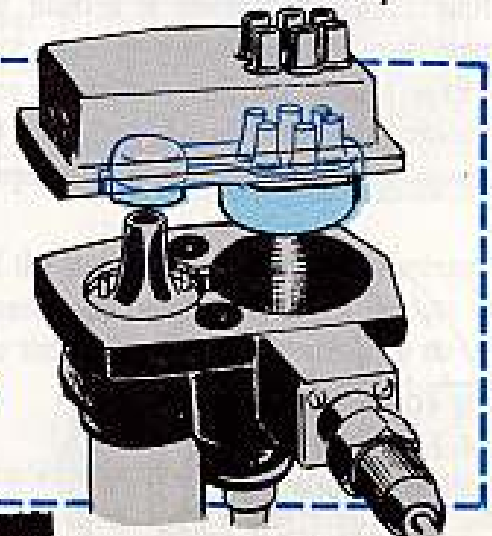
If you find a cracked one on your vehicle, replace it, and then get a UER in on it pronto. That way, the design people can find out why they're cracking.

The FSN 2920-353-9919 waterproof cap is used on these vehicles:



IF CRACKED
REPLACE IT

MAKE OUT
A UER



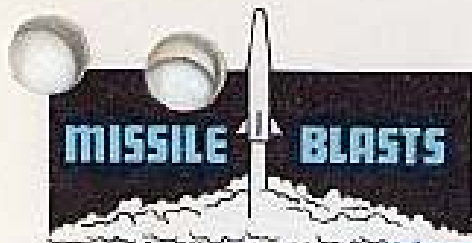
G742 and G749 series 2 1/2-ton trucks

G744-series 5-ton trucks

M59 Armored Personnel Carrier

M84 SP 4.2-in Mortar

M50 SP Multiple 106mm Rifle



STAYING AWAY FROM THE MEDICS... OR

HOW TO INSTALL THOSE NIKE-HERCULES TRACK RADOMES



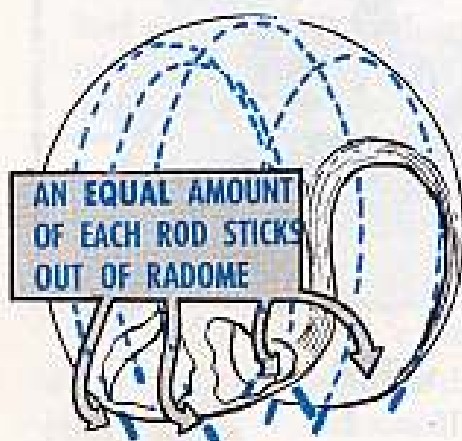
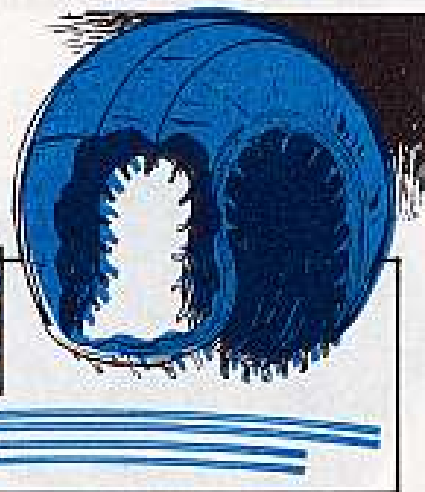
There's been some blue flame spitting on Nike-Hercules sites... and it's not coming from the booster clusters.

It's happening in the IFC area where some guys are having a ball—busting this and that as they try to install the track radomes on the antenna mounts.

A man has enough to do without fighting his equipment, so try this way of attaching those radomes. It should lower your blood pressures.

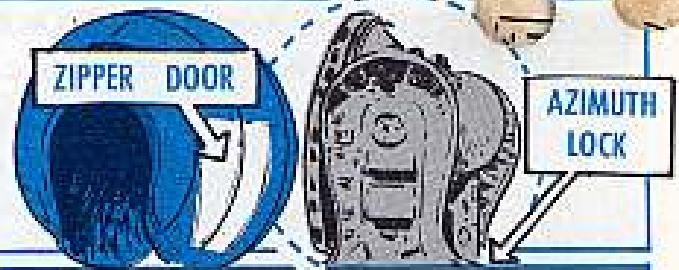
First off... you need at least four guys.

Now... tote the radome to a clean, dry spot and spread it out—right side up. Then one guy wants to get the four fiberglass rods that're kept in the trailer when the radome is removed. Take the canvas straps off the rods and store the straps in the lower right compartment of the azimuth drive equipment enclosure.

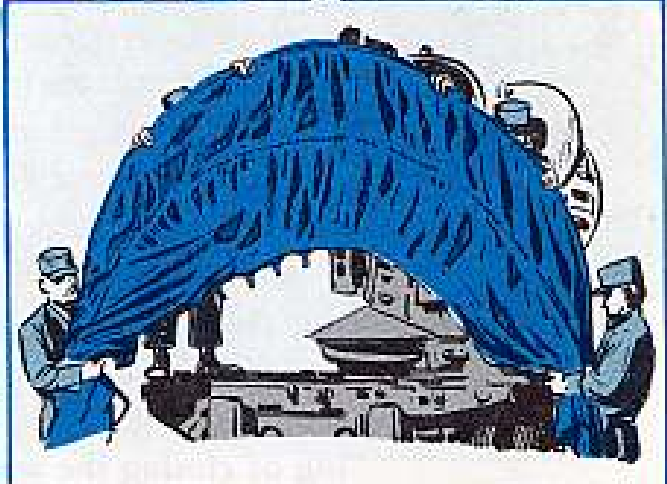
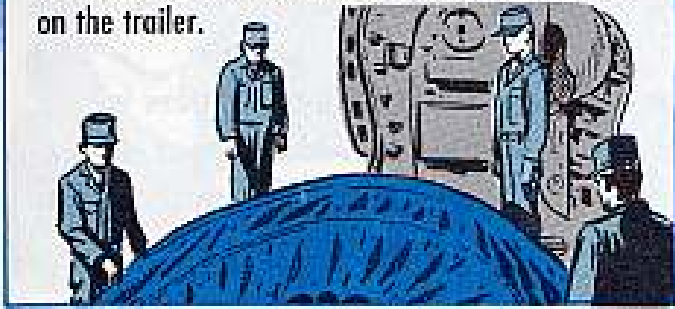


Next... stick a long fiberglass rod in each inner radome pocket and a short rod in the outer pockets. Then fix the rods so that an equal amount of each rod sticks out from each end of the radome.

Before you make another move, make sure the zipper door on the radome is closed and that the door will be on the same side of the antenna pedestal as the azimuth lock when the radome is installed.



OK . . . now one man oughta hop up on each end of the trailer. The two guys on the ground stand at each end of the radome . . . take hold of the four rods . . . and hand the radome to the men on the trailer.



Next . . . the two men on the ground climb aboard the trailer. Then each of the four guys grabs a rod . . . you lift the radome . . . and drape over the track antenna pedestal.

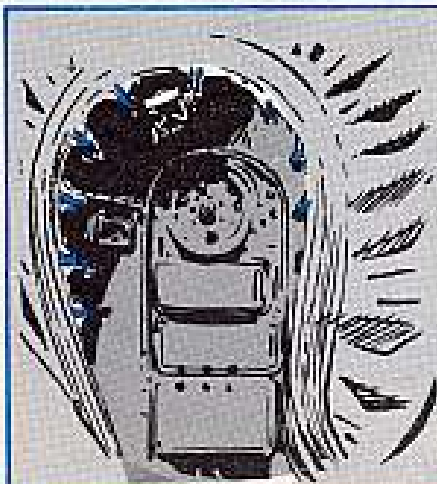
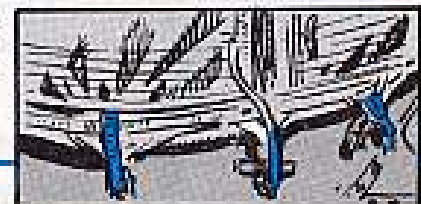
Now you put the rods in the sockets in the upper radome brackets and then release all the slide fasteners on the support brackets.

By the incidentally . . . if you're on the ball, the only tools you have around are your hands. When you start fooling around with pliers, screwdrivers and the like, you're making it easy to do damage—like to the slide fasteners and zippers.

The next step is to attach the upper center radome strap that's on each end of the pedestal to the slide fastener on the upper radome support bracket. Then close the slide fastener.



What you want to do then is center the radome on the rods by working it either forward or to the rear. Then attach the lower center radome strap on each side of the pedestal. Now close the slide fasteners.



After that, attach the rest of the straps and close the slide fasteners by starting at the upper center and working forward. Be sure to work both sides at the same time so's all the slack won't be pulled to one side.

If you run into trouble attaching the lower straps, skip one and attach the second strap to the lower front center and attach the straps and close the slide fasteners—moving to the rear and working both sides at the same time.



You've got an ace up your sleeve if some of the straps still give you a hard time. The thing to do is inflate the radome and hold the pressure for 8 to 24 hours. This lets the radome take its proper shape and makes it easier to fasten the straps. You've got to deflate the radome before you attach the straps, tho.

Another hint . . . try pulling on the straps so that the radome is lifted away from the framework. Or have someone push out on the radome from the inside while the straps are being fastened. This gets rid of a lot of the friction between the radome and framework—making it easier to pull the radome over the framework.

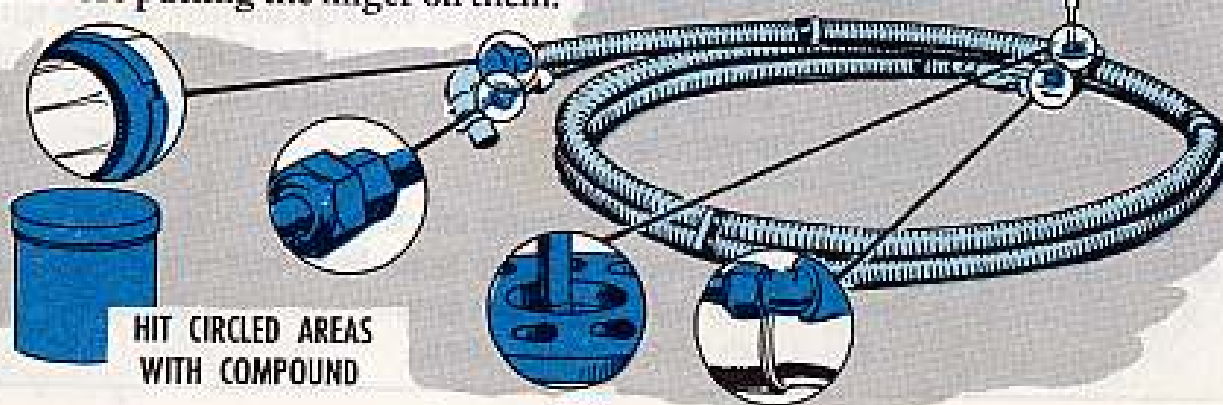
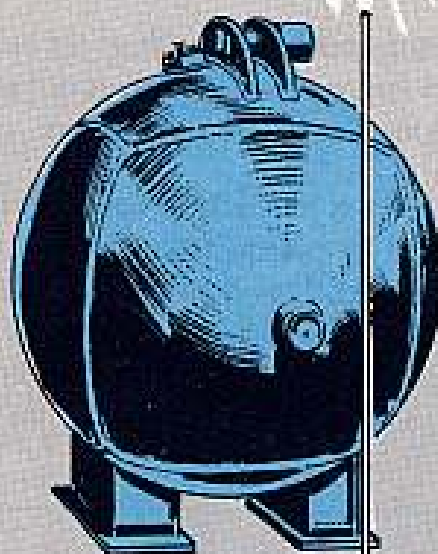
And remember: Don't try to fasten the door zippers when the radome is inflated . . . be careful so's the zipper slider doesn't get jammed up with the cover flap . . . and pull almost straight up and down on the zipper thong when you're opening or closing the access door.

HANGING BY A THREAD?

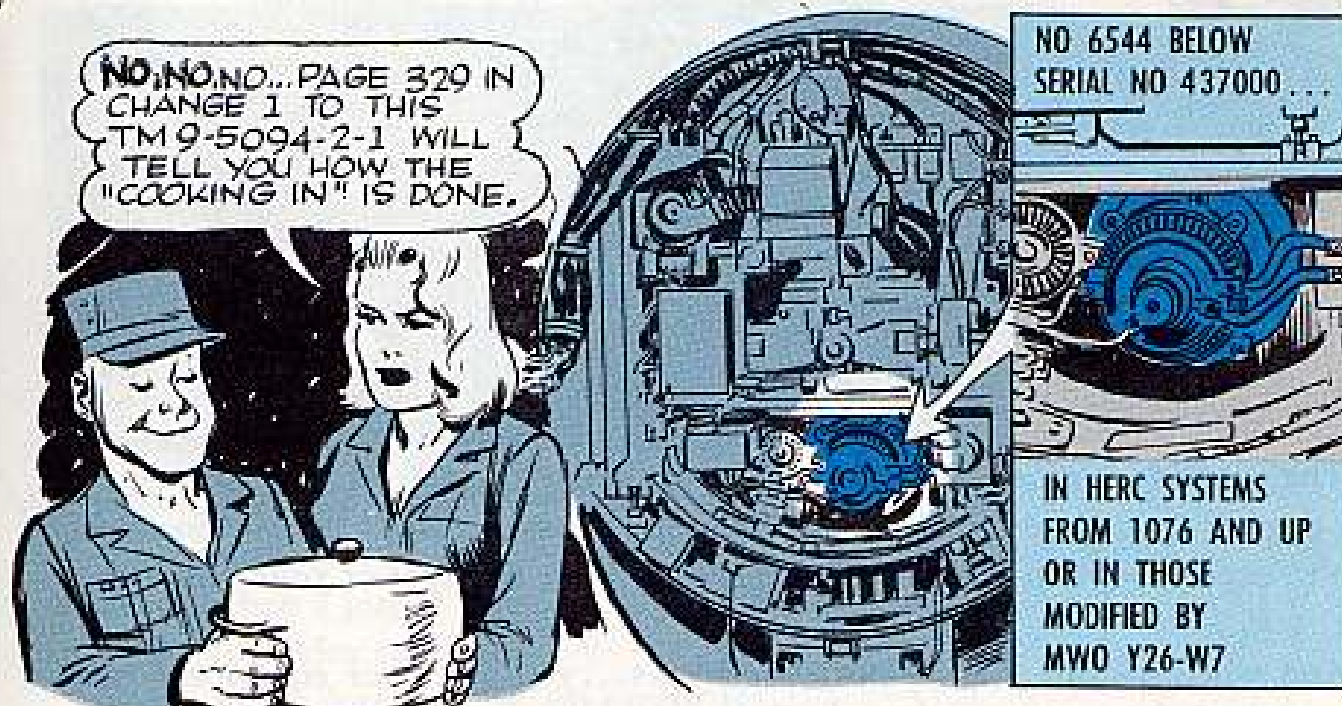
Odds are that you'd like to stop any leaks you might have in threaded places on the acid transfer hose used with your Corporal. Same goes with the threads on the one end of the acid vent tube.

The stuff you want is a 2-oz jar of Sealing Compound, Teflon Base, FSN 8030-616-7690 (ORD). The compound also makes it easier to "break" the joints.

Run a light coat of the compound across the threads with your best lubing and leak-preventing finger. Clean those joints before putting the finger on them.



TOAST TO LONG LIFE



The caution light is blinking for you guys in the Nike-Hercules IFC area. In other words . . . be careful about the ML6544 hard tube modulators you use in your track radars. Here's the deal.

You don't want to put a 6544 below Serial No. 437000 in Herc systems from 1076 and up, or in systems that've been modified by MWO Y26-W7, the one that makes changes so's the magnetron'll work better. Using these tubes in either situation will cut the life of the tube. Another thing . . . as the 6544 weakens, there'll be a drop in the average magnetron plate current for a given high voltage setting.

Turning things around, using a 6544 above Serial No. 437000 in a system that hasn't been given the MWO Y26-W7 treatment, could throw the maggie out of whack.

There're other things that'll help the 6544, whatever the serial number, live out its normal life.

F'rinstance . . . when you install it, go along with the "cooking-in" setup that you can read about on page 329 in Change 1 to TM 9-5094-2-1.

Another life saver . . . the filament voltage of the 6544 doesn't want to go above 6 volts at the secondary of the T3 filament transformer after the end of five minutes of preheat. During preheat, the voltage reads about 6½ to 7 volts and then ought to automatically drop to 6 volts. If it doesn't, call in your support unit.

Something else—if the 6544 fails, be sure to check the —500 volts bias before you put in a new one.



INCLOSE YOUR INCLOSURE

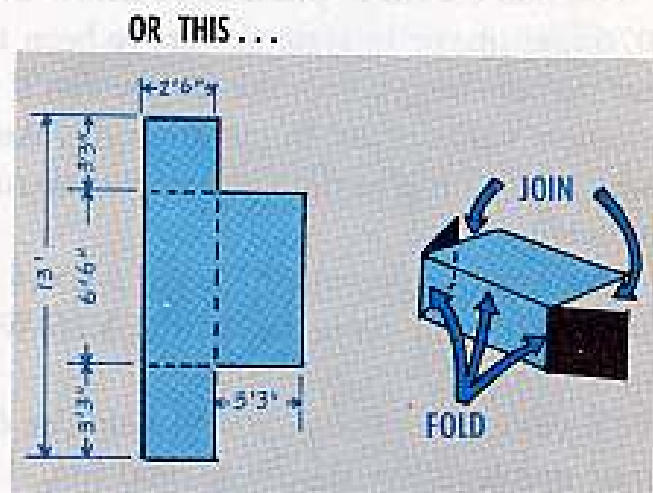
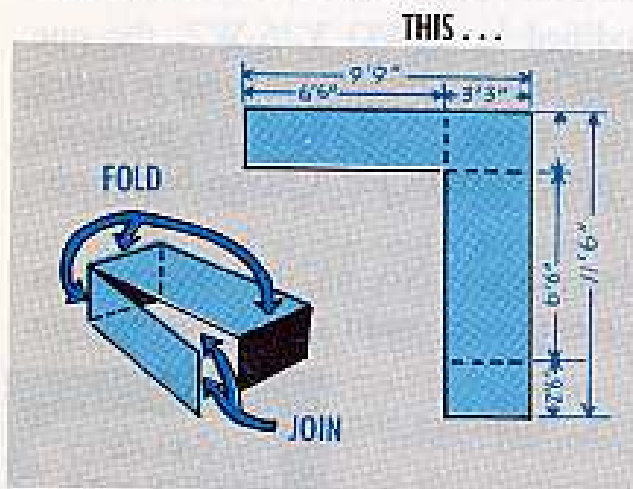


The roadside equipment inclosure on your missile and target tracking antennas doesn't live up to its name when the door's open. 'Stead o' bein' inclosed, you're exposed—when you have some PM to do in this spot at your Nike-Ajax site.

And when it rains...or snows...or blows...you and your equipment take a beating—from three unprotected sides.

So get in out of the rain...keep yourself warm and dry by whipping up a cover to hang on the door of your inclosure.

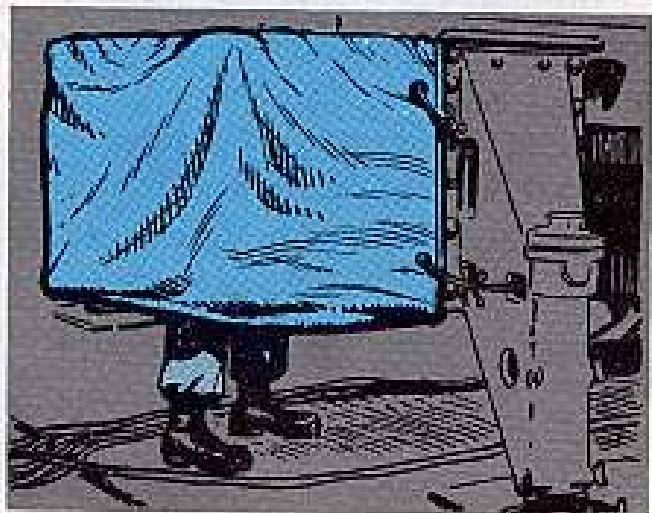
Find yourself a large piece of canvas, then cut and shape it like



Sew, clamp or snap the seamed sides together and hang it on the door when you need it.

When not in use, it'll fold up and tuck away into the empty shelf-like space at the bottom of the inclosure.

To be extra fancy, you can put a couple of eyelets on each side of the tarp, thread some twine through 'em, and tie your cover to the antenna legs so's it won't blow off while you're workin'.

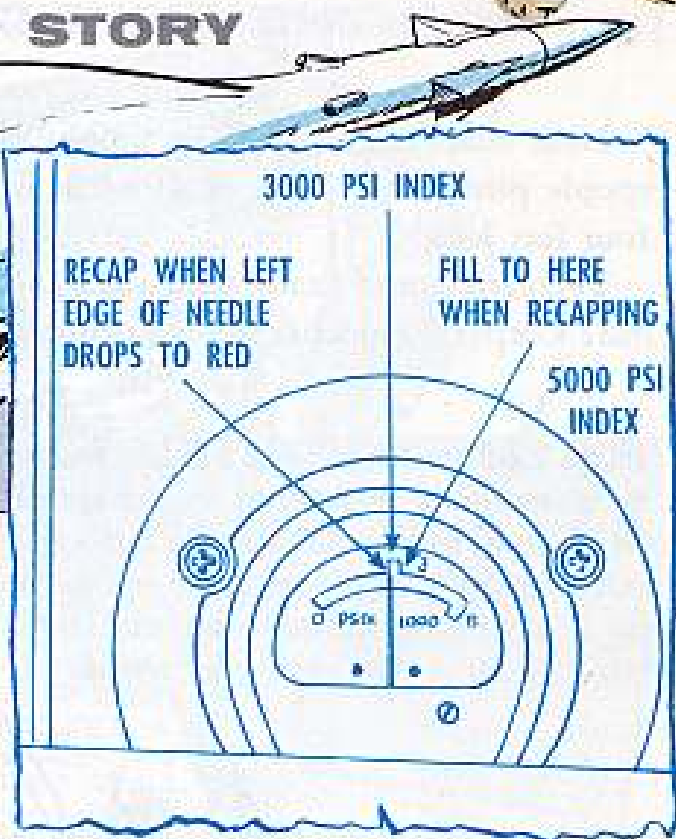


RECAP STORY



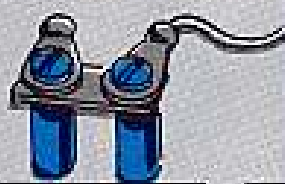
There sure have been some different ideas on when a guy is supposed to re-cap his Nike-Ajax missile.

But, you can forget all of 'em except one. This picture gives you the right scoop.



OPEN AND SHUT CASE

S-1 CLOSED
(SCREWS TIGHT)
WITH MTR.



S-1 OPEN
(SCREWS TIGHT)
WITH MTR.



There's one sure way to have a foul up in the track, azimuth, range and elevation indicator circuits in your Nike-Ajax track radars.

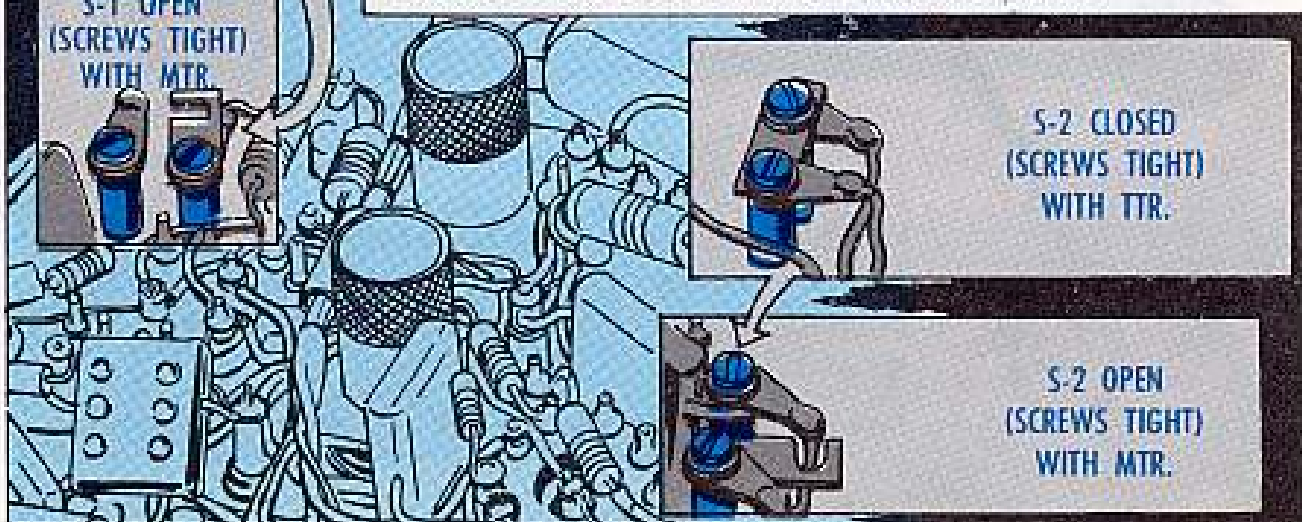
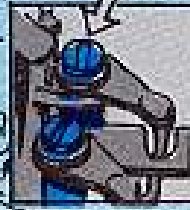
All it takes is a loose screw or two on the tracking sweep generator in each radar.

To head off that kind of circuit trouble with the TTR, the screws want to be tight so the S1 and S2 switches'll stay closed. And with the MTR, the screws want to be tight to keep the S1 and S2 switches open.

S-2 CLOSED
(SCREWS TIGHT)
WITH TTR.



S-2 OPEN
(SCREWS TIGHT)
WITH MTR.



FOR THE CORPORAL LAUNCHER

Next time you're roaming around a lumber pile pick out something like a couple pieces of 2 x 8's or 10's—about six feet long, and some 2 x 4's about four feet long.

Then latch onto a saw, some nails and paint and you're in shape to give your M27 Corporal launcher a third maintenance platform.

Cut the 2 x 8's or 10's so's they'll be long enough to be supported a couple inches on each end on the two metal maintenance platforms. Before you nail on the 2 x 4 braces, line 'em up so's they'll just fit inside each maintenance platform. That'll keep your new platform from moving around.

2 X 8's OR 2 X 10's

2 X 4 BRACES

THIS PLATFORM IS REAL HANDY FOR SUCH THINGS AS MANHANDLING STRUT ASSEMBLIES.

REMEMBER. NOTCH FOR TIP OF BLAST SHIELD, IF NECESSARY.

Next thing to do is cut a notch in the bottom side of the wooden walkway to make room for the point in the blast shield. If the point on your blast shield has been rounded off, maybe you won't need the notch.

Then you slap on some primer and OD paint and you're in business.

KEY TO GOOD LOCKING



You been having trouble keeping your target AFC locked on when using your Nike-Ajax track radars? You know . . . it unlocks between the upper and lower ranges.

Could be something as simple as a monel gasket—the one between magnetron and hotbox in the radars.

Seems the wrong gasket is winding up in some systems . . . so it pays to drop a hint to your support unit that the right gasket shows up in their Ord 8 SNL Y4, Sec 1, as

SHIELD: (u/o GS-15598), FSN 1430-322-2445.

Call on your support guys if you get tuning band troubles when you go along with the checks that show up in Table III, step 7, page 131 of TM 9-5020-4 (Oct 59). Tuning headaches can be traced, at times, to the maggie and hotbox being misaligned. And misalignment sometimes comes from the wrong gasket.





You've heard it before . . . you'll hear it again . . . matter of a fact now's as good a time as any.



Nobody, but nobody should overfuse. And that's something a guy in a Nike outfit wants to remember as well as he knows his serial number.



It was dangerous enough with Ajax—with most of the power supplies situated in the IFC area vans. You've got to be doubly careful with Hercules, 'cause the power supplies are spread out among the antennas.



Seeing's how a picture is worth 10,000 words, get this picture.

The -500-volt power supply for the track radar trigger amplifier takes a

.8-amp slo-blo fuse. In this one outfit, the .8-amp job blew. So what does one of the guys do? He sticks in a 2.5-amp slo-blo. That one didn't blow. Instead, the phase C wire in the harness to the

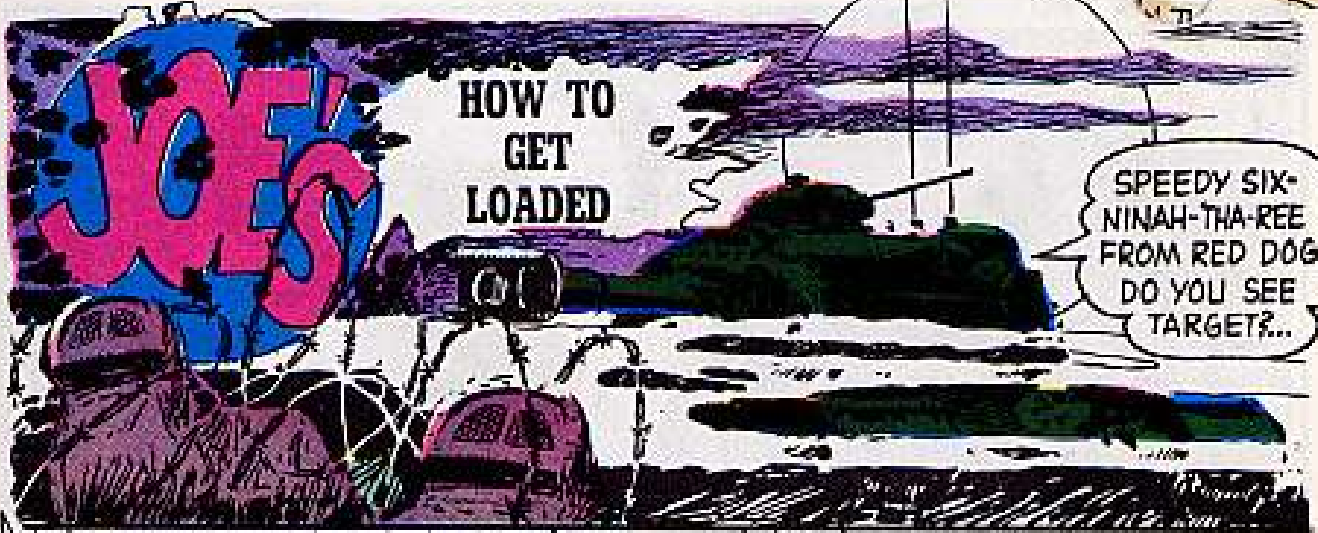


track trigger amplifier was burned out. And the neutral wire alongside the phase C wire was shorted out.

And it wasn't a case of replacing a couple of wires. It meant rewiring the entire harness.



What that outfit should've done is shut down the equipment until it had a .8-amp replacement fuse—even if waiting meant deadlining the set.



HOW TO GET LOADED

JOE'S

SPEEDY SIX-NINAH-THA-REE FROM RED DOG... DO YOU SEE TARGET?..



AFFIRMATIVE! RED DOG... AM SHOOTING NOW.

GUNNER... HE... TWO THOUSAND ...TANK



IDENTIFIED!

FIRE!

UP! ON TH' WAY...



CLICK!



KA-POW!



SILENCE



SPEEDY SIX-NINAH-THA-REE... THIS IS RED DOG... COME IN PLEASE, OVAH...



SPEEDY SIX-NINAH-THA-REE... THIS IS RED DOG... COME IN PLEASE!



IMPERATIVE YOU ROGER LAST TRANSMISSION... OVER

WAH-HOOPS?

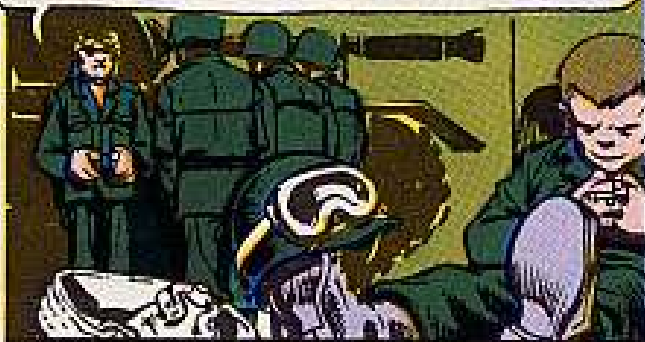




WOT HAPPENED?

Messy but true, tho' this story really started 24 hours ago, slightly behind th' MLR, where our tank company was preparing to jump off...

NOW, YOU NEW MEN MAY THINK THIS IS OLD STUFF, BUT WE PLAY FOR "KEEPS" AROUND HERE, AND AMMO HANDLING THAT CAN...??



WAIT JUST ONE COTTON-PICKIN'-MINIT!

AWRIGHT, HARRY... JUST BECAUSE YOU'RE ABOUT T'BE ROTATED OUTA HERE, DON'T MEAN YOU'RE BULLET PROOF... SO GIT OFF'N Y'R TAIL AN' LEND AN EAR... GOT THAT?

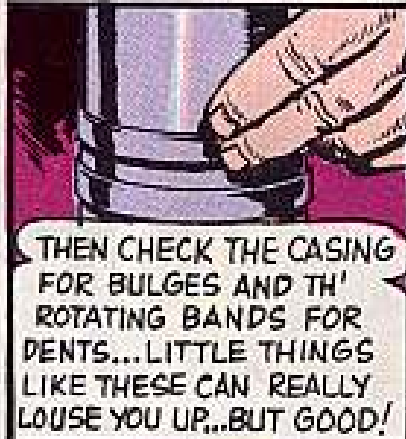


HI, SARGE...
HEH HEH

NOW! FIRST OFF... YOU CHECK FOR DIRTY ROUNDS... AND IF THEY ARE, Y'WIPE 'EM, IF YOU CAN... LIKE SO.



THEN CHECK THE CASING FOR BULGES AND TH' ROTATING BANDS FOR DENTS... LITTLE THINGS LIKE THESE CAN REALLY LOUSE YOU UP... BUT GOOD!



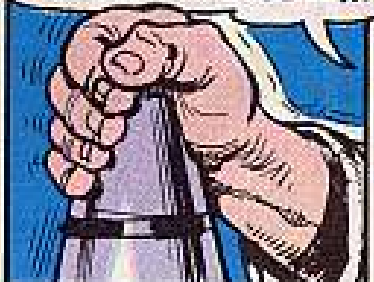
ON CHEMICAL ROUNDS, CHECK 'EM GOOD NEAR THE FUZES, FOR CORROSION, AND THEN DOWN AT TH'BASE 'N ROTATING BAND FOR RUST.



'N NOW Y... HARRY! UP, BOY UP... GET ON THE STICK.



NOW YOU TRY T'WOBBLE EACH ROUND TO SEE IF IT IS LOOSE... A SHAKY, PROJECTILE WON'T DO ANYBODY ANY GOOD...



IF THERE'S ANYTHING WRONG WITH A ROUND... ANYTHING... PUT IT ASIDE, AND CLUE IN Y'R TANK COMMANDER!



USUALLY, IT'S THE LITTLE THINGS THAT TRIP YOU UP...AND YOU GET SENT HOME IN LITTLE PLASTIC BAGS.



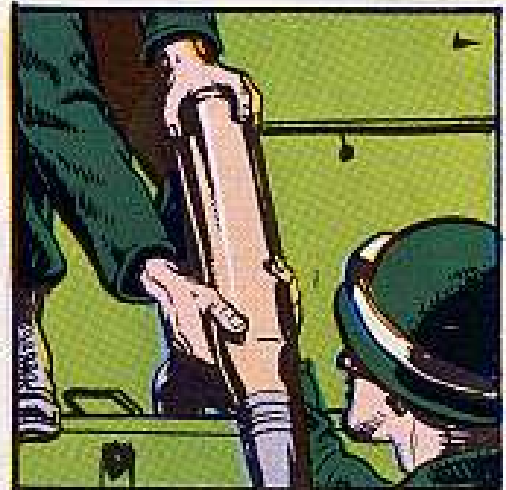
O.K. OK, I'M LISTENING... LAY OFF, SARGE!

BEING THAT TH' LITTLE THINGS ARE TOUCHY LITTLE CRITTERS, Y'GOTTA HANDLE 'EM RIGHT WHEN STOWIN' 'EM ABOARD.



WHEN YOU PICK IT UP...ONE HAND IS OVER THE FUZE 'N ONE HAND COVERS THE BASE & PRIMER. THEN PASS IT UP TO TH' MAN ON THE TANK,

You take yr' paws off'n the primer only as the man on the tank puts his over it. You've got to protect that primer any time you're handling ammo.



THE GUY ON TH' TANK GRABS THE STUFF WITH BOTH HANDS, ONE ON THE CASING SHOULDER 'N ONE OVER THE PRIMER.



THEN HE PASSES IT DOWN INTO THE TURRET, FUZE END FIRST...



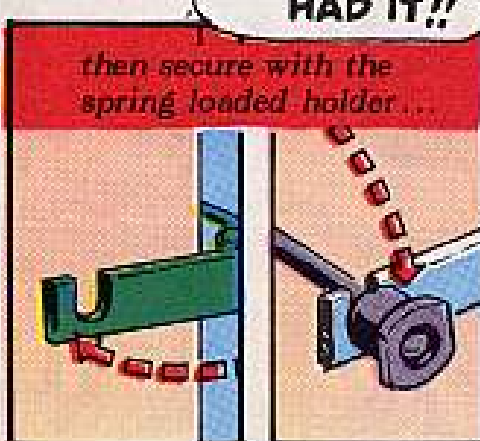
THE TURRET MAN TAKES HOLD WITH THE LEFT HAND ON THE FUZE...HIS RIGHT OVER THE BASE AS THE TANK MAN LETS GO... IF Y'R LEFTY, THEN REVERSE IT...AND IF I CATCH YOU ONCE MORE... YOU'VE HAD IT!!



WHEN STOWING ON TH' TURRET FLOOR... MAKE SURE TH' PRIMER IS SEATED IN ITS CUP,



then secure with the spring loaded holder...



THERE ARE 18 OF 'EM IN THE M48A2 AND 16 IN THE M48 AND M48A1.



Joe's

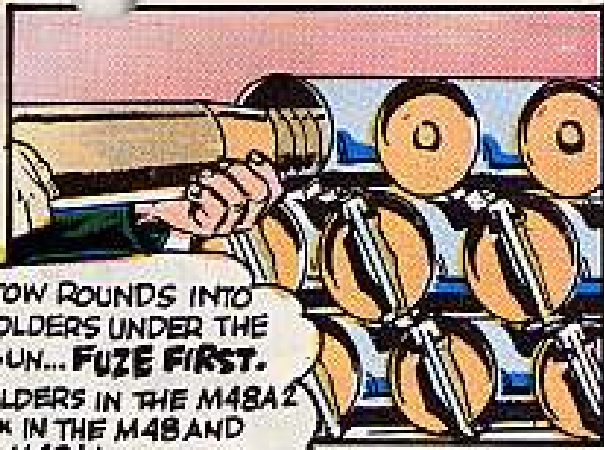
Dope Sheet

Ammo-loading is not really tough,
If you're careful—and don't get too rough.
If a hot shooting scrape
Finds your rounds in good shape,
Then your tank can deliver the stuff!

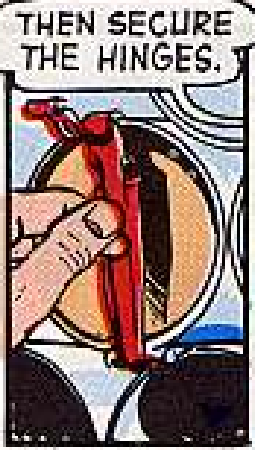


WE HAVE THE WORLD'S BEST EQUIPMENT ...

Take care of it



STOW ROUNDS INTO HOLDERS UNDER THE GUN... FUZE FIRST. 8 HOLDERS IN THE M48A2 N' SIX IN THE M48 AND M48A1.



THEN SECURE THE HINGES.



HARRY! WAKE UP N' GET OUTA THIS TANK... OR SO HELP ME *!?!*!?!



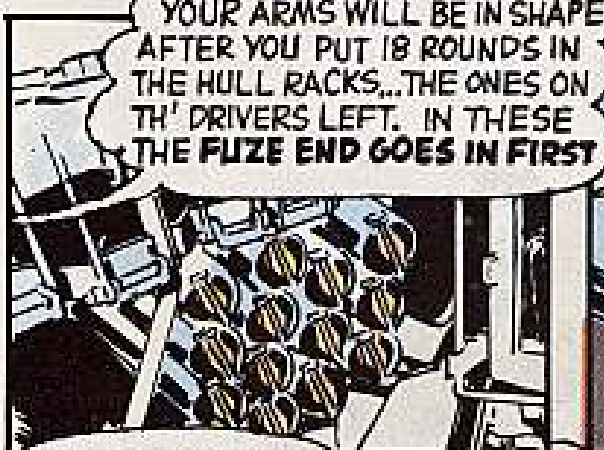
STOW 8 MORE ROUNDS IN TH' TURRET BUSTLE RACKS... TO THE RIGHT OF THE RADIO. REMEMBER... FUZE END OUT...



NOW YOU GET 'ER SNUG BY SWINGIN' THE HINGE UP 'N TO THE LEFT...



PULL UP THE CLAMP, FIT TH' SLOT IN THE HINGE IN PLACE AND LOCK 'ER DOWN...



YOUR ARMS WILL BE IN SHAPE AFTER YOU PUT 18 ROUNDS IN THE HULL RACKS... THE ONES ON TH' DRIVERS LEFT. IN THESE THE FUZE END GOES IN FIRST



THEN YOU SWING UP THE HINGES, 'N SNAP 'EM SHUT!



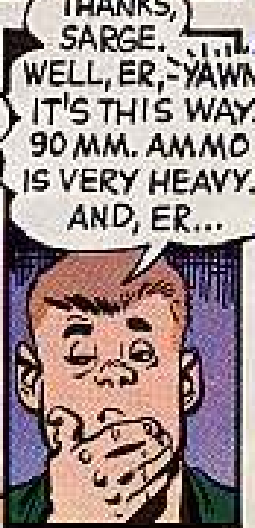
'N LAST, YOU STOW 11 ROUNDS IN TH' RACKS ON THE HULL BOTTOM... TO TH' RIGHT OF THE DRIVER... THEY GO IN FUZE FIRST, TOO. SWING UP Y'R HINGES, SECURE 'EM, AND THERE Y'GO... ALL DONE...



NOW, SO YOU'K KNOW WOT KIND OF LOADS Y'R HANDLING... A MAN OF VAST EXPERIENCE WILL TAKE OVER. IT'S ALL YOURS, HARRY...



ZZZZ SNORE! HUH!



THANKS, SARGE. WELL, ER, -YAWN- IT'S THIS WAY. 90 MM. AMMO IS VERY HEAVY! AND, ER...



AND... AHEM COUGH THERE ARE ALL KINDS... LIKE ARMOR PIERCING, HIGH EXPLOSIVE, SMOKE, PRACTICE, AND DUMMY... HOW'S THAT... SARGE?



SLOW DOWN!
START AGAIN 'N
SLOW MAN, SLOW

ULP!



WELL, THERE'S
ARMOR-PIERCING
(HVAP) WITHOUT
EXPLOSIVE FILLER
THE BUSINESS
IS **BLACK** WITH
MARKINGS IN
WHITE



THEN THERE'S
HIGH EXPLOSIVE
(HE) INCLUDING
ARMOR-PIERCING
WITH EXPLOSIVE
FILLER... THIS
ONE IS "O.D."
WITH **YELLOW**
MARKINGS



THIS ONE IS SMOKE
(WP). THE COLOR
IS GRAY... NOW, ONE
YELLOW BAND
INDICATES SMOKE,
THE MARKINGS
ARE TH' SAME
COLOR AS THE
BAND... GOT IT?



NOW, TH' PRACTICE
ROUND IS BLUE,
AND THE MARKING
IS IN WHITE.



LAST IS THE
DUMMY ROUND.
IT'S UNPAINTED WHEN
MADE OF BRONZE.
IN OTHER INSTANCES,
BLACK WITH **WHITE**
MARKINGS.



'N HOW WAS THAT...
SARGE?



HUMPH! FINE... NOW SOME
HEALTHY TIPS DESIGNED
TO KEEP YOU GUYS IN ONE
PIECE WHEN Y'R
HANDLING AMMO.



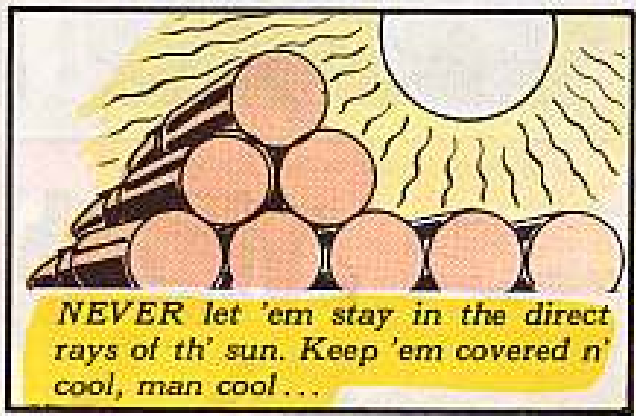
JUST WANTED
T'SEE HOW
IT WORKED

y'see, it's not too smart to
mess with or tamper with a
shell or its fuze

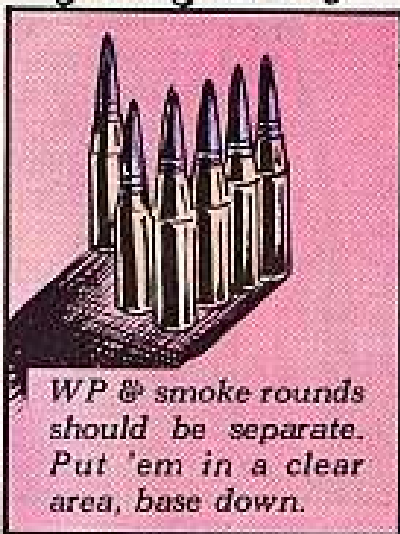


NEVER drop,
throw or drag
live ammo...
even if they're
packed...
HEY... don't
toss that Ro...

see wot I
mean...



NEVER let 'em stay in the direct
rays of th' sun. Keep 'em covered n'
cool, man cool...



FAMOUS LAST WORDS



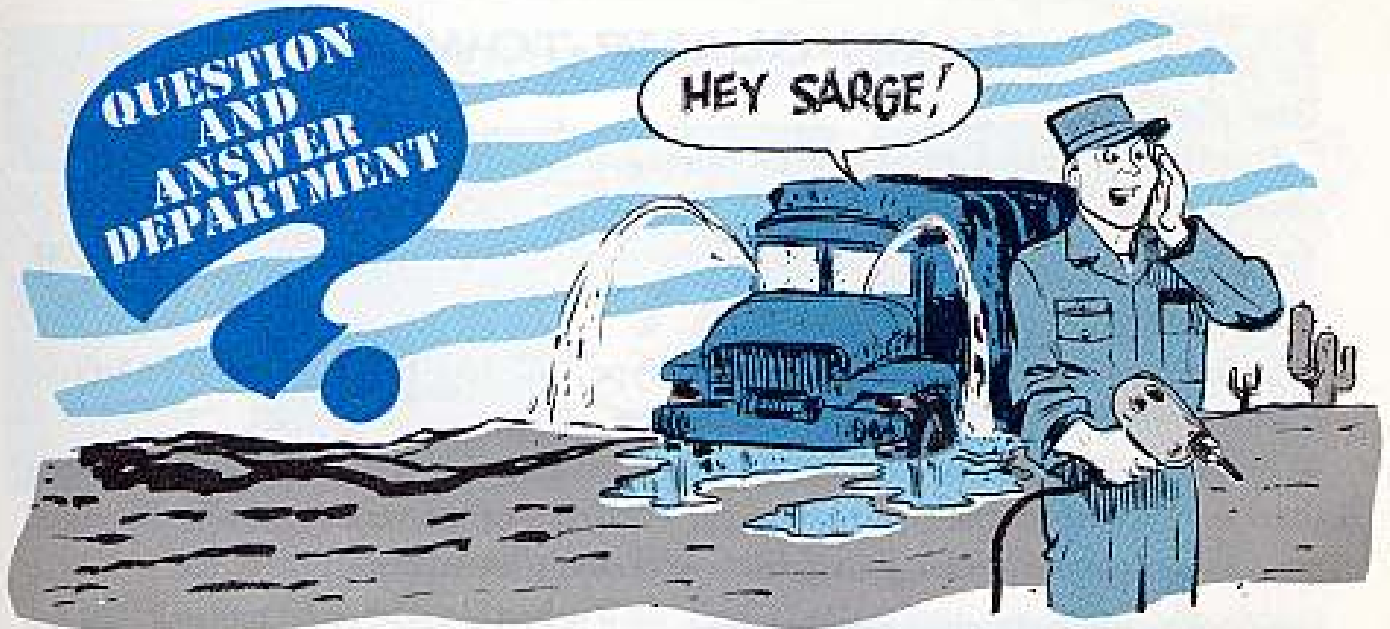
Here's how to set HE shell fuze delay. Remember they come to you in the ready-made package on SQ (superquick)

always use a screw driver to turn the slot in the nose of the round, from SQ to line up with the delay mark



QUESTION
AND
ANSWER
DEPARTMENT

HEY SARGE!



THIS WILL DRILL YOU

Dear Half-Mast

We've been having trouble with the windshield frames on our M-series vehicles getting loaded with water. What word do you have on this?

Pvt R. R. S.

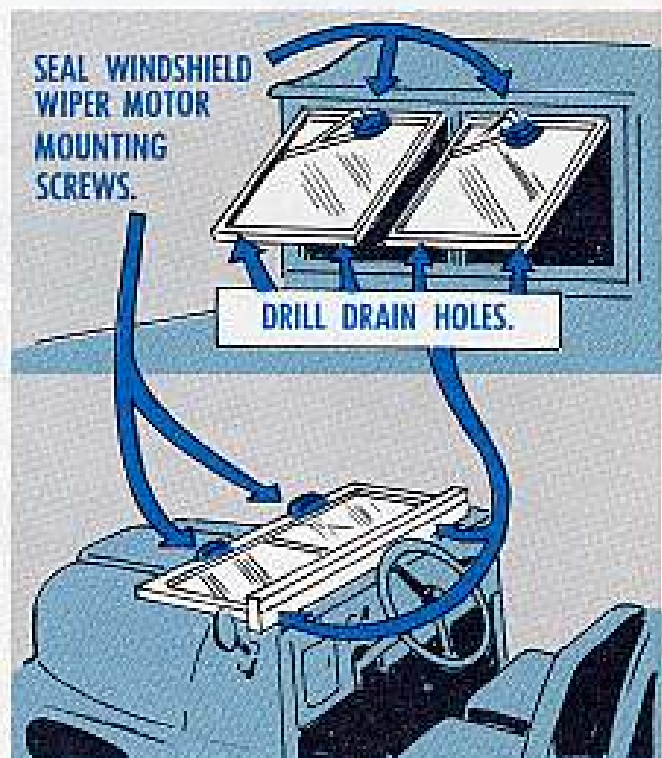
Dear Pvt R. R. S.,

You know that getting loaded on water never does anybody any good.

To let the water out of those windshields and keep them from rusting or getting cracked from freezing, you need an electric drill and a $\frac{1}{8}$ -in bit.

Make like a dentist and drill two $\frac{1}{8}$ -in drain holes at the bottom of the windshield frame.

Then seal windshield wiper motor mounting screws on those vehicles that have wiper motors mounted to the windshield frames. The wiper motor stems should also be gasketed and sealed.



For this you can use either Sealing Compound, Adhesive curing, FSN 8030-275-8110, which comes in a tube, or Sealing Compound, black, sealing and filling, FSN 8030-251-7236, which comes in a 1-qt. can.

Before sealing the windshield frames, clean out loose rust and dirt so that the sealing compound will stick.

CHAIN-CLAMP-TOWING

Dear Half-Mast,

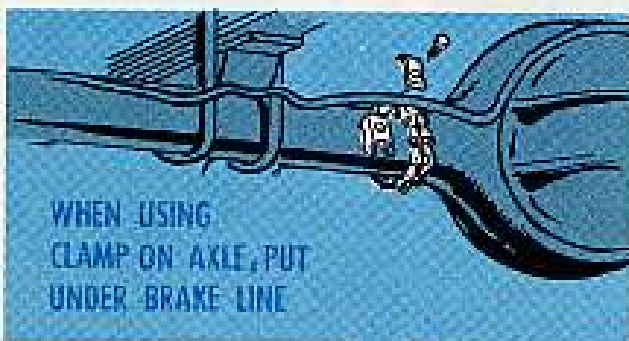
How about a quick run-down on towing. Some of our new people have asked about chain-clamp towing.

Sgt J. R. M.

Dear Sgt J. R. M.,

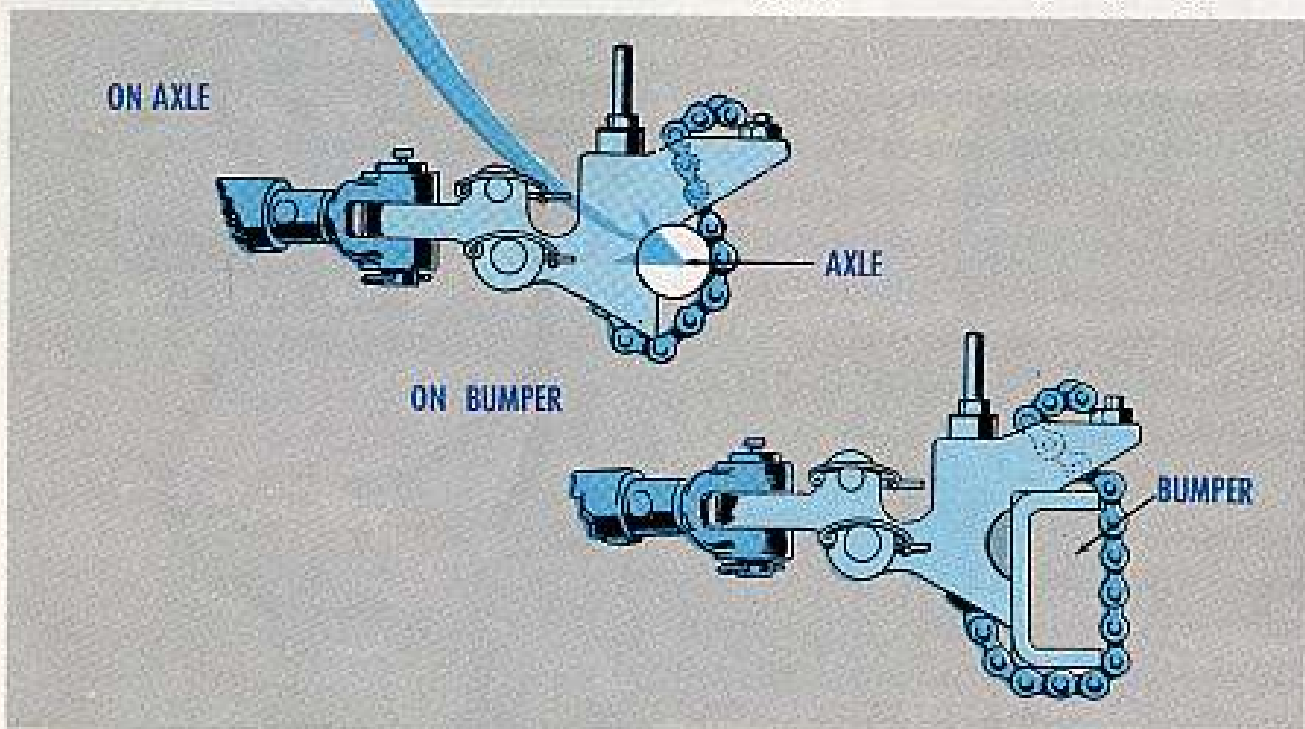
Sometimes you'll need your universal type "V" tow bar FSN 4910-735-6056 to tow a vehicle.

But there'll be times when you won't be able to hook it up to the lifting shackle brackets on the front bumpers. The front of the vehicle may be damaged or—like on commercial type vehicles—you don't have any.



To help in a spot like this, there's a wrap-'round-chain that you can put on the front bumper (if you've still got one) or on the front axle. It's, Chain, Clamp Assy FSN 2590-679-9648.

Remember, you use this chain clamp only if the vehicle to be towed has no lifting eyes—for emergency only.



One thing you'll have to do when using the chain clamp: After a couple miles of towing, you've got to check to see if the clamp's still tight. During the joltin' around process, they tend to loosen up.

Taking a second to tighten the chain nut'll keep your towed truck with you.

If you're on a long haul, it's best to take a quick look-see once in a while—just to be sure.

GET YOUR SCORE CARDS

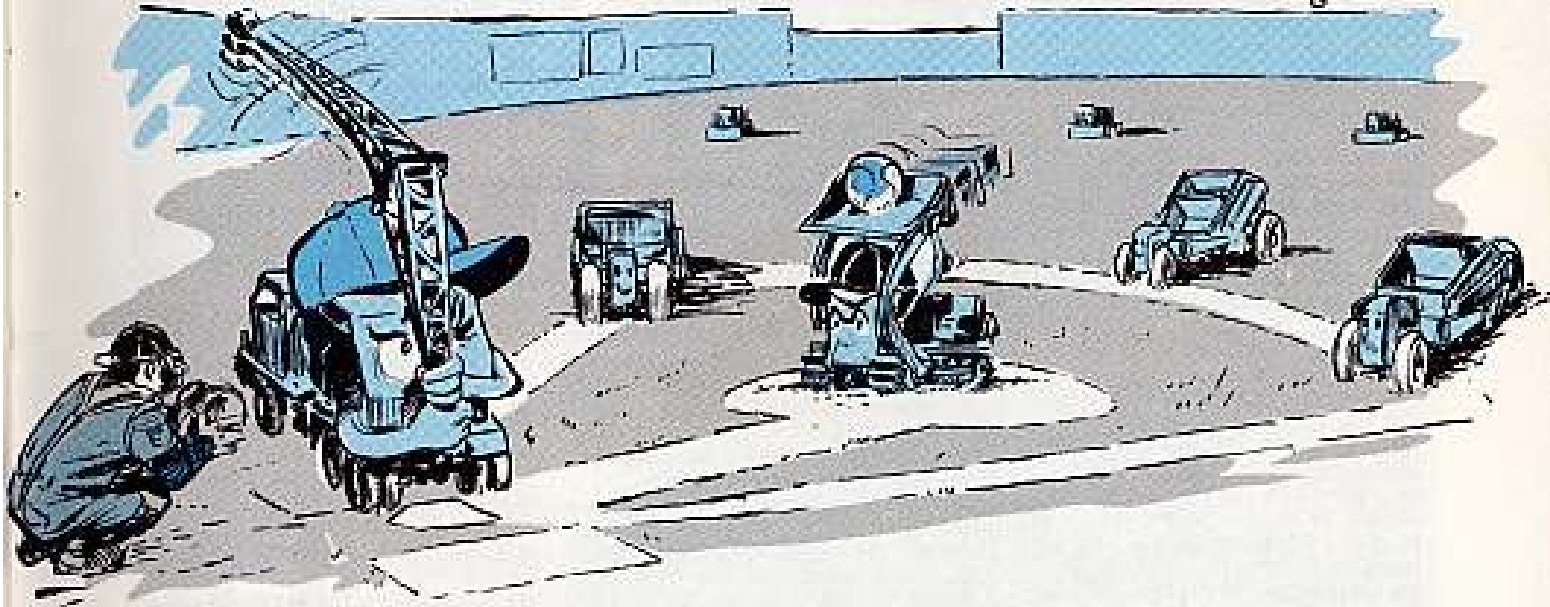


Dear Sgt Dozer,

We're out in left field when it comes to identifying some of the attachments for our Engineer heavy equipment like boom extensions, buckets, pile driver leads, blocks, and shovel fronts since there are no manufacturer serial numbers or equipment identification plates on them.

We won't be able to complete our Engineer equipment inventory until we can get these items identified. How do we go about identifying them?

Sgt L. C.



Dear Sgt L. C.

You can get back into the game by using TB ENG 122 and TB ENG 122-1. These manuals are identification guides for crane and crane-shovel attachments. They give you line drawings of items that have been in the Army supply system for several years.

You identify your attachments by actually measuring the ones you cannot identify and then comparing them with

the drawings in TB ENG 122 and 122-1. In some cases, these TB's will give you the FSN of the attachment. If not, you can get the FSN by looking at the SB or TB ENG of the major end item noted under the remarks section.

As far as missing serial numbers go, there's no way you can get hold of them. So, you'll just leave that item blank on your DA Form 5-73 or 5-73A.

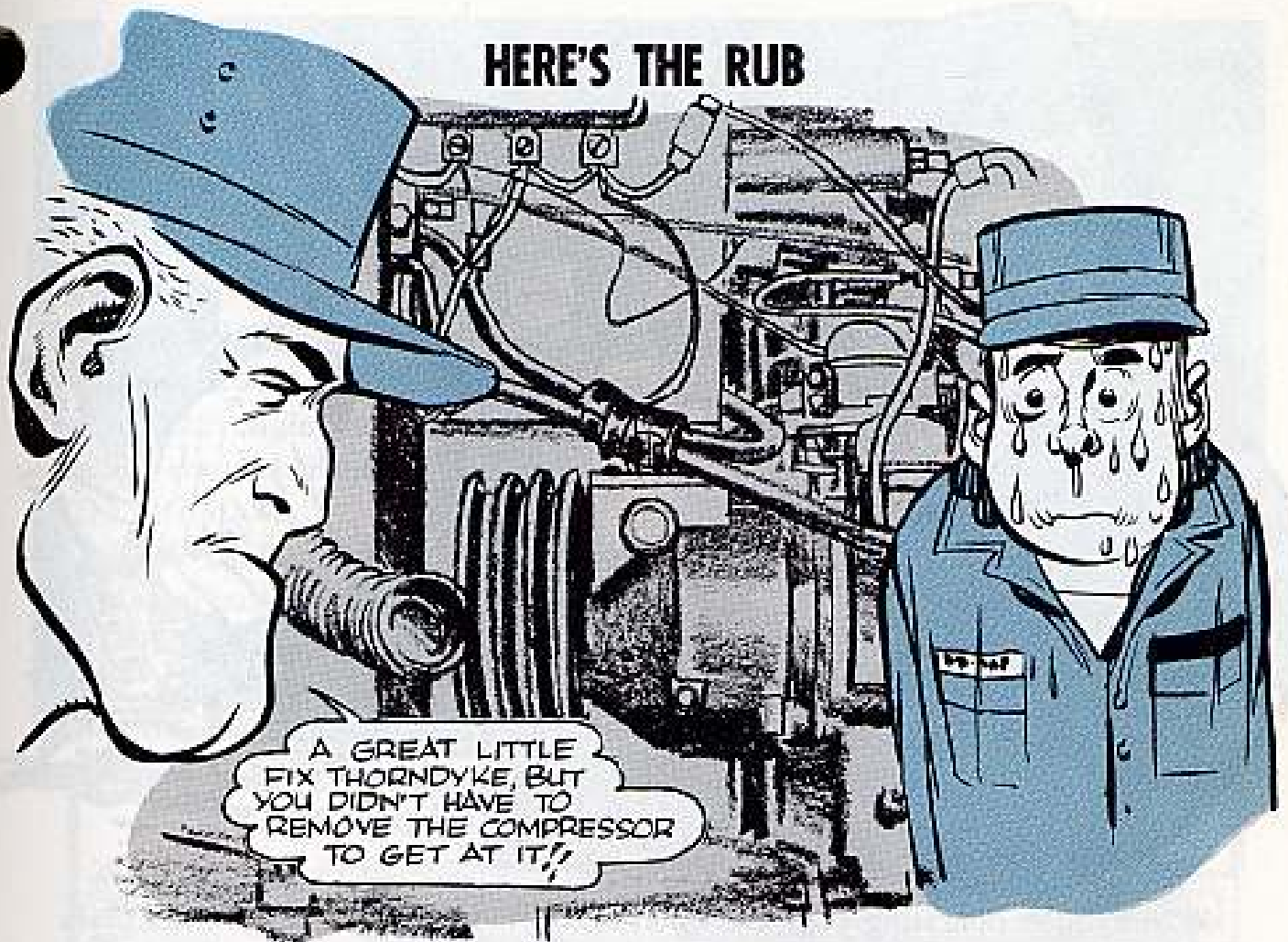
Sgt Dozer

A selected list of recent publications of interest to Organizational Maintenance Personnel.

TECHNICAL MANUALS

- TM 1-1H-13D-4-20P Feb.
TM 1-1H-19C-4 Jan. Illust. Parts Break-down.
TM 1-1H-21-4-20P Feb.
TM 1-1H-21C-1018, Mar. Removal Pre-ail Stencils H-21C.
TM 1-1H-23A-4-20P, Jan.
TM 1-1H-34-17 Mar H34 Storage
TM 1-1H-34A-4-20P Feb.
TM 1-1H-37A-4-20P Feb.
TM 1-5E6-3-10-1 Mar Free Air Thermometers C-13, C-13A & C-13B.
TM 1-1L-20A-1015, Mar. Master Brake Replacement L30 Aircraft.
TM 1-1L-20A-1017 Mar Reinfl Plates on Lower Wing Skin.
TM 1-1L-23D-2 Dec USAF Series L-23D, RL-23D.
TM 3-6665-201-12 Mar Alarm Auto M5
TM 5-461 Mar Eng Handtools.
TM 5-2410-200-10, -20P Mar Tractor (TD-1B-182).
TM 5-2420-210-10 Feb Tractor, Wheeled (Minneapolis-Moline Mod Big-Mo-400M).
TM 5-2410-205-20P Mar Tractor w/ Bulldozer w/Backrip Scoopifier.
TM 5-3805-207-15 Jan Loader, Scoop Die Dr.
TM 5-3820-203-12P Feb Crush, Scm and Wash Pl. (Iowa Mo DJ-50).
TM 5-3895-211-12P Feb Roller Gas, Cont Mtr Mods F226 and F244 Serial Nos. 1607031616.
TM 5-4120-202-12P Mar Air Cond, Ellis & Watts Mod CE-34-B-60 Redmanon Mod RM 0000.
TM 5-4120-203-12 Mar Air Cond (Ellis and Watts Mod MILAC-310).
TM 5-4210-202-20 Feb Truck, Fire Fighting: Foam Fog and Water, 950 Gal Water.
TM 5-4310-207-20P Mar Comp, Robot, Power Dr; Air Gas Eng 310 CFM, 100PSI.
TM 5-4310-217-20P Mar Comp Davey Mod P4.
TM 5-4310-219-20 Mar Comp Rly Air, (Ing-Rand Mod DR 400).
TM 5-4310-223-12P Feb Comp Recp (RIX Mod 55600).
TM 5-4310-233-12P Mar Comp Westinghouse Mod 1 BYCH-33.
TM 5-4310-233-12P Feb Comp Recp Air, Rec Gas Dr 15 CFM, 175 PSI.
TM 5-4310-235-12P Feb Comp Air Rec (Harris Mod H-325).
TM 5-4310-236-12P Feb Comp Air, Recp (Am Bk Shoe Mod GE-301-XA).
TM 5-4930-204-15P Mar.
TM 5-4610-203-20 Mar Water Purif Unit (Met-Pro Mod 3000-2700).
TM 5-6115-211-20P Mar Gen Set Hollingsworth Mod JHGX3A.
TM 5-6115-213-20 Mar Gen Set, Diesel Eng, 45 KW, AC 120/200, 240/416 V 3 Phase, 60 Cycle Contble to 37.5 KW, 50 Cycle Skid Mounted.
TM 5-6115-213-20P Mar (Kerz and Root Mod Alex -1).
TM 5-6115-228-20P Feb (Jeto Model MD 601815-W).
TM 5-6115-228-25P Feb Gen Set Diesel Eng. (Ojeto Model MD 601815-W).
TM 5-6115-235-20 Feb Gen Set, (Candl Die Mod 4060) w/Eng Contl Mod TD 427.
TM 5-6115-235-20P Feb Gen Set Diesel; (Consolidated Diesel Mod 4060).
TM 5-6115-241-10 Mar Gen Set Diesel Jeto Mod MD-151815-W.
TM 5-6115-246-20P Mar Gen Set Pioneer Gene. Motors Mod CE 15L.
TM 5-6115-253-20 Feb Gen Set, Gas, 2 KW DC 12V.
TM 5-6115-265-12P Feb Gen Set, Diesel Engine, Winterized (Ready Fr Md ED6A12, Type AE Modified).
TM 5-6115-278-12P Mar Generator MIDCO Mod EC51.
TM 5-6115-279-12P Mar Gen Set, (Helih Mod JH).
TM 5-6115-286-12P Mar Generator 120/240 V.
TM 9-1220-206-12 Feb Gun Dir Comp M15.
TM 9-1240-200-12 Feb Gunery Off Can M1.
TM 9-1410-250-20P/1 Feb Missile Anticircraft, M6 (Nike-Herc).
TM 9-1410-400-20P Feb LaCrosse 1.
TM 9-1430-250-20P/2 Feb N-H.
TM 9-1430-267-12 Mar Rdr-Sig Simu Slot AN/MPQ-36 (1502).
TM 9-1430-267-20 Mar Schen Rdr-Sig Simu Slot AN/MPQ-36 (1502).
TM 9-1430-267-20P Feb Simu Slot, Rdr Sig AN/MPQ-36 (Nike-Ajax).
TM 9-1430-400-20P/1 Feb Gen Gr (Comp) (LaCrosse).
TM 9-1430-400-20P/2 Feb Gen Cap (Trac) (LaCrosse).
TM 9-1440-250-20P/1 Feb Launcher Manonail (Nike-Herc).
TM 9-1440-250-20P/2 Feb Launching Control TR MTD MSW-4 (Nike-Herc).
TM 9-2300-224-10 Feb Arm Carr, M113.
TM 9-2320-206-12 Feb Truck 10-Ton M123.
TM 9-2320-212-20P Feb Truck 1/2 Ton M56, M56C and M56B1.
TM 9-2350-215-10 & -20P Feb Tank 105-mm Gas, M50.
TM 9-2350-215-10, -20, -20P M50 Tank 105-MM Gun.
TM 9-3046-4-12 Jan Corporal II Radio AN/MRQ-7.
TM 9-6650-211-12 Jan Biscular M17A1.
TM 10-500-41 Mar Rig 38 Ft. High-way-type Bridge.
TM 10-500-47 Mar Rig M215 Dump Truck.
TM 10-1107 Feb Petroleum Handling Operations for Aviation Fuel.
TM 10-4110-203-25P Mar Refrig Army Mod SPK 17.
TM 10-4110-205-20P Mar Refrig Unit, Army Model SPV 31, SPV 33A.
TM 10-4520-201-10, -20 Mar Heater BTU.
TM 11-5805-293-12P Feb Converter CV-46/FR.
TM 11-6625-211-10P Jan Meter, Field AN/URM-91.
TM 11-1510-203-10 Jan Sig Elec Equip L-20A.
TM 11-1510-203-20 Jan Electronic Equip-Config L-20A Aircraft.
TM 11-5820-210-10P-20P Feb FP 281-282A.
TM 11-5805-214-20P Jan Multiplexer Set AN/TCC-10.
TM 11-5820-224-12P Jan Radio Set AN/YRC 6, -6X, -6Y, -6Z, -6XX, and -6YY.
TM 11-5820-238-10P Jan Radio Set AN/TRC-29.
TM 11-5805-270-12 Feb Term Telephone AN/FCC-5.
TM 11-5810-210-12P Jan Teletypewriter Mixer SSM-33.
TM 11-5815-219-12P Feb Distributor-Trans TT-123A/FG & TT-123A/FG.
TM 11-5815-238-12P Jan TT AN/GGC-3 & -3A.
TM 11-5815-244-12 Mar Teletypewriter Sets AN/FGC-25, AN/FGC-25X, AN/FGC-26, & AN/FGC-57.
TM 11-5820-214-10P Mar CV-157/URR.
TM 11-5820-280-10P Feb Trans Set, Radio AN/FRT-32 & 32A.
TM 11-5820-280-20P Feb Trans Set, Radio AN/FRT-32A.
TM 11-5820-335-10P Jan Trans, Radio T-195/GRC-19.
TM 11-5820-335-20P Jan Radio Transmitter T-195/GRC-19.
TM 11-5820-355-20P Jan Radio Set AN/PRC-6.
TM 11-5820-360-20P Jan Recvr, Radio R-389/URR.
TM 11-5820-371-12P Feb Amp Audio Freq (Altec Lansing 448A).
TM 11-5820-381-12P Mar Antenna Coupler CU-119/FR & CU-119A/FR.
TM 11-5821-221-10P Feb Radio Set Grp (UHF, ARC Part/Drawing FES 1254).
TM 11-5821-221-20P Feb Radio Set Grp (UHF, ARC Part/Drawing FES 1254).
TM 11-5821-225-24 Jan Radio Sets AN/ARC-27, 27A, AN/ARC-55 and -55B.
TM 11-5825-212-10P -20P Feb Direction Finder Set AN/TRD-3.
TM 11-5826-200-10P Feb Recvr, Radio R-746/AR.
TM 11-5841-210-20P Feb Tuner, Radio TN-179/APR-13.
TM 11-5841-209-20P Feb Tuner, Radio Freq TN-170/APR-13.
TM 11-5841-212-20P Feb Tuner, Radio TN-180/APR-13.
TM 11-5841-215-20P Feb Mixer-Amplifier CV-124/APR-13.
TM 11-5895-205-15 Jan Tele Term AN/MSC-29.
TM 11-5895-229-10P Feb Radio Set AN/YRC-30.
TM 11-5895-246-12 Jan Airborne Drone AN/USD-1.
TM 11-5895-253-12P Mar Coordinate Data Set AN/TSC-8 (AC-2).
TM 11-6115-202-10P Feb PU 284G & A.
TM 11-6615-202-12P, -20P Mar PU-286/G & 286 A/G.
TM 11-6115-209-20P Jan Power Unit PE-162A, -162Y and -162C.
TM 11-6125-200-10 Feb Motor Gen PU-20/C PU-20A/C, PU-20B/C, PU-20C/C PU-33/C.
TM 11-6625-328-12P Feb Oscilloscope AN/USM-89.
TM 11-6625-330-12P Mar Radio Test Set AN/ARM-42.
TM 11-6625-333-12P Mar Standing Wave Ratio-Power Meter ME-165/G.
TM 11-6625-335-20P Mar Ind, Stand Wave Ratio AN/UPM-108.
TM 11-6623-337-12P Feb Radio Test Set Grp.
TM 11-6625-340-10, Jan Voltmeter ME-147/U.
TM 11-6740-200-10 Jan Lab & Photo Darkroom AN/TFQ-7, AN/TFQ-7A, AN/TFQ-7B, OA-418B/TFQ-7, OA-419C/TFQ-7.
TM 11-6740-223-10P Dec Straighteners, Photo Print FM-103(1): Print Straighteners PH-144 and PH-146A.
TM 11-6740-223-10P, -30P Feb Diler, Photo Print PH-679A/U.
TM 11-6780-205-10P Feb Identification Equipment PH-385-C, -D, and E.

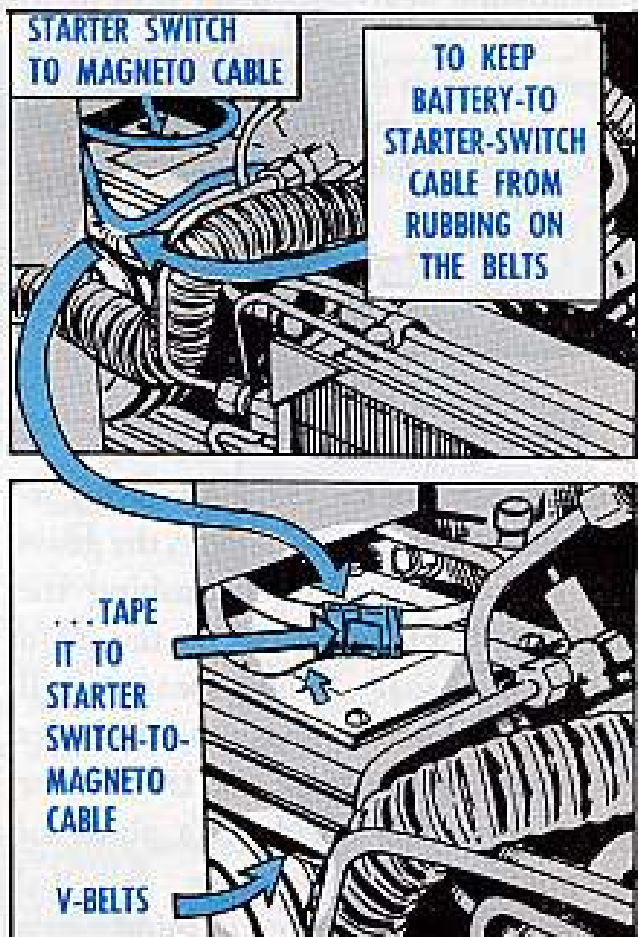
HERE'S THE RUB



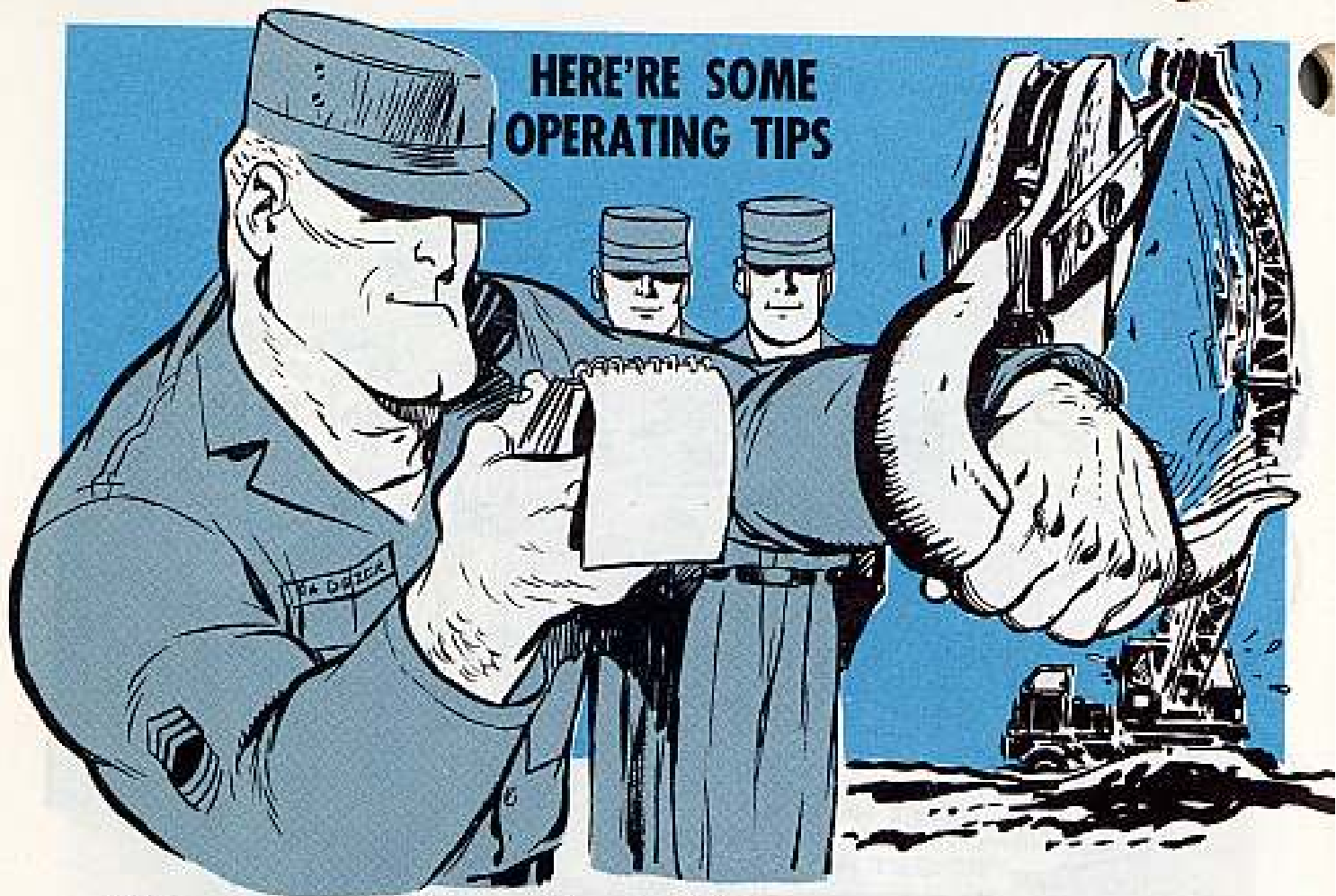
It's the starter cable on your Joy compressor, Model 15H, rubbing against the drive belt. The cable runs from the battery to the starter switch and, if the cable clips are loose or missing, the cable is likely to ride against the belt, and they'll both get worn.

No sweat to keep yourself from a gig, your V-belt from unnecessary wear and tear, and your cable from losing some insulation with the chance of a short. Just wrap a coupla winds of insulating tape around both the cable from the battery and the cable from the starter switch to the magneto—or you can tie 'em together.

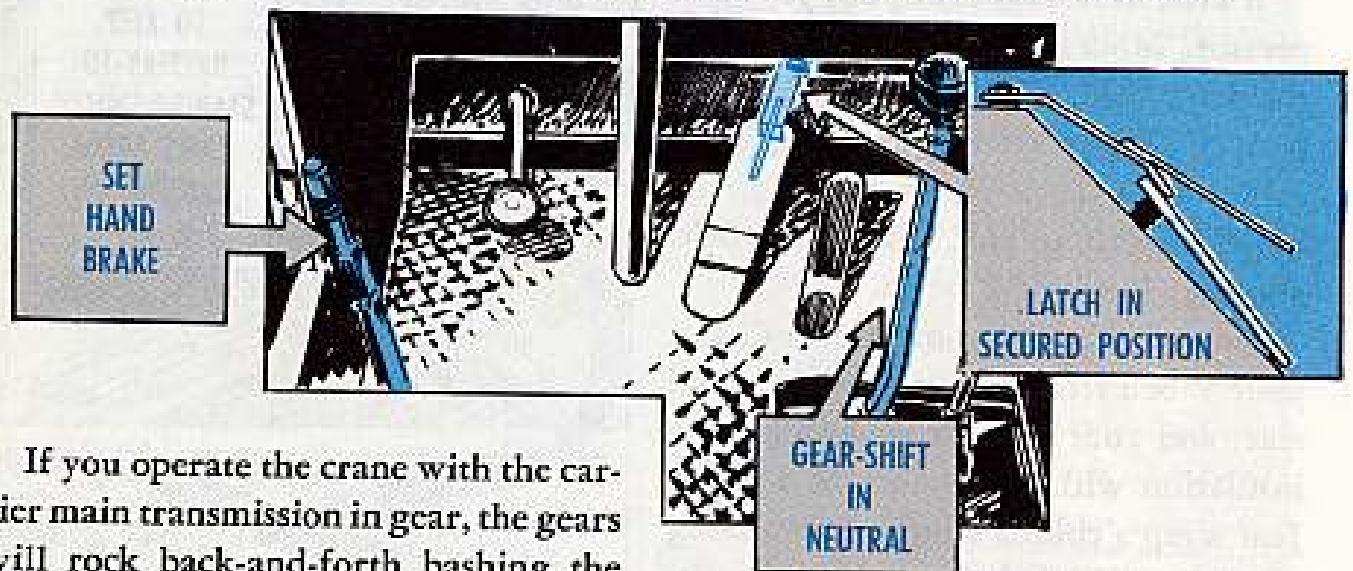
Either way this'll keep the cables free of the drive belts until you can get a cable clip to hold them in place permanently.



HERE'RE SOME OPERATING TIPS



When you're operating your Garwood M20B crane-shovel be sure the main transmission gear-shift-lever is in neutral and you've got the handbrake set.



If you operate the crane with the carrier main transmission in gear, the gears will rock back-and-forth bashing the splines and shifting gears on the main transmission shaft. Which means you'll be in trouble when you try to shift gears in the carrier. Could be real trouble for you if your CO decides it's abuse of equipment.

Another thing to keep in mind when

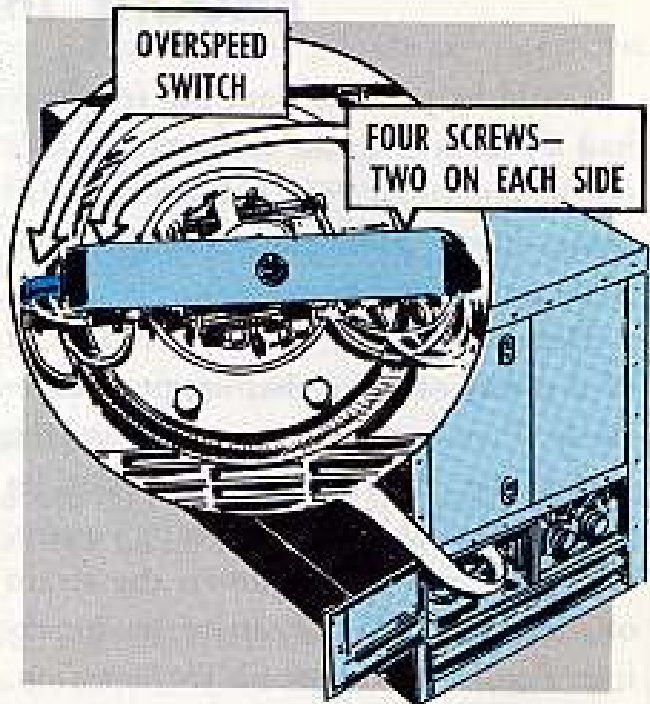
you're running your crane-shovel, is to lock down the air-brake-treadle with the latch. Then take a time-out every so often, shut down the crane, and turn the carrier engine over until you give the air brake pressure a chance to build up.

NUTS FOR SAFETY

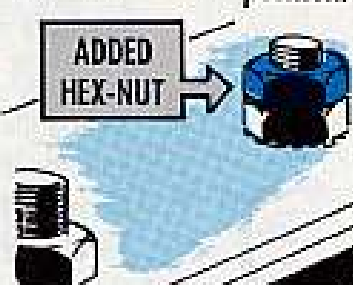
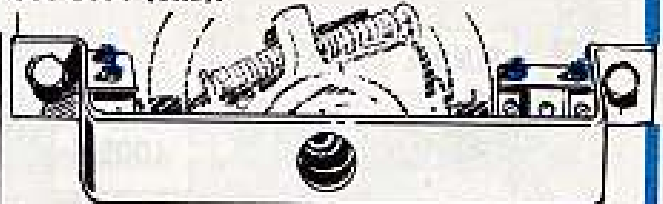
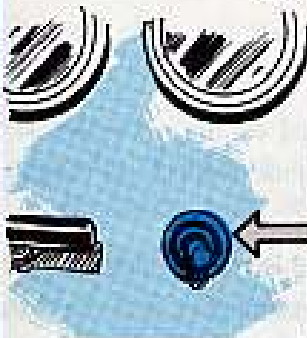
Two bits worth of hex nuts and an ounce of PM can save a barrel of trouble on your 45 KW Consolidated Diesel Generator, Model 4060.

The overspeed cutout switch on this generator has to be set finer than frog hair—to be sure it takes over and shuts down the engine any time the shaft speed runs past the danger point of 2175 RPM.

To be extra-sure that fine setting is safe from jarring out of adjustment during transport or long operation, here's how you can double-lock the switch mounting—



1. Get four extra hex nuts like the nuts already mounted on the micro switches. Use FSN 5310-010-3091 (ORD).



4. You want to work on one screw fastening at a time. Remove the hex nut, the IET washer, and the flat washer. You won't need the flat washer so you can toss it in your junk box.

5. Replace the IET washer, then replace the present hex nut tight. Now add an extra hex nut tightened to act as a jam nut.

6. Working on one at a time, repeat this procedure on each of the other switch mounting screws.

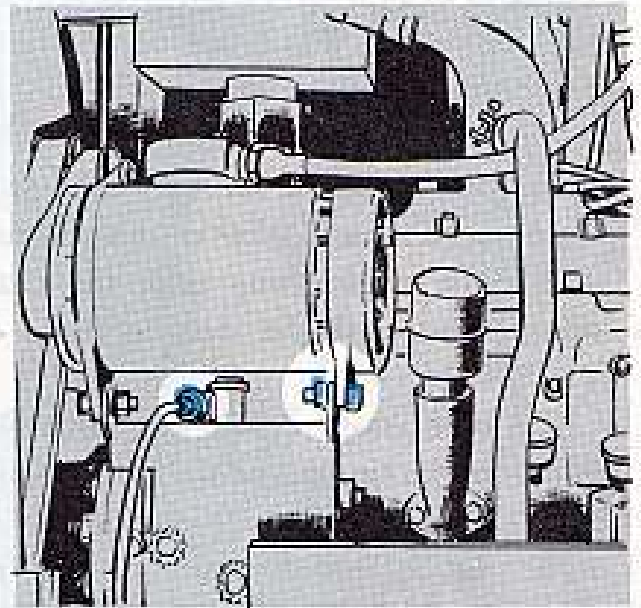
CAUTION: DO NOT REMOVE THOSE FLAT WASHERS THAT FIT BETWEEN THE SCREW HEADS AND THE SWITCH.



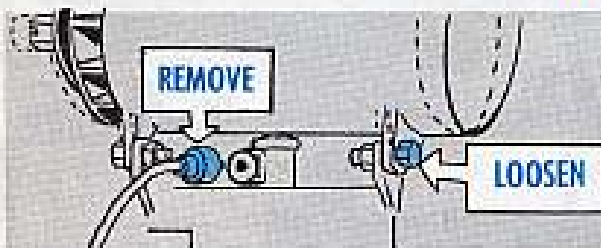
RELOCATE THE TACH CABLE

Could be you and your big feet have had a run-in with the tachometer cable on the engine of your Garwood M20B crane-shovel. Most times the cable has come out second best.

Here's a way to keep the cable out of the way of your clod-hoppers, especially when you're squeezing around the back of the cab to check your oil. Besides keeping the cable from tripping you up, relocating it will cut down the strain on the cable and will keep it from breaking near the drive-assembly connection.

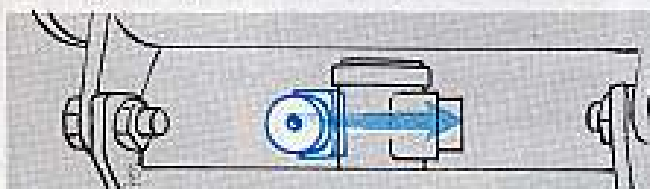


TAKE IT OFF

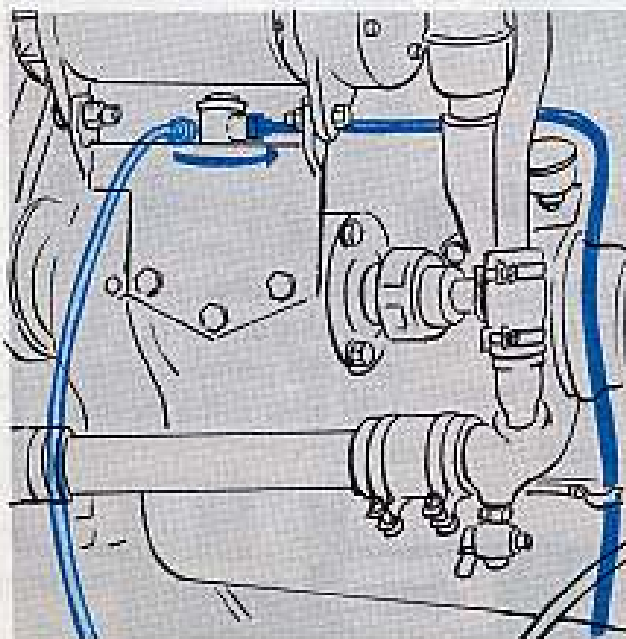


First off, you disconnect the cable from the drive assembly.

Then, loosen the stud on the generator and tilt the generator back toward the engine.



Now, loosen the drive-assembly mounting-nut and turn the drive assembly so that the cable connection does an about-face and turns toward the rear of the engine.



Thread the loose end of the tachometer cable up between the two water pump grease cups in front of the oil-filler flange, then between the engine and generator bracket. Connect the tach cable back to the drive assembly.

Scrounge or make yourself a clamp from scrap metal and clamp the cable to the engine pan.

You use the engine pan capscrew nearest the front of the crankcase wall. The clamp will keep it in line and take the pressure off the connection.

Finally, you readjust the generator drive belt, and you're ready to go.

LOOK MA—NO HANDLE!

Dear Sgt Dozer,

What's the scoop on these wooden tool handles? Some people say paint 'em; others say oil 'em.



Sgt L. L. R.

Dear Sgt L. L. R.

How you treat wooden handles depends on whether you plan to use tools, or just sit back and admire 'em. In any case, here's a simple SOP for PM on all wooden tool handles.



S IS FOR SPRAY OR SOAK

S is for spray, or soak. During storage, a shot of bug-killer is good PM for practically all wood handles. Some sort of bug is always looking to chew on wood that isn't frozen solid as the South Pole.

TM 5-632, "Insect and Rodent Control" (1 Feb 56), page 88, "Preventive Treatment" has the full scoop on bug-killers. Where powder-post beetles are around, the best bug-killer is a dip solution containing 5% pentachlorophenol and 5% water repellent trichlorobenzene. To kill other wood-eating insects, FSN 6840-253-3892 (QMC) will get you a 5-gal can of 5% DDT Insecticide, Liquid.



O IS FOR OIL

O is for oiling tools you use for work like chopping, striking and shovelling. To keep wooden handles of working tools "alive," you lube 'em with linseed oil. Smear it on, let it soak into the grain, then rub off any extra until you have the right "feel" for handling.

When wood gets roughed up or splintered, you rub it down with sandpaper, and give it another coat of oil. Either raw or boiled linseed oil will do the job. You can get 1 gal of raw linseed oil under FSN 8010-221-0611 (Eng). A 1-gal can of boiled linseed oil carries FSN 8010-152-3245 (Eng).



P IS FOR PAINT

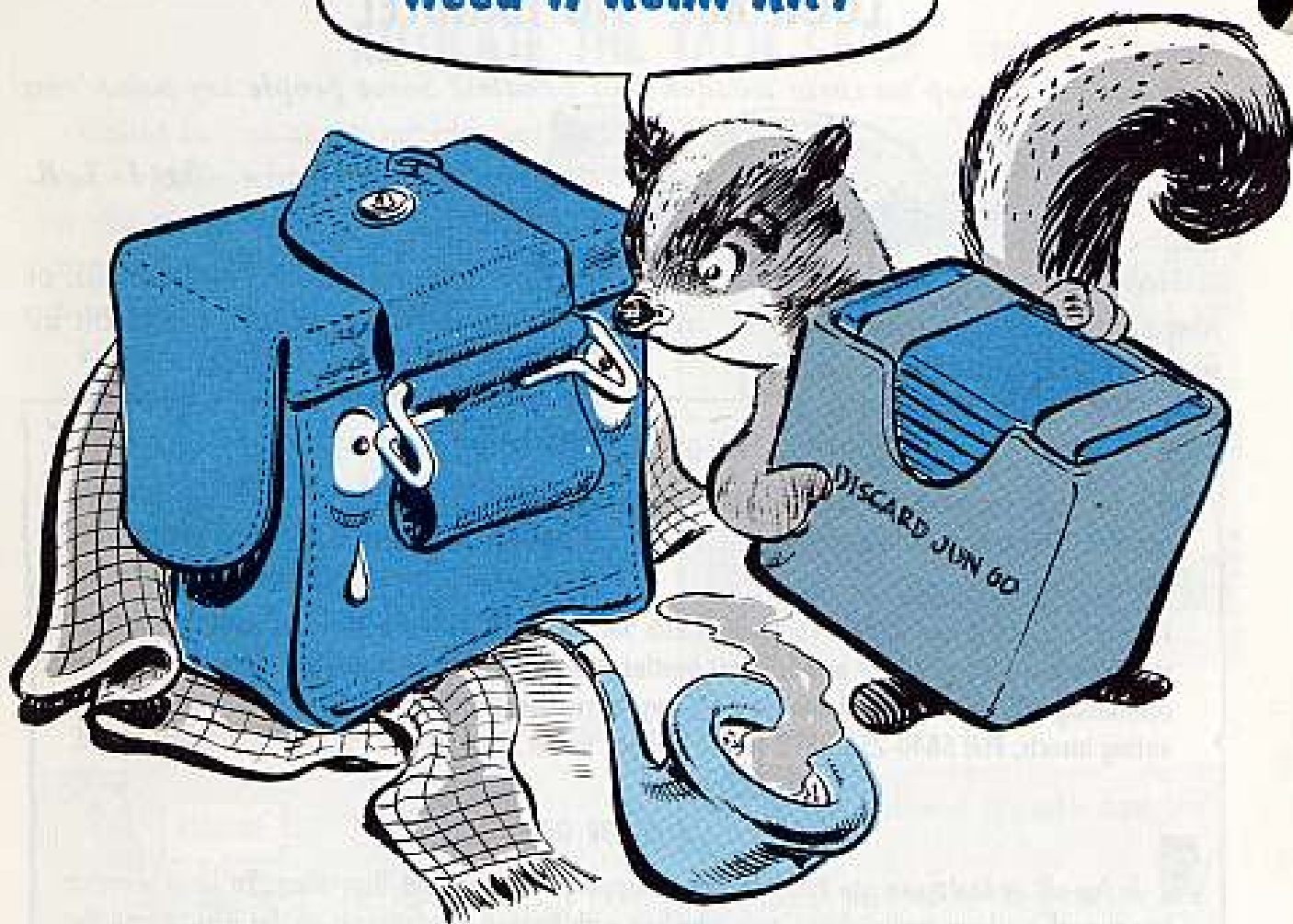
P is for painting tools. You can keep emergency tools like fire axes and outriding tools on vehicles in A-1 shape with a coat or two of oil paint. Use olive drab, enamel semi-gloss Spec. TT-E-485C, color chip No. 24087, Federal Standard No. 595.

FSN 8010-297-2105 gets you 1 gal and FSN 8010-297-3741 gets you a 5-gal can. You don't want to paint the other tools you use all the time, because paint gives handles a hard "feel" and wears bare in spots.

However, your intrenching tools, Hand Combination, FSN 5120-289-0540, and Hand Straight FSN 5120-293-1579, must be painted entirely for camouflage and uniform appearance. TM 5-618 has the dope on how to paint.

Wood-handled tools are still tops for a slew of jobs. So follow this SOP on those wooden handles—and while you're about it, you can make sure the whole tool is ready to do its job by checking out TM 9-867 on Maintenance and Care of Hand Tools.

Need A Refill Kit?



You know the M15 chemical agent detector kit is used for detecting dangerous concentrations of nerve gases (G-agents) and mustard (H).

But have you ever thought of the different ways you use it? In the first place you can use it for gas reconnaissance. You use it for checking an area that you think might be contaminated.

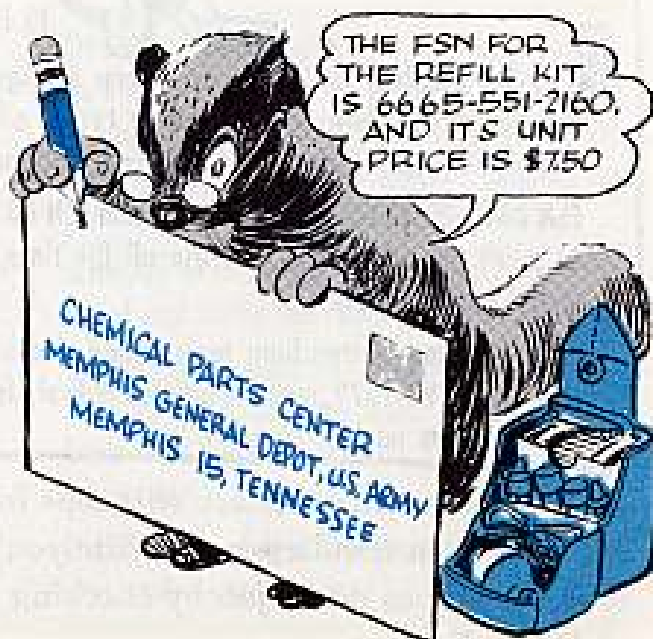
Then it can be used to tell when it's safe to take your mask off.

And you can use it to see if gas is still there after decontamination.

Your kit's not supposed to be used to tell you when to put your mask on. If you think there's gas present, put your mask on first, and then use your kit to check.

There's a little matter of keeping that

kit up to date. You'll note there's a date stamped on the plastic dispenser that tells you when it's time for a refill kit. So have your supply people order the refill kits before the discard date from:



Flame Thrower Mix



Keep an eye on your mix when you're using M1 thickener for your flame throwers.

You use the same items (thickener, gasoline, and maybe peptizer), but you don't always get the same kind of mix.

There's something to keep in mind when you're going to mix your gasoline and thickener. Never open the thickener container until you're ready to use it. The M1 thickener absorbs

moisture and when you have moisture in it you'll find it's harder to get a good gel. And if there are lumps in the thickener when you do open the containers, break them up with your hands before you add it to the gasoline.

The thickness of the mix you'll need depends upon the weapon you're going to use it in. And the amount of thickener you use with your gasoline depends upon the temperature of the gasoline.

PORTABLE FLAME THROWERS

(hand mixing, or using M4 service unit) Per 100 gallons of gasoline:

Temperature	M1 Thickener	Peptizer	Acceptable Aging Time	Better Aging Time
Above 60° F	26¼ lb.	0	1 hr.	2+ hrs.
40° to 60° F	26¼ lb.	2½ lb.	4 hrs.	12-18 hrs.
20° to 40° F	26¼ lb.	3¾ lb.	4 hrs.	12-18 hrs.
0° to 20° F	26¼ lb.	7½ lb.	4 hrs.	12-18 hrs.
-15° to 0° F	26¼ lb.	10 lb.	4 hrs.	12-18 hrs.

THERE'S MORE,

MECHANIZED FLAME THROWERS
(using M4 service unit) Per 100 gallons of gasoline:

Temperature	M1 Thickener	Peptizer	Acceptable Aging Time	Better Aging Time
Above 60° F	50 lb.	0	1 hr.	2+ hrs.
40° to 60° F	50 lb.	3½ lb.	4 hrs.	12-18 hrs.
20° to 40° F	50 lb.	5 lb.	4 hrs.	12-18 hrs.
0° to 20° F	60 lb.	7½ lb.	4 hrs.	12-18 hrs.
-15° to 0° F	60 lb.	8¾ lb.	4 hrs.	12-18 hrs.

ONE POUND EQUALS A PINT, AND YOUR CANTEEN CUP HOLDS 1½ PINTS OR 1½ POUNDS, JUST IN CASE YOU WANT TO MEASURE SMALL AMOUNTS OF PEPTIZER.



Now before you do any measuring and mixing, make sure all your mixing equipment is clean. There shouldn't be any dirt, grease, alcohol, animal fats, water, or what have you in the container.

batches. Use the same gasoline, same M1 thickener (same lots) and have the same temperature condition.



You'll find that the thickened fuel may be thicker or thinner when the fuel is mixed from different lots of thickener or gasoline. To play it safe before you mix a big batch mix test batches of each lot of thickener and gasoline as test samples.

When you're mixing a test batch you've got to keep your mind on what you're doing. You don't want to stir it too much because this will break down the gel structure and the dependable life of the mix will be shortened.

Mix the test batch under the same conditions you'll be mixing large

On the other hand, if you don't mix it enough you'll find that it will not be of the same consistency. The thickener tends to settle to the bottom.

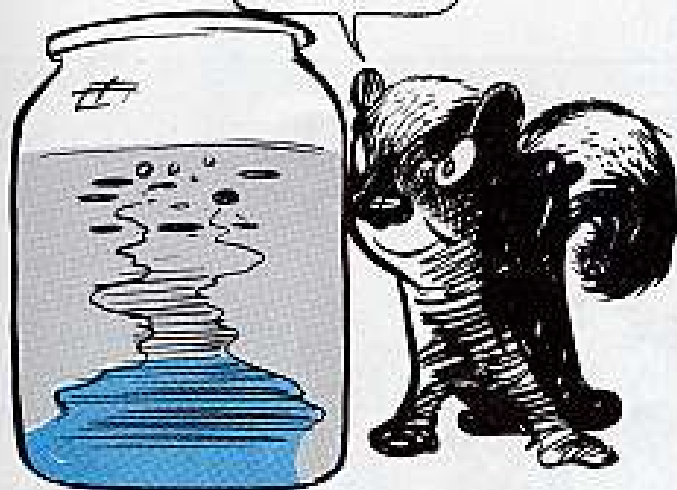
Here's how to mix your test batch.

Measure the gasoline and thickener.



Then pour the thickener into the gasoline, stirring while you're pouring. Continue stirring for about 5 minutes after all the thickener has been added. Then stir for 1 minute every 20 minutes until a suitable gel has been formed. Let your test batch stand.

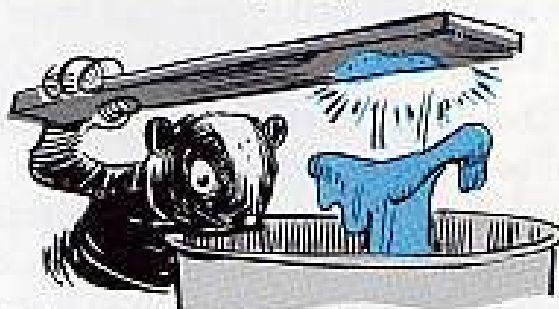
YOU CAN TELL BY PUTTING SOME IN A GLASS JAR... IF THE THICKENER SETTLES TO THE BOTTOM, IT HASN'T BEEN STIRRED ENOUGH!



You can expect a good gel in 1 or 2 hours when the temperature's above 60° F, and 4 hours when the temperature's below 60° F and you've added peptizer to the mix.

When you've got a test batch that's too thin or too thick you'll have to mix a second test batch. If the first batch was too thin then use more thickener or if it was too thick, don't use as much.

After you've let the mix age (according to the chart), then test it to see if you've got a good mix. Stir it with your wooden mixing paddle to make sure you don't have any lumps at the bottom.



Then pick some of it up with your paddle and let it drop back into the container. If it's stringy and falls away from the paddle with very little left on the paddle, then you probably have a good mix. (It's the same principle people use in making jelly when they let jelly drop from a wooden spoon.)



Take another paddle or clean stick and pull some of the mixture off the paddle. You should get jellylike threads between the two.

A good mix is sticky and rubbery.

If your test batch mix meets all of these tests, a big batch can be mixed using the proportions of gasoline, M1 thickener, and peptizer used in mixing the test batch.

Remember if 10 gallons of gasoline were used in making the test batch, then the amount of peptizer and thickener must be multiplied by 10 when making a mix with 100 gallons of gasoline or multiplied by 20 when making a mix with 200 gallons of gasoline.

HA HA HA HEHE OUCH TICKLING'S

Whoa there! Don't go ticklin' an MHE vehicle under the hood to get it started, less'n you first make sure the critter can't stomp all over you or nail you against a wall.

Those MHE lift trucks are geared extra low as compared to other transmissions and so some of 'em will mesh a lot quicker. Especially the Clark Carloader and some of the Towmotors. If, for instance, their low or reverse shift forks are worn, it won't take much vibration or accidental bumping of the shift mechanism linkage to throw 'em into gear. And if the brake's off—look out.

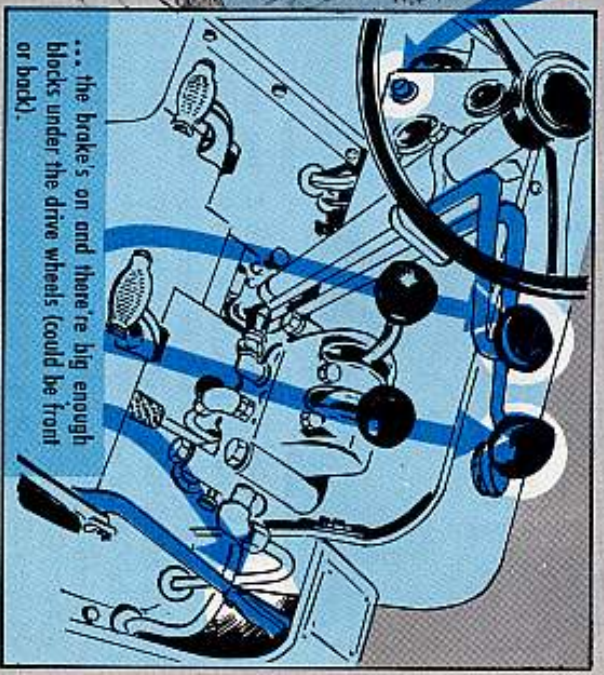
So, if it happens you gotta start that MHE engine from under the hood, it'd be smart to pick one of these safe ways of doing it:

These'll do for the Towmotors, and some of the larger warehouse tractors.

Have a buddy in the driver's seat to put on the brake or do whatever else is needed while you're down under.

Be sure, though, he knows he shouldn't touch anything (the starter, particularly) till you say so.

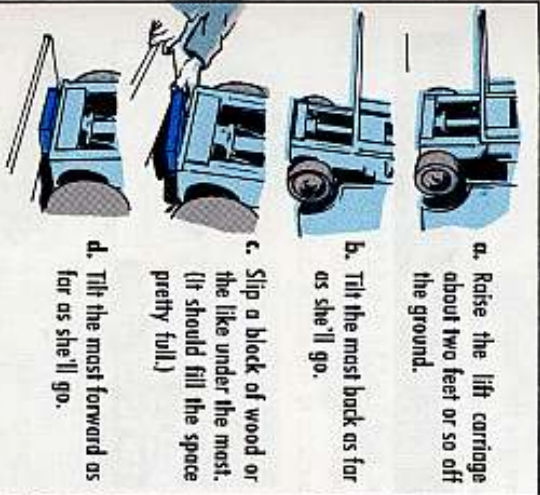
Make sure the vehicle's in neutral...



...the brake's on and there're big enough blocks under the drive wheels (could be front or back).

NOT funny

But for the forklift, (except Towmotors), this system's best:



a. Raise the lift carriage about two feet or so off the ground.

b. Tilt the mast back as far as she'll go.

c. Slip a block of wood or the like under the mast. (It should fill the space pretty full.)

d. Tilt the mast forward as far as she'll go.

This'll jack the front wheels off the ground an inch or more—and that lift won't go anywhere, no matter what.

AIRCRAFT MECHANIC'S







TOOLS





The hum of those aircraft engines is a sweet tune to any pilot's ears. It's no accident when those engines deliver like they're supposed to—it's maintenance. And thanks to mechanics like yourself that those big gas birds get there and back. But you can't do the job unless you've got the tools.

If you're having trouble knowing just what tools you're supposed to have in your **TOOL KIT, AIRCRAFT MECHANIC'S: general, (FSN 5180-323-4692).**

Here's a breakdown of the set that's listed in your SM 9-4-5180-A70. This is for MOS 671.10, MOS 672.10, MOS 671.20 and MOS 672.20. Be sure you have the change to this SM. What you see in this article is the latest dope.

ADAPTER, SOCKET WRENCH: 1/2-in male sq plug, 3/8-in female sq socket. FSN 5120-240-8703		BIT, SCREWDRIVER: crosspoint, 1/4-in hex male shk, w/No 3 pt for Phillips hd screws. FSN 5120-230-5576	
AWL, SADDLER'S SEAT: 4-in blade, 8-in overall lg. FSN 5120-223-8191		BIT, SCREWDRIVER: crosspoint, 5/16-in hex male shank, w/No 4 point for Phillips head-screws. FSN 5120-595-8198	
BIT, SCREWDRIVER: crosspoint, 1/2-in hex male shk, w/1/4-in pt size for Reed and Prince hd screws. FSN 5120-223-6977		BIT, SCREWDRIVER: flat tip, 3/16-in W, male straight-hex drive shank, 1/2-in hex drive, 1 1/2-in lg o/a. FSN 5120-293-2057	

BIT, SCREWDRIVER: flat tip, 3/8-in W, male straight hex drive shank, 3/8-in hex drive, 1 1/2-in lg o/a. FSN 5120-293-2048		CROWFOOT ATTACH-MENT, SOCKET WRENCH: non-ratchet-ing open end, 3/8-in sq drive, 3/8-in opng. FSN 5120-184-8383	
BIT, SCREWDRIVER: Phillips type cross tip, No 1 size, male slight hex drive shk, 1-in max lg overall. FSN 5120-223-6971		CROWFOOT ATTACH-MENT, SOCKET WRENCH: non-ratchet-ing open end, 3/8-in sq drive, 1/2-in wrench opening. FSN 5120-184-8384	CROWFOOT ATTACH-MENT, SOCKET WRENCH: non-ratchet-ing open end, 3/8-in sq drive, 3/8-in open end. FSN 5120-184-8397 QM
BIT, SCREWDRIVER: Phillips type cross tip, size No 2, male slight hex drive shk, 1/4-in hex drive, 1-in lg overall. FSN 5120-595-8197		CROWFOOT ATTACH-MENT, SOCKET WRENCH: non-ratchet-ing open end, 3/8-in sq drive, 3/8-in opng. FSN 5120-184-8398 QM	CROWFOOT ATTACH-MENT, SOCKET WRENCH: non-ratchet-ing open end, 3/8-in sq drive, 3/4-in opng. FSN 5120-184-8400
BIT, SCREWDRIVER: Reed and Prince cross tip, 3/16-in hex size, male slight hex drive shk, 1 3/8-in lg overall. FSN 5120-223-6975		GROWFOOT ATTACH-MENT, SOCKET WRENCH: sgle open end, "T" hd, 3/4-in opng, lg. FSN 5120-546-5518	
BRUSH, PAINT: oval, No 5, 1 1/8 x 1 1/4-in. FSN 8020-239-0959			ENG

CROWFOOT ATTACHMENT, SOCKET WRENCH: sgle open end, "T" hdl, 3/4-in opng, shrt.



FSN 5120-131-9554

QM

EXTENSION, SOCKET WRENCH: 1/4-in sq-drive, 2-in lg.



FSN 5120-227-8105

QM

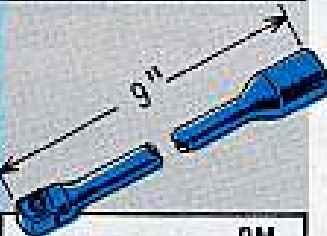
EXTENSION, SOCKET WRENCH: 3/8-in sq-drive, 3-in lg.



FSN 5120-243-1689

QM

EXTENSION, SOCKET WRENCH: 3/8-in sq-drive, 9-in lg. (formerly BAR)



FSN 5120-243-1693

QM

EXTENSION, SOCKET WRENCH: 1/4-in sq-drive, 6-in lg.



FSN 5120-243-7325

QM

EXTENSION, SOCKET WRENCH: flex, 1/4-in sq-drive, 6-in lg.



FSN 5120-240-1532

QM

EXTENSION, SOCKET WRENCH: 3/8-in sq-drive, 6-in lg.



FSN 5120-227-8107

QM

EXTRACTOR, cotter pin, 6-in lg.



FSN 5120-222-4284

QM

FILE, HAND: American patt, half-rd, bastard cut, 6-in heel to pt.



FSN 5110-241-9147

QM

FILE, HAND: American patt, half-rd, dble cut, sm cut, 6-in heel to pt.



FSN 5110-241-9149

QM

FILE, HAND: American patt, rd, sgle cut, sm cut, 8-in heel to pt.



FSN 5110-234-6553

QM

FILE, HAND: AS, 3 sq, sm cut, 8-in pt to shoulder.



FSN 5110-241-9163

QM

FINGER, MECHANICAL: flextype, 14 7/8-in reach.



FSN 5120-629-6258

QM

FLASHLIGHT: elec, hand, flex arm, type A-5A, w/lamp, w/o batteries.*



FSN 6230-263-0941

SIG

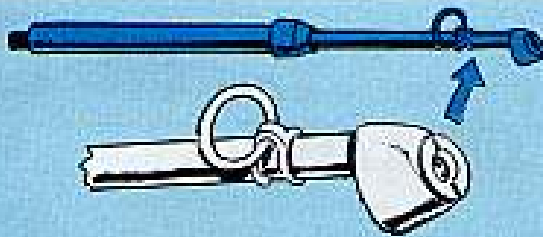
*You need two batteries with each flashlight. You'll have to order these batteries from the Signal Corps, (FSN 6135-120-1020). They're not considered a part of your flashlight.

GAGE, THICKNESS: 1 blade group, English system, 26 tapd blades, 3-in lg, 1/4-in w at tip, 0.0015-in, 0.002-in, 0.0025-in, 0.003-in, 0.004-in, 0.005-in, 0.006-in, 0.007-in, 0.008-in, 0.009-in, 0.010-in, 0.011-in, 0.012-in, 0.013-in, 0.014-in, 0.015-in, 0.016-in, 0.017-in, 0.018-in, 0.019-in, 0.020-in, 0.021-in, 0.022-in, 0.023-in, 0.024-in, 0.025-in, thicknesses, w/blade lock.

FSN 5210-221-1999

ORD





GAGE, TIRE PRESSURE, SELF-CONTAINED: for general testing air inflated tires, calibrated 10 to 160-lb range, 1-lb smallest grad div, 30 deg mtg angle dual foottype w/deflator and extrn 6-in lg.

FSN 4910-273-3662

ORD

HAMMER, HAND: machinist's, ball peen, 1/2-lb.



FSN 5120-242-3913

QM

HAMMER, INSERTED FACE: plastic, 1-in hd dia, 3 1/2-in hd lg, 5-oz, med hard faces.



FSN 5120-357-6074

QM

HANDLE, file and tool, wood, small size, 1-in dia of hand grip.



FSN 5110-263-0342

QM

HANDLE, FILE, WOOD: med size, 1 1/4-in dia of hand grip.



FSN 5110-263-0349

QM

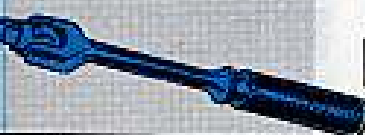
HANDLE, SOCKET WRENCH: hinged, 1/4-in sq-drive, 5 1/2-in lg.



FSN 5120-221-7960

QM

HANDLE, SOCKET WRENCH: hinged, 3/8-in sq-drive, 8-in lg.



FSN 5120-240-5395

QM

HANDLE, SOCKET WRENCH: rtc, rvrs, 1/4-in sq-drive, 5 1/2-in lg.



FSN 5120-221-7957

QM

HANDLE, SOCKET WRENCH: rtc, rvrs, 3/8-in sq-drive, 6-in lg.



FSN 5120-240-5364

QM

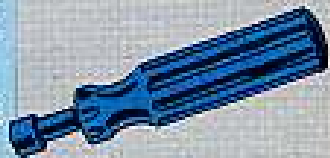
HANDLE, SOCKET WRENCH: spin type, 3/8-in sq male drive.



FSN 5120-540-0561

QM

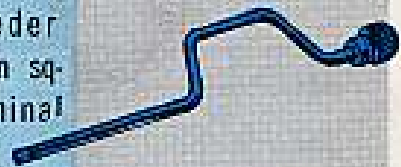
HANDLE, SOCKET WRENCH: spin type, 1/4-in sq male drive, 5 5/16 nominal overall lg.



FSN 5120-242-3256

QM

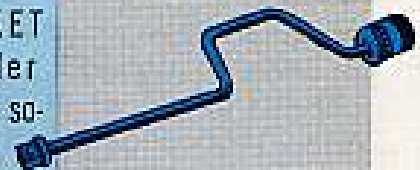
HANDLE, SOCKET WRENCH: speeder brace type, 1/4-in sq-drive, 14 1/2 nominal overall length.



FSN 5120-240-1418

QM

HANDLE, SOCKET WRENCH: speeder brace type, 3/8-in sq-drive, 16-in lg.



FSN 5120-237-4969

QM

HOLDER, SCREWDRIVER BIT: 1/4-in female sq-drive, for 1/4-in hex sockets.



FSN 5120-528-2891

QM

HOLDER, SCREWDRIVER BIT: 3/8-in female sq-drive, for 1/4-in hex sockets.



FSN 5120-528-2892

QM

HOLDER, SCREWDRIVER BIT: 3/8-in sq female drive, for 3/16-in hex sockets. (formerly ADAPTER)



FSN 5120-331-5502

QM

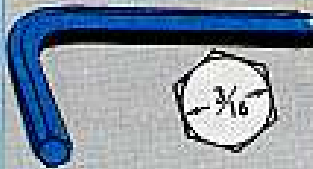
KEY, SOCKET HEAD SCREW: hex type, $\frac{1}{8}$ -in across flats L-type hdl, $2\frac{1}{4}$ -in nom lg arm.



FSN 5120-240-5292

QM

KEY, SOCKET HEAD SCREW: hex type, $\frac{3}{16}$ -in across flats, L-type, hdl, $2\frac{3}{4}$ -in nom lg arm.



FSN 5120-240-5300

QM

KEY, SOCKET HEAD SCREW: hex type, $\frac{1}{4}$ -in across flats, L-type hdl, $3\frac{1}{4}$ -in nom lg arm



FSN 5120-224-4659

QM

KNIFE, POCKET: $2-1\frac{3}{4}$ -in lg, and $1-2\frac{1}{2}$ -in lg cutting blades.



FSN 7340-241-7915

SIG

MIRROR, DENTAL: $6\frac{3}{4}$ -in lg, $1\frac{1}{8}$ -in w, $\frac{25}{32}$ -in h over-all, $\frac{1}{8}$ -in dia magnifying mirror, all mtl parts ins, 1200 v rms test.



FSN 5120-448-2455

SIG

PADLOCK: pin tumbler type mech, keyed alike, chain equipped, 9-in lg, 3200 key changes, not master keyed, laminated br case, $1\frac{1}{2}$ -in w, $2\frac{1}{4}$ -in h, w/s shackle and clevis.



FSN 5340-266-6829

TC

PLIERS, DIAGONAL CUTTING: 6-in lg.



FSN 5110-239-8253

QM

PLIERS, JEWELERS: duckbill, scored jaws, 8-in lg.



FSN 5120-595-9519

QM

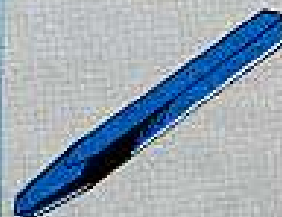
PLIERS, side-cutt, lg rd nose w/cutter, 6-in lg



FSN 5120-247-5177

QM

PUNCH, CENTER, SOLID: $\frac{1}{8}$ -in nom dia at top of tapd pt, $\frac{3}{8}$ -in nom dia of stk, 4-in nom lg over-all.



FSN 5120-233-3509

QM

PUNCH, DRIVE PIN: std, $\frac{1}{8}$ -in pt, 4-in lg.



FSN 5120-240-6082

QM

PUNCH, DRIVE PIN: std, $\frac{1}{8}$ -in pt, 4-in lg.



FSN 5120-242-5966

QM

PUNCH, DRIVE PIN: tapd type, $\frac{5}{16}$ -in dia pt.



FSN 5120-221-1906

QM

REPAIR TOOL, PNEUMATIC TIRE VALVE: (designed for std tire valve).



FSN 5120-308-3809

QM

RULE, STEEL MACHINISTS: 6-in lg, $\frac{1}{2}$ -in w, $\frac{1}{64}$ -in thk, smallest unit of grad for ea grad edge $1/100$, $\frac{1}{4}$ rh reading.



FSN 5210-233-6221

ORD

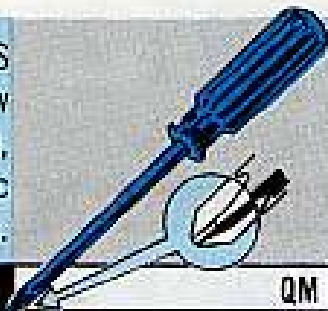
SCREW STARTER, HAND: rotating wedge grip, plastic hdl, $\frac{3}{16}$ -in w tip, 1-in lg blade .030" thick tip.



FSN 5120-278-0325

QM

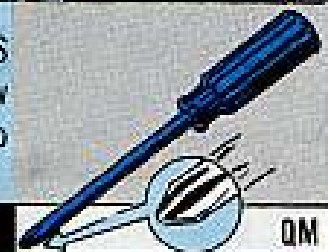
SCREWDRIVER, CROSS
TIP: recessed screw
(Phillips type), comm,
slow burning plastic
hdl, 4-in blade, No 2 tip.



FSN 5120-234-8913

QM

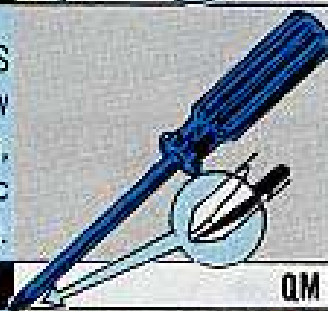
SCREWDRIVER, CROSS
TIP: recessed screw
(Phillips type), 13-in, No
4 tip.



FSN 5120-224-7375

QM

SCREWDRIVER, CROSS
TIP: recessed screw
(Phillips type), comm,
slow burning plastic
hdl, 3-in blade, No 1 tip.



FSN 5120-240-8716

QM

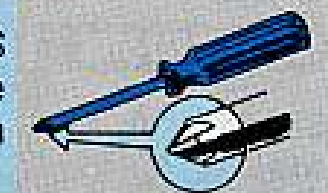
SCREWDRIVER, CROSS
TIP: recessed screw
(Phillips type), comm,
slow burning plastic
hdl, 6-in blade, No 3 tip.



FSN 5120-234-8912

QM

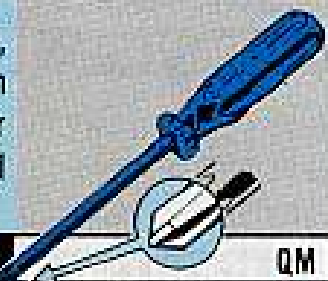
SCREWDRIVER, CROSS
TIP: Reed and Prince
type, plastic hdl, $\frac{3}{16}$ -in
dia tip, 3-in lg blade.



FSN 5120-596-0866

QM

SCREWDRIVER, comm,
cross pt, lg of blade 4-in
approx, $\frac{1}{4}$ -in dia, for
Reed and Prince hd
screw.



FSN 5120-237-8173

QM

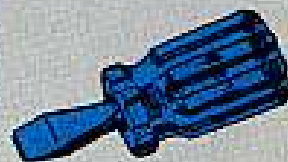
SCREWDRIVER, comm,
cross pt, lg of blade 6-in
approx, $\frac{5}{16}$ -in dia, for
Reed and Prince hd
screw.



FSN 5120-237-8172

QM

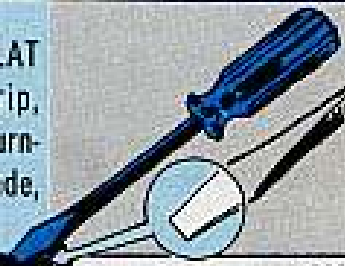
SCREWDRIVER, FLAT
TIP: plastic hdl, close
quarters, 1-in blade, $\frac{7}{32}$
in tip, $2\frac{3}{4}$ -in lg.



FSN 5120-222-8866

QM

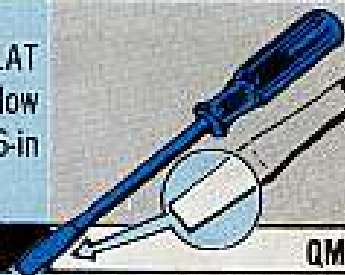
SCREWDRIVER, FLAT
TIP: w/wrench grip,
plastic hdl (slow burn-
ing), sq-shk, 4-in blade,
 $\frac{1}{4}$ -in tip.



FSN 5120-278-1282

QM

SCREWDRIVER, FLAT
TIP: plastic hdl (slow
burning), sq-shk, 6-in
blade, $\frac{5}{16}$ -in tip.



FSN 5120-278-1283

QM

SCREWDRIVER, OFFSET:
dble-end, $\frac{1}{4}$ -in tips, 4-
in lg.



FSN 5120-287-2130

QM

SCRIBER, machinist's,
bent pt, 9-in lg.



FSN 5120-596-1543

QM

SOCKET, SOCKET
WRENCH: (detachable),
 $\frac{1}{4}$ -in sq-drive, 12 pt,
 $\frac{3}{16}$ -in opng.



FSN 5120-235-5878

QM

SOCKET, SOCKET
WRENCH: $\frac{1}{4}$ -in sq-
drive, 12 pt, $\frac{1}{32}$ -in
opng.



FSN 5120-242-3351












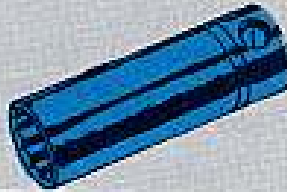

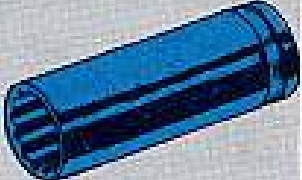

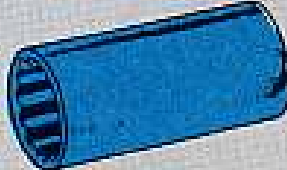
QM

SOCKET, SOCKET
WRENCH: $\frac{1}{4}$ -in sq-
drive, 12 pt, $\frac{3}{8}$ -in opng.

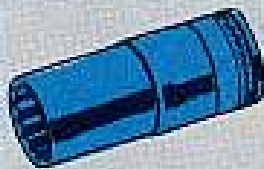


FSN 5120-242-3352

QM

SOCKET, SOCKET WRENCH: (detachable), 1/4-in sq-drive, 12 pt 3/16-in opng.	
FSN 5120-235-5889	QM
SOCKET, SOCKET WRENCH: 1/4-in sq- drive, 12 pt, 3/16-in opng.	
FSN 5120-236-2262	QM
SOCKET, SOCKET WRENCH: 1/4-in sq- drive, 12 pt, 1/4-in opng.	
FSN 5120-236-2264	QM
SOCKET, SOCKET WRENCH: deep lg, dble hex, 3/8-in sq-drive, 3/8- in opng.	
FSN 5120-277-1463	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/8-in opng.	
FSN 5120-227-6702	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 1/4-in opng.	
FSN 5120-227-6703	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/16-in opng deep (thin wall).	
FSN 5120-277-1464	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 1/2-in opng.	
FSN 5120-237-0977	QM
SOCKET, SOCKET WRENCH: (detachable), 3/8-in sq-drive, 12 pt, deep, 1/2-in opng, 1 3/4- in lg.	
FSN 5120-241-3185	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/16-in opng.	
FSN 5120-227-6704	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/16-in opng, deep style.	
FSN 5120-239-0017	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/8-in opng.	
FSN 5120-237-4973	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/8-in opng, deep style.	
FSN 5120-239-0018	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 1/16-in opng.	
FSN 5120-232-5706	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 1/16-in opng, deep style.	
FSN 5120-277-4252	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/4-in opng.	
FSN 5120-227-6705	QM
SOCKET, SOCKET WRENCH: 3/8-in sq- drive, 12 pt, 3/4-in opng, deep style.	
FSN 5120-235-5879	QM

SOCKET, SOCKET
WRENCH: deep style,
1/2-in sq-drive, 12 pt,
13/16-in wrench opng.



FSN 5120-243-7345

QM

SOCKET, SOCKET
WRENCH: deep style,
1/2-in sq-drive, 12 pt,
7/8-in wrench opng.



FSN 5120-243-7342

QM

SOCKET, SOCKET
WRENCH: hose clamp,
1/4 sq-drive.



FSN 5120-303-4892

QM

SOCKET, SOCKET
WRENCH: (detachable),
3/8-in sq-drive, 12 pt,
univ-jt, 3/8-in opng.



FSN 5120-181-6794

QM

SOCKET, SOCKET
WRENCH: univ-jt type,
3/8-in sq-drive, 12 pt,
3/8-in opng.



FSN 5120-242-3354

QM

SOCKET, SOCKET
WRENCH: univ-jt type,
3/8-in sq-drive, 12 pt,
1/2-in opng.



FSN 5120-242-3355

QM

SOCKET, SOCKET
WRENCH: univ-jt type,
3/8-in sq-drive, 12 pt,
7/8-in opng.



FSN 5120-237-0978

QM

SOCKET, SOCKET
WRENCH: univ-jt type,
3/8-in sq-drive, 12 pt,
5/8-in opng.



FSN 5120-237-4974

QM

SOCKET, SOCKET
WRENCH: univ-jt type,
3/8-in sq-drive, 12 pt,
1 1/8-in opng.



FSN 5120-237-0979

QM

TAPE, MEASURING: S,
English graduations,
grad 1/8 and 1/32-in, 6-ft
lg, w/hook and fl base
mtl case.



FSN 5210-287-3335

ORD

TOOL BOX: hand, S, lg
18-in, w 10-in, h 13-in,
"V" top, cantilever 4
tray.



FSN 5140-545-8625

QM

TOOL KIT, AUTOMOTIVE ELECTRICAL

FSN 5180-422-8594

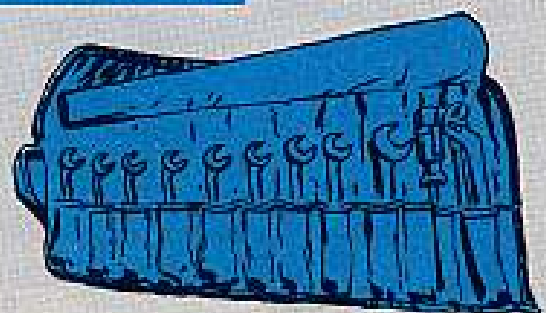
ORD

Consisting of:

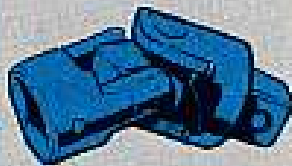
FSN 5120-222-2233 PLIERS

FSN 5120-236-2140 SCREWDRIVER, Flat tip,
flared, plastic hdl, 1/8-in tip width, 2-in blade lg.

WRENCHES	Length, Inches	Thickness	
		of head, Inches	Open- ings, Inches
FSN 5120-277-3414	3	7/64	13/64 & 15/64
FSN 5120-277-8308	3	7/64	7/32 & 1/4
FSN 5120-277-8309	3	7/64	7/32 & 1/4
FSN 5120-277-8310	3	7/64	13/64 & 15/64
FSN 5120-277-8311	3 1/2	5/32	5/32 & 5/16
FSN 5120-277-8312	3 1/2	5/32	5/32 & 5/16
FSN 5120-277-8313	3 3/4	5/32	11/32 & 3/8
FSN 5120-277-8314	3 3/4	5/32	11/32 & 3/8
FSN 5120-277-1349	4 7/16	11/64	7/16 & 1/2



UNIVERSAL JOINT,
SOCKET WRENCH: 1/4-in
sq-drive male and fe-
male.



FSN 5120-243-1686

QM

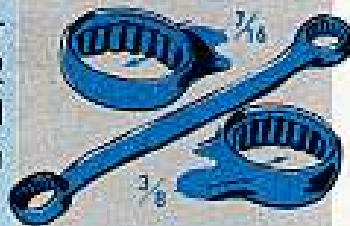
UNIVERSAL JOINT,
SOCKET WRENCH: univ,
3/8-in sq-drive.



FSN 5120-224-9215

QM

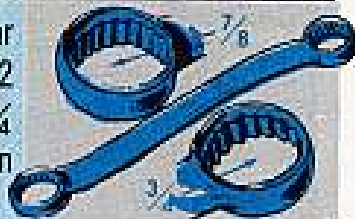
WRENCH, BOX: angular
offset dble-hd type, 12
pt, 15 deg offset 3/8 and
7/8-in opngs, 6 1/2-in nom
lg overall.



FSN 5120-224-3146

QM

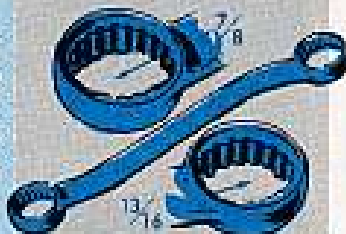
WRENCH, BOX: angular
offset, dble-hd type, 12
pt lg, 15 deg offset, 3/4
and 7/8-in opngs, 11-in
overall lg.



FSN 5120-222-1592

QM

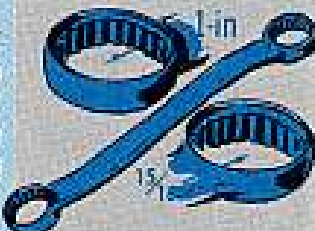
WRENCH, BOX: angular
offset, dble-hd type, 12
pt, lg, 15 deg offset, 1 3/4
and 7/8-in opngs, 12-in
overall lg.



FSN 5120-222-1593

QM

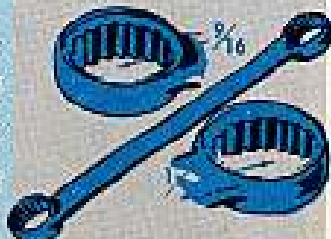
WRENCH, BOX: angular
offset dble-hd type, 12
pt, lg, 15 deg offset, 1 5/8
and 1-in opngs, 13 1/2-in
overall lg.



FSN 5120-204-2670

QM

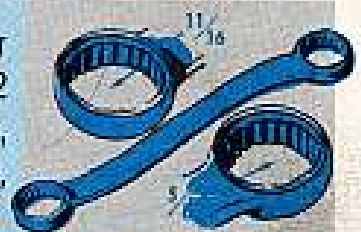
WRENCH, BOX: angular
offset dble-hd type, 12
pt, 15 deg offset, 1/2
and 3/8-in opngs, 8-in
nom lg overall.



FSN 5120-277-3364

QM

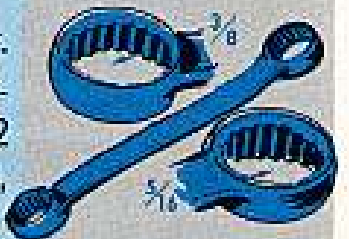
WRENCH, BOX: angular
offset dble-hd type, 12
pt, lg, 15 deg offset,
5/8-in and 1 1/8-in opngs,
9-in overall lg.



FSN 5120-293-0081

QM

WRENCH, BOX: dble off-
set 15 deg angular off-
set, dble-hd type, 12
pt, 5/8 and 3/8-in opngs,
4-in nom overall lg.



FSN 5120-184-8602

QM

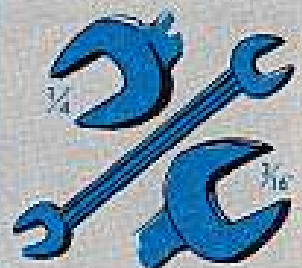
WRENCH, DZUZ, fas-
tener, S, 1/4-in sq-drive,
socket 5/8-in w, 1 1/2-in
lg.



FSN 5120-321-4508

QM

WRENCH, OPEN END,
FIXED: dble-hd type, 3/8-
in and 1/4-in wrench
opng size, 15 deg angle
of hd, 3-in nom over-all
lg, 1 1/8-in thk of hd.



FSN 5120-228-9527

QM

WRENCH, OPEN END,
FIXED: dble head type,
15 and 75 deg angles,
1 5/8-in wrench openings,
3/8-in hd thickness, 3-in
o/a lg.



FSN 5120-184-8444

QM

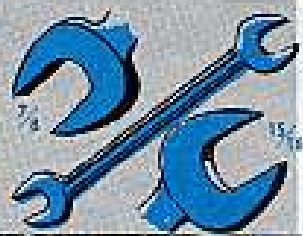
WRENCH, OPEN END,
FIXED: dble head type,
15 deg angle, spear-hd,
alloy-S, 5/8 and 3/8-in
openings, 1 3/4-in thick-
ness of hd, 3 3/4-in o/a
lg.



FSN 5120-277-2307

QM

WRENCH, OPEN END, FIXED: dble-hd, 15 deg angle, alloy-S, $\frac{3}{8}$ and $\frac{13}{16}$ -in openings, $\frac{13}{32}$ -in thk hd, 10-in lg.



FSN 5120-187-7131 QM

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, spear-hd, alloy-S, $\frac{3}{8}$ and $\frac{1}{2}$ -in openings, $\frac{1}{4}$ -in thk hd, 5-in lg.



FSN 5120-187-7123 QM

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, spear-hd, alloy-S, $\frac{9}{16}$ and $\frac{5}{8}$ -in openings, $\frac{1}{4}$ -in thk hd, 6-in lg.



FSN 5120-187-7126 2 ea. QM

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, spear-hd, alloy-S, $\frac{1}{16}$ and $\frac{23}{32}$ -in openings, $\frac{11}{32}$ -in thk hd, $7\frac{3}{4}$ -in lg.



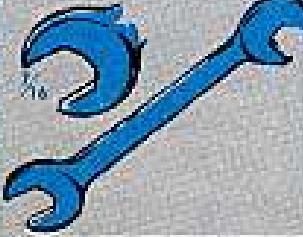
FSN 5120-184-8558 QM

WRENCH, OPEN END, FIXED: dble-hd type, 15 deg angle, spear-hd, alloy-S, $\frac{3}{4}$ and $\frac{13}{16}$ -in openings, $\frac{3}{8}$ -in thk hd, $8\frac{3}{8}$ -in lg.



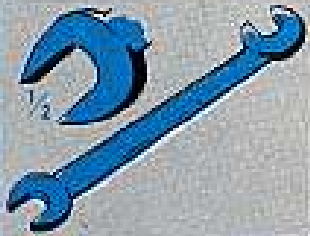
FSN 5120-187-7129 QM

WRENCH, OPEN END, FIXED: 15 and 75 or 80 deg angles, dble-hd, $\frac{3}{16}$ -in opng, $\frac{1}{4}$ -in thk of hd.



FSN 5120-184-8541 QM

WRENCH, OPEN END, FIXED: 15 and 75 or 80 deg angles, dble-hd, $\frac{1}{2}$ -in opng, 4-in overall lg, $\frac{1}{16}$ -in thk of hd.



FSN 5120-288-8216 QM

WRENCH, OPEN END, FIXED: 15 and 75 or 80 deg angles, dble-hd, $\frac{3}{16}$ -in opng, $\frac{3}{16}$ -in thk of hd, $4\frac{1}{4}$ -in lg.



FSN 5120-184-8543 QM

WRENCH, TORQUE: rigid frame L-hdl, micrometer adj tor mech, w/slip clutch or audible indicating mech, $\frac{3}{8}$ -in sq male drive, 100 to 750-in—lb cap, w/ case.

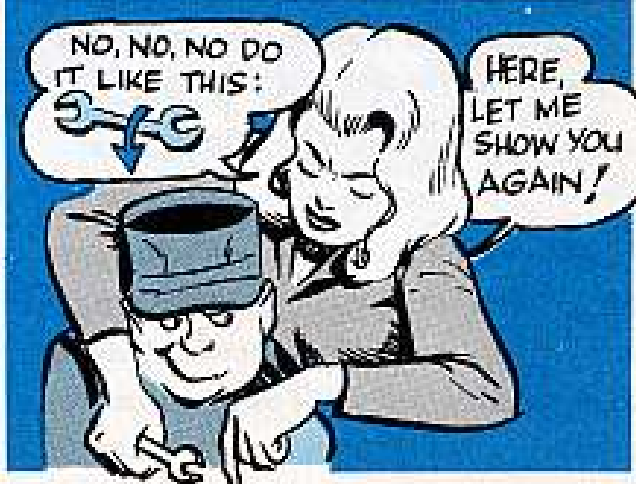


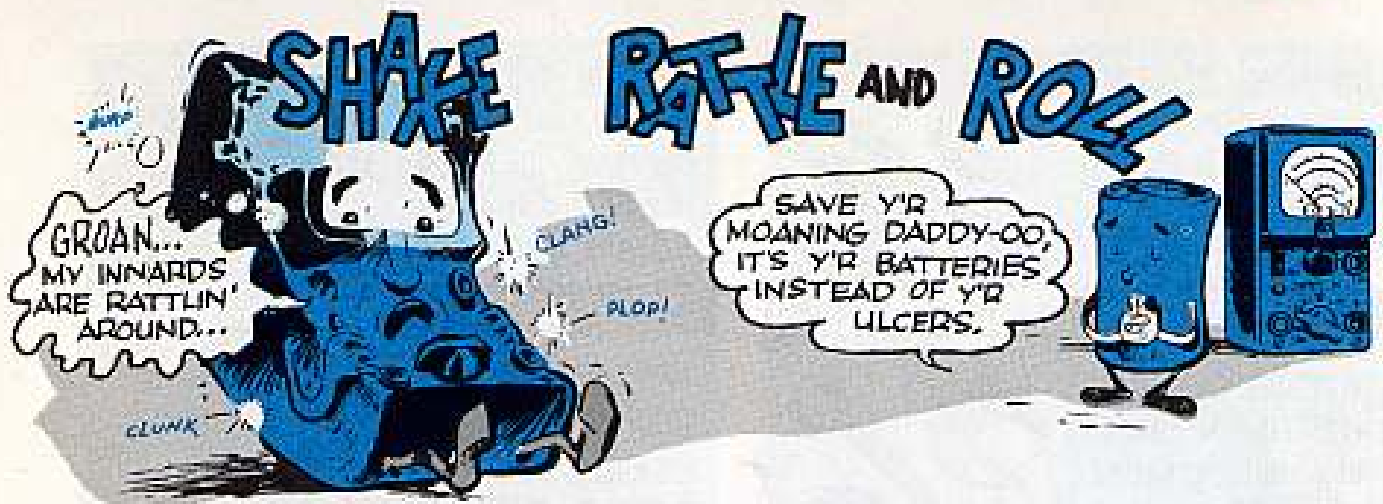
FSN 5120-595-9073 QM

WRENCH, TORQUE: rigid frame T-hdl type, w/built-in rtc, preset sealed tor mech, w/ audible indicating mech, $\frac{1}{4}$ -in sq male drive end, 25-in—lb rated cap.



FSN 5120-293-0849 QM





No, it's not one of those games where you see snake eyes staring up at you. And it's not a new dance.

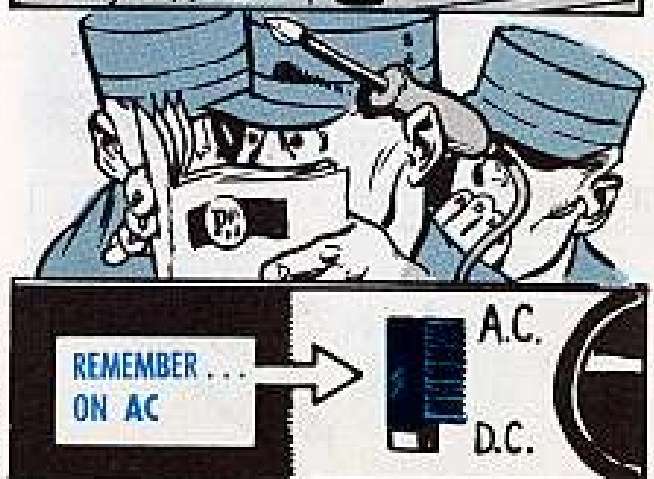
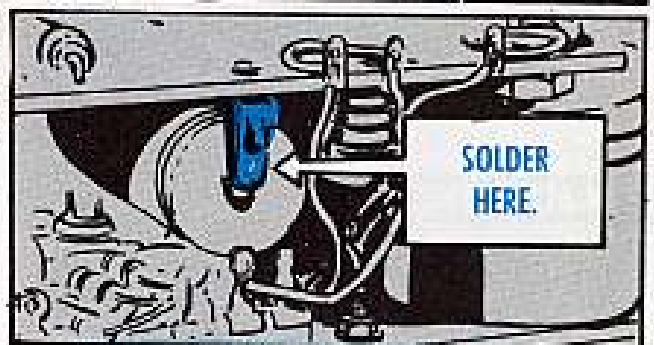
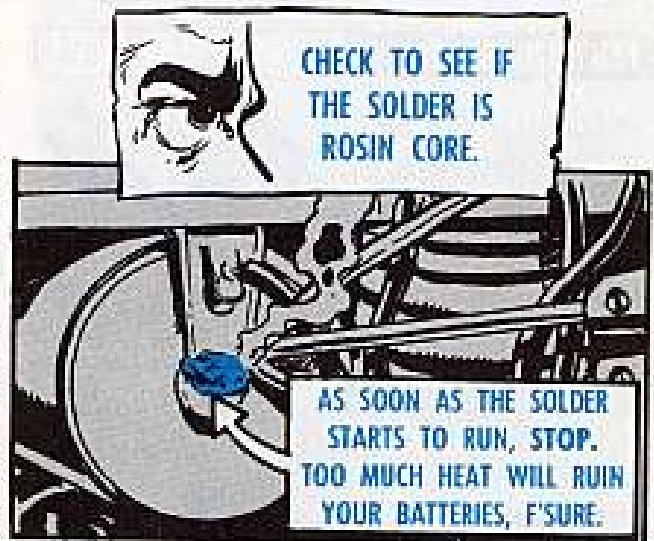
If you guessed that it's the batteries in your Hickok Model 4977 multimeter (FSN 6625-543-1438), you're right. Those batteries will shake, rattle and roll if you don't solder the meter terminal strips to the battery terminals.

They're not much of a job to solder, but you've got to take it easy when soldering. In the first place you use rosin core solder—not acid core.

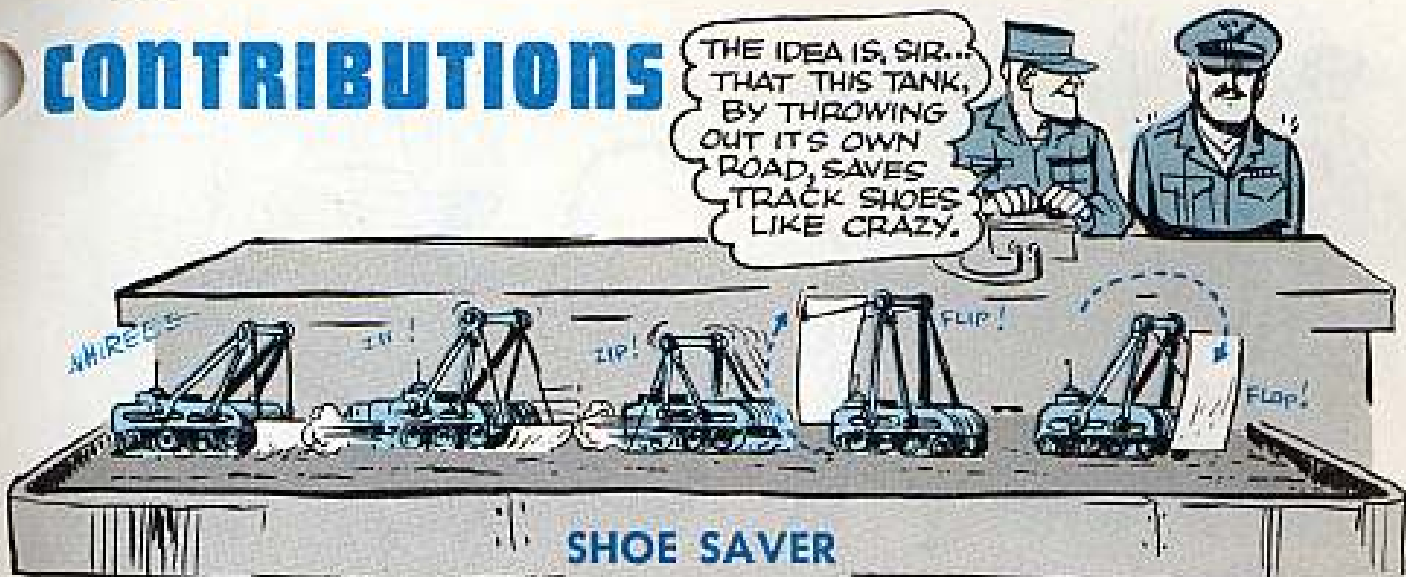
And you've got to remember that the terminal ends of the batteries can stand only a little heat. When you apply too much heat, you shorten the life of the batteries or it could even burst the batteries.

There's an article in PS 79 that gives some tips on soldering, so you might give it the once-over before you start soldering the batteries in your multimeter.

When you're not using your multimeter, keep it on AC. Then the batteries won't run down if you leave your multimeter plugged in. This multimeter is in your organizational maintenance tool sets.



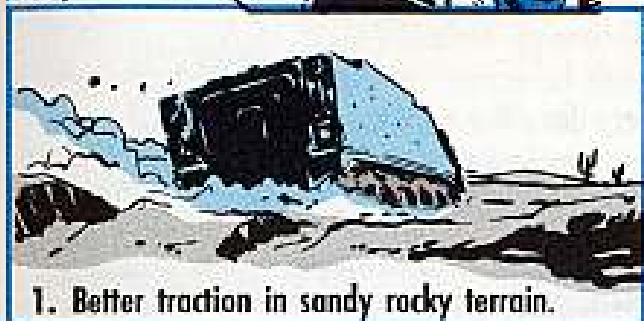
CONTRIBUTIONS



Dear Editor,

Out here in desert country, our battalion has been removing the rubber pads from the T-91E3 tracks on our light tracked vehicles—the M59 APC and the M41 light tank—and riding on the steel tracks.

We benefit from this in a few ways:



1. Better traction in sandy rocky terrain.



2. Stops the tremendous wear and tear on the rubber pads.



3. Saves money.



4. Cuts down on our supply problems.

Then, when our outfit leaves this kind of country, we put the rubber pads back on. No sweat, no fuss . . . and everybody's happier.

5th Tank Bn,
Camp Irwin, Calif.

Ed. Note—Good idea. Any unit's CO can give the go ahead for a deal like this.



HIGH STEPPING



Dear Editor,

We've come up with a little safety device we'd like to tell other PS readers about. It's a step to be used with cargo trailers, like the $\frac{3}{4}$ -ton M101 and the $1\frac{1}{2}$ -ton M104.

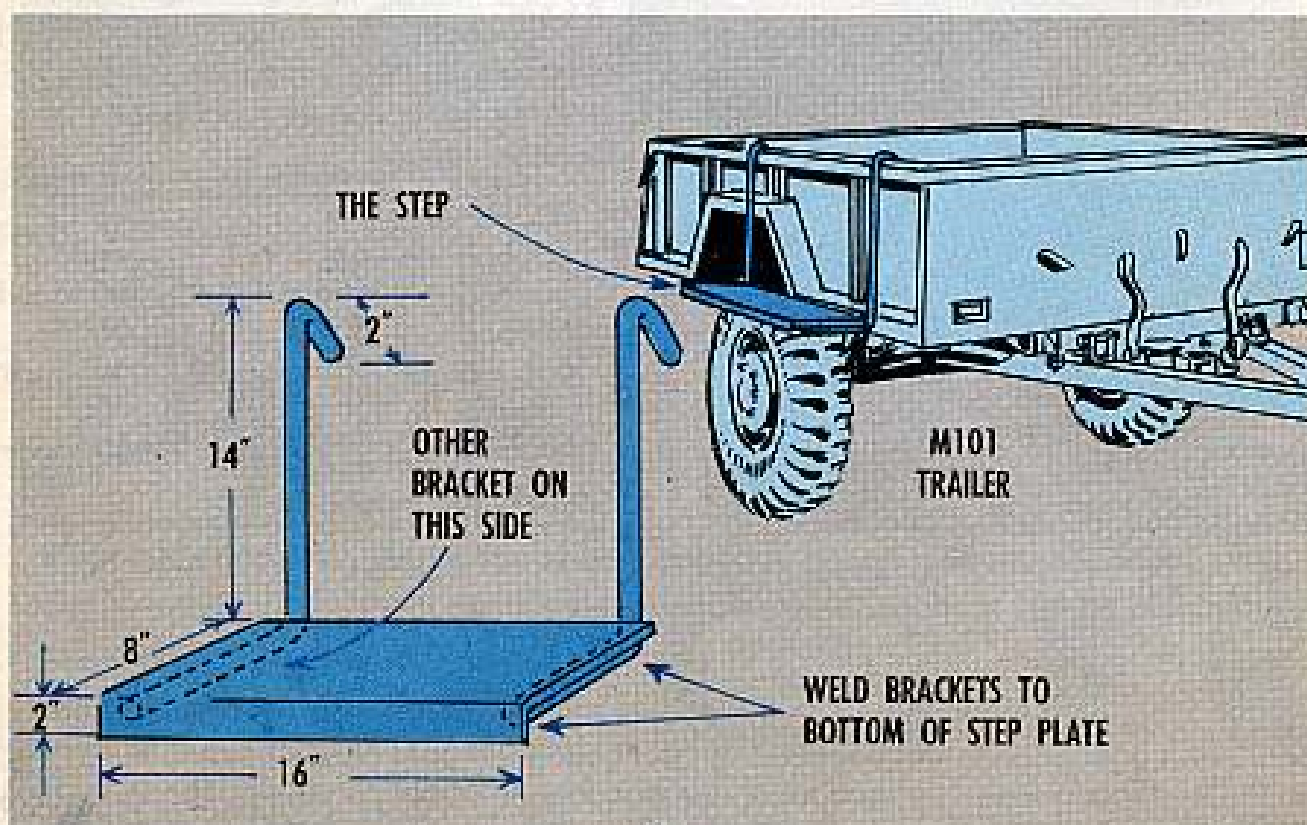
When you're unloading or loading equipment, you have to climb up on this trailer by boosting yourself up on top of the tire or climbing up over the tailgate. This could lead to a serious injury if you lose your balance.

We've fabricated this step out of 10-in x 16-in x $\frac{3}{16}$ -in sheet steel. Then we welded a couple of $\frac{1}{2}$ -in x 25-in round stock to the sheet steel to act as braces.

After the step is made, you can keep it in the trailer or in the truck till you need it. Sure beats trying a flying dive off those trailers.

Mr. Fred W. Turnbull
Ft Monmouth, N. J.

(Ed Note—Looks like you've got a good safety fix there, Mr. Turnbull.)



Connie Rodd's

BRIEFS



A frosty feeling

When it's hot and the ice is clickin' in tall glasses, anti-freeze weather is just a flip of the calendar away. So saddle up and tell your support what your vehicles need: Ethylene glycol where temperatures don't go lower'n -55 F; arctic grade for the super lows. See TB Ord 651 (9 Oct 59) for details.

Taste test

Water in your tank trailers getting gooked up with foul-tasting corrosion lately? There's a corrosion removing compound that'll put the inside of those tanks back in top shape . . . it's all covered in MWO 9-2330-213-30/2 (23 Mar 59). If your M106, M106A1, M107, M107A1, or M107A2 tanks need this treatment, take 'em to your Ordnance support, pronto.

Compression check

You M41 light tank mechanics . . . when checking a new AOS 895-3 engine at cranking speed, the compression pressure should be 75 to 90 PSI—with not more than a difference of 15 PSI between the cylinders. For used engines, a minimum pressure of 70 PSI is all right.

Don't get thrown

If you M48 tank maintenance men are wanting to identify the annealed tube (Ord Part No. 7358613) and the flexible metal hose (Ord Part No. 7388525) in Fig 07-34 on page 490 of ORD 9 SNL G254 . . . don't get thrown. Seems like the letters "T" and "K" in the schematic drawing have played switch. Your Ord 7 SNL G254 has the right number, FSN 2520-738-8525, for the hose.

Deal for missiles

A good publication for missile outfits to get to know—that's what TB 9-281 (14 Sep 59) is. The TB tells about "Corrosion Control and Treatment" of missiles.

Engineers to 2M

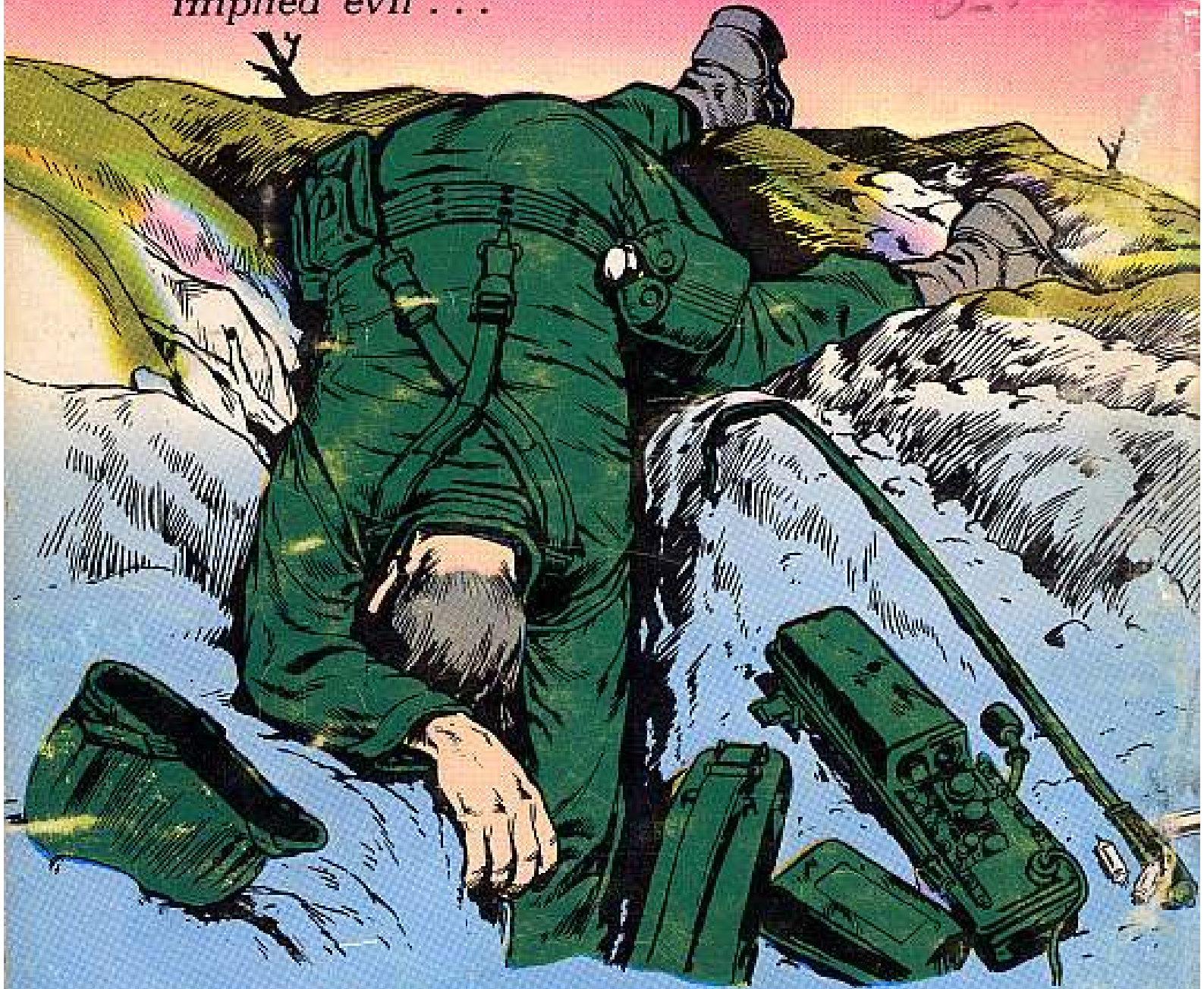
The LO and pub holder for your Engineer rigs is now a QM item. It's covered by FSN 7520-559-9618 and you requisition it as Case, Maintenance and Operations Manuals. This is the same case that **was** an Engineer item and used to be FSN 7610-355-7130.

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

PREVENTIVE MAINTENANCE

“ . . . prevents or tends to prevent; now, usually, making or aiming to make unlikely or impossible a specified or implied evil . . . ”

36
15
180
36
320



**- AND THEY'RE
NOT KIDDING**