

Issue 168

PS

1966 Series

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

DO ME A
FAVOR, TIGER...
DO A QUICK
BEFORE-
OPERATIONS
CHECK ON
YOUR RIFLE
BEFORE WE
COUNTER ATTACK.



SUPPLY

You've got to be accurate when you order repair parts for your maintenance operations and supplies for your outfit.

No. 1—Accurate manuals. You've got to use the latest up-to-date parts manual for your equipment. If you don't have the latest, see the Index, DA Pamphlet 210-4 dated May 65 for

No. 2—Accurate pencil. When you fill out your requisition, DA Form 2785 or 2785-1, be real careful that you jot down the right numbers. You and your buddy can read it back and forth a couple of times to make sure. You close the eyes, the books and

If you don't give with accurate, up-to-date stock numbers when ordering, you won't get parts and supplies. The right PSN will get you what you order.



CHECK your order list, so it's the right PSN and stock number. I repeat!

ACCURACY



what's available, and order copies on Ed Form 17. The same goes for supply manuals except the index you use is Ed Pamphlet 3004 dated Jul 87.



the hand won't work together—two 2's and a 3 come out two 2's and a 3, and so-like. A recent check showed that more than half the loaned requisitions were caused by "human error," the slip of the pencil, eye or brain.



So, to keep your equipment combat ready, your supply must be right. And to be right, you've got to give it some care in ordering.



THE SERVICE SUPPLYMAN'S GUIDE
ISSUED BY THE 1987-1988 STAFF
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FIREPOWER



KEEP IT READY, STRONG AND STEADY ...

TACTICAL

POWER



IT'S ALWAYS NEEDED
WHEN YOU NEED
FOR A STRONG LINE. TO KEEP
THE GROUND UNDER FOOTING
AND TO KEEP THE GROUND
UNDER YOUR FEET.

NOBODY!

PM

That's why top-notch generator operators are always granted off special maintenance rules. Like this:

Whether the work, model, capacity, age or temperature, there's no such thing as routine PM on power generators. You handle the simplest before... doing-and-also-operation checks and services with sharp eyes, ears and nose, and steady-pose determination.



Learn your trouble-shooting SOP's up-and-down and sideways, but never put with the resistance manuals. Operator's and maintenance manuals must always be either on the spot or within very pulling distance.



Whether the generators are run just long enough or the run can pull its daily equipment checks with tested power, or whether the outfit stays on technical power a good bit of the time, you alternate operators at least daily. That way each one (including the one selected by standing) will get its own operating time regularly.



Never shy away from a generator just because it's hard to start, or it takes more than normal watching during operation. Fearless a shakedown run, keeping it like best your lungs around hoping you'll never need it can cause real pain if it's ever needed in an emergency. The answer is: Work with it until you know all its tricks. If the vital conditions to daily your wife, let the support people check it over.



And, above all, don't with support as the double as any problem you can't take care of right away.



BASIC POINTERS ON BASIC-CARE.

1. Keep correct oil level. Use "Protective Motor Service Schedule and Manual" as each operator. This is a must.



2. Perform daily checks and inspections for the engine and the generator with IM in hand. Go by the IM as the authority for 200-hour scheduled maintenance. Report problems on IM form 2004, and keep maintenance log forms and records up-to-date.



3. Clean and check batteries daily. And, use our just adding water. Pay special attention to electrolyte reading. If batteries aren't as strong as they should be, the current will be drained from the engine safety circuit and the engine won't start, or it'll run out. Check and clean battery straps daily.



4. Warm pass the starter switch longer than IM allows (20-25 seconds). If the engine doesn't start, allow the motor 1-2 minutes for cooling before you hit the start switch again.



5. Run the engine for five minutes (or as long as necessary to warm-up), and check the oil and fuel instruments before you apply the load.



6. Let the engine idle for five minutes (or more cooling) before you shut-down.



7. Check the condition of the generator ground daily.





Check fuel, oil and water levels and correct as needed.

Correct or repair leaks in fuel, oil, water and exhaust systems. Inspect, clean, service or replace fuel lines, strainers, oil filter and air cleaner per R1 and R2 instructions.

Test belts for proper adjustment.

Check engine and generator throughputs. Wipe off all dirt, grease, oil, grease and oil stains.

Test engine exhaust guard and generator covers, gills or vents.

Inspect engine air specifications. Clean or replace air filters. Check or replace bearings, fans, belts, covers, clamps, mounting, connections, etc. Lubricate, clean, adjust, service or repair.

Inspect engine and generator controls and instruments. Be sure they're correctly mounted, working right and that pins aren't loose.

And, don't forget to test, service (replace and adjust) TSB procedures on: Starting generators (together or in parallel).

Stopping generators (Control shut-downs, emergency shut-downs and stops by safety devices).

Power transfer (synchronizing commercial power to medical power and vice versa).



GOT A BALKY WAUKESHA...?



To check that valve system. And, if you need a replacement in excess under \$500, 248-831-1282 and it's called **ack, check fuel, injector pump.**

USE 4000

Your clue to this air-leak problem is a fuel leak at the valve when the system is under pressure. So it's a very good idea to check the valve for leaks when the generator is running.



"Don't panic the flow might vary or figure out why that Waukesha, 175-HP, 4-cyl. generator (P/N 6115-000-1-000), is so hard-starting... why it leaves me working sooner like nothing!"

Well, stop panic and give a listen.

For one, things are costly fuel line changes, fancy painting devices, etc., you may have to mind, as long as you service and maintain the generator by the book, the fuel system will do its job OK.

For two, check the drain valve on the return side of the fuel injector pump. If the valve is damaged or worn that's where your problem is.

Being that it's on the return side of the injector pump, few people suspect the drain valve of being responsible for air leaks. Oh, it's a fact. If the valve's seat is damaged or worn, air will leak into the fuel injector pump the instant you open the return.



Don't start repairs:

1. When you open the starter and the engine turns, the injector pump starts feeding fuel immediately. No, wait, actually leaves the fuel level in the pump's fuel manifold.



2. Then, before the manifold can refill, the pump starts to take the manifold through the drain valve.

Once that happens you're in trouble. You've generated air blocks that'll keep the fuel from feeding properly... and you just don't want.

EITHER OR FOR JOY

It's either/or when you go to use the general purpose lubricating oil for your Joy Model RP14, 20000005 GENIE air compressor (P/N 41104910877).

You can use either the general purpose oil MELLUB 1500 0, 30 Heavy Suggested 3071, 8000 04 50, 3000 8171, or the general purpose oil, MELLUB 15071, Grade 307150, that's replacing it in the supply system.

Here's the P/N's for these oils:

- 1504 981200 1 qt
- 1505 981201 1 qt
- 1506 981202 1 qt
- 1508 981203 5 gal drum

You'll find these listed in your 2000 Catalog P/N 000011 (Rev 03).

POWER SWITCHING CARE

PULL-TOGGLE . . . don't be misled!

This manual switch for transferring power to the busbar taps is really two, independent switches in one. One side of the switch turns commercial power on and off. The other side does the same for tactical power. Only draw and working mats. Power transfer is not automatically synchronized by the switch, and don't let anyone tell you different.

THINKING CARE

You do the on/off synchronization by hand when you throw the switch. And, the important thing is that one switch must be completely opened before the other is closed.

And, of course, as long as the no-run type, interlocking lockup on the switch is in good order you've got nothing to worry about. I'll keep you from accidentally turning both switches on at the same time, and causing a frightening short and a fiery mess. That being the case, you have to expect that safety device and see that it stays in good working order. If it ever gets loose, binds, bumps, or is in any way defective, you will support someone.

UPGRADE

Never monkey with the power transfer switch safety device. Never fiddle, or change the interlocking lock-up, so the power sources can be opened and closed at the same time to avoid momentary power loss. This dangerous short-out will cause an electrical blast that will blow the switch off the wall, set your feet on fire, damage the generators, and even cause problems in the continuity power lines.

So don't be misled . . . and don't let anyone fool with it.



HEAT A KILLER



KEEP
IT COOL...

Putting the heat on... that's what some guys are doing to the kidneys in their Nike-Hercules REPAC.

It happens when the transmission filterout is run without having the heat exchanger changed. And this is a good way to send the kidneys to its happy hunting ground long before it's due to make the trip.

To give the kidneys a break by going along with the REPAC, see our procedures spelled out in TM 9-1440-210-1275 (Dec 43) and TM 9-1458-258-1276 (Dec 43) for REPACs up to serial number 511. For those from 512 and up use TM 9-1480-261-1271 (Apr 44) and TM 9-1440-210-1275 (Apr 43).

And really lay on that soap about cranking up the heat exchanger before you crangle the transmission control.



... SOAK
ON HEAT
EXCHANGE...



... THEN
UP IN
TRANSMISSION CONTROL

GIVE TRUCK A BREAK

NO, NO, AIX, NEW?



Whee... W...a... W...A... ..

In other words, you want to roll a ball to unbandaging the brake handle on your Nike-Hercules XM75 body action truck.

That's what you're doing if you're using the brake handle as a lever to lift the inside for one reason or another.

The handle's only to be used to brake and keep the inside body in place on the truck — period.

HOLD BACK THE MOISTURE



A headlamp and a hat.

That's what some guys call the power distribution box for their Nike-Hercules launcher.

The box sure can give you fits, what with the way moisture gets inside and then goes to work on such things as the terminal board and the relay panel. It doesn't take long for rust to show, but even worse . . . moisture and electricity can combine to cause short circuits, and shorts are short cuts to burned wiring harnesses.

Maybe you can't win the moisture battle, but you can stay on the offensive. Frigidaire . . .

- Keep the cover shut closed when there's no need to have it open, and make use of T-tapes before an inspection job.
- Be sure too to be in gear, with its 14 rubber seals holding it tight. Be sure that the cover gasket's not coming, the gasket, FR 148-405-1762, and the cover, FR 148-714-404, are a TR 9-1486-00-02P 1-1 (page 44).

You might also try using a canvas cover on the distribution box. This helps keep out water, but temperature changes could lead to a build-up of moisture in the box.

So you want to keep checking the inside of the box for moisture or water.

**IF YOU
CARRY
HOT
WIRE**



If you find any water, drain it out the petcock in the bottom of the box. Wipe away whatever is left. You also go to work with a rag on any moisture you find.

Could be you'll spot rust or corrosion on the terminal board or relay panel. That's when you call on your support people. They'll take care of that situation.



There're different things you can use to hold down the ends to the two T-tracks when you want to raise your Nike-Hercules booster/creeper beam without a minute ahead. Some guys use a screwdriver (which is all right except that that's not what it's made to do) . . . a plain and simple G-spanny nail . . .

The important thing to remember is that you want to fit some sort of waving flag on whatever holder-device you use as a reminder to remove them after you lower the creeper beam.

If you leave the nail in place and then go to slide the launching and handling rail into the creeper beam, one of two things can happen.

If you push the rail down and sideways, it won't get past the nails.

Or if you really try to shove the rail to slide it over the beam, the stabilizing hook assembly will break the nails and maybe damage the rails in the T-tracks. A buried G-spanny nail is no mean, but a buried nail is something else again.





ROUT THE RUB

As soon you ordered it, Page 43 of TM 9-4975-254-15 (Jan 64) has the latest solution to your problem with handling cables on the Mils-Hercules preformed signal structure box (FSM 9313-914-3082 — OPM 9328-146). You know, the one that rubs against the handling and handling rail when it's rolled on and off the structure.

Any old way, you can avoid this

chasing way by adjusting the cables, like so:

Loosen the adjuster nut (FSM 1001-932-4926 — OPM 9047-308) at P1Y and P71B on the fixing structure. Insert the excess lengths of cable into the structure box. Then tighten the nut to secure the cables to the structure.

This'll provide the clearance you need to remove the rub.



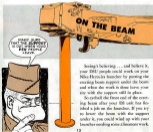
LOOK FOR LEAKS



OK... so maybe there's nothing in writing that tells you how often to do it. It's a good idea, tho, to take a close look at least once a month at the compressors located in electronic drawers & at your (M/MPQ/T) simulator station.

What you want to look for, like on board AM, is a leaking acetylenic regulator. CO regulator has been known to spill its holder on to the board. When this happens, the stuff starts to eat away at the board. And the operator in the TTR goes bang trying to lock on to simulated target 1. Looking at the other side of the coin... when the operator has a tough time trying to lock on to the target, you have a clue that CO on the affected TTR going generator may be on the loose.

Call support at the first sign of leakage.



Seems'n believing... and believe it, your (M) people could work on your Nike-Hercules launcher by putting the existing beam support under the beam and when the work is done lower your eye with the support still in place.

To install the (T) end of the existing beam after your (M) work has finished a job on the launcher. If you try to lower the beam with the support under it, you could wind up with your launcher standing some distance work.

BEWARE THE SELF-MADE HEX

When the nation's hot and heavy, late PM-wire clients count most on your 15-min mentor lessons... especially on ones like the firing mechanism, the constant lead assembly and the rig.

If your baby dibbles out at the critical moments or you can't fix what you aim at, brotast, you're in a fix.

The customary pain of it is that you could be creating your own wire run while you're performing your PM-wire and never know all it's got to do.

Here're some examples to share on. Maybe you'll think of a few others yourself as you go along.

Firing Mechanism

When you have the grips off and you're eyeballing the mechanism for damage, dirt and so on, be real careful not to rough up those delicate parts... especially the safety pins around the electrical contacts. A careless finger could put it out of action.



In all you can to keep the firing mechanism from getting wet. If maintenance gets a chance to collect inside it, it'll short it out for sure.

Some guys beat this hex by always carrying the weapon with the trigger down. This way the water runs off and stays out of the firing mechanism.

Other guys keep a plastic bag in their pocket and stick this over the trigger like a raincoat. This is OK, if you're careful to remove the bag after the food's over so you won't get another, nasty trouble.

But, if the thing ever happens that you run, take short-grips off and dry the mechanism as much as you can. Then—most likely you get your answer as you're in a tight job.


Contact Lead Assembly

There're two places here to guard against creating a no-link hex—the firing contact lead and the contact point itself.

First, watch out for dislodging the "key" of the contact lead, especially when you're cleaning it and also while you're climbing through underbrush and the like. If the aluminum tube that holds the contact lead gets bent the contact will likely be broken and you're out of business. You can't fix it, even with, though. That's a job for your answer or direct support team to be unless discovering the lead from the electrical contact group and reinserting or springing the tube back to its original shape position against the bar.



However, if you'll still use, go on and use it till the next chance you get to have the repairs made on it.

If you're careful, you shouldn't have to disturb the lead at all to clean under and around the contact lead. In a pinch you could use a toothbrush or shaving brush to do the cleaning job. Just avoid lifting that robot 

As for reaching the contact leads, usually on bushes and so forth—well . . . be careful. OK?

The contact point is one of your weapon's most critical parts. Since it's made of steel, it's a pump for heat and corrosion from powder loading.

Your best bet's to scrub it good with brass brushes after every firing—and top this off with a couple drops of lube oil on the point. That'll make it hot for you.

Light Pad

Some guys seem to forget that this piece needs constant care and attention. If you neglect it, you're liable to find yourself in a real jam—under sight won't flip and hold in position. A "broken" piece is Dead-Eye Dick's worst foe.

The cure's easy and quick, though. Get the habit of putting a drop of PL Special oil on the piece *every* time a day and then rotate the piece a couple times to make sure the oil penetrates.



YOU'VE GOTTA HAVE IT

There's no doubt about it . . . you've got to have the Operator's Manual 1-12 TM, or it could be .11, .13, .14 or .15 TM) on or with your equipment. All 100-5 (Eber 60) says so when it talks about the Bush base from List on page 56.1: "These listed quantities (on the BIL) are required for exchange by the operator." This operator's manual is listed in most BIL's, so, if you don't have it, get in on order on DA Form 77.



ON RIGHT STAYS TIGHT



Getting any gasket flats days about loose or unthreaded flats represent on your unit's life's life?

Maybe a look-out at how you go about installing the suppressor would remove your trouble.

First, you want to make sure you're using the correct gaskets of the plate seal and seal the head and are clean and solvent and the threads are all broken you slide the seal into the groove of the suppressor. You'll want get a smooth operation if they're loaded up.

The second set has to go on and right, the best way to turn the nut with your fingers, as far as you can, then use your fish suppressor plate to turn it and tight.

Don't rotate a little bit, rotate it. Check to see that equal parts of the rubber show on either side of the right face and beginning, if they're not equal, turn the nut back a little so that they are equal. This'll line up the nut for the next run.



Now try to wiggle the suppressor, it shouldn't move. If it does, you either didn't get the round nut tight enough or some part's damaged. Keep at it till you get it tight.

Once it's tight, be sure you're looking in right. After you get the suppressor tight, insert the receiver below the right and replace it with your 1702 in underhead screw key still it's just snug. Snug's enough. Any more pressure than that could cause the discharge head of the screw to strip the thread — and leave you with a big problem next time you try to remove it.

A fish suppressor don't put on right hardly ever cause loose.



GROUND MOBILITY

IT'S...
Cool
...MAN,
Cool



Motorists should express every way to cool off their vehicle's engine by taking to a liquid-cooled or air-cooled engine that's built to take the heat and still run.

They know that the operators' own work on almost all vehicles—liquid-cooled and air-cooled—shows that this variety of choice is what will keep the car safe.

The answer: If you don't cool 'em off, the engine can go into a case of thermo-shock that'll ruin an engine every time.

In a liquid-cooled engine, like what's in your M300/M100 SPS, used in many of your wheel and tracked vehicles, if you don't take care of 'em,

HEAD OFF ENGINE HEAT SHOCK



A "heat" run the best that's left in the engine's block will show up there as the engine water jackets and near the water passages. That's when the trapped heat in the block does the dirty-work.

It can crack or warp a head, or valves, rattle a head gasket and rattle up the rings. On a diesel engine, like the GM 8471E, it can cause the fuel injection needles to plug up.

When the engine is cooled down, the water jackets and near the water passages will contract and pull away from the head, valves and rings.

The same damage holds true with air-cooled engines. Without a flow of cooling air, it can go into the same type of thermo-shock.

When possible, it's a good idea to idle the engine or even a slower speed than what's called out in the EM's... just as long as the engine doesn't idle. On newer vehicles like the M300/100, and others, idle (as an 800 R.P.M.). The slow usually varies from 2 to 3 minutes. Always try and idle in the maximum time but never over a share of the total engine time.



PS&T... GETTA M107-ALLO?



How is your M107 like bowlers or M107 gun like a pro? girl?

Answer: If you don't handle it right you might get slapped.

With the girls we can't help you but with the IP hardware there is an easy way to keep yourself slapped.

Always be sure your manual elevation and manual traversing handcrank brake bands are adjusted the way they should be before you use power elevation or traverse. Otherwise, there's a chance a handcrank wheel might start spinning and slip you out.

TO ADJUST THESE "THE
SHOCK BANDS" IS
REALLY EASY!

...let go of the gripper and try to turn the handcrank. If you can't move it more than a few degrees in either direction the brake band adjuster is OK!



Now when you get into power operation the manual handcranks should stop you and not slip at you—unless a handcrank brake band fails. This shouldn't happen if the handcrank brake bands are checked and adjusted now and then.

No matter on adjusting the manual elevation and traversing handcrank brake bands.

FORWARD UNDER
YOUR FEET...
ON YOUR SHOULDER...
YOU GOT IT! Look at it!

1. Take a piece of string or tape and fit the gripper to the handle.



2. Loosen both handcrank toggle spring plunger nuts. (There's one on each side of the housing.)

HERE'S A HANDY HAND- CRANK HINT

1. Working with one side of a film, use an Allen wrench to tighten the toggle spring plunger (also called a toggle pin) until the brake band is taut, but not broken.



2. Loosen the toggle spring plunger, one at a time, until the handcrank will turn freely in the direction controlled by that brake band.



3. Loosen the toggle spring plunger in the position, tighten the handcrank toggle spring plunger nuts.



After you put the string or tape to your gripper back in operation, test your adjustments.

Hold the gripper and handle together you should be able to move the handle freely in either direction and it should elevate (or traverse) evenly and smoothly. Holding the handcrank handle but not the gripper, you should not be able to raise the handcrank more than a few degrees in either direction.

Under bands adjusted right on your manual elevation and traverse handles are a real safety factor.

Another safety factor—you gotta watch dismounted or cartridge belts when you're working around your M107 or M118 vehicle because it's easy to get the belt caught on the handcrank gripper. If the weapon is in power elevation or traverse when this happens you could get slapped.

A modification worth order is in the will to replace the brake band type of traversing handcrank with an improved handcrank that has a ratchet lock . . . but for now, play it safe and make sure your brake bands are adjusted right.

M108—M109 HOWITZER HOEDOWN

Just as everybody can get its way on this limited hoedown, here's the latest words and music . . .



1027 ENGINE

Engines of this class are used to replace quickly (in about 700 miles) for this vehicle. Operating with dirty or contaminated filters will cut down your engine life. If you can't get down all filter elements there supply at P/M 2940-791-2148 you can buy 'em on the local market, Mfg. No. PF 152, at two bucks each.



1028 ENGINE

A new, high-pressure 110,000 PSI grease gun is needed for track adjustment on these vehicles. Get it from supply under P/M 2940-705-2145.



1029 ENGINE

The engine turbo-charger is now available in supply and the number is P/M 2940-754-2176.



1030 ENGINE

An improved scrolllet blower fan motor is coming into the supply system. This motor is in the scrolllet fan motor replacement kit which you order as P/M 2940-800-2141. Since the new motor is slightly larger it is handled differently. Go by the instructions sheet included in the kit. With the new motor you don't need the circuit breaker listed in Item 11 of Fig. 71, page 75 of TM 9-2350-217-21P/1 (Jan 61). The circuit breaker and its bracket (Part No. 18005821) as shown in the figure are not needed.



SCROLL BLWDR



BKTR

NOT NEEDED WITH
NEW MOTOR

M113 CARRIER WINCH SUBSTITUTE



New Solution

A self-recovery capability would be very handy for M113 personnel working equipped to traverse with steep, slippery banks and plenty of mud holes.

Here's a novel anchor I have developed to do the job.

Using salvaged metal, a welder should be able to turn out a pair of these anchors real fast.



The only other things you need are two 1/2-inch lengths of galvanized steel rope. You can pull yourself out either forward or rearward.

Your anchors disengage automatically after you've given a vehicle's length. If you have to repeat after you've moved the vehicle its own length, catch the anchors and rattle them to the ropes with a dull blisk. The first vehicle length of rope will now be under the track but that won't matter.

You can go on like that, ratcheting the anchors as needed until you get back to solid footing.

If there's no room or other solid object to attach your ropes to, use one of the methods I talk about in pages 41-43 of your Feb 28-29 (Oct 62) or vehicle recovery operations.

If you have to operate in sticky-type mud strains, these anchors could save your necks.

Floyd W. Groundy
Fort Rucker, Kentucky

(Old Note—Simple, fast and efficient! This won't solve all recovery problems but it should be useful in many cases.)

HOLE TOO SMALL?



Like a tire that's too wide on one side, the granular lever hole on some newer M1H 14-ton trucks is too small on one side. The reason you need to use the back side, because the hole's not lined up right for the granular lever. So the lever hangs against the front of the hole, allowing the lipholders out of the top clear away.

Have a little metal cut from around the front of the hole—maybe as much as a quarter-inch—and your granular lever'll have enough room to play. The dust boot'll still fit snug enough to do its job.



M1H MASTER CYLINDER

EASY DOES IT

A 50-lb-werk bag has enough muscle to tighten the master brake cylinder plug on an M1H 14-ton truck—because the plug doesn't have to be any tighter than just snug.

There's no pressure against the plug—it's just a cover for a reservoir. If you wrench the plug down too tight, it can lean down or when you're trying to break in loose lines. So save your muscle for the back.



And on adding hydraulic fluid to the brake system, whether you go by the T11 or the 140, it boils down to this: 1/2 to 1 1/4 inches from the top of the filler opening—usually, no less. With a couple little pieces of metal soldered or welded together, you can come up with a simple measuring stick.

"YOU'RE THE ONLY STAR..."



Dear Staff Man:

I'm asking about like I was left by a couple of national speedster dealers. What's the right size star for the M170 10-in. track hood?

TR 146-92-1 (Oct 44) says the star will be "insofar as possible to the center" of the hood's chassis. Then it says the star "will not be applied in a location where it will, in normal usage, be obscured by . . . windshield . . ."

The star's supposed to be "the largest size practical for use in the available space," and Table A of Appendix I recommends the 20-in. size.

We've got three different sizes in our literature, all looked up in some way by the TR, but only the smallest of the three sizes being partly covered when the windshield's folded down. How about getting the engineers?

14 Apr 45, G. B.

Dear Sergeant T. B. H.:

The 10-incher is the right size, because it's the biggest that won't be overlapped by the windshield. The TR gives "recommended" sizes, leaving room for judgment under different conditions.

14 Apr 45
H. J. [Signature]

10-IN STAR ON LEFT

What good is a National Speedster helmet under the open wheel on the M170 10-in. track? No good—that's why the star doesn't go there.

You put a 10-in star on the left side of the M170. It goes on the side panel just ahead of the door. Position the star so it shows the trackline for the cold-weather kit hose.

A 10-in star goes on the right door just like TR 146-92-1 says.

10000
BY
1945...



... 10 INCH STAR ...

... 10" STAR ...





Dear Half-Wass,

How many hot patches can we have on an inner tube before it's considered unserviceable for a torped vehicle? The story around here is that three is the limit. Is that right?

Yours, G. J. B.

Dear Mr. G. J. B.,

Yes, as long as an inner tube has been repaired and checked out by your direct support as being serviceable, it's OK to use in regardless of the number of patch repairs.

Army Staff

ARMY-GIS: TRUCK...

HYDRA-MATIC OIL LEVEL



Think of "E" for "eyes" and you'll be on the right track with LO 9-1126-218-12 (Doc 62).

The LO tells you to keep the transmission selector lever in N (neutral) position when checking the oil level in your GM-driven Hydra-Matic truck. Close your eyes to the place in TM 9-8814 (Oct 51) where it says to make the check in a different way.

Directed to the word—the latest word.

EYE IN
MIRROR
WHEN
CHECKING
OIL LEVEL.

STUCK FOR A STICK?



Is your M154A1 gasoline-tank unloader hunting for a back-gate stick?

Change 1 (Jpn 62) to TM 9-2500-209-15 lists the 78-in. measuring stick under ISM 28-00-078-1503, but chances are you may not be able to get it right off the supply shelf. Since this vehicle was down-classified to Standard C, replacement parts consist of over-haul parts only . . . and the measuring stick has been long gone.

If you can't get a stick through cannibalization, have your support supply people buy it under Item Part Number 8300276, direct from the Ford Co., 8000 W. Missouri St., Milwaukee, Wis. AR 711-80 authorizes procurement of civilian off-the-shelf type items.

M543 HOIST CABLE

Need to replace your M543 wrecker's hoist cable and electric assembly?

If so, have your support acquisition — Wire, rope, steel, 1/2 inch, 6x19, 500-ft coil, P39 4830-201-4208, or Wire, rope, steel, 1/2 inch, 6x19, 500-ft coil, ISM 4830-201-4208. The wire rope is a GSA item.

You'll need a length of 59 feet and 3 inches.

The 500-ft length coil ISM is listed in TM 9-2500-211-507 (May 68). It's the same rope chart listed for the M541 and M540 wreckers.

The Cable Assembly, wire rope, electric hoist cable anchor, crane under P39 4830-201-4781. It's listed in supply catalog C400014-A (1 Dec 67).





It should be of some assistance if you're in possession of a copy of "The American Musical: A History of the American Musical Theatre" by John G. C. Rowe, published by Oxford University Press, 1978, \$19.95.

Books Available

THE AMERICAN MUSICAL THEATRE: A HISTORY OF THE AMERICAN MUSICAL THEATRE, by John G. C. Rowe, published by Oxford University Press, 1978, \$19.95.

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Wet Bat Day

Are you expecting a broadcast with a low voltage bulb? Well, there's a batch being tested alongside with their dry-charged batteries in place but without the packaged electrolyte. If you get one of these you'll have to replenish the electrolyte to activate the batteries. Our Acid, Sulfate electrolyte 12M 8810-349-0334, it's listed in Tel 9-2800-225-202 (Oct 84). The ATLI's concerned were made under contract BA-20-115-AAC 813877, Ford Motor Co.

Marking Vehicles and Equipment

Now with aircraft fuel and oil dispensing vehicles and equipment fuel center goes your point truck and get here, Change 1 (Aug 84), in 78 744-03-1 (Oct 84), upon the grade of fuel or oil will be marked on each side of the tank. Marking will be the same color as the registration number, and here are the sizes you can control, 4 inches high, 2 wheel trucks, 4 inches high and 2 wheel trucks, 3 inches high.

JOE'S DOPE

The
"Luck" of
LUCKY PIERRE

Time: 0745z

Place: 68. 85 air strip.

Mission: Forward airdropped
replacement troops and
supplies to combat units . . . FRONT!!

LOOK! THEY
CAME! THERE! THERE!
TAKE UP AND GO!
OLYMPIC HIVE!
CHARLES GOT TO
LE JOURNAL!
PL...





Yikes! Lucky Piers was
issued a healthy dose about the
weapons for inspection.



I couldn't stand it any longer,
so I...



OVERLAP! ALWAYS! DON'T
TRY TO HOLD WEAPON STICKY PARTS!
COVER THE ACTION WITH A
COVER! DON'T TRY TO
DO IT!



WEAT CORROSION AFTER -
NO WATCH IT... KEEP WEED
IN SHAPE WITH LUBES!
OH... MAKE SURE YOU ASSEMBLE
CORRECTLY... THE POINT SWAMP
PARTS... CHECK EACH PART
BEFORE DISASSEMBLING!
GOT THAT?



HEY! TO NEED YOUR WEAPON SET,
OH, OH, IT MAY BE TOUGH, BUT
TRY... IT'S NOT AS HARD AS
IT SEEMS... CHECK YOUR WEAPON
EVERY SPACE AROUND YOU SET...
YOU BETTER BE SURE WHEN YOU
HOLD AND SQUEEZE!



From the look on Lucky's face,
however, it was a lesson as to
how much I sold.





Dope Sheet



Out here they are playing
no games.
And the other side's hide is
your aim.
Give your weapons that care-
All the care that you've there.
And you'll go home the same way
you came.

- SMALL ARMS PM
CHECK LIST**
- Keep 'Er Lubed According
To The Fill
 - Keep 'Er Dry In Wet
Weather
 - Grease 'Em PM For
Wood Stocks
 - Don't Switch Parts
Between Weapons
 - Know Your Field-Stripping
Procedure
 - Clean As Often As Possible
 - Don't Play By The Gun
- TREAT YOUR WEAPON LIKE YOUR
LIFE DEPENDS ON IT. BECAUSE
IT DOES!**

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

IF YOU WANT TO DISPLAY THIS CENTERFOLD ON YOUR BULLETIN BOARD, SPIN IT 90 DEGREES LEFT OR RIGHT AND PIN IT UP.

That night we got a taste of the Germans. As soon as it stopped... the patrol naturally stripped 'em' cleaned their weapons and gear... by 0500 they were ready to go.



Pierre's weapon failure landed me here.





The Sioux KOB-1111 came in for a perfect landing. The crew shut down the bid and got out. The mission was half over.

It was very hot in the hiveshock, and a little on the wet side, but not enough to affect operations.

Minutes later, a graduate in the form of a disabler began to investigate the dig-wing machine.

It spotted the fuel tank vent pipe just inches above the damp ground and decided this pencil-thin tube was just the right place for a new home.

No one noticed the frequency strips the insect made between a mud puddle nearby and the chopper, and before the crew was ready to heat off again, the disabler had his new home finished, and the tube plugged for good.

A little later — it was the Sioux crew that was nearly hatched! On the runway trip down they were in conversation. The trouble — fuel starvation, caused by a visitor in the fuel tank.

If you're operating in damp or wet areas, remember this little story. It's real! Keep a piece of wire handy for those hiveshock situations and get in the habit of checking the vent tube before takeoff to be sure it's free of newswax.

It might prevent a stink bugaboo!



For want of a center pin the nut was lost.
For want of a nut the sleeve was lost.
For want of an sleeve the bolt . . .
Was found!

All it was left—when you put your
head in the nut—was to change by using
the right nut, a torque wrench
and the right center pin.

BE CARE,
YOUR HEAD'S
IN HERE.

That's your
torque wrench
and that
nut that
don't take
center pin.

TRIANGLE OF SAFETY

The one part of
the change is more
important than the
other two, the main
component is the
torque wrench. Yes,
it is a center pin it
will save by mistake
the nut has a torque
washer or saying
just "nut" the nut
Doesn't it's right
and right.

TORQUE IS KEY

All your have a torque wrench. Oh,
you don't usually use it except for the nut
of your maintenance job. Putting
a nut it with a torque wrench that
all the torque wrench has you use a
wrench with the nut.
The nut with a torque wrench,
the nut with a nut, is that it

RELIEVE THE SPECIAL TORQUES

Course there's always an exception
to a standard torque. This is a torque
value you're a nut by the manufacturer
and it gives you the use of the
maintenance operation.

Let's take a Volkswagen, for you're
changing the main power ball and Made
on a Shop 238-1A, B.

The Center on Page 8-13, Chapter
2, of TM 10-1120-211-20 (9 Apr 61)

CAUTION

Do not use your torque wrench to pull
the nut (Shop 238-1A) on large-scale
torque wrench. Don't use a torque
wrench of any other make to pull
the nut unless you're sure that
it's the nut and torque wrench is good.

says that you torque the pinball ball
nut to a special value of 85-100 inch-
pounds on the A Model.

You'll also notice that you should
pull a special torque inspection of the
newly-installed nut after the first 10
hours of operation. That's because the
nut and ball combination has a new
slip to its initial torque.

When you're changing the main power ball and block on
the B Model according to the step on Page 8-15 of
TM 10-1120-211-20, you'll notice that there's an special
torque value on the pinball ball nut. In you
use the standard torque value in the maintenance
book for the larger size ball and nut combination.

USE THE TORQUE WRENCH

You don't have to use a nut with a
magnifying glass or guess the
nut number and size. One
torque wrench is to
check the nut.
TM 10-1120-211-20P
121 Aug 60. This
page illustrates by giving
you the right nut . . . from
forced handings caused by use
of the wrong nut.

Figure 174. Index numbers 1, 15 and 50 of the parts parts-calls for use, AN 310-4, for the A Model . . . no reason since this baby has the special torque. For the B Model the three nuts are AN 310-6 and AN 310-8.



Check your job! The index table numbers the bolt size (Bolt is 1/2-inch, not 3/8-inch)

Put off your copy of TM 31-403-2 10 Aug 50 as much as you can and turn to Page 47. The third size of the two AN 310-4 nuts is 1/2-14.

nutting	nutting	1/2-14 1/2-14
nutting	nutting	1/2-14 1/2-14
nutting	nutting	1/2-14 1/2-14
nutting	nutting	1/2-14 1/2-14
nutting	nutting	1/2-14 1/2-14
nutting	nutting	1/2-14 1/2-14

Now, make your 26 1/2-14 1/2-14 to the standard torque table in Page 1-14 and match up the 26 300 columns with the 1/2-14 nut size. The torque is 15-18 inch-pounds, not 100!

1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14
1/2-14	1/2-14	1/2-14	1/2-14	1/2-14

You follow the same set-up for the AN 310-6 nut . . . TM 31-403-2, Page 47. Match up the AN 310-6 columns with the 1/2-14 nut size in the torque table and your torque is 100-120 inch-pounds.

Yeah, getting real familiar with the torque wrenches in your general mechanic's and organizational maintenance A, B and C tool kit is a sure sign that you're pulling up downer maintenance.

Remember . . . the next time you put a part on your baby be sure your baby's in the triangle of safety. Using the right nut is now one of all round and other critical places, a torque wrench and the proper correct job is safety wise is all in order.

DON'T BE A TINKER



You can spot a tinker mechanic a mile away. He's the type who keeps making adjustments on his parts even tho' the organizational main source pub doesn't call for them.

Take the carburetor. The pub has a mechanic make some adjustments like the idle, throttle lever and such. He can also crank up the engine to check out those simple adjustments. This is where a good car for smooth operation comes in mighty handy.

But the tinker might as well have a die cut if he tries to make an adjustment, say, on the main mixture control valve.

Five adjustments can only be accurately made during the flow bench test at depot. That's because it's the only place where altitude, temperature and fuel density can be taken into account for all operations.

Change a carburetor out of adjustment has to be changed.

But you wouldn't dicker with a carburetor, would you? Not when you can save yourself time and effort gained by changing a flow carburetor right-off!

COTTON PICKIN' PARTS PLUCKIN'

Consolidating parts from one grounded fleet to get another fleet off the line is OK in some cases, but even Murphy knows it's not a healthy habit to be getting' into.

But is it a fair price supply source? He is quoted as AR 7504500-0 OR Apr 77, the guide for consolidating aircraft parts. It was your CO's job to be sure that every other supply source has been tried—made no good? The part from another source nearby—better to see give you the green light on this kind of parts acquisition.



WIP THE BIRDIE CHANGE!

There's no one person for the pilot paperwork involved in consolidating, but it's mighty important to keep that paperwork straight.

Generally speaking—

If you take the part off, you make an entry on the aircraft's OR Parts 1400-18 (Aircraft Inspection and Maintenance Records) to show it's gone.

IF the bid or assembly parts get one eye on it out of attention...

IF there's more than all the supply needs and WIP them more time than you're get...

IF the bid's material will offer if you don't get the part...

OR the part you're not to get on to installed in a jiffy and get your bid back on the line.

... Don't be a foppe as a part that's been in a bin.
... Don't pluck a bird in the part that it means make a mess of part.

If you put it back on your bid, you make an entry on the form 2000-1 Equipment Maintenance Record.

You make a date entry on SA 2000-10 (Maintenance Task Record) if the record of use of the equipment was made there.

You make an entry on SA 2000-11—unless it was a one-day installation and did not affect the flight status of the aircraft.

You record the exchange of the part on SA 2000-14 (Component Installation and Removal Record) of both bids if the component is listed in SA 200-20-42.

You'll also have to have it on SA 2000 (Component Removal and Repair Electrical Record) if the part's listed in SA 200-20-42 and you take it off an aircraft. And certainly you complete copy 1 of SA Form 2000 and forward it to the address in paragraph 3, SA 20-720, when you put the component on your aircraft.

Collect? There's more. Only equipment that's not part of the bid mail, like radio sets, etc., is covered on SA 200-17 (Special Inventory Record).

In addition to keeping those records straight, written copies of these supply orders should be included so that they should have the John Henry of the maintenance officer and be completed for each shipment during the authority for consolidating, and the time it was generated.

The paperwork's enough to discourage most parts specialists, but it's done necessary to keep the supply well organized. It helps cut down on the number of hangar spaces, too.

SAVE THE NI-CADS!

DON'T SET VOLTAGE
REGULATOR TOO HIGH

WE SHOULD
NEVER
ADJUST THE
VOLTAGE

There's been some talk lately about the 28-433/A nickel-cadmium battery getting too hot under the collar in the Midhawk (PW-11) and ending its life.

Course, this battery comparison is a real hot-box with inventors in every thing running. Still, the ni-cad is supposed to outlast the equipment it's in ... and it will if you give it half-a-lovin'.

Like, for instance, when you adjust the electrolyte level in the 28-433/A, be sure you use only distilled water. That's the gump in TM 15-436-509-12 (7 Jul 62).

If you use, say, water from an air conditioner, salt and acid will contaminate the battery solution and ruin the cells.

Another thing that can cause the battery to fail is too-high a setting on the voltage regulator. During periods of high ambient temperatures (above 80 degrees F) the regulator setting on an aircraft has to be kept at 27.00 ± 0.05 volts. This info is in para 11(1) of TM 15-436-5 (10 May 62) on maintenance of aircraft systems.

In a steaming climate, a setting above 28 volts leads to overcharging and boiling over of the electrolyte with shorting and burning of the cells ... and a ruined battery.



NI-CADS: KEEP THE REGULATOR SET ON THE LOW END OF IT VOLTS AT ALL TIMES! NEVER ADJUST THE VOLTAGE REGULATOR ON THE AIRCRAFT. THE REGULATOR SHOULD BE SET LOW!

above 28 degrees F	27.00 ± 0.05 volts
27° to 28 degrees F	28.00 ± 0.05 volts
below 27 degrees F	29.00 ± 0.05 volts

WHEN YOU GET IN ...

TAKE ALL THE RIGHT UNITS



So you're going to pull a load today in your bird for an operational bench check? OK! But remember, your support crew's check it out before you bring all the necessary units with you.

Take the medical AMT-ABC-44 FM radio, used to just about any bird you'd care to mention.

For a bench check you need the RT-299A, dynamic DF-187/AR-20-527 F-ABC-44 and SR-507/AR control panels. Leave any of them behind and you'll only have to retrace your steps.

The same deal goes for the old-fashioned AMT-ABC-00 UHF radio in lighter aircraft. Besides B-100 (a)ABC, both conventional transmitters, CV-411) IAG, and dynamic DF-187/AR-58, we needed to spot a malfunction.

Of course, with the AMT-ABC-00 UHF in heavier birds, there's no problem. When you pull the RT-299 you've got everything in one package.

And so it goes—so as it should go—with the article gear in your bird. Cover each operator's and organizational maintenance job with the you on the units needed for a bench check, to save you time and effort again.

OOPS, YOUR STRAP IS SHOWING



Carrying the chest by one strap usually leads to a twisted or torn support—and eventual chest rejection, because of unclear units.

If you don't want to go to the trouble of slipping all the way into the harness, then carry it like a bundle of papers

under your arm, or over the arm supported by both straps.

Take it from Canada, a strapped strap can be embarrassing... especially if that strap supports you somewhere between the wild blue yonder and mid-west farms.

COMMUNICATIONS



Remember when you used to choose about a long-range AM radio as that's the only one that stays tuned where they don't slip into the static when you're working in your employ? As an AM that's not a signpost of mid-range radio choice?

Or maybe you talked yourself into sleep thinking about a set that'd carry your radio with at least 50 per cent accuracy out to 100 miles?

Or did you deplore about a normal single channel set that'd give you more clarity?

Well, wake up, if finally, it's here! Yeah. The new AM/CRC-100 will fill all those dreams and give you quite a few more as a bonus.

As an eye opener, consider this factor in the busy operator who's tired of changing air filters. The Aggy-100 doesn't have any!

Instead, the new set has sophisticated fan exchanges, which eliminate the need for air filters. This keeps the sensitive system cool, clean and dry, something you had to worry about one usually with the set the CRC-100 replaced, the AM/CRC-10.

Another bonus truly is ease of maintenance. Modules and transistors make maintenance easy. There's only one tube in the transmitter, RT-6LL, and that's in the amplifier. AM-1440: Transistors, which replace tubes, increase reliability.

NO SET, NO SET, NO SET... ..

THE NEW AM/CRC-



100 IS READY



Not only do the modules simplify maintenance, but they also make for low weight and bulk. Like the Aggy-10 ... which means there's more room for you — or equipment.

Daily operator PM has called a maintenance, too... .. thanks to large part to its air filter.

Almost all an operator has to do is clean the exterior of the set daily. Unlike from the power is off as per page 20, page 24, of TM 11-7020-504-11, check notes given for order card how they replaced, if you happen with common for breaks, and make sure you have the correct value (1 amp, 100-watt) set in the spare line with.

As for accessories, transistors and other components, most are still available which you're already using with ... such as the RT-6LL, RT-6LL, RT-6LL microphone and RT-6LL loudspeaker.

Combined with other components in existing configurations bearing the Aggy-10, the CRC-100 will make up the following replacements:

CONFIGURATION

Old	New
AM 100-10	AM 100-100
AM 100-11	AM 100-110
AM 100-12	AM 100-120
AM 100-13	AM 100-130
AM 100-14	AM 100-140

All configurations, including the Aggy-100, will be used as company level and above.

Let's see you get me wide awake and lively with anticipation, when a full, initial distribution of the Angry-100 or its components will be thin. Tomorrow it'll be here, but it'll take a lot of tomorrow to replace the Angry-100 that are all over this globe.

When you get it, though, the wait'll be worth it. These 100-watt peak power, the 20,000 pulses at which frequency can be assigned ... and varied. Features from ship distance are the big price at the end of the station.



Especially worthy is the ship distance freedom. Normally, long range AM can break out or fall to a whisper in that near-never land which averages, but isn't linked to, the 40-50 mile range from the transmitter. For radio-telegraph, the ship area is a bad dream.



With the Angry-100 as a configuration using it, you get better than 50 per cent telegraph accuracy at all distances to 50 miles. Actually, you push 100 per cent on the great majority of frequencies with the Angry-100's big booster, the AM/CBC-100 ... which is a culture to single telegraph that's hard to match.

Unlike those of the Angry-10, the components of the Angry-100 can be stack-mounted. You can get them on a ladder rack of a 14-foot track ... which makes room in the area for another rack or whatever.

A few other notes:

Unlike the AM sets you've used us, the CBC-100 will put out for you even under severe terrain conditions. Weather means maybe you should put your position on ... but it doesn't hinder the output of the set.

For telegraph buffs, the RT-600 combined with a 2000-watt amplifier (AM-1000) provides full duplex facility, as in the AM/CBC-100 radio relay power bar.

Finally, digital coding makes for sliding speed and reduces operator error in the event of emergency operation. The set comes with exciting high frequency medical AM sets and radio telegraphwriters.

Publications you need include:

THE 11-5820-530-01 Long 640 Operator and Organizational Maintenance

THE 11-5820-530-200 Long 640 Repair Parts and Special Tools List

The last word: Hush off the masses when the set's operating, so that its energy will make you hear ... and we don't mean telegraphly.

BETTER TO TURN THAN BURN



Hey! Hold on, Hank.

That is if you're gonna roll down an **AM/FM/CD**, 6- or 10- **disc** radio set for that **Push-2-ON** 4-model radio it's teamed up with your **AM/FM/CD** amplifier-power supply for vehicle operation.

Make sure the **AM/FM**'s volume switch is reset for the plain model radio in your **Push-2** pop-in **RF** case and a **Push** tube (**PNM 1960-290-0042**).

Before making the **Push** model switch-over:



There's no issue if you're installing the 4-model. Nothing'll happen to the inside if the switch isn't turned.

Only the universal model can wind up with the rest.

There's no problem if your amplifier-power supply's an **AM/FM/CD/ALL**, it'll handle all **Push** models without switching.



WATCH THAT

Connect time for the rats, what? With AM-1180 amplifiers popping off like in fireworks on the 1st of July.

Since MFRD 11-14320-001-111's was designed to hold its own against war drums, the next item is pointing the power cable (220-11210/20) to the right jack on the AM-1180, the J10. The wrong jack can make the handle of the amplifier both like it's been through... well, a 1st of July celebration.

If you put the cable in the J101, J102 or J103, Frodo, Sam, the T111 team (sorry on the 4110 module literally explodes. In 4110s the middle woman's The Hawk over Broomfield, and the low-handed leader each one can't see pretty well despite the company logo.



Most common keep-up is putting the power cable in the J101, since that jack sits directly over the MAIN PWR button on the panel of the amplifier. Now No one can hear. That's for the switch directly below it. The jack you want is on the upper right hand side of the amplifier.



Avoiding the big blow-up is as easy as following the power cable from its own under the 101-1029 screen and with the Standard 4. FM wire cable. The cable connects to the J10 jack under the screen... the middle jack, that is.



CONNECTION!



From there it goes to the J101 jack on the amplifier, like so:



An easy way to keep it going to the right jack is to mark the connector head with "J101," and then mark the amplifier front panel area on the proper jack with "J101."



Or, color code the connector and jack. Either way, you keep from making a mess-up of your AM-1180.



Still another point: The link to the 101/102/103 junction box must be changed to the correct operation position.

Like, connect points 101 and 102 with the link. Which means, use the link to connect the middle point to the left wire.

That way, if you connect the cables you won't blow the 4110, although you won't get amplification, either. In the future case, just make the proper cable connection.



WHEN THIS MERCURY GOES UP... POW!!



If you've owned a dilapidated mercury dry cell battery when the temperature takes a sudden rise, better be ready to duck!

That kind of mercury doesn't take kindly to heat. It turns downright explosive.

Which means don't just get rid of a used-up mercury dry cell—get rid of it safely. Be considerate of the next Joe, who may not know about the mercury dry cell and innocently use it later in life. He could learn a painful lesson.

The batteries for gauges like flashlight, car wax, radio, meters—or maybe your own portable radio!—should be disposed of soonest when you remove 'em from equipment. Chargers are your pals or enemies for a SOP on handling 'em.

The safest—and recommended—method is to bury them. Never smother them, and never, never leave them!



If you're just temporarily removing the batteries (like, to store equipment), drape rags over the end terminal to prevent a short circuit, which could drain the battery. Store the batteries (and new ones) in well-ventilated areas.



SEAT TUBE, THEN TIGHTEN



Plugging the speaker on the VICO power amplifier tube the way you'll go hard on your RT-340 or RT-544 receiver-transmitter.

Now, it's no secret to hold the headset block and tube in your hand to cover other hands place to tighten the tube screw. But, you'll short out your RT's power supply when you push in the tube.

So, wait the tube first before setting the block's tube screw . . . like it says in Part 145 in TM 11-4528-400-20 (Doc 61).



BULGING PERK-25 STRAP

A link in your RT-305/PEC receiver-transmitter's grounding strap'll lead to a slight rick-ax.

Yep, if the strap legs are loosened from the mother board or chassis, the strap'll riddle up near to the module CAN tips and put your set to sleep when you need 'er most.

There are a couple of instances you can do which will keep your RT-305 wide awake.

Like, set it if the legs are right and running parallel to the legs.

And, you might have to rock the strap in with a screwdriver as you're closing the mother board on the chassis. This'll keep the strap from pressing against the module.



WASHER D.I. ENGINE ELECTRICAL TEST: The washer is rated for 100-200 PSI. The complete set may be requisitioned under its part stock number. The individual parts may also be requisitioned under its own stock number for replacement purposes.

FIG 400-001-000

FIG 400-001-000

WASHER ENGINE ELECTRICAL TEST: USE BRUSH TESTING AND GENERATOR TO INSPECT FLOWERS, W/TERMINAL & TIGHT TORQ. 1 & 2, w/flow rate info.



WASHER ENGINE ELECTRICAL TEST: HIGH LEVER TESTING MAY BE REQUIRED. FLOWERS, w/ TORQ TORQ. 1 & 2, w/flow rate.



FIG 400-001-000

FIG 400-001-000

WASHER ENGINE ELECTRICAL TEST: USE BRUSH TESTING AND GENERATOR TO INSPECT FLOWERS, W/TERMINAL & TIGHT TORQ. 1 & 2, w/flow rate info.



WASHER ENGINE ELECTRICAL TEST: USE BRUSH TESTING AND GENERATOR TO INSPECT FLOWERS, W/TERMINAL & TIGHT TORQ. 1 & 2, w/flow rate.



FIG 400-001-000

FIG 400-001-000

WASHER ENGINE ELECTRICAL TEST: USE BRUSH TESTING AND GENERATOR TO INSPECT FLOWERS, W/TERMINAL & TIGHT TORQ. 1 & 2, w/flow rate info.



WASHER ENGINE ELECTRICAL TEST: USE BRUSH TESTING AND GENERATOR TO INSPECT FLOWERS, W/TERMINAL & TIGHT TORQ. 1 & 2, w/flow rate.



FIG 400-001-000

FIG 400-001-000

OUT. FINE. SPRAY GUN: 1 qt cap, clamp top, w/1/2 inch at bottom.



FIG 400-001-000

BLACK AND BLACK, INTERLUDE TEST: water into 2 gal pump 10 gal cap, w/1/2 at bottom separator, 1 pressure type go into 10 gal air tank range, 100 to 1000, manual control valve, w/1/2 inch at bottom for adjusting water at pressure, w/1/2

OUTER. 1000 and 1000: 1 qt cap, clamp top, w/1/2 inch at bottom.



BLACK AND BLACK, INTERLUDE TEST: water into 2 gal pump 10 gal cap, w/1/2 at bottom separator, 1 pressure type go into 10 gal air tank range, 100 to 1000, manual control valve, w/1/2 inch at bottom for adjusting water at pressure, w/1/2



FIG 400-001-000

FIG 400-001-000

DRILL ELECTRICAL TEST: 10 in. dia, 1000 RPM, 1000 RPM, 1000 RPM, 1000 RPM.



BLACK AND BLACK, INTERLUDE TEST: water into 2 gal pump 10 gal cap, w/1/2 at bottom separator, 1 pressure type go into 10 gal air tank range, 100 to 1000, manual control valve, w/1/2 inch at bottom for adjusting water at pressure, w/1/2



FIG 400-001-000

FIG 400-001-000

CARTELLO
MOTTO: "IL MIO
E' IL MIO MOTO!"



THROATLINGS SET, SCREW IN END of split type
also L/R for following:



FOR 10-10-1000

New Item		
Cyl. Throat Cutting		
	Part No.	Price
FOR 10-10-10-10	10-1000	
FOR 10-10-10-10A	10-1000A	
FOR 10-10-10-10B	10-1000B	
FOR 10-10-10-10C	10-1000C	
FOR 10-10-10-10D	10-1000D	
FOR 10-10-10-10E	10-1000E	
FOR 10-10-10-10F	10-1000F	
FOR 10-10-10-10G	10-1000G	
FOR 10-10-10-10H	10-1000H	

Standard		
Part No.	Price	Part No.
FOR 10-10-10-10I	2	10-1000I
FOR 10-10-10-10J	25	10-1000J

Wrench, Square Driver, Adjustable
Ball Tip Holding Capacity, In.

FOR 10-10-10-10K	No. 100 1/2
FOR 10-10-10-10L	1 1/2-2 1/2

For Throat Cutting Plug Type

	Part No.
FOR 10-10-10-10M	10-1000M
FOR 10-10-10-10N	10-1000N
FOR 10-10-10-10O	10-1000O
FOR 10-10-10-10P	10-1000P
FOR 10-10-10-10Q	10-1000Q
FOR 10-10-10-10R	10-1000R
FOR 10-10-10-10S	10-1000S
FOR 10-10-10-10T	10-1000T
FOR 10-10-10-10U	10-1000U

THROATLINGS SET, SCREW IN END of split type
also L/R for following:



FOR 10-10-1000

CYL. THROATLINGS SET

FOR 10-10-1000

Standard
Cyl. Throat Cutting

	Part No.
FOR 10-10-10-1000	10-1000
FOR 10-10-10-1000A	10-1000A
FOR 10-10-10-1000B	10-1000B
FOR 10-10-10-1000C	10-1000C
FOR 10-10-10-1000D	10-1000D
FOR 10-10-10-1000E	10-1000E
FOR 10-10-10-1000F	10-1000F
FOR 10-10-10-1000G	10-1000G
FOR 10-10-10-1000H	10-1000H
FOR 10-10-10-1000I	10-1000I

Standard

FOR 10-10-10-1000J	10-1000J
FOR 10-10-10-1000K	10-1000K

For Throat Cutting Plug Type

	Part No.
FOR 10-10-10-1000L	10-1000L
FOR 10-10-10-1000M	10-1000M
FOR 10-10-10-1000N	10-1000N
FOR 10-10-10-1000O	10-1000O
FOR 10-10-10-1000P	10-1000P
FOR 10-10-10-1000Q	10-1000Q
FOR 10-10-10-1000R	10-1000R
FOR 10-10-10-1000S	10-1000S
FOR 10-10-10-1000T	10-1000T
FOR 10-10-10-1000U	10-1000U

Wrench, Square Driver, Adjustable
Ball Tip Holding Capacity, In.

FOR 10-10-10-1000V	No. 100 1/2
FOR 10-10-10-1000W	1 1/2-2 1/2

WRENCH CHANGES W/OUT
LOCK TYPE. Thread and
gt. 1/2 in. to 1 1/2 in. diam
also, 1 1/2 in. ball lock.



FOR 10-10-1000

SO WHAT'S A MILITARY STANDARD GENERATOR?



You can't tell a Military Standard generator set in a glance any more than you can tell a book by its cover. It takes a little looking over.

Some Military Standard generator sets hit the field without a nameplate on the generator so the only way you can identify them is by make, model and P/N. Others normally carry a nameplate on the generator which reads **MIL STD GENERATOR**.

So what's the difference between the non-military standard generator set and the Military Standard generator set?

Just this: You may have a Military Standard engine hooked up with a non-military standard generator which means the whole outfit is not a Military Standard generator set.

When you have a Military Standard engine hooked up with a Military Standard generator (military designed) the whole outfit is a Military Standard generator set, sure 'nuff.

A 1.5-KW non-military standard generator set, for example, gets only a 2400-7, 2400-8 and 2400. A Military Standard generator set, however, gets a complete log book.

Here's the up-to-date list of Military Standard generator sets which are not indicated as military standard generators on the nameplate:

1400	P/N #11-074-000	Non Model 30-48 Military Design
1500	P/N #11-006-000	Older Model 02-07-02 1.5 Military Design
1500	P/N #11-008-000	Older Model 02-07-02 for BT 1.5 Military Design
2000	P/N #11-004-000	International format Model 100
5000	P/N #11-071-000	Industrial Engine In Model 02-01 Military Design



BE SURE TO **GAP**



OR **LUG THEM**



WHEN TO GET TO

There're more vulnerable nooses and exposed generators in this dirty's equipment than you can shake a finger at and lots of 'em get split, pitted, cracked, washed, or contaminated just because they're not given a little protection.

These unprotected parts and nooses show up when you remove or dismantle a compressor from its end item. To be exact, they're found on: discharge valves, regulators, pressure, starters, feed injector pumps, electrical cables, carburetors, hydraulic fittings, tubing, air lines, etc.

If left unprotected, the threaded nipples and connections become damaged or blocked out of shape; the openings for dirt and moisture.



SECURE FITTING, AIR & MOISTURE

A substantially smaller but in different parts managed when it's moved back and forth between the using unit and the repair shop. This unnecessary damage just adds to extra maintenance work, logs down the supply pipe line and rust up the coils for your

service trucks. All this can be avoided with a little protection applied right at the start.

Now covering or wrapping these nosey areas with caps is OK — if you don't have anything better. But the best yet has the all-purpose plastic cap-plugs that's now available from supply.



Each cap becomes a plug by screwing it and vice versa. Just pop one on a protruding threaded nipple or plug it in on a opening.

Local supply repair shops can use 'em on all parts being shipped to the using units. The EXX items, organization and mechanics can strap the cap-plugs from the new parts onto the non-removable part being moved in. That'll protect the equipment while it's traveling then the repair pipelines. In fact, some field maintenance EXX shops that're already using these cap-plugs won't allow parts to be moved in unless their vital parts are safeguarded with cap-plugs.

These protective coverings should be on the shelves of your local country store. To get these done, your support people can put in a supply of 'em by contacting Federal Supply Catalog COUNCIL, Vol. 1 (Mar 65), Tables 176, 178A and 199 (pages 88-93) include the plastic as well as other types of... GAP-PLUG, PROTECTIVE, DIRT AND MOISTURE 1644. Each capping is identified by its P/N and the necessary dimension (EX-656 double length, plain thread, exterior surface, etc.). Detailed descriptions are available MIL-C-30878 and MIL-30812 and the management data are in Federal Supply Catalog COUNCIL, Vol. 1 and 2 (May 65).

The only thing missing from the reading listing is the name of the part which each the cap-plug fits. Experience shows that the following cap-plug stock numbers and vehicle identification go together:

EXX	Use This Subassembly Connector & Regulator	EXX	Vehicle
EXX-004-2126	M 24, M 31, M 37, M 47	EXX-887-1132	Jeep, M 35
EXX-010-0911	Jeep, M 10	EXX-887-1111	Jeepster, M 35
EXX-010-0914	Jeepster, M 35, M 47	EXX-887-1118	Jeepster & Connector M 31, M 37, M 47, M 51
EXX-010-1171	Jeepster, M 10	EXX-887-1119	Jeepster, M 10
EXX-010-1221	Jeep, M 10	EXX-871-7121	Jeepster, M 35
EXX-010-1224	Jeep Jeep, M 10	EXX-871-7122	Jeepster & Regulator, M 10, M 31, M 37, M 47, M 51, M 52
EXX-010-1247	Jeepster, M 35	EXX-871-7123	Jeepster & Connector, Control Valve, M 35
EXX-010-1250	Jeepster, M 37	EXX-871-4807	Jeepster, M 35, M 52
EXX-010-1488	Jeepster, M 35	EXX-871-4810	Jeep Jeep, M 10
EXX-010-1522	Jeepster, M 24, M 37, M 47, M 51	EXX-886-0919	Jeepster, M 35
EXX-887-1134	Jeepster, M 35		

All of these are available so long as you keep them free of bad cracks, chips or deformities which would keep them from sealing right. You can use them on a car door hole, too, if you want to cover that cavity substantially with paint or protective grease.

You old pros know the best way to track an animal is with a good hunting dog. He'll lead you to your game. The dog's reward for such a feat is lots of TLC from you.

There's something else that does a good job of tracking, and it also needs tender loving care if you expect to depend upon it. That's your battery-powered GUNTER-Hunter mine detector (FDM 6601-229-1294).

There's some things to keep in mind if you have this mine detector.

BATTERIES—One of the best things you know about that detector is that the batteries must be treated to make sure you're getting enough mileage.

You can check the batteries under load by measuring them to the mine detector set—or to a standard dummy load in a battery checker. If you're using the battery checker, be sure and follow the instructions you get with it.

You can also use the batteries with a voltmeter.

As you know, your mine detector takes one 45 battery, type BA-15-A, and two B batteries, type BA-31.

To make sure there's enough juice, the BA-15-A battery should not test any lower than 1.1 volts, and so be on the safe side with the BA-31 or B batteries, they shouldn't test any lower than 1.25 volts.

It pays to eyeball those batteries, too, because if they look odd, will play havoc with your detector.

THE
MINE...



...AND
THE



BLANKET—No rough stuff, please, when you put the handles on or take it off. It doesn't take much of a pull to yank those wires out of the handles. Without 'em, you won't get the message.

IMPROVE MOUNTING—When you put the real plant back on the amplifier housing, make sure you line it up with screws and see that the guides is seated right. That way you'll keep our dear old trouble-making machine.

WIRE ASSEMBLY—Easy does it when you're moving the wires around. Don't bend the cable when you're getting the wires inside case so you may pull the wires loose.

SEARCH HEAD—Keep the cable on your search head reasonably taut so that it won't form a loop and get pinched from into the cable.

GRADING CASE—The cover has to be seated just right or it could catch the case and mine case get in. When you try to close the case and the lid doesn't fit, open the case and make sure the cables, straps, or anything hanging are not caught between the lid and the top of the case.





When you're writing on some equipment models—like DA Form 2408-1 and DA Form 2408-7—you need much power to get clear carbon copies.

But take it easy when you write on DA 2408-2, especially if it's on top of the DA 2408-3 with all its carbons. Bear down hard on DA 2408-1 copies and you may find they show up on the 2 and 3 copies of DA 2408-1. And brass comes out makes, as the phrasing implies, too.

Bear up on that you or pencil on DA 2408-2 and save your strength for DA 2408-1. Or slip a cardboard between the 2408-2 and 2408-3 before you test your strength. It makes for clearer copies.

(The same rule also goes for your support when making copies on a DA 2408-4 copy the DA 2408-7 if the carbon paper's still in it.)

A TOOL OR AN IOU



You should get one or the other to read or an IOU when you get an initial issue of a tool or IOU.

You get an initial list when you get your set or list. It'll show the PUN, quantity, and availability date.

If there's a shortage of tools, or maybe not the number authorized, then you should get a checkmate. When the tools are available, they'll be shipped to you.

All 725-80 (Aug 55) has the dope on these tool list policies.

Connie Rodd's BRIEFS

SOBER ABOUT THAT
YOU MIGHTY THINK—
I GOOFED!
ON PAGE 4-14 ON LINE
26 OF PG 128 SHOULD
BE WITH PAGE 26.



Who's On First?

Been trying to keep track of what's responsible for what in the Federal Supply Classification (FSC) class assignments? If so, then you'll want to take a look at AR 301-2 (17 Aug 67). This AR "simplified" assignments for ARs in the 301 series that gave the different FSC class assignments.

More Power to You

Like a cool shower on a muggy morning, it is sure to give you a good feeling to see TM 3-768 (Jul 62), Power Generation in the Field. It's chock full of latest helps for field power production. TM 3-768 (Jan 57), Electrical Wiring and TM 3-755 (Jan 57), with Change 1 (Aug 65), Electrical Power Transmission, are still available too.

Can-You-You-Enter

If the FSC for the 10701 has for the 261-124-10701-44 someone position similar has been "buggin' you for hours" like a bad check, be of good heart. The word has it that FPM 4903-281-0244 is a bad 'un, even though it's in TM 11-6215-241-10 and the GSP. When you really need it, Force, Cambridge, MA, Type 1004006, PIN 205-155-2191.

Fandy, Fandy, Fandy

That's the word for Ed Foytler 210-4 "Military Publications Index of Supply Catalogs and Supply Manuals". This job has the info that was listed in the old "Index of Supply Manuals" (DA Form 210-21, 210-22, 210-23, 210-24, 210-25, 210-26, 210-27, 210-28), and the part of DA Form 210-4 that had type 4 and 6 supply manuals and type C1 supply catalogs. It's also an index to your DoD Catalogs.

Date Your Index

If you need Julian dates for your equipment and supply records, then order RM 210-204-2441, Julian Calendar (pkg of 20) in the DoD catalog. Includes pre-built regular and leap years. Real handy. Your country store may have 'em in stock.

Add A Brake Tool

A brake adjusting tool is authorized as part of the Tool Kit, Organizational Maintenance, No. 3 Common. It was added in the 61-1C 4910-93-01-473 (Mar 65). It's the same one (FPM 2120-204-1004) that's in the No. 1 Common Tool kit.

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?

SUPPLY SYSTEM FAILURE



NOPE...

TWO BIGGEST CAUSES OF SUPPLY FAILURE ARE:

1

USING **OUT-OF-DATE** PARTS MANUALS

(Stay up to date with DA FORM 210-4 and changes)

2

PUTTING **INCORRECT** PARTS NUMBERS ON DA FORM 2765

(Put your references on the register)

GOT THAT?FINE.