



Issue 124

PS

TMJ Barber

THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

THE NEW  
JET-POWERED  
SLIDES  
WE GO  
WITH YOU WE  
GOT!

Bill  
Carter

## E Pluribus Unum... or



The people who put out the telephone directories for the past, except and unless have been doing some mighty peculiar things recently



as you can see by searching through the maintenance section of your past directory, where more than likely you'll find the past maintenance activities lumped together under a general term such as "Consolidated Field Maintenance" or "Combined Field Maintenance."



## THE PLOT THICKENS

and further breaks down under such functional sections as Amusement, Frictioned Facilities, Wheel Facilities, General Purpose, Jetlines, Electronics, Aircraft and such, instead of being listed under the old technique under location.



and when you start looking real close you

may discover that a number of these functional sections have the same building number or address.





which should send shivers of gloom through your heart since there's nothing more convenient than having a one-building or one-man service center where your task, for example, you get the engine, pump, valve, overflight and filter work, gas particular, squawking pretty much in one fell swoop instead of having to be shuffled around from one specialty shop to another at a considerable waste of time and effort.



and why didn't somebody think of this before?



But as you continue to ponder the assembly delights of such a system it suddenly dawns on you that

you, the customer and responsibility for combining and consolidating these important maintenance

functions doesn't generally rest on the shoulders of people who compile telephone directories



so there must be some really big stick behind this idea



and the directory people just carried it through in their own and orderly fashion,



as you start looking further and sure enough, you start running across such titles as "Director of Field Maintenance," and "Superintendent of Field Maintenance," and other various positions



and there are

larger ones to be my doubt as to "who's in charge here,"



which is sure going to make it easy for your "Old Man" to conduct his maintenance business since he always felt that under the old system he wasn't being "supported" as much by maintenance as he was "surrendered" by it.



and CO's for some strange reason take a mighty like view of being "surrendered."



Well, my old man, the more you study the directory the more interesting it becomes and



and you go on to think of all kinds of benefits that could develop from this consolidated system, both for the equipment users and the supporting maintenance personnel.



and you suddenly remember the old joke about the telephone directory being reviewed by a literary critic who said it has a marvelous list of characters but not much of a plot.



and you get to thinking that maybe there's a deep night mare plot and action involved here that the critic ever dreamed of!



and it just could be that this complex, all-the-worlds drama may turn out to be one of the outstanding performances of the season.



At any rate, it's well worth watching for the final curtain, wouldn't you say?



THE WEEKLY COMPANION (ISSUE 1)  
 TRADE DRESS: 1970 100% COTTON

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FOR A COMPLETE LIST OF PUBLISHERS OF THE WEEKLY COMPANION, CONTACT THE OFFICE OF THE CHIEF OF DEFENSE STAFF, WASHINGTON, D.C. 20315



# M113



GROUND MOBILITY



That's for the spark plugs in your M113 personal carrier fuel you up. The M113 has a high compression, high compression engine, and the plugs are no more self-cleaning than a little boy's coat.

Like we said in PS 125, page 15-19, if you give little or go at slow speed for long periods, give your plugs a boost by cranking up your engine to 2,000-3,000 RPM for 1-2 minutes after every 30 minutes of idle operation. Also, if you have to idle for a long time, pull over the hand throttle to your engine RPM limits - 1,000-1,200 RPM.

But there's something else . . . lots of plugs get fouled up during engine idling. You're not going to have a constant operating RPM of the plugs are full of gunk that gets there when you were idling on the generator or in the engine.

So here's what to do . . . and this is the official word.

1. When you put a brand new M113 in one of its tanks out on the M113 or in the M113, there will be eight new spark plugs for 2000 RPM for 1-2 minutes in the driver's compartment. So the use of a replacement engine the plugs will be in a bag tied on the engine in the tank and the fuel tank.



2. Break in the engine with an oil bath of plugs for 2000 RPM for 1-2 minutes, which you have had for this purpose. You will remember that the spark plug was the most a good. For 2000 RPM for 1-2 minutes in your better order it at the same time.



... 20 20 10

# PLUG POOP



1. When you put in the spark plugs, break in 20-25 RPM. You should use a longer wrench and get the right on the many longer uniform compression and more engine damage by idling. In fact, longer spark plug helps you start use an engine entirely.



POWER 10  
20.00  
27.00

2. Run the engine with these old plugs until you are absolutely sure that all generators of low level fuel from the combustion chamber.



3. Now put in the new plugs and adjust, and break the plugs to 20-25 RPM.

4. Check and change the old plugs for 2000 RPM and keep them until you have another 20-25 to break in. Support units that do a lot of idling, or use a manual equipment usually long enough with use of spark plugs to do the job.



There are a couple of other little points you should be sure about . . .

1. Right before you get to the 10 degree BNC mark.
2. Fuel control for maximum 10 cubic feet.
3. Only spark plugs for 2000 RPM for 1-2 minutes will be used if you receive other fuel use use blocks of fuel/plugs and valves.
4. Don't try to use the whole of the spark in high gear until the 10 for gear range.



A world-wide selling program (SMBRT 4-PM section T 2000 RPM about 11 20 21 and 20 2000 11 Age 400 100 use your authority for this.

## M113 ADJUSTMENT



You get the governor drive belt in your M113's polished exterior finished like it ought to be? It can make a big difference in your boggy's responsiveness.

Make a hard straight gear—drive 24 lbs pressure—at the middle of the belt. It should deflect around 1/8 to 1/4 of an inch. If it deflects much more or much less than that it needs adjusting.

To adjust it this is what you do:

1. Loosen two bolts behind.
2. Rotate two bolts until you get 1/8 the way pressure.
3. When you get right, tighten the two bolts behind again.



You'll find this info in *Change 8 to TM 9-2550-211-30 (Dec 81)*.

## M60 DRAIN

Some M60 tanks are not getting all their engine oil drained right on an issue of the way EO 9-2550-211-30 (Aug 80) got looked at—but not read.

On page 2 there's a picture of the underside of the engine-compartment drain. The correct picture is only one plug, so people who just look at the EO are draining only one plug. The people who read are doing it right because on the same page it says, "To drain correct oil sump plugs and screens." Plug *screen* both plugs.

The latest edition of EO 9-2550-211-30 (May 81) shows it read clear.

Why the screen shows draining three



## NEW M60 TANK BLOWER MOTOR



Been having troubles with the air blower blower motor on your M60 tank?

Well, you're not the only one.

There's a better sign are coming!

They got more and improved blower motor to supply. It goes by ESN 400-874-070 and its Ord number is 10000-086, (repl of 800000) which was the Ord number of the old motor.

You'll find it listed in Item 1, page 15, of your TM 9-2116-21-200 (Nov 81).

The listing makes it even more easy for you to find it. . . . You pay for it as usual. It's also for the M60 and the M113A1, and it's just what the motor motor motor would prefer to run your air blower blower motor blower.

... the maybe all you need is a "pop-up" kit. This includes 2 inch improved brushes and springs which will be added to the old or the new motor. The kit goes by ESN 400-884-744. Your supplier should be able to get it and give you old blower motor motor a pop-up.

## DOPE



both plugs! What's all the oil drain out of one plug even if it takes a little longer?

No, it won't.

The oil pan is divided into compartments inside. Take out one plug and you drain about 1 gallon from the primary compartment. Take out the other one and you get about 7 gallons from the reserve oil compartment.

You should get a total of about 8 1/2 gallons of oil when you open up both drain plugs.

If you think one of them has been missed a couple times, you'd better take care of it right away.

## M40 TANK CHUTE



Get ahead and wear that green kid stuff on your belt if you want to feel good about the total chute for the M40 machine gun in your M40 tank . . . it jinx. The late model M40 tanks have a flexible total chute for the M40 machine, and you can get one for your early model M40. Ask your supplier to apply DPMO 9-1800-213-58/7 (Dec 81). There was a Change 1 to that M40 but it was superseded by Change 2 (May 82). Your supplier will send this change to apply the DPMO.

## NEW M41 TANK GUN SHIELD COVER



Dear Staff-Mag,

We've got trouble on our M41 tank gun shield covers. They're so small and miserable a man breaks his legs and he can't try to get one of them on.

SFC J. S.

Dear Sergeant J. S.,

Help is on the way.

Tank gun shield cover ESN 2940-020-8088 (7784088) has been redesigned. The new cover will be ESN 2940-020-1155 (7734088).

Of course you'll have to go on using your present cover until it can post be

replaced, and your supply request gives you the new cover to collect for you.

In the meantime, work with the old gun shield covers. If it helps any, you can tell yourself it's part of your PE.

*Staff-Mag*



**NOT  
NEEDED**



Dear Editor,

I have some MHI series HP grills on my hands and I find that many of them have grill handles (P/N 2110-790-2040) on top, but others don't.

To confirm my guess, the handle used on the fuel tank filler cover P/N 2110-620-0075, looks just like these grill handles.

The Old 9 MHI, GM5, (Gen 50) shows both of these handles. My TM 9-2110-300-30P has only the fuel tank filler cover handle.

I say they're the same and can be interchanged. What gives?

**CWO E. Webb**  
Milled, Delaware

(Ed Note—The two handles you're looking at are one and the same brand of cast aluminum grill handle. P/N 2110-790-2040 has been an unauthorized item for some time, and is being deleted from the supply system. Besides, the designers have since decided the grill handles are not necessary. Our year later helped trigger the deletion by calling attention to the two P/N's as one identical item.)

## GAGE THAT GAGE



You got an MHI medium YTR? Or are you fooling around on MHI heavy YTR?

Couldn't matter how which you get because your problem is the same either way.

Your speaker wear gage is marked with Old Ma. 870888, but this number is no more lumber than a Polish pickle.

This gage will fit 1 1/2" hole with with has the wrong number placed as shown here.

The right number will be stamped, as shown, and the old number will be punched out.

# CRACKED

## FENDERS

Dear Mr. Man,

We have several Marine 5-ton trucks in our Battalion. The fenders are cracking on all of them.

What causes these cracks and how can we stop them?

SFC W. K. S.



Dear Sergeant W. K. S.,

Cracked fenders on the GP4-series 5-ton trucks is an old story. The cracks are caused by vibration, strain and flexing. As you probably know, the cracks start at the bottom corner and if not stopped in time, will creep across the top of the fender.

TR 5-557-3 came out way back in April 1951 and told how to drill a hole at the end of each crack to stop it from spreading and to weld a steel rod along the lower fender edge to strengthen the fender.

1. Drill 1/4 in hole at end of each crack to stop spreading.
2. Shape a 5/16 in cold rolled steel rod to fit fender.
3. Heat bend and shape rod on inside rail of fender.
4. Weld rod along fender to a length of 8 inches on each side of each corner and from the ends. Weld rod along any additional cracks.
5. Weld cracks and drilled holes.
6. Clean, prime and paint all the welds.



The TR is still good and the fix is unobtrusive whenever you see cracks starting. So better yet, weld the strengthening rod in place before the fenders get a chance to crack.

## TANKER PUMP LINE-UP



When you're ready, meet a line-up of pumps for the C-42 and C-70-series tankers, here's some info that should take away part of the work.

It's the P-9's for the basic pumps, along with the line-up of vehicles that use 'em.

1. Pump, w/ a bottom bottom discharge, P-9 2142-211-8844, Ref No. 101844 is for:

M-150, M-151, M-200 (2170-rated tankers with vehicle serial number before 844200) (Caterpillar-Curtis-Right) and before 180299 (the Boreal and M-20, M-21, M-22 (2170-rated tankers).

1. Pump, w/ a bottom side discharge and pump located, P-9 1904-200-1471, Ref No. 100871 is for:

M-150, M-151, M-200 (2170-rated tankers with vehicle serial number after 844200) (Caterpillar-Curtis-Right) and after 180299 (the Boreal).

2170 SUPER P-9



2170 SUPER P-9



The pumps (bottom and side discharge) are listed in Change No. 5 (New 611 in TM 9-1104-300-309. These pump P-9's also take the place of the ones in the C-70 supply manuals.

If you ever need a new vehicle you'll have to use your support unit. Both pumps can replace P-9M 2140-211-8844, a fourth vehicle supply item.

# ALINEMENT LINEUP



Do you operate an M21? It was made! If so, check out yourself! These questions:

1. How your feet and pull in the right or left?
2. How it operate, always or sometime?
3. Are your feet less wearing on one side, or the inside wearing to a heavier edge?

If you have any of those vehicle signs, the odds are that your M21's front end is out of alignment . . . and that's not good.



Keeping your front end in alignment is the key to good steering and good maintainability. This is especially important with your M21, because of the vehicle's power-assisted engine and its independent (air-ride) suspension system.

Like the man says: "Corners wheel alignment is the right position between all the interrelated parts of the front wheel and suspension system for proper steering."

Anything a new part is installed or a major repair job is done on the front end, chances are that the position of the interrelated parts is changed. This means the front end and use of adjustment.

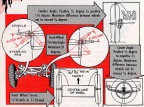
Each year check out every look for any vehicle signs that would tell you that your M21 needs a wheel alignment.

If ever your M21 needs a front wheel alignment job, here is the suspension and primary alignment data that have got to be used.

THE FRONT END OF A M21 MUST BE IN LINEUP.

YOUR FRONT END MUST BE IN LINEUP. IF NOT, YOU WILL HAVE TO CHANGE YOUR FRONT END. IF NOT, YOU WILL HAVE TO CHANGE YOUR FRONT END. IF NOT, YOU WILL HAVE TO CHANGE YOUR FRONT END.

THE FRONT END OF A M21 MUST BE IN LINEUP.



The steering and steering angle are covered in TRM 7-0005-110-05 (Apr 61) for setting the center and caster in a support unit job. Your auto mechanic can work on the steering angle and toe-in, then check out the center and caster jobs with his support people.

## GROUND ANCHOR



Dear Mr. Editor,

This is about the ground anchor (Tool Kit, Organizational Maintenance (and related), Int No. 3, ground anchor) that has been part of our MCI fleet member's OEM.

The anchor is still on our anchor; the big question is whether we keep it or get rid of it.

The 2-230-211-76 (Mar 63) doesn't list the anchor as an item of OEM anyway, but page 47 of the same TM shows the anchor being used.

Tell us, do we keep the anchor for use as the TM shows or do we turn it in?

W. H. R.



Dear Sergeant W. H. R.,

Since the ground anchor is not listed in the list of Special Purpose Tools and Equipment for Weichers, you are not required to keep it as part of your M53's OEM.

The anchor is no longer an adapted item of material; this means the anchor and its component parts are no longer items of supply.

Page 47 of the -10 TM indicates there is a need for a ground anchor in certain rear winch operations. For this job you don't particularly need the Int No. 3 ground anchor; any ground anchor will do. It could be a homemade job put together with scrap-iron, wood



plank, fence posts, etc., or anything that'll form a suitable anchorage.

Whether you keep the anchor or turn it in is up to your local command; since there may be a need for the anchor, some units have removed the anchors from their weichers and put them in dual storage at battalion level. This way they'd have them when a recovery job comes up that requires the use of a ground anchor.

So, it's up to your unit; whether you turn them in or keep 'em. If you decide to keep 'em, remember you won't be able to replace any parts through the supply system. When the set's gone, that's it . . . it's kaput.



# FIREPOWER



Dear Half-Mast,

This ain't "aggressively" like the situation and the language here, Serge, but when you get the march order for your latest M1A1 tank, which should you do first—put the cross-hair over in place like FM 7.7? Or do you should you first check the leveling dial, leveling tank gear and mounting tank loop like TM 9-127 says so? We got a handle going on this.

Sgt. J. J. D.



Dear Sergeant J. J. D.,  
Then, sir, usually.

Although the apparent contradiction in the two jobs makes it look like somebody's told us wrong, you'll get along for some weeks or months while you do it.

However, I like the TM's way better because it gives you more chance to make adjustments on the turret if they're needed.

Look at it this way—if you do it the TM's way and look the crosshair looking over first then you may save time for a few days but only if everything's adjusted right. If you set back's out of line, though, and some luffy mechanic should say to show a bit, your commander's gonna be mad.



THEN



After you bring the tank downright, with the leveling mechanism to line up the crosshair looking right gear with the leveling tank wheel. Then don't set back the tank, the mount leveling gear and level looking loop.



# TIME FOR A STRUT

STEVE YEAT



And—then—push the crosshair over down. Ready to say: If it slides in place with no rattle, line, given. This means all's well with the world. But if it rattle's still say, now's the time to take an over-ambition to double-check and fix.

If it's off in corners, the level tank bearings need adjusting. . . . If it's off in elevation, the crosshair needs attention.



To adjust the leveling tank bearings, first lower the apparatus holding the bearings to the side. Then tighten or loose the adjusting screw till the screw and the ball-shaped nut gives for a nut. Then re-tighten the screws.



To work on the crosshair level—whether it's too long or too short—loosen the pins into the steel and use the levelhead of you get the most length you need. Then re-tighten the pins into.

There, now you're ready to hit the road.

Half Mast

# EASY DOES IT - LIKE ALWAYS



Easy does it if you want to keep safe on your M76 machine gun.



These rear lugs at the rear of the receiver are the locking surfaces for the backplate assembly. And these control the adjustment of the rear lugs.

Now, if you get careless and bend these lugs, you'll change the adjustment. Bending the lugs upward, for instance, could cause failure to fire—if the rear lugs don't release the lateral cam when the trigger's pulled.

On the other hand, if you bend 'em downward by slanting the backplate in place, or any other way, you'll cause a "runaway" gun by letting the rear lugs go so far down that they won't catch the lateral cam when the trigger's released.



## SNIP THE TIP



Your white-knuckled gun loaded with this gauge. The M50C machine gun refused to accept a standard order. It kept blowing away. What gives?

Could be one or both of the meter pins (M5-20001 ... FOX 1511-811, 1424) that secure the solenoid cap assemblies (M177600 ... FOX 1501-801, 1075) caused the nocks.

When the guns fired and the solenoid was engaged, the tongue on the

original position after the solenoid was dis-engaged—and the gun kept chattering.

The way to prevent this in the future is this: Clip off enough of the meter pin so's only an inch or less sticks out beyond the cap when it's installed. And wrap the ends of the pin tight around the cap.



cover plate likely returned into a vertical position and lodged against the top of the solenoid. That'd keep the solenoid plunger from returning to its





## MAKES NO DIFFERENCE

That's right.

The man that's used with a hole in each the center line in the rearward section on your Nike Hercules missile is supposed to be 1/2 inch across the hole.

But there was a slipup somewhere along the line, and now there's 1/4 inch across the hole were packaged under the PN4 (1518-151-6008) that goes with the man with the 1/2 inch hole.

So check and use the smaller one. Both have a 1518-14 UNP-081 sheet ... and that's the important thing.



MORE INFO 9-1440-212-36/12



## DOING THE

You might be doing the first when you go to move the electrical cables on the power receptacle in the dummy receptacle and back again on your Nike Hercules launcher.

If you're having a wiring problem with the cables, the choice is that your support unit hasn't been around to apply MWO 5-1460-253-05/08-120 (Rev 44) or the branching-handling rail. The MWO changes the dummy receptacle (launcher) back to a new configuration to get done on the channels of the level getting damaged.

Dummy receptacle had been in

## LUBE OR NOT?

Dear Staff-Man:

Tell me ... do the wingguide channels in our Nike-Hercules need lube? get lube? For those arguments that they do and for those arguments that they don't.

Agg B. T.

Dear Sergeant B. T.,

No—that's spelled N.O.—the channels don't get lube.

That is, being lubeless don't lube them. And your support unit has a publication on maintenance of the wingguide channel assembly (TR Oord 1-608-3411) that says the channels are to be with polyethylene dimethyl by the manufacturer and shouldn't need any more of the stuff for the life of the assembly.

Of course, if the channels in your launchers are clogged when it comes to opening and closing, it's time to have your support people do a helping hand.

*Staff Officer*



## TWIST?

a position where you didn't have to twist the cables to get them in the shells. Our MWO Oord 750-0712-21 Nov 64 came along and turned 'em around 180 degrees to keep the lower assembly from getting lubeless.

MWO 5-1460-253-05/08-120 says things right back where they were before MWO 750-0712-21 because launcher's a mate in the house MWO that says the receptacle should be reversed, in other words, to put in the position they were in before MWO 750-0712 was applied.

Once this is done, you won't have to twist out the twisting causing the insulation on the cables to split away ... and make things easy for a change.

MORE INFO 9-1440-252-30/10



BY THE NUMBERS

Dear Miss W. G.,

You see the five numbers on the ignition to the serial number columns on the 3408-18. That's right—the five numbers.

With the ignition, and many other engine items, one of the numbers includes different serial numbers. So . . . if you have to suggest a certain list of ignitions for any reason, the five-number identification turns out to be the best way of doing it.

As for the balance . . . you're right about it not having a serial number. Those four digits are the manufacturer's number and are the same on all balances. And there's no requirement for putting engine information on the 3408-18.

*W. G. W.*

Dear Miss W. G.,  
It's my opinion that the serial numbers for our Side-Mount Ignitators and M-18-1800 Igniters for out-letting heads for the primary . . . the place for the numbers is on 344 Form 2408-18.  
Just a hat number do not use for the serial number on the ignition and that four-digit number on the balance are not for a serial number.

W. G. W.



LEAVE CAP ALONE

PLUG IS AVAILABLE



"Hands Off." And in better ways, our two high.

That's the kind of sign that ought to hang from the bracket that holds the modified plug on the Hawk engine.

It can be done, also, as you and all the other people in your state have to remember me to come around with the cap-off of the bracket—like taking it off.

The cap and the rest of the bracket are machine-matched around the plug

and should say where they are—unless this guy is a higher school bus to take them off.

And it wouldn't be any to pass along a hint to the guys up the maintenance line—say they can use to make me the cap and the rest of the bracket cap with the same machine whenever the cap is taken off. How do suggest that they do the cap and bracket together with a piece of wire. Then when they reasonable things, the plug will be sure to fit.

In your support with some along and applied MWD 3-1440-588-3476 to your Hawk pilot. And now you don't have to sweat out whether the machine can hold in place when you see the pilot with the birds on it. You know they are.

Trouble is, too, the MWD brought a slight problem with its—getting hold of an extra plug or two. You know the old . . . it comes into the road for the machine including smoothly—was of the things put on the pilot by the MWD. Now and again, a plug turns

up missing . . . and you haven't been able to get any replacement.

But this was before your support with was issued TIR 3-1440-588-3476 (Mar 55). The plug is listed on page 242 . . . and under OHS 10000190. When you ask your support people to requisition some of the plugs, you might well use the P/N for the plug is 1440-588-3476.

If you want to keep this and want one of the mail while you're waiting for these replacement plugs, try putting some tape over the top of the mail.

# NO FITTING, NO LUBE

These M114, M145 and M550 tractors don't need as much for various pieces of Hawk equipment—like the pulley, make use and think, not they—can do look alike.

So it was no wonder that a guy was to flip his lid when he looked at EO 5-1558-256-17 (Apr 68) and wondered how he had found he was supposed to lubricate track/roller cables on the M114 and M145 . . . when, no matter what the EO said, there are no grease fittings to take on the cables.



Well, you can stop worrying from here on in because the track cables for both of these tractors have grease prepacked in their assemblies and get no lubing.

EO 5-1558-256-17 (14 Jun 68) covers the hardware and eliminates the requirement for greasing the M114 and M145 track cables.

You want to keep lubing the M550 track cables, tho—with GRS and quarterly.



## DOWN - ALL AROUND



If you're looking for the most secure around to make a report of survey, here's one way to get him to your Hawk with . . . and doing double-duty.

Before you go to raise the boom support, forget to release one or two of the safety latches on your Hawk handles. You'll wind up with a nice bundle of damage—like a twisted stay assembly. You might also bend the stands that the stay assembly sits on.

Of course, if you don't want to see dollar signs in your sleep, you'll make sure the latches—all eight of 'em—are down before you start raising the boom support.



## SIDE-STEP 'EM



Keep handy.

Don't using the power and data cables on your Hawk CW any and allowance cables to keep them side up to a bad situation.

Why? You can burn the cable connector and snap the wiring inside the cables. And broken wires lead to doom. That's why.

To side-step those "oops" whenever you have to climb up on the cables, it might take an extra minute to make the short climb, but look at what you get as a bonus—P. T.



## YOU'RE COVERED ... BUT—

There are abilities, and rules, involved.

A legit draw-out, or a request on the way, is all the encouragement you need to show the man that your level of "most-likely-to-fail" repair parts is what it should be.

Yep, D/O's and various requests for these items are just like items in the bin—when you're creating costs, like at inspection time. If you need a quick

like reference you can check page 7, AR 750-15. Also page 16C11.

But, remember—don't over the state supply trails go to your head. You'd best do everything possible to keep your medical repair parts what it should be... 'cause it takes repair parts O.D. to keep you moving, shooting and communicating. Otherwise you'll get a disabled vehicle or wagon or radio in the light.

## THAT'LL COST YA...

To your list of well-known supply paths you can add TB 8-10 (CS-Max 01) "Standard CDDC Maintenance Costs for Ordnance Type 2nd Issue."

It lists up standard maintenance and repair costs for selected items of equipment ranging from small arms to vehicles.

It's useful for figuring an item's worth for reports of survey and estimating equipment upkeep for other kinds of records and reports.











PREVENTIVE  
MAINTENANCE IS  
**ALL-YEAR**  
\*Always!

"I'M HOPING YOU'LL BE ASSESSING FROM ME TO YOU TO REMIND YOU THAT PREVENTIVE MAINTENANCE IS A YEAR-ROUND WAY OF LIFE. MONTHS OF PROPER PREVENTION!"

JANUARY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

CONGRATULATIONS TO ALL WHO HAVE COMPLETED THE YEAR OF PREVENTION! YOU'VE DONE IT! YOU'VE DONE IT! YOU'VE DONE IT!

FEBRUARY						
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FOR THE LOVE OF YOUR  
FUTURE DON'T BUY  
A T.M. THAT'S ALREADY  
BEING USED WHEN  
YOU BUY IT  
GIVE US  
A CALL

MARCH						
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USE YOUR T.M.

Attention!  
If you  
don't pay to  
use your  
T.M. you  
may lose  
it to  
someone else.

USE YOUR T.M.  
TO GET THE  
BEST PRICE

MAY						
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**KEEP YOUR LOG BOOK RECORDS UP TO DATE**  
KEEP UP TO DATE FOR THE YEAR TO COME



# Joe's Dope Sheet

Combat-ready equipment's the stuff:  
It will keep your outfit up to snuff.  
For fighting be ready,  
Trim, willing and steady,  
An' the aggressor will always find you tough.



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

IF YOU WANT TO DISPLAY THIS COPYRIGHTED ON YOUR BULLETIN BOARD, SNIP TRAFFER, GIVE IT GUT AND PUT IT ON.

HYDRA-MATIC  
FLUID  
HYDRA-GARD  
NON-PETROLEUM  
BASE  
IS THE ONLY  
BRAKE FLUID YOU  
USE IN TRUCK  
BRAKE SYS-  
TEM

JULY						
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SEPTEMBER

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OCTOBER

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NOVEMBER						
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29	30					

DECEMBER						
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

THE BEST GIFT  
YOU CAN GIVE  
YOURSELF  
AND YOUR GROUP IS  
COMBAT  
**GET AND  
STAY  
COMBAT  
READY**



## THE REAL McCOY



Dear Editor,

We were really on the go for a while, trying to take the hydromechanical clutch screen out of our Mojave HC8-571 on an instructional inspection, as called out on page H41 of Chapter 1 (21 Mar 61) to the basic TM 15-1128-209-25.

We searched high and low (without any luck) for a wrench big enough to break the 2-in. all-bore connection at the pump, in order to get the screen out.

The largest wrench in the organizational "C" tool set only goes to 1 1/2 in., so we made up this handy 2-in. open-end wrench to do the job.

The wrench head is made from 1 1/2-in. flat steel, SAE 4140, and the box handle from 1/2-in. steel. We cut a slot in the handle to hold the head, and welded both pieces together.

Now we have a genuine wrench that works real fine in breaking the bore connection.

Sgt Martin T. McCoy  
Apr 68, 1968



(Ed Note—Good going. We doubt the wrench also comes in handy at other places on your head.)





PLEASE YOUR BROTHER (OR SISTER) TO KEEP THE "BIG PLANET"...

# ON THE RUN

Whoever said what you can't see won't hurt you never spent any time around a flat engine, did he? The next time otherwise he would have realized that an engine may be accidentally cranked up on a dry matter and bearing.

In how does a bearing get dry in the first place? Well, the forces of gravity being what they are, oil just naturally drains off bearings and other vital engine parts. And there's just about nothing that'll come an engine to hold up better's running it without oil.

That's why preventing it might be important.

Take the K-100-044 or 04C engine in your Chevrolet 100-044. You want to make sure with the procedure.

Before starting a new, or newly overhauled engine for the first time.

Before starting an engine that hasn't been run for 72 hours.

After an oil change.

Whenever oil drains from the oil filler line.

On if you suspect that air has gotten into the line.

All in the oil filler line is the real utility of this way. It can find its way into the oil pump and block the passages. Once after cranking an engine

over for several minutes—without pre-lubing—it'll refuse to start. The result is no oil passages (and no oil) in the bearing.

The best way to get rid of the "air villain" is to flood the line out of the oil passages. This pre-lubing change is on the TSM 11-1020-003-00 maintenance pack in the works to do just that.

## USE THE OIL

How the procedure is the first and that's up



USE THE OIL TO A MINIMUM OF ABOUT 10 TO 15-20-30-40.

Fill the oil filler neck to the capacity given in the TSM 11-1020-003-00 (30 Feb 62).

What's up on APV is given you a high engine cranking speed and reduce the strain on the motor.

Just as to some other engine situations of the oil flow and you'll find ways to get.

Remove the spark plug lead and take into a plug from each cylinder terminal of the compression. It is quite important that before you start a high cranking speed, the oil give you the pressure needed to push the oil into the bearings.



REMOVE THE SPARK PLUG LEAD

Keep in mind that a low cranking speed and a delayed start after pre-lubing can overflow the breather pump with oil, giving you a partial or full hydraulic lock in the lower legs. This is caused by the smaller return capacity of the scavenge pump when operating at low start a speed.



REMOVE THE SPARK PLUG LEAD

That's why if you have a low cranking speed, or even if the engine doesn't start in a reasonable time, you want to see the breather pump for a possible overflow and drain off your excess oil.

Next, place the plug into the engine from plug—read take out the plug at the last step and at the appropriate over bearing.



REMOVE THE SPARK PLUG LEAD

If you're pre-lubing your engine, or already overhauled engine, procedure must include out the oil filler cap, clean it, and put it back in before you go any further.



REMOVE THE SPARK PLUG LEAD

In fact . . . so good. Take five and try to remember the last time you pre-oiled this baby! Did you get a quick reading on the oil pressure gauge in the cockpit? If not, that old "air whiner" may be in the line again. In your next oil bleed and refill, the line between the engine and the pressure gauge with engine oil.

Next, check the duct to the pressure gauge for the right size connection fitting for the EECU engine. The 3/8 in NPT fitting is the baby you want.



#### BLEED AT THE PUMP

Unscrew the pre-oiling plug at the oil pump, get in the 3/8 in NPT fitting, and connect the pressure line. Bleed the temperature of the oil—it should be 100 to 120 degrees F.—and . . . about the water!



Keep pumping the oil until two to three gallons have drained from the engine crank pump and you get a reading on the oil pressure gauge in the cockpit. Then shut off the pressure and disconnect the pressure line. Don't put the pre-oiling hole plug back just yet.

#### BLEED AT THE "Y"

Take off the 3/8 in cap at the "Y" drain fitting, and connect the pressure. Plug in the AFU.



Start the pre-oiler and pump oil into the engine, at a temperature of 100 to 120 degrees F, while at the same time cranking the engine over with the starter. (Of course you made sure that the ignition switch was off and the mixture control was in idle cutoff before you hit the starter button . . . that's SOP.)

Crank for more no longer than 30 or 60 seconds at a time, so the starter has a chance to cool off.

When at least a jet of oil has all but drained from the pre-oil connection hole, stop



the pre-oiler. Take the pressure line off, get the cap back on tight as possible to keep the "air whiner" out, and lubricate the cap.



# NO OLD MWO'S ALLOWED?



Dear Windy,

We have an aircraft in our fleet which has not had THE FOLLOW-THRU completed with. The modification reads as follows:

When to accomplish:

As scheduled by ground action maintenance activities or upon failure of the valve presently installed in the aircraft but in no event later than 30 March 1982.

The statement I understood meant to me that the modification will be completed while the aircraft is grounded. Am I right or wrong?

Dear Specialist W. F. W.,

By: W. F. W.

You're wrong! The aircraft goes on a red dash status as of 31 Mar 82 if the modification has not been applied.

According to Para 57c, 41 CFI on page 104 of Ttl 30-750 (May 82) you've got a "compressor replacement" due on that aircraft, which with the a red horizontal dash on the DA Form 2406-11. You won't accomplish the purpose of the MWO by grounding that bird, because this makes it impossible to fly the aircraft over to the station for MWO completion.

Remove the remaining red dash on the aircraft's DA Form 2406-11 and the MWO entry in the left hand portion of the aircraft's DA Form 2406-5, an incomplete MWO will tick you like a hot potato the way next CMI.



NO.	DESCRIPTION	DATE
1	REPAIR TO AIRCRAFT	1982 03 31
2	REPAIR TO AIRCRAFT	1982 03 31
3	REPAIR TO AIRCRAFT	1982 03 31
4	REPAIR TO AIRCRAFT	1982 03 31
5	REPAIR TO AIRCRAFT	1982 03 31
6	REPAIR TO AIRCRAFT	1982 03 31
7	REPAIR TO AIRCRAFT	1982 03 31
8	REPAIR TO AIRCRAFT	1982 03 31
9	REPAIR TO AIRCRAFT	1982 03 31
10	REPAIR TO AIRCRAFT	1982 03 31



CHECK YOUR ENGINE FOR...

## THE FIRST STRAW



It wasn't really the last straw that broke the camel's back—it was the total effect of all the straws put together. In the first straw, it just an inspection.

The same can be said of cylinder cooling fans that get packed with wires, grass, leaves, and other debris when you're operating out in the bushlands. The total effect can give you a cracked jug.

Take a Mojave (OH-57), for example. The engine cooling fan takes baby bites of all of the time. And if she's running on a fresh cut field you can bet that some wires, as well as air, is going to be sucked in by the fan and get packed into the cylinder cooling fan.

Crack cooling will lower cylinder head temperatures like garbage-filled cooling fan. And if the cylinder head isn't cooled from the air stream—well, something's got to give!



That's why when you run any recip engine on a daily or intermittent, it's a good idea to focus on the cylinder fan. When you find debris, you may be able to take it out of the fan by using your fingers. But if it's really packed in, compressed air should do the trick.

Another air intake on your Mojave that can trap less debris, even though there's a protecting screen up front, is the carburetor air intake. Under field conditions a considerable amount of grass can be drawn into the ducting and find its way to the screen on top of the carburetor.



So how can you be sure the decking is laid out whether the exhaustive screen is closed? You can't. But if there's a lot of foam material in the air during engine warm-up at low altitude, lower and the pilot gets a drop in manifold pressure after take off from a grassy area, you have a mighty good reason for checking the exhaustive air screen.

To check for debris on this particular aircraft, all you do is disconnect the rubber hose and reach in to the screen. You can easily clean it with your fingers. Unless if you want a real good look at this screen, follow the cleaner next pump in Chapter 3, Section III, paragraph 3-20) of TM 11-450-301-20 (11 Sep 41) for the Mojave.



Yeah, there's just one way to keep my engine cool and healthy, man, and that's by staying the cooling fan and the exhaustive screen from time to time.

## SAFETY BELT CHECK

Dear Windy,

The organizational maintenance manual for my bird says that safety belts should be weight tested every third periodic inspection.

But Field NOIC in TM 11-450-3 (19 May 42), "Maintenance of Aircraft Systems," says to test them every 12 months. What gives?

Sgt W. G. D.



Dear Sergeant W. G. D.,

Normally, when there is a conflict in instructions, you follow the organization manual maintenance manual. But there can be an exception to this rule, especially when never fully comes out.

So the latest pump on safety belt testing in TM 11-450-3 will be picked up in your maintenance job with the next change. The 12-month pump is correct.

# VALVE-CYLINDER MATCH

Dear Windy,

For 11-2678-200-2611 I'd like all parts of different TRC's for our 3000 Cub 19-71 engine.

Using 1117541 rings we can go to 2000 hours if we have exhaust valve 2000 in the cylinder, and 2000 hours if we have exhaust valve 21140 installed.

Good deal.

But we don't know what exhaust valve is in the cylinder. Can you give us a hand?

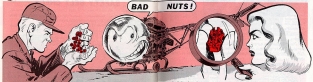
W. C. B.

Dear Stephen R. G. B.,

Can do.

Here's a list of all the cylinders, and what's in 'em, on the 2-11021, 2-110-114, 2-11078 H series engines.

YEAR TYPE	CYLINDER VALVE SEQUENCE	EXHAUST VALVE	INLET VALVE	YEAR ENGINE	TRC NO.	SPC. ORDER	CYCLE AND HOUR PER RANGE	ENGINE AND HOUR PER RANGE
1970-71	12312	2000	2000	1970	0	1	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	2	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	3	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	4	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	5	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	6	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	7	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	8	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	9	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	10	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	11	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	12	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	13	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	14	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	15	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	16	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	17	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	18	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	19	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	20	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	21	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	22	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	23	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	24	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	25	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	26	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	27	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	28	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	29	2000-2000	2000-2000
1970-71	12312	2000	2000	1970	0	30	2000-2000	2000-2000



Dear Editor,

There's one point my customers will object about putting a new pair on a bird—it's not going to do a job if it's not made right in the first place!

Take the next one of a couple of boxes of unsharpened ones, 4M 11021, P/N 11021-11021, and so on, just about any bird you'd care to mention.

We found that some of the nuts had little or no threads at all, while others

had the threads cut out with a pair. There wasn't a good one in the whole lot. That's why we eye and try a new pair before installing it. Then we can tell right-off whether to use the new pair with the job it's supposed to do.

W. C. B.  
New York, N.Y.

Ed Note—A good general rule to follow. No doubt an ER is in the works in the next.



# SHOCK MOUNTED SCREEN



DO YOU KNOW YOUR SCREEN?



Dear Editor:

We had a problem with our combine screen, P/N 204-080-077-1, which was put in our Husky (1084A) by MFD 91-130-307-14740 (29 May 63). They were breaking left and right, due to vibration.

So, after a quick check of T88 50-130-307-308 (29 May 63), we came up with grounds, AM 841-5-0, P/N 511-249-0448. It fits snugly over the screen retaining bolts, between the screen and the housing flange.

Putting one ground on each of the four screen retaining bolts has dampened out the vibration for real.



SCREEN  
CAN  
CRACK  
ALONG  
HERE

It turned to us that the trick was to separate the mechanical contact of the screen against the housing flange, by using some sort of a rubber shock absorber.



A ROW OF  
SEVEN OF THESE  
SHOCK ABSORBERS  
WAS INSTALLED  
BETWEEN THE  
SCREEN AND THE  
HOUSING FLANGE

April Everett Peley  
Fort Collins, Colo.

*Let Peley—sounds like a good little repair if screen cracking is a problem. Of course, a CCF's justification is needed on a deal like this. An improved screen, P/N 204-080-077-2, is going out now direct, and will be supplied in future years.*

ASKING YOUR QUESTIONS...

## ASK FOR HELP

THEY'VE  
GIVEN ME  
A LOT OF  
HELP



ASK FOR  
THE ANSWER!

ASK  
FOR  
IT!

Nobody repairs air type mechanical components of value nor mounted on lower the back on these solid shaped around your forage's mouth.

But, as a crew chief or airplane mechanic, you're still responsible for the handling of those radio components as long as they're attached to some part of your favorite airplane. Now... the solution is simple.

Whenever the aircraft driver writes up any one of those sets as being unserviceable, irrespective of having a work order, check with avionics support as usual... only this time leave the radio behind.

When you get over to the avionics shop, will them you've never removed that set before and you'd like to know if there's any special connection or

back issue to remove and the aircraft. And chances are that the avionics mechanic can point out how to do it on a spare set sitting around the shop.

In some cases, you'll just hand in a work request and by the avionics expert take care of removing and installing that radio set in the aircraft. You can leave that to his judgment, though. If he thinks you can handle the operation without damaging the equipment, he'll say so and tell you how. And if you've had any experience with avionics equipment, he'll take that into consideration.

You don't gain any time if you un-



removed operation you need to know about—so as not to damage the hardware during handling. Somebody at avionics will usually be able to find another set of the same type around the shop... and he can see that to demonstrate the correct removal procedure for you.

It becomes even more important to do this when you're picking up a repaired or replacement set for installation, since some components have to be adjusted or recalibrated in order to be of any use to anyone flying your machine.

Just to repeat the obvious, installation procedure includes knowing the right way to handle that component

knowingly mess up some internal part of a radio set during handling. Could be there's no maintenance that at the avionics shop and a component you need happens to be on hand. Then what happens to the status of your aircraft while you're waiting?



THE  
BEST  
OF  
COMMUNICATIONS

LETTERS  
FROM  
THE  
FIELD

Today you get on the horns of an AM/VBC-14 or AM/VBC-17 to get the battle going like other radio-type transmitters in a radio you sold!

Well, wait. You've had company on this about transmitters. It's usually the 10-year or so reception of the RT-77 or TTA receiver puts on the other end of the line. Now, is, you might feel the same trouble with your own receiver.

Like, you can't hear a thing when a message comes your way. There's a noise, or static around.

Your reception sometimes starts from something like the RT-77/TTA receiver and sometimes from each time of other sets. You find it in the receiver, of course.

Here are a couple of these things to suspect right off when it happens to you.

## RT-77

REPAIR WORK SHOULD BE DONE BY A QUALIFIED TECHNICIAN. THE RT-77/TTA RECEIVER SHOULD BE REPAIRED BY A QUALIFIED TECHNICIAN. THE RT-77/TTA RECEIVER SHOULD BE REPAIRED BY A QUALIFIED TECHNICIAN. THE RT-77/TTA RECEIVER SHOULD BE REPAIRED BY A QUALIFIED TECHNICIAN.



Against the 10-year or so of the RT-77 receiver receiver condition in the transmitter section. When components are changed or replaced, it's possible that the wiring or other the hardware in the receiver RT-77 of the TTA are around the center of the original circuit component. Be about the same good value.

This is another job for your direct supplier, which you receive the book on page 11 and 12 of the T-114. It quickly which have finished your reception.

## RECEPTION RESTORERS

HELP!  
REPAIR!  
REPAIR!  
REPAIR!  
REPAIR!  
REPAIR!  
REPAIR!

YOUR  
REPAIR  
REPAIR

REPAIR!



The best support is to use your own best when using the RT-77/TTA and RT-77/TTA receivers. Reception suffers when you use these receivers without replacement of RT-77 by a RT-77.



This RT-77, plus page 10, page 11 of TM 11-202 should take care of the problem with the RT-77 and -90.

If these ideas don't work, then you're really got something to talk to yourself about. Be clear the connection with your supplier people.

## AN/UGC-3 TELETYPE TALK



The power supply and control units of the super-secure transmitter TT-78C1 for your AN/UGC-3 correspondence are made 2-amp, 250-volt units.

Now 1.5-amps, as may be marked on the unit label. Not even 2-amp, 50-volt over any other voltage rating below 250.

Just 2-amp, 250-volt from this year

get with PSN 1020-581-41-44.

The 1.5-amp spec was changed because it was a little too tight for the job, especially overseas where voltage tends to run a bit higher than domestic.

Anything less than a 250-volt rating will not give you the air-over protection the circuit needs.

## USE YOUR HAND

None of us could  
do it without  
your hand.

Get your hand  
on the circuit  
board.

That's the only  
hand that can  
get the job done.

Let's see your  
hand on the  
circuit board.

That's the only  
hand that can  
get the job done.

Let's see your  
hand on the  
circuit board.

That's the only  
hand that can  
get the job done.

Let's see your  
hand on the  
circuit board.

That's the only  
hand that can  
get the job done.

# PULL THE PLUG!



**Raise the lid . . . Pull the plug . . . Lift the cover off.**



These easy steps, follow them in that order, and your TT-75/G2C requires no extensive maintenance interruptions will make fewer repair trips to your support.

The trouble with Harry is that he forgets the first step, ignores the second and runs the TT-75 off to the shop for some costly repair work.

The fog forgets the copy light cable plug, which is what you don't want to do.

So-o-o, head to me if you will, Will, and let's explore the situation.

The cable is fixed to the underside of the cover lid. You can't see it, so you gotta remember it. Its plug (P11) hooks to the J12 jack on the right-hand side of the power supply and terminal unit . . . which, of course, doesn't come out with the cover.

If you lift the cover with the plug still hooked, someone's gonna give



Most of the time, the "something" is the insulator in the J12 jack. Sometimes it's the plug itself. Either way, you've got a job for your support.

Since the TT-75 doesn't do you or the Army any bit of good in the shop, the simplest remedy is to reach in, disconnect the plug, and avoid damage.

You with me, Will? Good. So here's about filling Harry in, huh?

**NO TIPPING,  
PLEASE!**



You're familiar with the situation. Mrs. Claus can't lift mailbags, can she? Sure, but you want her to remember you—so maybe you can make some time with her next time you drop it.

So you get nervous about slipping a big tip under your plant. Only you get no attention, and the manager upon you... too. He comes over, points to a "No Tipping" sign in back of the counter, and says:

"Sorry, Mr., but our girls aren't allowed to accept tips."

You're felled, and the important's dead. You couldn't get the first package fixed.

Now, apply the same logic to the T-50's transmitter of the AM/TSC-24 radio set, with a slight twist. Under the switch.

Even a little tip could take the transmitter right off the job. So if you want to make conversation with this lady, you'll do better by not even thinking about tipping her.

Like, when you've added the T-50 to in or out of its case, keep it as level as

possible... . Even, and near. A wrong tip'll send the T-50 safety levelbook



**KEEP THE T-50  
LEVEL TO AVOID  
SAFETY LEVELBOOK**

switch (at lower, right rear of the T-50) on the narrow ramp. Although! The switch either lands or breaks.

Since the T-50's a broadcaster and not a local, you might get one of your buddies to take the weight off her rear when you're adding her in or out of the case. The transmitter's a pretty heavy package, and a little help getting her in or out can save the switch.

Makeher point here. Be sure the T-50's dead on its ramps before you shove it in the case. That, too, can save the switch (which you'll want to do, of course, since the T-50 helps keep you from getting shocked).

That could get a little tricky in a one-man operation, but it's worth the extra effort to stay in business. Besides, later models of the T-50 are featuring wider ramps—which should help considerably.



**KEEP THE  
T-50 AS  
LEVEL AS  
YOU CAN**

## ANITEC-7 HANDSET SAVER



That's just got the word to go for a ride with the van housing your ANITEC-7 telephone system!

other components of the Anitec-7. That'd spoil 4-4-4-4-4.

With that hooked away in your memory box, here's about taking a look at the connectors on the Anitec-7 equipment.

See how they've all built to go straight in, no matter whether the connector has a male or female end?



Well, rock down to the AN-701 amplifier-plus regulator. Lift the handset from its cradle there, and shove it in the handset inside the hole of the RT-360.



Straight in with 'em it is, then. But let 'em sit so make sure the connector's squared up with the receptacle or plug on the component before squiggle it in. That way you avoid bending the brittle part of the plug and possible damage to the receptacle.

Ever try unsquaring one of those pins? They break easy, don't they?

So go easy with that connector screw till you've got the works squared up.



Snugged up in its traveling case, the handset has no chance to bounce off its cradle when the van's jolting. Cradled rather than propped, the handset could bounce onto the floor or against



## KEEP A FOOT AWAY

One thing the power cable on the RL-111/0 cable reeling machine is not like is the loose football in the local locker.

That's a big reason why the cable won't hold up when you clamp a size 10 basketball on it.

But it, too, has the same one-way-kill cable, concrete and steel where they look to the electric motor here, the cable looks ragged, but it's that big ugly job. It can carry 500 jobs to the motor. The fact you can't see the cable on the cable means that'll take the whole machine to the repair shop.

The motor control switch is a problem area, too. Wearing it while not looking like, just waiting for something to stop. That the only thing you can do is watch you don't bend or break it.



The lower back adjusting screw is their job when stopped up right, but don't be tempted to overstep 'em. Single extra turns against the electric can make the back supports feel like a pistol.

Another thing to watch is the line box. It fits and like riding on a big pad. One wrong thing when you're healthy the real can get the line—and the machine—out of business fast.

The door, too, can try a man's patience, because they show regularly.

Most times the doors go when you start the motor, but when you figure it out a minute, it's still better to have the machine than to do the job by hand. Even when it comes.

The T11 says you gotta use a 21-amp slow-blow fuse, it's tough, but a bigger fuse could allow the motor to overheat and keep running long enough to do major damage.



## 26-PAIR CABLE CAUTIONS

HEY! CAUTION! PLEASE PLEASE DON'T TAKE ANY SHORT CUTS OR CUT CORNERS! THEY'RE NOT WORTH IT!

To release the plug, grip both the connector and locking ring and pull back—again, in one motion. When the plug unlocks, lift it straight up.

Don't lift the plug at an angle, and DON'T lift it by the cable when you're pulling it off. That way you avoid damage.

Keeping your 26-pair cable FCC-44681 in one piece and on the job is a mighty important project.

A tangled up cable can make the equipment in your shelter useless. But, a few seconds extra care can keep your van gear full blast, cable-wise.

You gotta be extra care with the plug and receptacle when you're making the connection.



1. Lay the plug at the cable end flat on the receptacle at the van end. Don't put the plug on at an angle, even if you think it, you can break the contacts.



2. With the plug in position, push it into the receptacle to one million. Then, hold the van lock till the front of the plug slides out of the 2600 260. Drop when the van lock is plus.

Twisting the lock or the plug separately can break the contacts or give you a bad connection.



3. When the cable's hooked in the van, keep the cable clamp on. The clamp helps protect the plug and connector if a vehicle suddenly runs over the cable or connector tips (see p. 8).

The clamp also helps if you forget and drives off with the cable attached to the power source. It won't help much, but it might prevent pulling the receptacle loose out of the van.

Which means, of course, that the best way to avoid that mess is to disconnect the cable as soon as you get the word to roll.



What do you do when rig, a vehicle or some electronic device, reaches your work from supply in bad shape? You know . . . have and maybe a rule or two laid.



Could be it's you off enough to where you want to throw the chains against the wall and stamp all over it to finish the job. Could be.

Then again . . . if the chains has some

free power than you can straighten your self with an stress, maybe you go ahead and do it.

There sure is nothing wrong with taking care of things yourself, especially when it takes pressure off somebody who's got enough to keep him busy as it is. But you want to look to the future as the same time. In other words, you ought to do what you can about seeing that a fault is called to the attention of different pieces of equipment along the supply line.

That means filling out a DD Form 6—"Report of Damaged or Improper Equipment." The scoop on using the form is in AR 700-10—in case you've been lucky enough not to have had to fill out one.



IT'S JUST AN  
EASY FORM TO  
FILL OUT  
WHEN YOU  
REPAIR, COPY



Sure . . . you see the form when you get a piece of equipment from the supply queue that looks like some guy's had taken him on whether it would hold up under the wheels of a 3-ton truck. But it's just as important to report stuff that has reached you only slightly damaged—something that you can repair yourself.



# WHEN YOU

# DUNK

# THE DONUT



An immersion heater's a mighty handy thing to have in the field. To have hot water when you need it is sure a big help. But, like every other piece of equipment, you can have trouble with it.

Sometimes the heater (combustion chamber) of your heater (BM 4548-100-0000) will slip and slide across tracks on the corrugated case where the longer screws clamp on the case.

In fact, some of them even look like they've had the smallest heater of the tracks left by the screws.

There's a simple solution to this problem. You can get a longer locking plate, BM 4548-011-2000, to make the tracks off the longer screws and it won't damage the case.

One thing about this locking plate, it fits all immersion heaters, even those with a single longer screw.

So, if you're having trouble with these longer screws biting into the case, your biggest trick can order these locking plates from Commanding Officer, U. S. Army Mobility Support Center, P.O. Box 119, Columbus, Ohio 43204. They ask for Plans, locking, with center pin, BM 4548-011-2000. They cost 20 cents each.



HEATER WITH HOT WATER IS THE BEST PLAN I CAN THINK OF.





# R:PM



PREPARED! PROVED! PROVEN! PROVED! PROVEN! PROVED!

## Medical Medical

No doubt, when that call comes, you'll be ready, willing and able to handle your job . . . that's what you've been trained to do.

But how about your equipment? Does it measure up to you? Is it as ready to go as you are?

Now's the time to check—and keep—good preventive maintenance habits. If the tools of your trade get into bad shape, it's not just a break of one that's disastrous . . . it's that more complicated machine of all-uses.

So, you just can't afford to leave your medical equipment in storage and leave it being ready for use when the time comes—your PM must be top.

Here are a couple of points that you'll want to keep handy:

1. I-100, "Operational Maintenance of Medical Equipment"

and

2. I-101, "Handbook for Medical Equipment Operators."

There's two big things to remember—medical service teams must be stored right . . . and they must be inspected regularly. Accomplish these two missions

and you've got it made.

The right storage means the open cabinet to cover the supplies must provide protection against freezing and hot temperatures, it must allow multiple and free good ventilation.

It's got to be in an area that's easy to get to for inspection, but so located that you've got a right runway set up for things and positive search—that is, one they should be gone long and walk away.

Keeping your equipment number-ready with scheduled inspections gives you a chance to check and weed out items that need repair or are over-used—like some of your drugs.

It also gives you the opportunity to keep a running inventory and to make sure your lists are complete and up to date with the latest medical supply catalog.

So, above all, proper storage and regular checks give your equipment a fighting chance to measure up to you . . . if somebody hits the button.

## TO GET YOU STARTED ON THE BEST PM BOLD WITH A CHECK-LIST

1. Use the container a careful going over to look, make a sign of tidy-flops.



2. Be sure all items are contained and tightly packed—when your equipment's completed.



3. Paper tags should not be broken, torn or powdered.



4. Bandages should be free of stains and odors.



5. Cottons gauze should be clean, dry and tidy.



6. Check all rubber products carefully. Make sure the gloves have free holes or marks and they haven't lost their elasticity (check weight or dry feel will establish products is clean).

## 5. ALSO, YOU CAN DO YOUR OWN CHECKS



7. Surgical instruments—in use, stored, and not cut off the. Check to see if they make noise correctly. Cutting edges must be present when you're handling the instruments.



8. Check these glass parts. Make sure they're contained and protected at all times.



9. Be the first—the rubber duct should be free of holes, tears, and odors (put over the liquid to completely seal and make sure they're tightly attached to the pins. Check operators have for correction and failure to work right.



10. Emergency type items like resuscitator should be checked, as well as inspected, monthly and if the line you compressed oxygen could use everything (I-100) is checked.



11. When not in use, all items must be placed in their storage areas.

# TENT POLE HOLES

SEE LOCATION MARKED FROM TOP OF POLE

Dear Editor,

We used to have trouble with the jumper ropes pulling loose and letting the tent top pull up over the spigots on our large general purpose and command type shelters when the wind played rough.

But no more. We saved sweat and nerves by getting permission to drill 1/2-in. holes in the upright end caps and running the jumper lines through 'em before tying the double half-hitches.



POLE LENGTH (UPRIGHT)	POLE LOCATION
10' 0"	12"
12' 0"	18"
14' 0"	24"
16' 0"	30"
18' 0"	36"
20' 0"	42"
22' 0"	48"
24' 0"	54"
26' 0"	60"
28' 0"	66"
30' 0"	72"

TO MAKE THE HOLES, WE MARKED DOWN THE POSITION FIRST FROM THE TOP OF THE POLE AND MEASURED THE SPACES OUT TO:

Sp-4 U.S.A.  
Fort Huachuca, Ariz.

*Old Note*—Good ideas for the old-type tent poles. The ARS. Spec on the new poles call for holes in 'em, which is even better. J

## Comie Rodd's BRIEFS



### KEEP POSTED

Do you have any A1171 1/2-ton utility trucks in your outfit? If so, then get yourself a copy of A1171 P-2100-218-20's Change No. 1. (P-2100-218-20) and look over paragraphs 12, 13 and 1 before making a wheel bearing adjustment. Here you'll find that the new torque spec for the wheel spindle flange nut is now 20 ft-lb, and you back it off one complete revolution to allow the tapered roller pin bolts and relieve the torque. The old torque of 100-120 ft-lb is no more. And as revised TM P-2100-218-20 comes out, keep this A1171 info posted on page 1-10 of the TM so other mechanics will be in the know.

### GET FS BY PIN-POINT

Now you can get FS—FOG. Fog, FS is delivered to your outfit's door via "pin-point" distribution. All your CO has to do to get aboard the express delivery is to fill in the number of copies the unit needs on a DA Form 12-4 and send it down the pin-point channel.

U. S. Army Publications Center  
3800 Eastern Blvd.  
Middletown  
Middletown, Md. 21130

### NEW SHELTER DOME

TM 562 254-264-52 is the book for you if one of the 2114112 or 2144476 lightweight shelters is your baby. It gives you new maintenance and repair data that you won't find anywhere else. Get one or you'll be out in the cold, shelterwise.

### NEW PUMP PSI

You got a M107 104-ton BP gun? Or are you partial to the A1170 8-in BP howitzer? Either way, you have the same electric motor driven hydraulic pump. TM P-2100-218-20P (Jul 62) lists it on page 13 under TM 2100-200-202P. The way it should read is FM 2100-200-202P. Get it on your brain.

### NETSCOPE LIGHT

Some games are fun in the dark, but when you need that Arbatango, Polar Model P-140, you need a light source. The Lamp, Incandescent, FMH 4240 110-270, listed in Change 3 (Page 62) to TM 2-2020-201-12, is a hand purchase item (General Electric POC). But if you need the entire light source assembly, FMH 1040-270-2040, you get that thru regular supply channels (mg) at a cost of \$12.27.

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



ΣΥΝΤΗΡΗΣΙΣ!



ENTRETIEN!



Wartung!



保存する



THEY ALL SAY  
THE SAME THING—  
**MAINTENANCE...**

and it **MAKES SENSE**  
in any language!