

Issue 136

PS

TMG Series

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

IF YOU'RE
THE ONLY
ONE WHO'S
LEFT TO
KEEP THE
MACHINE
RUNNING,
IT'S
YOUR
JOB.



Special Article
How to Fix a Car
with
Illustrations

SPECIAL ARTICLE
How to Fix a Car
See Page 15

How? Your modification work orders get you and your equipment pinned down these days? You can't move, slow or terminate because some urgent MWOs are not applied?

Then, lend an ear and let's see what you can do about it.

You know, of course, that A2, 205, Chicago I, Para 41 score that equipment won't be operated if it needs to have an Urgent MWO applied.

OK. Regulations are regulations.

So, what do you do about it?

They're On—They're On—It's time for your edition, right?

Is broadcast—also as you get the job it's for some bigger edition. It's for your region, is to your best, get your request in so your support staff. We saw your own C-11 knows about your problem. He'll sit up a lot, if necessary. He'll you'll get whatever help you need to keep through's equipment ready to fight.

Give Them—Keep an eye peeled also for the 25 long-line divisions set in each MWO. Let that slide just and you could have another letter — you'd have to die consumer funds for MWO jobs.

Search Sheets—Can you find that extra your equipment back at the Co. Board is it on MWO or, the Co Board is it on MWO gets downgraded from Urgent to Special. Keep an eye on the 200-Formal. Keep an eye on the 200-Formal Army Circular. Thousands of MWO's have been downgraded in recent months. They spotted in recent months. They are in the Circulars numbered between 200-54 and 200-2. And more are waiting.

Read the News—You can keep ahead of the pack by reading the latest news on what MWO's are out. Your DA Pamphlet 204-03040 with its latest changes is your guide. Also, for publications distribution notices put out weekly list of new rules. You'll find the very latest MWO's on these lists.

Your Truth—What all means that if you expect to keep your equipment combat ready with MWO's you've got to work hard and read a lot. Nobody will do either for you.

GET ANY IDEAS?

GO ...
WITH
THAT
MWO



PUBLICATION INFORMATION: Published by the Defense Supply Agency, 1000 North Washington Blvd., Alexandria, VA 22304. Phone: (703) 697-2000. Second-class postage paid at Alexandria, VA.

ISSN 0892-8352 (Magazine Edition) ISSN 1547-1465 (PDF Edition)

IN THIS ISSUE

DEFENSE 220

Items of interest to readers of this magazine. Includes information on new equipment, services, and programs. Also, information on the MWO's that are currently being applied.

200-2 220

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.

ARMED SERVICES 220

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.

GENERAL 220

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.

GENERAL 220

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.

Items of interest to readers of this magazine. Includes information on the MWO's that are currently being applied.



Get about that MWO! Stay up to date on all MWO's. Stay up to date on all MWO's.

FIREPOWER

IS YOUR "BROTHER" ... AND
MANY MORE
WORDS

RUPTUR



Yep, life gets easier all the time ... it says here to wait ...

It's tomorrow in this day and age of weapons with fixed fixed spaces—repaired cartridge cases pop up here and there frequently.

Well, if you can access one in the so-called M1977 7.62mm machine gun mounted in your M16 tank, it's more convenient to know you've got a couple other ways to get the job done right?

So begin with, if you've got the gun that all that anti-personnel fire is blowing away at—you could shoot the repaired cartridge case entrance from the back of the gun—think muzzle—and use your cleaning rod to remove the bad cartridge along with the entrance.

How-to-avoid, if the cleaner muzzle seems suggests it'd be a pretty good idea to stay focused up, then you're done at one possibility:

DAY—we get with hands
and the a lamp. Think your
cleaner of it's too high the
hand'll stay low when you're
using the machine gun ... and
you could get up with a couple
of more hands!

TWO—get your ingenuity
and use the hands pulled to help
dig out the junk inside.



The general rule is a best piece
of cleaning rod and a threaded or one
rod—so it comes into the back of the
repaired cartridge case entrance, like
this:

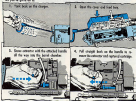


SAVER



Being one of those kinds of men will let you remove a special cartridge ... without leaving
your tank or dismantling the weapon.

All you've gotta do is:



Remember, one thing:

If you get the job done with the handle die—it means you've got both hands
ready for action.

If you get the die barrel-wracking machine—you've still gotta get that car-
tridge out before using the barrel again.

It's always there on today whatever way you use. What comes is that
you pick the one that gets the job done the fastest—the fastest ... and the easiest.

ALL BUSTED UP?



Does chamber clearing time on your rifle mean loading, benching and cooling breaks—or have you got it down pat?

Wouldn't it be nice the getting out of the break—more than the getting in—is creating too-slow problems.

Like getting the break out of the chamber—without cracking the plastic ratchet head, bending the clearing rod, or creating blood.

And now, more than ever before, under the new system of clearing your rifle only once after firing—in makes even good. PMS assure that the chamber clearing you do is done right.

So, as, to our store on the way and our air men and machines, here's a by-the-numbers picture story of the right way to get the job done.

Putting the break in is the same on both the M1 and the M14 rifles—so, except for the removal of the break in the M1, all pictures show the M14 rifle.

The secret in this picture story is in the position of the break and the cham-

ber clearing break... but when you're working on your rifle, make sure the butt is wedged tight against your body for support.

Here's a downy view of the M1 and M14 clearing breaks compared to the same used in carb rifle. You can see that the difference size means across the break is not different. Make sure you have the right one for your rifle.



1 Turn the threaded end of clearing rod further into the ratchet base of the break, to fix the break in place, unloosened and not over-tightened.



3 Release the bolt and allow springing rod and ball forward, pushing the break in the chamber. Don't let the ball slide forward and jam the break into chamber.



2 Pull the bolt to rear, lock it in place and stick the break in the rifle chamber.



4 With the break all the way in the chamber—ensure the ratchet base and clearing rod are not free.



OK, you a couple of drops of beer closer on the break, or in the chamber, or make things a little smoother and make and let's go.

BY GORDY THE GUNNER

EXIT THE **WEE** BUSH

1 Removing the bush is where the operation gets a little on the tricky side. It can be done two ways on the M14, using the first method.

Wrap your fingers around the tail—close to the receiver as you can—with your thumb extended and pointing against the opposite end of the rod. This grip gives you better leverage and sets down on the danger of twisting the rod and bush.



2 Keep an even pressure on both ends of the operating rod (with your fingers pulling and thumb pushing) and pull to the rear, removing the bush from chamber while pushing the ball and operating rod to rear of the firing pin.

REMOVE BUSH ON FIRING PIN END OF ROD



3 Lock the ball to the rear and remove the bush from the receiver.



THE SECOND METHOD

The second way to get the bush out of the M14 goes like so.

Hold the operating rod to the rear and lock it in place. Push the chamber end as mentioned before and pull back as straight as possible. Your left hand wants to be wrapped around the stock to keep the operating rod from moving forward and to hold the rifle in place.



CLIP WITH THE #1 BRUSH

Here—here's the way to remove the brush from the #1 rifle after the cleaning job is completed.

- 1** Draw the operating rod and bolt to the rear until it's flush to the operating rod head. Cock the cleaning rod as mentioned before and push the brush and cleaning rod back until the rubber base hits the front of the follower.



- 2** Push down on the follower with your left thumb and B&B the operating rod forward with your right hand until the bolt reaches the base of the chamber.



- 3** Draw the cleaning rod and brush to the rear against the bump in the operating rod. Then push the chamber brush, cleaning rod, bolt and operating rod to the rear as a group until the brush is clear of chamber.



- 4** Hold the cleaning rod and brush off the way back with your right hand, tilt the operating rod to the rear with your left hand, and take the brush from the chamber with your right hand.



That's it—run through the entire operation a couple of times and before you know it you'll be brushing our instructions to the "cavalry" in your mouth.



You can't see them, but they're there—two bronze bushings at the bottom of your skid steer loader's suspension boots support.

Ordinary use won't bother the bushings. It's a different story, tho, when you put the loader on your M35 transport truck and take off down the road.

The trouble comes when you leave the loader sitting in the truck with the excavator hanging over the front end of the loader. The movement of the truck sets the excavator so vibrating . . . and the trouble works its way to the bottom of the boom supports. And that's when trouble up the bronze bushings. They bend and get out of position.

There's a way to beat the problem . . . and you do it before the loader is set up on the truck. By the numbers:



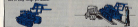
WHY
DON'T
YOU
GET
FOR YOUR
M35
MARRY—

BUSHINGS

By
The
Machinery
Dept.



The next thing to do is back the loader up onto the truck . . . put the crane operation on the truck . . . and secure the loader to the truck bed with tie-downs. With the loader on the truck, do anything everything but the hydraulic system pressure. You've got to have the pressure to hang things, get loaded.



Don't let the hydraulic system pressure drop. If it does, the excavator could make a lousing while the loader is being carried down the pits. And if you can, check every one of the boots is pre-loaded every 24 hours of continuous work.



One thing for sure—few things get more of a daily beating than your 216-size L460plate-making roller set. Right?

And the most likely conditions for any failure in the "have parade" are the frame and wear shoe assemblies and the pinion gear drive assembly. True?

No, what's the best news about that?

Nothing—the odds in: Wear plates and pins for the shoes and wear pinion gears are now available as second choices to unbroken repair parts on an "as required" deal.

This means you now can do something about catching down on the wear and tear of your roller ... too, it also means you can get replaced, too good. If some inspection finds the shoes and pinion gear wears down to a nub, because you failed to get and use the wear plates and pins and a new pinion gear.

Here's the wrap-up picture just—there'll get you the parts you need to keep the L460plate-making roller in top shape.



To get the pieces in long (long) together the same way by replenishing 'em, there's the 1981 brochure:

Screen frame shoe 818-1023-028-0110
Screen frame shoe 818-470-064-0252
Screen pinion gear 818-1023-024-0100

(PIECE) IT

As far as putting them back in your roller, it's a matter of minutes ... a minute that'll save you hours of head-aches.

In the new handling shoe handle the wear plates and pins like so:



Setting the left and right wear plates in the hand handling shoe is easy when:

all you have to do is remove the shoe from the roller, flip it over and move the left and right plates in place ... that's done for.



Replacing the pinion gear drive assembly in the roller is just as easy. It's just a case of removing the pinion gear drive—making use the wear gear—replacing it with a new unit and putting the rollers back again.



If you run into any major problems at replacing the wear plates—like maybe the odd ones in the shoes have been thrown up on head you can't get 'em out—give your suppliers or give you a hand.

But, most things are ship shape, remember: it's your job to keep an eye on the wear plates, pins and pinion gear and to replace them as often as need be—before they get on head that you've got to yell for help.

NO SQUEEZING ALLOWED



LET US TALK TO YOU — YOU CAN SAVE A LOT OF TIME AND MONEY

Some things are built to be squeezed . . . and some aren't.

And, as far as your Littlejohn jokers are concerned, No. 1 on the "Don't Squeeze the Trigger" is the aluminum housing that shields the steering mechanism on the M4 machine gun.

What's special?

The space that comes when you put too much muscle on those two 1/2 in. bolt nuts on the U-bolt that secures the steering handle to the housing.

As you know, steady use of the steering handle leads to loosening of the U-bolt . . . which leads to tightening of the nut . . . which you lead toward trouble.

Trouble because—if you've ever run on the ball—you can easily create the tightening by, causing the U-bolt to slip back the shield and moving the steering wheel underneath.

If this happens . . . your support people have a major overhaul on their hands.

When you hear less than steady, you've gotta remember it's a handle between nut, other grease and aluminum—the whole grounds stopped grinding in her name—the whole thing's gotta give.

No-ow, if your M4's steady boom, and you can't get your support to check it out in a hurry, go real slow and easy when you take up the slack.

Tighten back over evenly until the U-bolt holds the steering lock snug to the housing—then roll it quite and put the machine away as before use elsewhere.

OUT MIT 'EM



That's the good news on one of the better items in your Mils special operational maintenance shop—the shim, P/N 9554-220-0138, and the forward spacer plate, P/N 9554-221-7111.

Just as you jig your money—in one you haven't used them in a month of hardship—the shim looks like this—



and the forward spacer plate is this gauge.



Both items were supposed to be used in place of the launching roll to make adjustments on the wedge lock. However, the roll in that house will never be used and can be made by cutting on the launcher roll in all cases.

So . . . if you don't find the shim or the spacer in the latest edition of 200 9-4-553-750, 1, you can clean house a bit.

TAINT THE PAINT

Dear Half Man,

Say . . . when are they going to add gray enamel to the YG 1 so we can spot-paint the controls and tool equipment of our Mils? The stuff I'm looking for is Color 1675, P/N 9554-227-2012.

Dear Missy B. P.,

You won't see that paint since it's no longer used in Mils systems. It's been replaced by Hazmat, Gray Enamel, Color 5473-1, Cat 7-588, Y4-6 (Apr 63) shows that P/N 9554-227-2012 gets you a pint can . . . and P/N 9554-227-2000 is worth a gallon can.



Half Man

BURNED - BUT NOT OUT



Dear Herb's Boss:

As you know, those PFD tubes for the respiratory apparatus in the BC van at our Nite club soon fell up a hundred feet from the ground shelter. Since those tubes are under pressure (50 PSI), we don't like to store 'em away while they can still do the job.

Is there any safe way of getting rid of the tubes if they are not usable . . . and when they should go? The inspector says a mighty fine case of these tubes.

THE F. S.

Dear Sergeant T. S.:

This has always been one of those " . . . situation and expedient" deals, but here's a little rule-of-thumb that should just about cover the situation.

The tube should not be replaced unless the burned area is:

1. More than 1/2 inch long through the center when the hole is within the first one of the tubes, or
2. More than 1/2 inch long through the center when the hole is within the first one of the tubes.

This applies only to tubes that're in use for a basically completed Nite system. Tubes that're not being used routinely should not be replaced the way that we . . . no matter how large.

Herb's Boss

WASH HIS HANDS . . .

IT'S YOUR SKIN!



Face is a good—valuable, common sense and good PM. One's as important as the other in handling liquid caustic acids.

Which is why you have to wear protective equipment when you handle these fluids—by you have to decontaminate it when you're through—and why you have to keep it in shape to go on protecting you in the future.

And, just as important, you have to know when the old equipment you'll need if you accidentally get any of the caustic stuff on you. These pointers play the logic.

KNOW THE SIGNS

All the basic facts used by Nite-likes, Corporal and Redman usually are dangerous—make no mistake about that!

All of 'em has its own way. But fuming nitric acid (HFNA) spray will attack your lungs and burn you. Unsymmetrical dimethyl-hydrazine (UDMH) will go after your heart. M1 propellant mixture, which is 17 percent UDMH, will give you liver trouble. Hydrogen peroxide will burn you.

What makes it worse is that these poisons can build up in your system a little bit at a time unless you're real careful. That's why the medical team to check you out regularly.

Now, some of these fluids are dangerous to handle even if they're in sealed containers. Others are dangerous only after the container's been opened.

You need full protection when handling open containers and when there's danger of spills, splashes and spray—overall, cooling suit, hood, boots, gloves and breathing apparatus. That'll protect you all over.

Most of the protective clothing is made of vinyl-coated material. For full steps on its use and care, study TM 9-1078-2 (Feb 54) plus Change-1 (21 May 62), TM 9-1004-12 (Sep 58), TM QM 57 (4 Sep 58) and TR 16-277 (27 Mar 51) plus Change 1 (18 Nov 58).

However, if you've got heavy-coated equipment, see TR 16-278 (1 Jun 59).

Before putting on your protective clothing, though, first make sure it's fit to do the job. Unless your equipment's fit & it steps on easy with, it won't be much help to you. A pair of overalls with even a pinpoint hole in it, for instance, can be almost as bad as no overalls at all, since it might trap some of that dangerous liquid vapor or vapor against your skin.

The item must give you the protection intended or it's no good.

There're two good ways to check out your equipment before using it. Use 'em both. The first is to use the bubble system for eyeballing holes as they're put on. The second is to go into the debrage shower for three minutes or so after you've debrad. This'll show up—even the pinpoint holes that are so dangerous.



There's an inspection sheet that's made up order for both systems. If the defect you find here is in **Blue** type, you'll know the item's not fit for duty. So, send it back to support. But, don't—**ever**—wear or use all the defects here's been fixed. Don't play funny with lady luck!

BOOTS—Ripped, badly worn. Fabric clean.



COVERALLS—Loose tops, unfastened seams, surface badly ripped, badly worn, fabric clean; slide fasteners won't work; collar by chest/upper side all over; metal slide fastener is not completely covered.



Take these steps now if you're going to buy any clothing supplies. But don't get greedy or over-buy. Instead, get hold of a "cheap old" label card for supplies, slide here... (303) 555-08-0800. Don't you think you'd want to be the "ability" support team, Columbia, Ohio.

SUITS, COOLING—Torn, ripped, seams torn, zippers won't work.



SPRINGS—Loose tops, unfastened seams, cooling surface badly ripped, badly worn, fabric clean; dressmaker sewing, slide fasteners missing, stitching badly worn.



WOOD—Seams cracked, uncoated, painted, clear coated, brown, cooling ripped, badly worn, fabric clean; snap fasteners won't work right, stitching deteriorated, too loose.



GLOVES—Ripped, badly worn, fabric clean. Look real close, especially around the fingers.



HEAD, COOLING—Ripped, torn seams, plastic film gone, strings missing, broken.



Check and tighten the small cap inside the hood. This secures the loop.



GET
CLOTHING
SUPPLIES
NOW!
CALL
303-555-0800

When you check out your SCV or SCV or SCVA breathing apparatus, first go over the entire item for leaks or missing parts. Then check out these individual parts.

HEAD STRAPS—Beady worn, color faded.

REGULATOR TUBE—Tens, cracked around holes, holes.

CONNECTING—Beady such assembly, low pressure hose assembly and demand regulator—Not tight.



FACEPIECE—Beady surface cracked, tens or hardened, loose cracked, badly scratched, PSC too tight, leaks.

PRESSURE GAUGE—Cracked, closed, not set full, wrong zero (zero below 200 PSI).

DECONTAMINATING AND BLEACHING

However, it's not enough just to make sure your protective equipment's in shape before you use it. You have to be mighty sure you get the poisonous stuff off afterwards. Here's a list of the kinds of decontaminants that go with the different types of fuel or oxidizer:

Before you go any further, though, mix up the solutions the decontaminating kit calls for. Like so:

- 10% _____ 1% sodium hypochlorite solution
- 10 _____ 1% water acid solution
- 1000 _____ 1% sodium acid solution
- 10000-2000 _____ water based glycol #10

Figure 1. Decontaminating and Bleaching Solutions

10% sodium hypochlorite solution—Add half a pound of sodium hypochlorite USP (FPM 8910-200-9011 . . . 1 lb. . . QM1) to a gallon of warm water.

When making small quantities, use that or get 1 lb. USP from the Medicine aisle, FPM 8910-11-9000, but if you need larger quantities, use technical bleach, FPM 8910-200-9110 (check for 100 pounds). The technical bleach is more economical to use and will make a more satisfactory solution.

1% water acid solution—Add half a pound of glacial acetic acid, technical grade (FPM 8910-215-1115) to a gallon of water.

There are a couple more tricks to this mixing business. For instance, always use clean glass containers and a stainless mixer. And always put the water in



line, then the waste acid or sodium hydroxide.

Once the stuff's been mixed, it'll remain its effectiveness for six months or more. If you store it, though, be sure it's not exposed to freezing.

Of course, if your outfit's got one of those EMM propellant mixing tracks, you've got it made in the shade. TM 5-1095-13 (Sep 95) gives a complete rundown on mixing biohazardous waste solution in para 2A and preparation of waste solution in para 2B. Pay special attention on the TM's instructions on handling and care of the track's mixing equipment.

For a rundown on how to go about decontaminating your protective gear, find an eyeball in Table IV in TM 5-1076-2 (Feb 94) w/changes, or para 25 in TM 5-1056-12.

What solution you'll use depends on what chemical you're trying to get off a particular piece of equipment.

For example, on boots, clothing, belts, and gloves, if they have M3 or M302 on 'em, soak the items in 5% sodium acid solution or sulfated orange. Then rinse with water. Next wash with soap and water. Then rinse again and air dry. Don't let the water go inside of your boots!

But if you get M301 on 'em, wash them with soap and water, then sulfated orange.



Gloves and Boots—If you decontaminate them, just get 'em like you treated boots, gloves and hats, when they're covered with M3 (M302 and M301, too). In addition to those treatments, you also handle the gloves and boots in equipment designed for particle capture.



Boots—If it's got M302 on it, dunk it in water first and wipe the decontaminant off with a rag. Then sponge it off good with 5% solution of sodium hydroxide. Next sponge it with clear water and let it air dry.

But if the mark has '01 on it, dunk it in water, then sponge it out good. Then let it air dry.

1. You want to be real careful how you dispose of decontaminating rags. Follow your local SOP on burning or incinerating 'em and be mighty sure to decontaminate everything that comes into contact with M3 foot—including your hands.
2. Of course, if you're decontaminating equipment on the EMM track, you'll follow the steps in TM 5-1095-13, especially para 25. You want to be sure to spray the track the last with the decontaminating spray just after you're through.

NOT AN OPTION

And while you're taking care of your equipment, don't forget about FM for yourself and your buddies.

Keep plenty of the first-aid solutions on hand—ones to go with every type of hazard like it says in para B1 of TM 5-1076-2. Here's a list of the stuff

you should use for treatment after you get one of the chemicals on you.

M301	5% sodium hydroxide solution
M3	magnesium sulfate solution
M302	magnesium sulfate solution
GENERAL USE	magnesium sulfate solution

Remember, though, that chemical treatment for all these types of chemicals begins with immediate flushing of the skin with plenty of clean water till the special agent can be applied. Don't wear any clothing less than 24 hours for handling the eyes. Flush 'em good for 15 or 15 minutes.

Be mighty sure to read and heed the warning notices and safety measures for handling oxidizer and fuel on the first page of TM 9-1076-12.



Good MOP and THQM BT 14 help you spill out pretty much what you can do about repairing damaged items. Normally, you'll be limited to where you put the repairing material, holes or more cut hardware and during small jobs. Or maybe restricting how or downstream threats on the water composition level and overall.

There's one real important rule in using protective equipment: Never—absolutely never—use the same clothing and equipment for handling both fuels and acids. And make sure they're stored separately.

To help keep you from mixing them up, all mobile fuel-handling equipment must be color-coded to show whether it's to be used for both or acid.



And never the main shall meet!

Table IV in TM 9-1076-2 has a whole volume on correct marking of the various items.

This same table also spells out the right ways for storing. The big thing to remember here is that the items must be cleaned and dried thoroughly before being stored. . . . and that those marked yellow must always be kept separate from those marked green.

Page 16 of TM 9-1076-12 gives a complete rundown on the use, method of packing on the equipment and on its care and preservation.

Protective clothing used with the MOPP truck can be stored in the lockers at rear of the vehicle, while the protective masks can be kept in a special waterproof bag through the left rear end of the truck body.

PLAN IT EARLY

In short, protect your equipment when you're not using it and it'll do the same for you when you are using it.

The more you know, the safer you'll be—so know and use the tips in pages 62 and 95 of TM 9-1076-2.

THE DAVEY'S OK - IN AN EMERGENCY

GET SOME SUGAR!
No sugar in coffee
means trouble.



When
you get
out of
the Davey
Shop,
keep
your hands
warm.



Hey, you Mountain-bore's the team group on using the Davey air compressor for refilling your M15 breathing apparatus.

Yep... that's the word.

Now, the Davey PBC-15 can be used to refill the M15 E4 cylinders—
but only in an emergency—and only when you follow four "rules".

- 1 The Davey mechanical filter element (M15 E4-1571) must be one that has never been cleaned with any type of cleaning solvent.



- 2 The mechanical filter must be replaced every time it has—then, replace it with a new standard Davey filter.

- 3 While using the Davey to refill an air tank or line has terminated or is possible.

Golden
Rule
Number 2?



- 4 Air being used for breathing apparatus must be tested for its quality and is to be OK, dated 1 June 1982.

Watch... this new switch changes the pump you read on page 47 of *PS 104*—as far as the Davey goes.

Now, you can still do the refilling job by using the E4 compressor (Model KM 50) or Joe compressors (Models 11H1 or H075-ME-15, if you don't have any of these at your site—ship the cylinders to your supplier or get them refilled by a local provider of compressed air).

THAR

SHE BLOWS

Following air pressure from a hermetically sealed metal container is slightly more tricky to do—the same—compared with the ease of an explosion if you don't let the air out!

DOX, STONING

Take the case of one air type, removing a T-15 gas turbine engine from its metal shipping container, for a quick engine change in his (rogue) UH-1H.

In the hands and hearts of the twist crew words of wisdom, recorded right on the container, were overlooked—**CAUTION: RELEASE PROPERLY BEFORE OPENING CONTAINER.**

In, according to one editor of hair-raising tales, here is what happened after the two container cut and both were taken off, the internal pressure suddenly blew the cover sky high, raising a stack by only a few inches . . . could've been a mile over water.

CAUTION: RELEASE PROPERLY BEFORE OPENING CONTAINER.

In what you hold the writer on a container cover after the two bolts come out? Well, it might be a lone shipping pin, or maybe a container key is inserted a long time and the metal cover goes embedded right into the rubber gasket . . . you'd never be able to use such a device with the cover on.

But the way to see the "why" of this pressure problem.
 Key, for example, your base elevation is above sea level and you pressure an aircraft engine container at 4 PSI, like it says in TM 91-1526-106-36 (Type 19C1, Chapter 4, page 2-8, paragraph 2.12a).



Then suppose the container got shipped to a base with a higher elevation . . . the higher the elevation the bigger pressure difference you get between the air in the container and the air outside of it. And this pressure differential can blow a container cover, you-see. Fear is, the internal pressure in your container is a safety hazard if it's opened at 4000 feet, or more, above sea level.

That's why, in addition to reading the something on the container, the first step in opening 'er up is to let the air out through the pressure relief valve.

These big babies hold a lot of air and you could be all day holding the valve in so let the air out. So after you take the pressure relief valve on one cover off and locate the valve and cap, try this.



Now the valve cap moved, next it take the valve and turn the valve one right out of there, but one pain, though—don't cover the escape valve. You could end up with a mighty container filled of water or hot particles from the air itself. And it make sure all the air is out, you might even use a piece of stiff wire to push the valve hole to be sure nothing's blocking about of the air pressure.



TOP ALL CONTAINERS

The same idea goes for expelling any other pressurized hermetically sealed metal containers used to ship any piece of Army equipment . . . the air pressure has to be released, first-aid!

And you want to follow all the instructions printed right on a container and check the pins for those expelling steps on your equipment before you lift any cover . . . so-ooooo-uhh! for the big BOOM!

PURGE THE BLUE



If lubes your Street 100-111 with MEL-G-2000, guess, you'll never know. Lubricate both of those in color! You'll know that in the long run, trying to make it with your trouble can cost.

The used in TRX 2000-111-10-1111 (100 lbs. 111) is to spin using this rotary grease and go back to using old reliable MEL-G-2000, P/N 2000-000-0000. The tube does not be changed back to evidence to the Street 100-111.



In the meantime, there's a couple of highly important steps you can take to get the blue step made out of your bearings, once and for all.

First off, there's the degreasing of the main rotor head bearings. Your supplier does this 'cause they have the main rotor inspection kit, P/N 111-111-1, P/N 111-111-111, needed during disassembly and assembly.

TRX 2000-111-11-11-111-11

Step 111 says, in part, don't let bearings get washed too often in dry cleaning solvent, P-5-111, P/N 111-111-111-111. They're washed two more times in detergent (included), 11-111 per case, P/N 111-111-111-111, and allowed to dry. No air compressors, please! TM 11-111-1 (10 May 11), Chapter 1 has the info on drying bearings.

The bearings are packed right away, so there's no chance of rust forming, with MEL-G-2000. Red paint is then used to seal the aircraft. MIXED WITH MEL-G-2000 GREASE, DO NOT MIX LUBRICANTS.

The last step in purging your head of the blue grease can be a mile out on your past-grease gas in hand. All of the grease fittings that get the blue grease are called out in Chapter 2, Section 11 of TM 11-111-111-11 of Feb 11.



In your young MIL-G-21115? Then those fittings will be out the color change, which means the old grease should be gone. Don't spare the new grease, either. You want to get rid of any trapped film that might be weak



When all the grease in your bird is changed over, the old MIL-G-21115 should give color off and MIL-G-21117 is added . . . and that's not all!

To let out all the blue grease is

retired out of the bearings, you make with the grease gun on all fittings after each of the next four flights.

From then on the regular greasing set up is every 10 hours. Of course if your bird has been in a downpour, or she's all soaked up with dew, the fittings can be covered up to a daily check.



Notice, that blue grease never did give out. Field experience and tests showed it just didn't have what it takes to keep a bird healthy.

EASY ON THE STICK

Handling the control stick in a Bird Dog (B-D) is somewhat like handling a doll on a Chinese yo-yo—unless you want to be unbalanced.

Course when you think perhaps being the bird in an event, that stick is planted back to your belly button, as it should be. But leaning back on 'er with brain strength, like there's no tomorrow, could crack the clearest bellwork bowler.

You could also get a cracked bowler (and a grounded bird) from an un-locked clearest flapping in the breeze and whipping the stick around in the cockpit . . . which is the name for the control lock box, of course.

There's another 'fun' in going easy on the muscle power and locking the stick can save your bird from taking a real beating.



BE A METER READER



A little more for OH-10H Slows seems to make sense in the back of your head: **WATCH THE METER BEFORE YOU OPERATE THE HEATER.**

Undoubtedly, everybody concerned has noticed that your H-series Slows charge port came complete with a loadmeter. Now the numbers you're used to on your E- and G-series Slows tell you the rate at which the generator charges your battery.

**WHAT YOU
ARE NOT
NOTICING**



ONE FOR NOTHING!

But this loadmeter now—the best instrument is different. It tells you how much current you're drawing from the aircraft's electrical system . . . and it gives you a reading that's a percentage of the total electrical energy (watt-hours) in the system.

Just the raw battery voltage meter in your H-series Slows was augmented by an electrical clock, using the battery pack as added fuel to your electrical system. This also tells you how much is the loadmeter reading.

So if your meter shows less than 6.55, it's OK to run an Earth Source Motors.

When the meter reads less than 6.75 you can operate one Motors only.

But when the meter indicates above 6.75—keep your propeller heads off those heater Motors switches . . . or you're in emergency.



Another thing, the name used in your don't have to use the Motors all the

time your engine's working if you don't want any heat. But if you do run heat, remember that you're required to bypass all heated air overhead under 10 knots IAS. That means the HEAT OVERBOARD lower stage pushed in (down) until you pick up enough air speed.

Of course, this info doesn't apply to the E- and G-series Slows, which don't have the new cabin heating and defrosting system installed. It's just a helpful idea to H-series Slows operators to use the load on your electrical system.

By the way, that meter will read high right after you crank up, since some of the available juice will be used to recharge the battery. After battery recharge, the meter will drop off, and you can then run on the heater—if you need 'em.

If you want an authority for this new info, check out paragraph 2-11, Section II, Chapter 6, in Change 1-111 Doc 623 of T.O. 15-1280-284-10 (Doc 613).

JOE'S DOPE



POINING
EMERGENCY!



GET YOUNG DR. GRACY DOWN HERE TO SURVEY AT ONCE!



WELL, MA! **KNOBOSIS!** IT'S AN EPIDEMIC!





AND
SO,
BACK
AT
THE
EDDP
school
later

DEAR BOB!...WE DON'T
KNOW SUSPECTS' HOW
SOME INDUSTRY
TALKS OR SPEAKS?

YES, WE GOING TO INOCULATE
THEM WITH **INFORMATION!**
A GOOD SHOT OF THE HANGING AND
OPERATING TIPS IS THE THING TO
GAIN **KNOWLEDGE.**



LET'S START WITH **CONNECTIONS**
(ON ANY CONNECTION
EQUIPMENT). THEY KNOW IT BY
SOMEHOW TIGHTEN **FINALE**
TIGHT -- WITHOUT **FORCING**,



REMEMBER, A SENSE OF
FEEL OR **TOUCH** IS NEEDED.
ELSE, YOU CAN BREAK THEM OFF
OR TEAR UP THE RECEPTACLE



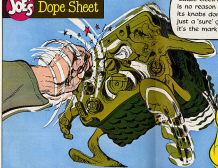
USING GOOSE FOR **SWITCH**
CORDS... CONNECTION
PLUGS -- AND THESE LIKE
HALL, A HARD **TRAIL** CAN
MISSED IN -- AND THE **JACKS**
OR RECEPTACLE THEY GO IN.



...THE GENTLE
TOUCH IS THE
THING... WHICH
MISSED AND,
GENTLY A
PLUG...



Joe's Dope Sheet



"cause electronic equipment is tough,
is no reason for you to get rough!
its knobs don't need much—
just a 'sure' gentle touch.
it's the mark of the man with "the stuff"



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

IF YOU WANT TO DISPLAY THIS ADVERTISING ON YOUR WALL, OPEN STAPLES LEFT IT OUT AND PIN IT UP.

HOW TO TURNING
KNOS ON WOOD SCREWS, ETC.
REMEMBER **Don't Force 'Em!**
AND, IF THERE'S ANY UNUSUAL
RESISTANCE ON ANY CONTROL,
KNOB... GET FIELD MAINTENANCE
TO CHECK IT!

**BUT... BEFORE
YOU PULL... IT'S
BE A GOOD IDEA
TO SEE IF YOU
HAVEN'T FORGOT
TO **UNLOCK**
SOME THING!**



SCREWS AND **BOLTS**
ON COMMUNICATIONS EQUIPMENT
ARE HANDLED DIFFERENTLY!

REPAIR
MEANS
**TIGHT
TIGHT!**



TIGHT
ON A SWITCHBOARD,
FOR EXAMPLE,
IS DIFFERENT THAN
TIGHT
ON A TRUCK BODY!

SNUG
WOULD
BE A
BETTER
DESCRIPTION!
FOR WHAT
YOU WANT!



LEARN TO TURN
THOSE WRENCHES, THEY'RE
GOLD AND **DOING
THE JOB** THAT YOU
SUFFERED FOR!



AND REMEMBER, GUYS,
USE THE RIGHT TOOL!



HEY DOC... LOOKIT THE AXES...
THE BRATS ARE WORKIN' THE
ENDGUNS IS CURRY!



GOOD! NOW DID YOU
TREATMENT THEREFOR?



HERE'S A FEW TIPS

1-251-043



Rx for magnetics and delmagetic control knobs and dial lock. Tight turn 90 degrees without releasing dial lock. If you turn it when locked you strip the 90 control.
Ben Gray MD

8-112



Rx for dial lock in dial drive assembly not turning knob. Tight force dial screw as you'll break the dial's springs. Tight force the locking double. That is will break the dial's springs. Tight again the turning knob or any other knob.
Ben Gray MD

12-66-02



Rx for 25 position dial. When checking 25 position every drive it with the frame but complete count when parking. Just a slight twist gives it enough to push the set.
Ben Gray MD

40-141-B-C-10



Rx for tuning knob. Tight turn tuning knob before releasing dial lock. Otherwise, you will strip the gears of the frequency adjustment mechanism.
Ben Gray MD

AL-08C-1
AL-08C-24
AL-08C-47
BAGG-025

HA-11-00
BAGG-075



SW-10-01 24-143



SW-10-01
SW-10-01
SW-10-01

R for frequency and timing controls. When feeding the bag and timing controls, hold the handle gently while supporting the dose - in order to keep from pulling the control off frequency. Leave space for timing control. *Flow Group 101*

R for changing dose rate. Press down **firmly** when pulling it in its change. Hold down until dose or change is lighted, otherwise, a bad contact will result. *Flow Group 101*

R for quick decrease of respiratory. Don't jam the connector plug into the receptacle. You'll break the side pins and put it out of business. *Flow Group 101*





LIFE FOR A NEW BATTERY

No matter the weather... be it cold or warm, snowing or raining, it's always nice to find the batteries in your wheeled or tracked vehicle have enough kick to start the engine.

One way to be getting a lot of oomph for a much longer time comes from dry-charged 2004 and 2006 batteries. It can give you a good start before putting you to work.



To help give you good insights for the long haul, here's the background on the info in para 25b, TM 54-148, 200-15 (15 Jul 94)—

Remove and clean the vent plug sealing device, but leave the plug alone until ready to fill the battery.

Then fill each cell with electrolyte until the level is approximately 14 inch

above the separator. If you're in a temperate climate, electrolyte with a specific gravity of 1.280 is the choice. Keep the temperature of the battery and electrolyte above 50°F, but not above 100°F.



Take a specific gravity reading of each cell (corrected to 80°F), then subtract and add to 14 inch above the separator.

The battery's done ready for use unless one of these conditions shows up:

1. If the specific gravity for any one cell is below 1.260, then readings are taken after waiting for 24 minutes.
2. If the battery won't be used in good luck and for at least 12 hours after filling.
3. Or, if the temperature's below 50°F.



If any of these conditions exist, the battery should get an initial charge (para 40 of the Battery TM). Starting its service life without a full charge, it's sure to fail. Using it without a full charge affects its overall performance more's just sitting around around.

Giving your batteries a constant potential charge is OK, provided the electrolyte temperature is held below 110°F by cutting off the charge once its within. Continue the charge until three readings taken at half-hour intervals show no further rise in specific gravity. This reading should be near 1.280 (adjusted to 80°F).

If a battery's put less out with a specific gravity reading below 1.190, you can figure that half of its normal life was done the drain. The shorter life is caused by sulfated plates and/or reverse polarity of one cell or different rates of charge between cells. These conditions can contribute to early failure of the regulator relay or put a strain on the generator.

Might some of you battery handlers have ever been accused of putting water instead of electrolyte into a dry battery . . . Yes?

It may seem that's been done 'countless' times, but sometimes when a battery



water added in a dry-charged state is made air, a chemical reaction takes place. The negative plate'll swell so that when the electrolyte's added, the reaction stops between the sulphuric acid and oxidized plates will cause the battery to discharge.

Any time a new battery's put less out, always, but always, take the oldest one first . . . then let—let out some dust, and go 'em down-scraped . . . Forget 'bout the manufacturer's name on 'em.

Have you been running into trouble getting your hands on this popular TM 5-622-200-15 because the distribution formula doesn't cover your unit? Then see the info in AR 500-2-11 Apr 59, para 56(1), for your authority to get 'em.

There's a lot of good going in this TM on the lead-acid type storage battery. Get your copy today.

MULE COUPLER FIX



The quick-disconnect couplers on the hi-ton M174 Mules can't get lost if you look after 'em right. They have a way of going AWOL, though, especially when the vehicle is being towed.

There's no substitute for taking care of those couplers. They're not common hardware and are hard to get.

Back in your company area you can put 'em in a container when you take 'em off. But in the field you might not be able to find anything to put 'em in.

So here's a simple field fix that'll help you keep those couplers present and accounted for . . . This one used

clamps together with a light metal chain or braided steel wire.

You attach one clamp to the coupler and 'nuttle to the rear axle. Then, no matter what happens, your coupler don't get lost.

Another nice thing about this, you don't have to drill into or deform the coupler and if your fix makes some inoperative coupling, you can "nuttle" the couplers with a flick of a screwdriver.

There are couplers on the steering, clutch, brake and throttle, but it seems the brake and clutch couplers get lost more often.



... THE CLAMP
M174 MULE
— COUPLER DON'T
GET LOST

NEVER LUG IT

Dear Hay-Mac:

I was a truck jockey in civilian life so I know lugging a load is tricky. Now I run the flat of What Not To Do about How Not To Do It. The TM's don't give much useful info, so I'm asking you. What is the lowest safe speed I can run my R37 3-axle tractor without lugging it?

Can you give me the RPM figure?

RAY J. M.



Your engine will lug at different RPM's depending on the type of terrain, load and road conditions. The data plate on the left of the instrument panel shows you the maximum truck speeds you're allowed when the transmission is shifted to its various positions... this stops is also in TM 5-8038 (June 61), page 21.

On page 44 of the same TM it says to shift to a lower gear as you start to lose speed or the engine begins to lunge.

Constant speed plus a lot of experience are all you need to do a good shifting job.

You can use the RPM data plate figures as kind of a rough guide, but the real payoff is your experience.

In time you'll get a feeling about upshifting and downshifting as you do the right thing without thinking about it. That's experience, and you can't buy it for all the gold in Fort Knox.



Model	Transmission	Gear	Speed (mph)	Engine RPM
R37	1	1	1.5	1000
R37	1	2	2.5	1000
R37	1	3	3.5	1000
R37	1	4	4.5	1000
R37	1	5	5.5	1000
R37	1	6	6.5	1000
R37	1	7	7.5	1000
R37	1	8	8.5	1000
R37	1	9	9.5	1000
R37	1	10	10.5	1000
R37	2	1	1.5	1000
R37	2	2	2.5	1000
R37	2	3	3.5	1000
R37	2	4	4.5	1000
R37	2	5	5.5	1000
R37	2	6	6.5	1000
R37	2	7	7.5	1000
R37	2	8	8.5	1000
R37	2	9	9.5	1000
R37	2	10	10.5	1000
R37	3	1	1.5	1000
R37	3	2	2.5	1000
R37	3	3	3.5	1000
R37	3	4	4.5	1000
R37	3	5	5.5	1000
R37	3	6	6.5	1000
R37	3	7	7.5	1000
R37	3	8	8.5	1000
R37	3	9	9.5	1000
R37	3	10	10.5	1000

ALL YOURS NOW

Been staring your bait out wondering what's wrong you can do with those nylon-type overall/wagon covers as instead as some tracked vehicles you're been getting?

Has staring 'em become a bigger problem than watching your pay through the last week of the month?

Then this refreshing bit of news ought to relax things a bit. A recent decision by the brass has made the clearest, dependable and unambiguous item.

First-ten, you'll see 'em used; their usefulness has been enhanced for the possession of whatever equipment or material you decide needs the protection the most.

They make a splendid means that are, and during bad weather make a good cover when any vehicle they'll be get shipped to another location. There are just two of many uses.

You decide where they're needed most and the brass'll do the rest.

A BAD PENNY

Dear Half-Dime,

There's a gap in my world when you battery post won't connect, or connect at last, if you drop a penny near them. He says the penny'll draw the corrosion to it. What do you say?

Pol. B. P.



Dear Private B. P.,

Well, now . . . I'll tell you. You put a penny on a battery and wherever it'll start eating away. It's bound to happen—since the rate of corrosion of copper is much greater than lead. A piece of copper close to the positive post will tend to eat down corrosion at the post . . . but only to a small degree.



Since the copper must be cleaned often to do any good, it's far better and practical just to clean the terminal lead. (You shouldn't be damaging metal elsewhere, anyway.)

Half-Dime

SEAL COATS

What are the best seal coats for the wheel bearing?



Call
800-828-8888

Dear *Half-Mack*,

I need some advice compared to coat the outer face of the wheel bearing shell on my 1991 Volvo truck. In TM 9-200-210-20 (July 89), page 15, under Fig. 194 it says, "Pack lips of seal with grease (G14-1) and coat outer face of seal with sealing compound (M13-5-10/89).

Elsewhere in TM 9-200-210-24 (Jan 87) step 4, page 66, it says to use the seal (M13-5-11/89) on the outside of the seal to prevent leaks.

It sure be happy to do this if I could get ahead of the staff. Can you find me a stock number and the authority for ordering it?

SFC W. K.

Dear SFC W. K.,

PM 9830-416-1426 is the magic number that'll get you a one pint can of the seal. You'll find it listed in Change 1 (Aug 87) to TM 9-200-210-20 (July 89).



TIE ROD TIE-UP

Half-Mack



800 828-8888
70000 10 10-123 70000-001

When tie rod ends on your 1991-series 2 1/2-ton trucks take a terrible pushing around on the road, too, when you replace a tie rod, make sure that final drive, PM 9150-711-1418, is installed on the seal between the tie rod end and the steering knuckle support arm.

After you've made a toe-in adjustment, seal wear on the tie rod ends you acquired as 85 to 125 pounds/in., like it says in para 2090-01 of TM 9-881-01 (Oct 81). This is the best wood, though you'll find a different answer in some other parts.

There should be no play between the seal and the tie rod end. Part is,

if the bushing's loose in the tie rod end or if the seal's loose in the bushing, the tie rod end needs replacing.

LD 9-2100-210-10 (19 Jan 89) doesn't call for lubing the tie rod end seals, but a light coating of grease on the snap ring and washer and steel threads will help hold down seal and corrosion.

EXTRA STRENGTH



Dear *Half-Track*:

W've received M273 and M279 16-ton vehicles from Supply with both 8-ply and 10-ply tires . . . sometimes on the same vehicle.

Is this kind of tire mixing OK even if one tire is a 10-tonner?

CWO G. W. M.

Dear *Master G. W. M.*,

These military tires may not seem to improve walking . . . and talking in his sleep, Sir, but it'll do no harm. Now, that is, as long as the dual tires don't have a difference of more than 1/2 inch in diameter when mounted and inflated. (This tolerance doesn't apply if they're mounted at opposite ends of the axle.)

The 8-ply tire is preferred for these vehicles, but the 10-ply has more built-in strength.

Each kind has its own stock number, so just make sure you ask for the FSM listed in your vehicle's parts manual—then it's up to your support people to decide if they have to supply the other size "in lieu of."

You'll find that both the 8-ply and 10-ply tires (500 x 20) measure about 18 1/2 inches in width (from outside diameter) when properly mounted and inflated . . . but carrying a load. Even

tires with the same size marked on 'em may vary a bit in width, tho.

Check page 218 of TM 9-4024 (1 Oct 61) and you'll see that it lists the tire size (500 x 20) but not the ply rating.

Please pay more or watch its matching tires are the design, tread and wear, especially on those dual-wheel and all-wheel drive vehicles.



There's more info on tire-matching in para 27, Figs 12 and 20, and Appendix I, Table V, of TM 9-4024 (Feb 55).

To use the caliper, FSM 111B-004, 1004, from your No. 2 manual, and fit it across the diameter of the wheel on each vehicle. In para 12, state the life and lower vehicle performance.

Half-Track



SHAKE THAT SHIMMY!!



Dear Half-Mast,

What can I do to get the front end shimmy out of my 21-year GMC cargo truck? I've tried everything in the book.

SURE, I'M

Dear Angstrom S. E. M.,

There are about 20 things that could cause shimmy in the front end of your truck and a half, but the most likely is that the front suspension stabilizer bar was not installed like MFG's (GM) 67-69/71-73 (8 Apr 74) called for. Check your DM Form 2400-1 in your Equipment Log Binder for the MFG and also have a lookover under the truck.

If the stabilizer bar is there, joining the left and right lower control rods at the front spring and control rod brackets, and if it is in good shape, check your tires. 'Cause they're the biggest cause of front end shimmy in most vehicles. If the stabilizer bar is not there, suggest you talk it over with your support club and see if they'll put it on. They can do it but you'll have to pay for the parts now.



Like TM 2-8024 (Oct 71) says, unevenly worn or unequally inflated tires can cause shimmy. Unbalanced or unbalanced tires, or tires not properly mounted and inflated on the wheels, can also make the front end of your

truck shake like a hole dancer.

The TM gives you lower or damaged ball bearings, incorrect front wheel alignment and worn steering knuckle components, as possible causes for shimmy.



Other things that might do it are wheels not properly seated because the upper nut won't sit the wheel chamber is worn or damaged, wheels out of round, broken, damaged, weak or defective front springs or hangers, loose spring U-bolts, check struts and bolts defective or broken, loose or damaged control rods, steering assembly loose on frame, steering gear not properly mounted and adjusted, or backing plate bolts loose.

First check the most likely things, such as the stabilizer rod or tire and the way they should be. If this won't remove the trouble, check the things the TM lists, and then go on to the less likely possibilities.

If you can't succeed or correct the trouble with the tools and equipment you have, call your Division support for help.



ON YOUR KEE AND KEE...

THE LITTLE ONES COUNT TOO!



Ever notice that sometimes in the little jobs (see done right) that become the big jobs later on?

Take the removal and replacement of the fuel-filter-pipe air-vent tube in

as you might think—the fuel screen in the filter pipe does that.



your 1000-cc air-cooled personal carrier, or Mini air-propelled motor. This is a simple enough job so why check the TM, you ask?

True, removal is a cinch.

But during replacement there's a rub on the tube you want to focus your baby brain on.

This small hook of metal is not to support the screen on the vent tube

to you don't get the screen on the end of the vent tube.



That way the tube will rest against the screen inside of the vent, so the tube can't reach the bottom of the well when you're pushing it into the filter pipe.

If you get the sealant on the wrong end, the job wouldn't do the job it's supposed to do. And when you shove the vent tube into the Mist pipe, it could go clear to the bottom of the fuel cell.

From then on, vibrations and the sloshing action of the fuel could wear a hole in the cell. Rough—a vehicle destined for replacement of a body cell.

You'll want to read all about this

in TM 9-2300-209-11 (Oct 88), para 101, and see your eyes on Fig 11, page 130.



SEALED BEAM SWAP

How's the supply of sealed beam headlight lamp units for your M11 hi-ton truck? Is your shelf bare and are dealers being hard to fill the gap?

If you find yourself in this spot when the old seal pulls for night driving points while some M11's are disassembled due to no headlights, here this info is for you.

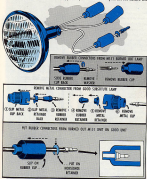


... until you can get the sealed beam headlights (Lamp Unit FSN 6228-048-4188) for your M11, use the sealed beam headlight unit (FSN 6228-100-7507 or FSN 6228-100-0688) that's used on the C740, C741, C742, C744, C749 and C748 series trucks.



You can make this substitute by changing the metal waterproof connector (Straight type) to the rubber waterproof connector (Potted type).

To do this you can use the rubber cone screws on the bottom of BTR1 sealed beam unit. Put the metal connectors in your electrical repair kit for future use.



To make the rubber connectors slip together without too much effort, put a light smear of electrical insulating

compound (like DCL) on 'one' or use the coating of that's in your electrical repair kit.

TRUE HYDROMETER

Dear Mr. Man:

What's happened to the battery hydrometer we used to get with FOM 6000-110-0167? It had a thermometer and a correction scale which are a mess for getting the right battery reading in cold weather.

Overseas the same FOM gets you a different hydrometer. It doesn't have the thermometer and correction scale arrangement, and it's a fairly useful thing in our changeable climate.

Could the supply's been giving us a local purchase item,

but at some time use our old FOM, and it's not marked reference item.

How can we make sure we get the right hydrometer?

SAC J. W.

Dear Sergeant J. W.,

Hydrometers, FOM 6000-110-0167 (hydrometers, springs, battery) is available from COMUS supply depots, and the Chemical supply people say it's not an authorized item of local purchase.

Now re-order, and spell out on your requisition that the hydrometer (FOM 6000-110-0167) you need must meet Federal Specification GS-41-041, Class I, Style B.

COMUS
depots and
FOM 6000-110-0167
are not
authorized
items of local
purchase.



Handwritten signature: J. W.

TIGHT'S THE WORD



Dear Half-Mast:

The information we have is not very specific in the correct adjustment on the levers for the M10, M20 and M30 11-Volt trailer.

I claim the locknut should be drawn up tight up as to eliminate free movement, which would cause wear on the tapered shock and nut. My buddy doesn't agree with this. He wants free movement to allow for vertical action.

What "vertical" on this argument and what is the correct adjustment?

Sgt K. J. J.

Dear Sergeant K. J. J.,

Looks like this time your buddy'll have no choice, because you're correct.

Choices can be had for the M10 trailer's frame setup in mind. On the M20, the locknut has no choice when hooked up to a jeep.



WELL, THE 100-INCH GAP HAS BEEN SET BY THE SPRING MOUNTS. BUT IT'S A GOOD PROVISION.

THE TOP SPRING MOUNTS MUST BE TIGHT.



100 INCH

Half-Mast

DRIVER IN OR OUT

Dear Half-Mat:

One of our readers was towing a wrecked vehicle with a tow-bar when the towed vehicle broke loose and hit the back of the towster.

What would like to know is whether there's any OOT or TM that says the driver should've stayed in the towed vehicle?

Exp. R. A. M.

Dear Sergeant R. A. M.,

That's a tough one, large. Your towler's SOP may cover it, but it seems the only Army pub that lays down a general rule on this point is TM 11-501, the wheeled vehicle driver's manual.

Para 444 of this TM calls for a driver in the towed vehicle to control it in most cases. But it drops down to para 446 and it says a driver in the towed vehicle is not needed when the front bumper of the towed vehicle is tied tight to the rear of the towing vehicle.

What you've got to remember is that each wrecked vehicle can be a special problem. Damage to wheels, frame, steering gear, brakes or other parts may call for special handling. And that means the responsible man on the scene . . . maybe the wrecker driver or the driver of the wrecked vehicle . . . may have to make some on-the-spot decisions.

For most towing, though, here's a good general rule of thumb:

If it's safe to ride in the wrecked vehicle, and if a driver's needed to steer it or operate its brakes, the situation

calls for a driver in the towed vehicle.



But if it's unsafe to ride in the towed vehicle, or if there's no need to control it (like when you're towing with cat and fixed off the road and hooked up with a tow bar) you'd have the driver climb aboard the wrecker if there's room.



...Collection of new photographs
 issued in Departmental publications
 numbered 100 to 1000. (See
 Manual, 100 to 1000.)
 (See Manual, 100 to 1000.)

Reference Tables

PS 1001, The Army of 1901 to
 1902.
 PS 1002, The Army of 1903 to
 1904.
 PS 1003, The Army of 1905 to
 1906.
 PS 1004, The Army of 1907 to
 1908.
 PS 1005, The Army of 1909 to
 1910.
 PS 1006, The Army of 1911 to
 1912.
 PS 1007, The Army of 1913 to
 1914.
 PS 1008, The Army of 1915 to
 1916.
 PS 1009, The Army of 1917 to
 1918.
 PS 1010, The Army of 1919 to
 1920.
 PS 1011, The Army of 1921 to
 1922.
 PS 1012, The Army of 1923 to
 1924.
 PS 1013, The Army of 1925 to
 1926.
 PS 1014, The Army of 1927 to
 1928.
 PS 1015, The Army of 1929 to
 1930.
 PS 1016, The Army of 1931 to
 1932.
 PS 1017, The Army of 1933 to
 1934.
 PS 1018, The Army of 1935 to
 1936.
 PS 1019, The Army of 1937 to
 1938.
 PS 1020, The Army of 1939 to
 1940.
 PS 1021, The Army of 1941 to
 1942.
 PS 1022, The Army of 1943 to
 1944.
 PS 1023, The Army of 1945 to
 1946.
 PS 1024, The Army of 1947 to
 1948.
 PS 1025, The Army of 1949 to
 1950.

PS 1026, The Army of 1951 to
 1952.
 PS 1027, The Army of 1953 to
 1954.
 PS 1028, The Army of 1955 to
 1956.
 PS 1029, The Army of 1957 to
 1958.
 PS 1030, The Army of 1959 to
 1960.
 PS 1031, The Army of 1961 to
 1962.
 PS 1032, The Army of 1963 to
 1964.
 PS 1033, The Army of 1965 to
 1966.
 PS 1034, The Army of 1967 to
 1968.
 PS 1035, The Army of 1969 to
 1970.
 PS 1036, The Army of 1971 to
 1972.
 PS 1037, The Army of 1973 to
 1974.
 PS 1038, The Army of 1975 to
 1976.
 PS 1039, The Army of 1977 to
 1978.
 PS 1040, The Army of 1979 to
 1980.

Tables

PS 1041, The Army of 1981 to
 1982.
 PS 1042, The Army of 1983 to
 1984.
 PS 1043, The Army of 1985 to
 1986.
 PS 1044, The Army of 1987 to
 1988.
 PS 1045, The Army of 1989 to
 1990.
 PS 1046, The Army of 1991 to
 1992.
 PS 1047, The Army of 1993 to
 1994.
 PS 1048, The Army of 1995 to
 1996.
 PS 1049, The Army of 1997 to
 1998.
 PS 1050, The Army of 1999 to
 2000.
 PS 1051, The Army of 2001 to
 2002.
 PS 1052, The Army of 2003 to
 2004.
 PS 1053, The Army of 2005 to
 2006.
 PS 1054, The Army of 2007 to
 2008.
 PS 1055, The Army of 2009 to
 2010.
 PS 1056, The Army of 2011 to
 2012.
 PS 1057, The Army of 2013 to
 2014.
 PS 1058, The Army of 2015 to
 2016.
 PS 1059, The Army of 2017 to
 2018.
 PS 1060, The Army of 2019 to
 2020.

PS 1061, The Army of 2021 to
 2022.
 PS 1062, The Army of 2023 to
 2024.
 PS 1063, The Army of 2025 to
 2026.
 PS 1064, The Army of 2027 to
 2028.
 PS 1065, The Army of 2029 to
 2030.
 PS 1066, The Army of 2031 to
 2032.
 PS 1067, The Army of 2033 to
 2034.
 PS 1068, The Army of 2035 to
 2036.
 PS 1069, The Army of 2037 to
 2038.
 PS 1070, The Army of 2039 to
 2040.
 PS 1071, The Army of 2041 to
 2042.
 PS 1072, The Army of 2043 to
 2044.
 PS 1073, The Army of 2045 to
 2046.
 PS 1074, The Army of 2047 to
 2048.
 PS 1075, The Army of 2049 to
 2050.

Tables

PS 1076, The Army of 2051 to
 2052.
 PS 1077, The Army of 2053 to
 2054.
 PS 1078, The Army of 2055 to
 2056.
 PS 1079, The Army of 2057 to
 2058.
 PS 1080, The Army of 2059 to
 2060.
 PS 1081, The Army of 2061 to
 2062.
 PS 1082, The Army of 2063 to
 2064.
 PS 1083, The Army of 2065 to
 2066.
 PS 1084, The Army of 2067 to
 2068.
 PS 1085, The Army of 2069 to
 2070.
 PS 1086, The Army of 2071 to
 2072.
 PS 1087, The Army of 2073 to
 2074.
 PS 1088, The Army of 2075 to
 2076.
 PS 1089, The Army of 2077 to
 2078.
 PS 1090, The Army of 2079 to
 2080.
 PS 1091, The Army of 2081 to
 2082.
 PS 1092, The Army of 2083 to
 2084.
 PS 1093, The Army of 2085 to
 2086.
 PS 1094, The Army of 2087 to
 2088.
 PS 1095, The Army of 2089 to
 2090.
 PS 1096, The Army of 2091 to
 2092.
 PS 1097, The Army of 2093 to
 2094.
 PS 1098, The Army of 2095 to
 2096.
 PS 1099, The Army of 2097 to
 2098.
 PS 1100, The Army of 2099 to
 2100.

PS 1001 "PIN-POINT"

PS Magazine will be distributed by the "Pin-Point" distribution system starting 15 May 1983.

That's the system by which your unit gets pins mailed direct to it from the selected General's publications distribution center—the one you've been getting mails, aircraft and special weapons calls for some time now under the provisions of Section 35, Chapter 3, AR 110-1 (20 Mar 81).

First, for . . . your mail's got to send to immediately to DA Form 10-2 to the pins center. Or if you make the number of copies of PS Magazine (and lots of other pins . . . (DA DA Bulletin) you want five unit to receive regularly.

One way to figure out how many you

need goes like this: One copy for each organizational maintenance or supply officer; one unit and special, one copy for every three equipment operators; 3-5 copies for your unit's headquarters staff; and wherever is actually needed for schools, boards and field hospitals.

You'll get your copies by mail direct. Send the Form 10-2 to the Adjutant General Publications Center, 2800 Falls on Blvd., Middle River, Baltimore 371, Md. Get it done by 30 Apr 83.

Send all the details on this new distribution to DA Chapter 110-27 (11 Mar 82) "Pinpoint Distribution of Department of the Army and Other Administrative Publications Except Regulations and Circulars."



LIGHT TOUCH FOR AN R-110

Like a baby or a babe, the dial drive assembly on your R-110 radio receiver responds better to a carrier that is a strong hand. Here are the R-108 and R-109.

The light touch is a mass with the direct locking screws and the TUNING Control, a little heavy.



hand-down with these and you can get yourself out of business fast.

The assembly is an expensive, complicated item, and it takes some time for upper station mechanics to get it back to you. Most of the time it has to be replaced completely when one or more of its closely fitted, small parts goes.

If necessary, the direct locking screws (DET. A, B, C), which are distributed to lock. When you feel them engage,

that's it! A little extra force can break the dial drive direct springs.



Before turning the dial, make sure the locking screws are disengaged (unconventional). The direct springs'll go if you force the dial. And never spin the dial. The direct springs keep you from overhauling, and a few dial wind can last 'em up.

Handling the dial and locking screws the right way is just about the difference between your baby coming for hands through your hole . . . or giving it a head rack.

THE R-110 will give you the steps on avoiding trouble, no matter whether your receiver is in the ANTEC-5, 5 or 7; YBC-14, 17, 18, 20, 21 or 22.

KEEP THE IM-98/UD CLEAN

Endevator IM-98/UD is just about perfect, and like a gun it can be mighty clean a reward in protecting you against radioactive hazards.

That ray detector takes only a little maintenance, but when it does, it needs a lot of help—and you're going to get effective use of it.

First off, you've got to keep the charging socket clean—free of water, dirt, moisture, dust and anything else the detector's being in there. A dirty socket makes the detector's electric coil look fuzzy when it should be clear. That is in fact right out of being useful.

A good warning that a detector's overdue is when the leakage is more than three readings a day.

Best way to clean the socket is with alcohol diluted or a mild detergent. Make sure you get it dry. (Use air-drying procedure only!). The protective cap helps keep the socket clean, and the air can't provide protection against dirt and the like, it helps considerably.

Another thing a dirty socket does is keep the radio detector charges OFF-5084/UD for the

THE
IM-98/UD
IS
JUST
ABOUT
PERFECT.
BUT
IT
NEEDS
A
LOT
OF
HELP.



IM-98) from working right.

And don't get careless with the detector—clean, cracks or leaks can damage the inner electric meter and null out your protection.

When you put the detector into your detector charger,



hold the meter real firm till the hook is right. That way you get solid contact.

For emergency charging without the IM-98/UD use TR 502: 328-9 (R Co. 501).



AKSHPYUPKX PAKS H, M'S DYS APPEDES SHPT ODS OR
POTR TPV...GOKS.

Notice, this is no new language—these words, Translated, they mean: "This operator didn't adjust his tele-type motor speed and range dial . . . fast!"

When you don't adjust 'em, not only do you get the same kind of garbled gibberish as these beginning lines; if they happened to be an urgent message from the Old Man, somebody's life might be on the wall.

Motor speed and range dial adjustments apply to every teleprinter with a motor governor—just about every medical telegraph in the field. Adjust 'em right and an emergency trip or field transmission'll be saved. Take no chances with 'em 'em up.



On motor speed—the 60 words, let the motor warm up for a minute or two. Take the set's tuning fork and tap it on your hand to witness it. Look over the dial of the fork detector at one of the white dots on the governor target, and if the dot seems to be wiggly, quit right there.



<p>IF DOT . . .</p> <p>MOVE TO RIGHT, FULL RANGE DIAL</p>	<p>IF DOT . . .</p> <p>MOVE TO LEFT, FULL RANGE DIAL</p>	<p>IF DOT . . .</p> <p>IF TALL, DON'T MOVE RANGE</p>
---	--	--



If the dot appears to be moving in the right, pull the governor warm-up gradually 'til the dot stops. If it's moving left—counter-clockwise—push the warm-up slowly 'til the dot appears to stop. But don't let it return the warm-up to the dot starts to stop, or you won't overadjust. If the warm-up's a little low to begin, use a glass or a tap.



Use your fingers on the warm-up pilot or other tests. Tests have the warm-up on your fingers or those of the next guy who adjusts the motor speed. The cat, especially from the picnic wagon, are painful and take a long time to heal.



If the warm-up just, never try to force it down. Take the teleprinter to your support people pronto, or you won't make a one-for job out of a minute repair.



You will, the letters "RT" when following the RANGE dial. Starting at Pos. 65, turn the dial down 'til the letter starts getting garbled. Stop at Pos. 20. Make a note of the 20, and turn the dial all the way up 'til the teleprinter garbles at the other end of the scale, say Pos. 120. Add the high and low points figures, which make 140, and divide by two. You get 70, which is where you set the RANGE dial for best operation.

On the TT-41 NIBS you've also got to adjust the **ARMATURE** dial (sometimes an offset nut has pre-adjusted). It works the same way the **RANGE** dial does for the other one (TT-41 also has a **RANGE** dial). After getting a steady signal adjust the **ARMATURE** dial 'til the **ST**'s start garbling. Take the high and low figures, divide by two, and set the dial on the divided figure.

If you still get garbled messages after these adjustments, take the set to your support for repair.



Another thing you should remember—make sure the only safety pins for ribbon you use is the one that comes with your set's spare parts. The ribbons for the various sets aren't alike. Interchange 'em, and most of the time they won't work right. It's good to change ribbons when they get a little tight. Doing 'em 'til you start drooping' helps 'em 'cos you don't do anybody any good.



Also, looking at sets or hand-on a keyboard while the set's on (or off) can do many things to action that about the best you'll get away with is bent key levers.



And don't forget your storage equipment every day. Don't use dirt on among the most TT enemies and are high on the equipment list.

NO MORE TK-100/MSQ-18

(Dear Hal)-Max,

TM 11-385-25-20/1 (July 68) for Color Decoder Group 04-1193/MSQ-18 says on page 137 that we used Tool Kit TK-100/MSQ-18 for organizational maintenance. I haven't found any listing of this tool kit, so I don't know what we've replaced it with. Is there any supply manual for this kit, or any listing we can follow?

PFC J. S. B.



Dear PFC J. S. B.,

I can see where you'd be a little confused.

The TK-100/MSQ-18 was the name given to the kit when it was assembled for issue with the first CDG's. It has now been phased down and given the manufacturer Tool Kit TK-100/18, and listed in SMI 11-4-5150-111 (15 Oct 61).

Some changes were made to the kit, so don't be upset if your unit don't line up with those in the SMI. Use the SMI as your authority and bring your kit into line with it.

Hal

FOR COMM CARRYING CASES



Keeping the connectors, buckles and tabs on your carrier cases case slip-proof is no trap, right?

The best to use hardware case carrier is a heavy, even though the carrier bags are stored away nearly most of the time.

To save yourself lots of stress, put a light coat of black enamel on the hardware. You've got to be real real about it to keep the paint off the carrier, of course. But it should last your carrier for a year or so.

CAMERA SHOCKERS



THEY WERE
THE ONLY
PHOTOGRAPHERS
TO GET A GOOD
SHOTS. (continued)

The *Capable Supermatic (N)* shows up on your EM-104 and EM-14(1) camera can cause you a whole lot if you don't have 'em installed before using the EM-1115 electronic repeating flash unit with 'em.

Fast is, the flash unit can energize the camera frame and light you up like a neon sign . . . at once. It's a real shocker.

That's right. MFD 11-4726-129-12(1) 129 July 52L applies only to the EM-104 and the EM-14(1) camera with the Supermatic (N) shutter, providing they haven't been modified by MFD 11-4726-208-05(1) Plus, second or third refresher maintenance people can handle it.

If your camera has Supermatic (K) shutter and the connector contacts for the EM-15—you need the MFD. If it doesn't, go back to step and forget the article.

It's a simple matter of replacing the lens and shutter assembly with Lens, Camera, General Photographer, EM



4760-140-0515. The replacement lens assembly has a special contact for the EM-15. It takes just a couple of seconds to take out the present assembly and put in the replacement.

Check the over-all operation of the shutter after you install the assembly.

And friend . . . don't fiddle with the flash unit just for kicks. You could end up like the contact man.

STEP THREE
CHECK THE
PLUS



STEP FOUR
CHECK THE
PLUS



STEP FIVE AND
SIX THE CONTACT
FOR THE EM-15



STEP SEVEN
THE CONTACT



THE RIGHT WAY—OR NO WAY



One way only—and always.

That's the story on the manual generator that's part of your MX-200/CR modification kit.

They're set up to turn in the direction of the arrow on the side—*cc* cap. While means if you're sitting on the seat properly your right hand should be turning clockwise. (OK, so it's not exactly clockwise.)



It's the easy way and the natural way. But sometimes a lefty—or maybe a jobber—will want to make her back wards. And then he sits there all hunched and nervous, fiddling and jiggling, and wonders why she's not putting out.

The thing is, the generator's all wound up to work only the one way—and any other way not only won't work, it could put her out of which her good.

FOR DESK MIKE CABLES

If Communications Council for AM/FM-TV is your baby, here's something you can do to head off a little trouble.

The cables for the desk microphone M-102/1 have been known to break where they enter the mike mouth.

A standard cable relief spring on each cable at these points will work wonders. If you can't lay your hands on a couple springs that'll do the job, HAM 8075-040-8008 will get you Franconia, electrical cable, from your supplier with.

You may have to make the cable inlet holes to the mike mouth a little bigger in order to get the springs in. You can do that with a small, round file.

You can use the original cable clamps to hold the relief springs in place.



IS YOUR OWN INSPECTOR ON THE JOB?



The only thing more "bureaucratic" than getting caught under an M-1984 shower that won't work is to be the guy responsible for such a "snafu" development.

There's more here than to help keep your facilities run-checked and smiling. Use the ideas doing your daily job according to the

8-SHOWERHEAD BATH UNIT

checklist in Change 1 (May 83) to TM 18-4110-201-10 (Jan 83).

Exfoliate the inside out as a shower—generator, pump, burner and shower pan—can use due everything's OK. There will your maintenance about any defects you find mechanical here is *blue type*. But it's the one yourself—*renew*.

Generator

Could be that your bath unit when an Onan or Hellingworth or some other make of generator. They're all pretty much alike. Use the TM and checklist that come with your unit and give it real good overhauling to them:

BUILT-IN OR—Draw wiring, broken cable connections, etc.



GENERAL APPEARANCE—Mounting bolts, nuts and correct, loose, fuel and oil levels low, fuel lines, wiring/fuel lines, leak, instruments, etc. Don't work, loose, broken, broken electrical terminals, broken, wiring, fuel, wires, cracked, shower top, wires, fuel, or clean dirt, needs oil.

General

GENERAL SETUP—Four locations (See Fig 1) is generator's life, and tracks, equipped daily, ground, and on the level, parts missing, broken, valve broken, indicator plates missing, or reading, valves and levers cracked, worn, not connected right, fuel not used, leaks.

FUEL AND FLOOD—Missing, uncorrected, wrong (Should have 20 from 2004 and by look with authorized dealer's or listed in Appendix II of TM 18-4110-201-10 a change for left)

and and applicable TM 54215 for generator unit.)

ENGINE OILS (FMS)—Missing, broken. Check what you have against the list in Appendix II of generator's TM, 240207 (MARCH)—Generator not provided, be close to heater and shower stands, it's springwater missing, won't work.

See inside covers of TM's for complete list of hazards—and don't forget to page the manual before lighting up.

Water Pump

SECTION LEFT—Too high (shouldn't be more than 10 feet) or short and too clogged, broken, cracked, connections to hose loose or short positioned wrong (should be located on ground or shower or living from a tripod in shower water). See Part 2 app.



WATER PUMP (SECTION 1007)—Check if stop pump.



GENERAL APPEARANCE—Mounting bolts, loose, broken, wires, loose, electric motor, hoses, pump, leaks, missing. Use your a pair of wrench in the primer part.

DRAIN PLUG AND OILS—Drain float, lock open, bolt and threads, worn.

Check the drain plug again after operation to see that it works OK. You want to know if when when not in use.

HOSES—Butter, surface, hose from water supply clogged, cracked, broken, leaks, correct discharge hose to water heater, market, broken, leaks, sock, coupling, coupling badly turned, jacket's missing, springs, wires, etc.



LEVER—Mounting screws loose, glass broken, handle stuck.



CONSOLE, APPEARANCE—Mounting bolts loose, wadding broken, trim loose, dials, gauges, controls and wiring bent up, controls disconnected, fittings cracked, hose, fuel handles broken, loose.

FUEL PUMP—Spills while being started, leaks, mounting legs loose, fittings dirty, cracked, broken, bracket cracked, hoses, filter loose, dirty, fuel supply and return lines leak, not connected right.

EXHAUST VALVE—Broken, loose, leaks.

VALVE MECH.—Sticking or cracked, hoses, filter if wheel damaged, not of 100 psi, starter gear damaged, lower water mounting loose.

WATER PUMP, FAN—Loose connections, leaks, not fitted.



FUEL SUPPLY AND RETURN LINES—Cracked, broken, kinked, leak.

HEATER FAN—Cracked, broken, wobbly.

LOWER MANIFOLD—Cracked, leaks, connections loose.

LEAK ROOMERS—Loose, fitted, broken, cracked.

CONTROL FUELING—Cracked, loose.

WATER-DRIVE S.—Bent, not installed, cracked, mounting bolts loose.

Water Heater

HEATER—Not fit back in tight connection hole while operating, light glass cracked, it does, lower fuel cracked, foot, diaphragm and lower heater hose, combustion chamber cover broken, cracked, not sealed tight, hose, fuel line and fuel wires not connected right.

WATERCOOLERS—Fuel spark right, light glass deeply cracked.

Soak through the ignition light glass while starting. There should be a continuous spark jumping between the electrodes. If the spark comes on and dies the electrodes instead of jumping, it means they're covered with carbon and need cleaning. Turn 20 of the TR key the other way.

HEAT EXCHANGER AND WATER VALVE—Leaky, broken, bent, housing cracked, leaks, won't work.

Check while operating. If the unit doesn't shut off automatically when the water gets hotter than 120 degrees, turn the fuel control valve clockwise and the water should water reheat/boil faster. This will reduce the supply of fuel to the burner.

WATER MANIFOLD—Cracked, pressure, temperature and temperature gauges like connections loose, handle and shower floor connections loose, leak, clamp broken.



WATER CONTROL VALVE—Leaky, broken, leak, cracked, key loose or tight, don't control flow of water to shower drain.

FUEL SUPPLY—Leaky when damaged, hard plug loose, dirty, poor damaged, dirty, adapter loose, dirty.

WATER—Leaks, cracked, broken, gauges loose, regulator wrong.

Temperatures gauge should be between 90 and 120 degrees for normal operation. Fuel pressure should be 2-4 psi when control valve is set in low-fire position and 100 lbs. in high-fire position.



VALVE MECH.—Damaged, won't work. Check while using. It should automatically regulate flow of fuel to burner intake.

FUEL VALVES—Control and shut-off water from firing line, broken, cracked, not used or dirty, don't control flow of fuel to burner block while using.

WATER AND TEMPERATURE CONTROL—Burning damaged, screws loose, won't work.

It should automatically keep the burner from being fired if water's in the heater, and should shut off the fuel supply if water gets too hot (180, not over 120 degrees).

SWITCHBOARD—Wiring damaged, plug cap missing, crooked, shafts broken, cable stretched, not grounded right, 10000 damaged, won't work.

Shower Stalls

SCREWS—Screws slugged loose, don't work right, inserts loose, threads worn, stripped.

WRENCH & BOND ASSEMBLIES—Cracked, broken, slugged loose and loose connections, leg sockets dirty, welds broken, slip trays damaged.

CANVAS BOSES—Cracked, broken, not sealed, covers damaged, loose, get into work, freezing.

LEGS—Bent, cracked, lost, dirty, need joint, feet curbs damaged, not set level.

LOCATION—Poor drainage. Check shower water should be drained away from water source either naturally or by ditching.



General Conditions

Your bath unit'll need "attention" if it's when you're operating in very cold or sandy and dusty areas. When the freeze is on, set up your stall in a heated shelter, if you can, and pay special attention to these:

PIPES AND BOSES—Pipes, joints, connections and valves broken, loose, cracked. Keep loose off from ground as much as possible, using boards, branches, etc.



DRINK TUBES AND FITTINGS—Clean, plug in. (Leave 'em open and the plugs out.)



FUEL TANKS—Fuel low. (Keep tanks full as possible to keep moisture from collecting.)



ALL UNITS—Need draining every time if for you use 'em.

In very sandy and dusty areas, double check these.

WRENCH AND CONTROLS—Covers loose, wires uncovered. (Cover up good for protection.)

FUEL CONTAINERS—Uncovered (has gotta protect 'em every minute.)



Concise Road's BRIEFS



HOOK-UP

The word has been out for some time that AR 9-202 (30 Mar 82) will get you directional signal lights for your military design transport vehicles via local procurement. What some people don't know is that this same AR also gives some technical steps on how the lights are hooked into the vehicle's wiring system. So, before doing a hook-up job give this supply bulletin a close going over.

HEAP SUPPLY

You're to give your supply support unit a DA 1-604 (request for issue and turn-in) form for stuff that's to be consolidated. That's the form supply needs for its consolidating work. (See AR 711-14 your file, Change 1). Now you can just file out DA Form 1149 where it's mentioned in PG 117, page 25.

STRIP 'ER REST

So you get a new M1A rifle, but all the production line? Fine, but take a tip—before you ship 'er down before firing, like it says in Table 1 of TM 9-1004-223-10 (May 81), see sure you thoroughly dry the gas cylinder, piston and gas cylinder plugs before you get 'er back together. Lubo gets in those forbidden places when the M1A's are dipped before shipping. It's lots easier to get it off at the start—before firing turns it into hard-to-get deposits!

EMERAC CALIBRATOR 75-1730/PD (ITEM 6543-710-3499)

Get one around . . . ?

Keep hands-off the "atomic" thing until its back side, front, and side-mission areas are checked for contamination.

If yours checks out hot (where it shouldn't be) send a flash to:

E. L. Army 6th Army
Special Equipment Group
ATTN: 6543-710-3499
Army Chemical Center, Rockwell

They'll tell you how to make a wooden box (with a cover) to encase the emitter for for keeps. Once it's boxed you can handle it safely and you can use it by simply opening the cover.

ISSUE SUPPLY

Change 2 (17 Jan 82) to AR 733-24, "Supply Procedures for TCE Units, Organizations and Non-TCE Activities," is loaded with important info for you supply-types in between with. For example, it supersedes Sections V, VI, VII, VIII, IX, and XII of your supply-bible AR 733-24 (Mar 81) and its Change 1. Also, AR 135-447 (17 Jan 82) supersedes Sections IX and X of AR 140-400. And—AR 140-40 (3 Feb 82) supersedes Sections I, II, III, IV, XI, XII and XIV of AR 140-400.

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

REGISTRATION FOR THE OFFICIAL DISTRIBUTION OF PUBLICATIONS OF THE ARMY IS OPEN FOR THE 1987-88 FISCAL YEAR. PLEASE TAKE THESE STEPS TO REGISTER.

PIN-POINT DISTRIBUTION IS HERE FOR PS MAGAZINE

IT'S ARMY-WIDE AND WORKS EASY AS 1-2-3-



1. Name of the organization	2. Address	3. Telephone	4. Name of the person to contact	5. Title
1. 1st Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 2nd Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 3rd Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 4th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 5th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 6th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 7th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 8th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 9th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 10th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 11th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 12th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 13th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 14th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 15th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 16th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 17th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 18th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 19th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]
1. 20th Cavalry Div	2. Ft. Cav	3. 214-221-1111	4. Mr. [Name]	5. [Title]

- **Mark the DA Form 12-4 how many copies you need each year.**
 - **Mail the DA Form 12-4 to:**
 U.S. Army AG Publication Center
 2800 Station Blvd.
 Ft. Belvoir
 Fort Belvoir, CO, 80145
 - **The AG Center will mail 600000 60-year and the number of copies needed.**
- See AG Center 420-42 24 Mar 88.
 More details on page 52 of this AG magazine.