

Issue 174

PS
★

1967 Series

THE
PREVENTIVE
MAINTENANCE
MONTHLY



THAT'S THE
BEST NEWS...
WE'VE GOT THE
NEW PREVENTIVE
PROGRAM!

YES, FROM
NATIONAL
ALFA ROMEO,
CORP.

WE'VE
NO SPECIAL
ABOUT THE
CONCEPT

VIETNAM
OPTING IN

FIELD-GROWN ADVICE ON YOUR M102 HOWITZER



NEVER GO
ANYWHERE
WITHOUT
THE LUBE
PLU-LUBE.
NO LUBE,
NO TROOP
MOVES!



These M102 105-MM lightweight howitzers are now showing heavyweights where they count.

But, here's your guide to make it work: make sure you're using the right lube in the right way at the right time. You know of Plu-Lube? Well, it's more than a good lube—it's your best friend in the field. You can't afford to let your gun go dry.

Like:



DRY-FILM LUBRICANT:

- Trucks
- Trig. mechanics
- Trig. Platform gear
- Wrench and mechanics
- Wheel supports
- gear parts

MADE OF PLASTIC:

- Breaker fittings
- Cable gas trap



Not a single one of these places needs lube!—and you'd better not forget it! In fact, if you put oil or grease on 'em, it'll cause up-the-belly film lubrication and that'll collect dust and grit that'll show you the gears.

Just keep all these parts cool clean with Cleaning Compound (P301 P304-305-314) ... I got the picture you want—don't mix with anything that can ruin an oil film.

THE CORRECT EQUIPMENT

Consider the fact that you're never out-of-position are protected when you get the covers on 'em. Sure, those plastic-type covers do a good job of keeping rain, fog, dust and the like off these delicate parts ... but they also cover our delicate parts with corrosion.

A lot of water starts that with a good way to fight it: think a good way to

take the covers off every day or two ... dry the covers ... wipe off the water and moisture and dry ... give a sharp look that no moisture's looking into the covers and windows ... and then replace the covers.



KEEP COVER IN BEST CASE DAILY FOR CORROSION

Fast-Tel Counters Won't Count!—Maybe you're trying to drive in high gear when all you've got is low. Your Tel says don't worry, the Fast-Tel counter can crank faster than 150 turns per minute for a very short time or more than 100 turns a minute for continuous movement. Otherwise, you'll damage the counter.



No, slow down, Gunner! The right you were might be your own.

Each turn of the handle moves the sighthead and counters 100 mils, right? OK, so here's the only speed limit for you: For that short run—say, up to 1000 mils—count 1 second for each 2 turns or more 10 for the 1000 mils. For the long run—say, 1000 mils and up—count a full second for each turn of the handle.

Instrument Lights Case—Don't forget the dummy receptacle gets moved out into the occasion. Never just reach in and grab the battery case and pull away. You'll damage the cable and

wire connections. Before you remove the case, unplug the cable and cut off the dummy receptacle.



Gun Correction—Leave the unit connected on the weapon—always. Never take it off for cleaning or anything else. You just might lose the drive and then you'll have trouble.

If you already or know the unit is wrong, you'll get it out of alignment with the traverse—and then you won't get a correct reading with a gunner's quadrant. If this happens, your weapon would have to go to Depot for realignment.



COLLIMATOR

You guys with the M101 are about the best in history to get this fine-control aid. Here're some tips for getting the most out of it:

Remember, the cover's got to be open for operation. If you close the lid with the cable installed, you'll stress the cable to two.

Always set up the collimator to the left and a little to the rear of the horizon like the Tilt doors.



Put a "Tilt" (logs, tape or something) around the collimator to prevent it from being lost—especially after dark. Make sure every gap in the work gets this straight. If you accidentally knock the collimator out of balance it or off or trip over a wire, repair is possible. Don't just let it back in place and forget it. Likely you knocked it off rails or more off course.



You, Gunner—when you're correcting for displacement and the "0" vertical line of the collimator is not stable, make real sure you place the Fine-Tel right exactly on the correct side of the "0" line. Otherwise, if the collimator more than one increasing up and to the left, select a number on the Fine-Tel which is to the left of the Fine-Tel vertical line. Then superimpose it over a corresponding number on the collimator.

Watch out you don't over-tighten the leveling or leveling clamping bands on the rollers or the three leg clamps. They should be just snug enough to hold, but too much pressure will damage the threads. Incidentally, all of these clamps have 2 holes, but only one has a visible screw head.



Stand up, Hay! Never loose the screw. It acts like a stop for the friction clamp—to keep the legs and other parts from moving. Mess with this screw and your millstone's in for a trip to Depot for replacements.



Stay on the Ball—

1. Don't put anything but the stake, especially the metal portion of the clevis, in the machine. The magazine lock located in the motor assembly. Remove the weapon to get a better shot at the stake.

2. Drive it in to the proper depth. For Hay, the screw the top ring should be flush with the top of the stake hole. The top of the stake will not get below moving out, push the top of the stake so that it's flush with the top of the stake hole.

THE STAKE



THE STAKE



When you're replacing your weapon, be sure you drive in all 8 stakes, not just some of 'em. When you're firing, try to maintain the full depth of the stakes. This means you may have to doubleback 'em every so often. Sometimes fire spirit replenishing is needed to get 'em.

And when you're ready to pull up stakes to move on, be sure to remember these simple things:



1. Never try to remove the piston by jacking up the platform. Make sure the piston is pushed down and loose before you raise the platform. If this won't work, remove the platform and then take up the piston. Run 20 of your 40 MM low rate pump slug on the whole deal.

2. If the piston pin or the actuator head could happen to bend, be mighty sure you re-pipe it with another clean pin (MILITARY 107) ... **PLEASE** Never use anything else. This clean pin's safety feature is prevent too much pressure and break up in the actuator gun tube.



BECKI KILLED TWO



WHY I GOT
BIG SUPPLY ...
WHAT NUMBER
YOU NUMBER,
PLUMBITY?



Watch their weight in pistons ... hard to get replacements ... no good 'em like you could 'em.

Master of fix some outfit mark their pin with a number or letter to identify which furnace they belong with. Might be an idea, if your CO' approves.

Here's a couple other things to keep in mind: Keep these pins clean and



loose ... meaning, dip 'em in solvent and press or pull the plunger pin in the same time. THAT'll clean the hole. Then keep 'em lubed—and put some lube in the holes they go into. If a pin gets pushed up, don't pound 'em in with a hammer to make it go in. It'll bend.

If a pin does get bent, because of unauthorized modifications. Remember, using a rotor pin or small bolt to repair or replace a pin could be dangerous. It'd no longer be quick-release.

Remember wires for release pins—don't lose 'em. They're plastic-covered, so when they wear they get stretchy. Be careful you don't lose your hand. Any ordinary piece of wire will do if you have to replace 'em, (some machine shops find a small thin chain makes a good hold fix—using the same old S-buckle, of course, if possible).

The recall assembly several hole pins is one you want to keep real close so that it doesn't freeze. The pin's made of steel and the sleeve locking is gunn through it brass. This could cause some noise because of galvanic action — two different kinds of metal rubbing against each other. So, clean it often. You'll be glad when that big moment arrives.



TRUCK ASSEMBLY

Smart operating tips

Don't use more than the 40 PSI pressure the TM calls for in the roller rim. Of course, if you have the new type roller filled with foam rubber or oxygen foam, you don't have to pressure with PSI at all.



Always use the right prime mover—the 40-ton truck—if you can. This vehicle's pinhole is at the right height to make an easy tow. If you ever have to use any other prime mover—like a 50-ton, F-150, or even a drive shaft drive. The quarter-ton's pinhole is too low. If you hit a bump while moving the MTR, the roller assembly's likely to get out on its own roller rim.

Don't stretch through the pin hole even for a moment, since the hole's not pin so that the frame can rotate. If the pins move too a hard path, at the 40 pin so that the frame can't turn.

HAPE, III

Once again it's height to follow the PSI requirements spelled out in Change 2 to your .11 TM: 40 PSI for transport and 20 PSI for cross-country and tactical.

And stick to the speed limits: 55 MPH for good roads and 30 MPH or less for cross-country. The big danger of long travel with non-fueled dies is that you'll slip the hook when it you hit a bump.

And, naturally, time and money don't it in rough-country. A non-essential rapid occupation's not worth much if the thing ends up with 5,000 miles of gas — you can't shoot that away!

FROM OPS

Round Ends — You've got to tell it to the forward position when firing cartridges with gas or propelling charge. But, get your O's in about taking it forward, forward — or leaving it all empty — when firing cartridges with gas or propelling charge. It's for better.

And don't forget to take the forward at the correct side with it, say, the round ends: use as the round.



How and especially the Chamber — It holds up all material from cartridge case really that, on up. So, after every 1-2 rounds it might get on the way from back and down the entire line and chamber — for good.

Revolving rounds — These don't it in case it. Give it time, but no turning. The gun might come under stress or break-up in the front gun.

Incidentally, don't fire the front gun at least once a month — unless it's quite opening in your case. Work under less and to live you have it you'll have trouble during the breakfast.

In the case taken, if a round gets stuck in the chamber, some gas in the front, back ends — you could use the front gun or the back with some loading. Open it slowly and remove the cartridge case, if you can. Better yet, disassemble what you'll see in your 11 — and follow the steps in a 'T'.



Firing — You maintain pressure, when you pull the trigger, being on to the handle till about the correct pressure is history. Otherwise, the handle could get bent or caught up in the wood.

And look you and the pressure want to be and careful you don't even touch the handle when you're firing. This could throw the weapon off 5 or 10 miles.

Roller Assembly—After every 15 or 20 loads of bring, it's a good idea to pick up the loader and raise the roller assembly a bit. This'll lower the chance of moisture wear on the ballbed gears in the front bearing.



Lowering up and down of the weapon during bring may cause the wear or tear off the track.

Please let the roller assembly sit on soft ground or mud. It'll make bringing hard for you to operate by handwheel.

Incidentally, if the handwheel get noisy after a spell, don't worry about it—at least not when you think and see that they don't bind.



Remember—Always move the loader up during bring so that it won't dig in and get bent or twisted.

And—any time you pick up the loader it change the position of the handbar, put that loader down easy . . . no dropping or mauling. This is another way you could damage those same ballbed gears in the front bearing group.

Lifting—That's where you put those LIFT MARK markings on your M60-100-M80 manual loader to make sure the sling attaching and lifting points



Tool Box—It's for tools, spikes and other equipment needed for operation. Figure when the's done is up with other stuff . . . and then up to clean the cover. You'll love the lid.

Records and Forms—Get TM 10-710 (Jan 60) w/1 Changes in your guide. Tigs 500 in those SER's (SER Form 287's)—that's the best way you can help improve new equipment. But, please, when reporting on SER, be sure to give all the facts on breakage or mal-function—like the rounds or charge fired or cause that is to the cause of the failure.

Pulls—Get 'em, keep 'em, use 'em. Here's the ones you want: TM 9-2011-204-12 (8 Mar 60) w/1 Changes; TM 9-2011-210-000 (7 Sep 60).



get used right during transport and while operation.

TM 745-95-1 (16 Aug 60)—color and marking of crowd machinery—will guide you on this.

ENJOY — YOUR SERVICE
WITH YOUR KNIGHT RIDE

LITTLE
BUT
LETHAL

Is you've been picked to use one of those spanking new M16/M16A1 grenade launchers on your M16/M16 rifle. Congratulations. Obviously you're a guy who can be trusted to handle special assignments . . . with a real special weapon . . . that deserves special care. A responsible type, that's what.

OK, so here's some dope that'll help you keep your weapon ready for those big moments in my granddaddy's life—when the whole country's depending on you. Some of it goes along with what's in TM 9-1005-100-11 Aug 66 and TC 31-18 1 Apr 66 and some of it comes from guys who've already had a lot of experience with the M16. All of it runs your rifle smooth.

Like . . .



SPARE MY MIND

Yeah, if you goof and use the high velocity round for the M75 grenade launcher mounted on the M16 battle rifle (assuming, of course, the word could get past a censor, if not a G.I. . . and, much, that'll go under vehicle weapons, too.

You've got to be real careful 'cause the M75 cartridge—both the 40-MM HE M50 and Practice M50—will chamber in your XM148 M75 lock only



fits in of course, but the firing pin spring may be strong enough to crumple the firing pin!

So, your first bet's to eyeball every round—top, bottom and side—before you load up your launcher or whatever you carry around it. Turn it over every round there's not meant for your weapon . . . and don't let your buddies get it, too.



Here're the things that distinguish the high velocity M75 round from the low velocity 40-MM HE M50 and Practice M50: you have to use its own XM148:

USE THIS...	NOT THIS
	
	
USE WITH YOUR M16 AS USUAL LAUNCHER	USE IN M75 LAUNCHER OR BY REMOVING STRIKING PIN!

Principle — Too large ... redesigned ... revised.

Warning — bending firing pin.

Caution — Firing pin may break, but the fire may be striking!

Warning — Corrosion on end.

INSTALLATION AND REMOVAL

It only takes a couple minutes to put the XM148 launcher on your rifle. Just follow the steps in your TM. But make sure you remove the bayonet, change the handguards, and transfer the sling control and sling from the rifle to the launcher. Otherwise, the rounds will be blocked or deflected when you fire.

Course, you can fix both the side and the launcher after the launcher's been removed. Just watch it that the launcher trigger doesn't get in the way of your side trigger. The best way to avoid this is like so:

When you're going to fix the launcher, keep the launcher trigger extension pulled all the way back and in the down position.



No exceptions. Keep the launcher trigger pulled forward with the handle up.



TIP—Be mighty careful with your weapons when the launcher's loaded and the safety's in the OFFERED position. Fiddling or bumping either the side or the launcher could discharge the grenade.

HEY, ALL THE
HANDLES READY?
BANG, BOOM,
BOOM, BOOM!



THE TRIGGER

Running into trouble when you disassemble/assemble according to the steps in your TMJ OR, here is a couple changes in the procedure that'll ease things for you. You'll find 'em in Ch 1 (Jan 67) on TM 5, 1005-105-11.

TOOLS AND TRICKS

Combination Tool—You'll have either the generic tool—or P39 or Part Number—or you'll have the modified combination tool, which comes under P39 4015-000-0014.



You want to be careful when using either tool to unscrew or hold-rip your launcher, especially when you're working on the firing pin receiver. Watch out you don't damage the critical part of the receiver. Keep them in—like always.

TOOLS

Wrench—If you don't have those ... acquisition 'em right off.

Lock, Opening RTW ...
P39 11 10-44-0440

Lock, Opening, Tool Item.
No Number ...
P39 100-01-1001

Key, Opening Lock ...
P39 1015-41-040



When field-stripping, remember, always remove the case first before you remove the trigger group.



When assembling, remember, the case first must be inserted into the case before you assemble the trigger group. . . . AND . . . the case must be inserted before you install the trigger group.



CLEANING AND LUBING

Never forget, you owe it to your mouth to keep your hardware in A-1 shape — which means clean, lubed (but lightly) and with good maintenance parts. Clean is every time it gets wet, muddy, or dusty.

CLEAN
IT EVERY
DAY! YOU WILL
IT. OR
WASH A WEEK
WITH YOUR
SOAK
IT!



BE INSIDE
PARTS ARE



BE CLEAN
IT! THE ARE
THE ARE
IT IS ARE

BE OUTSIDE
ARE! ARE



BE CLEAN
ARE! ARE
THE ARE! ARE!
IT IS ARE

The big idea is to work the cleaning rod in good with your brush, covering all areas. Then wipe 'em good and dry with a patch to clean rag before you apply the lube.

Really bear down when you clean the firing pin area, too. Clean the threads inside the housing and on the receiver. Make sure you don't leave any rust or grit on those threads. The receiver's made of steel, but the hous-

ing's aluminum. If you get to make the threads with rust or grit on 'em — even one grain — the housing'll get torn up.

You shouldn't have any trouble with case-throwing, by the way. If you use your combination tool carefully.

Incidentally, you can use the end of your cleaning rod to work on the grip lock plungers.



KEEP CLEAN
AND GUN
AND THESE
THREADS.



Loading — Two big notes

1. **Slide on the slide** just specified in your **W**—on all the shell walls, load tightly. It'd be better some time you didn't at all than to use the wrong shell.

2. **Take lightly**—like with a clean rag dampened with **Pf** Special. Use each time when you're like, the **W**'s like a magnet—strong steel and steel ... and trouble, what do you think.

ACTION
REQUIREMENT
BY A GROUP OF
PF.



W — It's a sign of **R**, spend as all possible parts of your sight — the wall go, then you spray, then **W** — once time you then you spray. **W** — I hope so then being.



BE YOUR FRIEND!



Make a practice of checking for cracks, holes, stress wear, lines or missing parts, powder-loading, rust, weak springs and the like every time you take your weapons apart and clean it. This is the best time to see if they're OK. Fix what ever you're authorized to, and get your someone or someone to replace or repair anything else. Just make sure that **hardware's** ready for action at all times!

YOU'RE CHECK THESE PARTS TO PREVENT CRACKS, STRESS AND EXTRACTOR TROUBLES!

LOADING PIN ASSEMBLY—
Dirty, powder-loaded,
threads badly worn.

LOADING PIN—Badly
worn, bent, scored,
rusty, threads worn or
damaged.

EXTRACTOR SPRING—
Bent, broken, twisted,
dirty, rusted. **W**



LOADING PIN SPRING—
Bent, weak, dirty,
rusty.

EXTRACTOR SPRING—
Broken, weak, dirty,
rusty.

LOADING PIN RETAINER
—Scored, badly worn,
threads damaged.

EXTRACTOR— Bent,
broken, score lines.
May time a special
load won't come out
easy, you can't support
dirty ammo or dust-
lar, or the extractor
is too good!



SHOT ADJUST

Remember, you're not allowed to disassemble a single part of the sight assembly—and your armorer can only replace the sight slide spring.

However, if the range elevation setting changes when you fire, or if you can't make an adjustment or change in setting, look for looseness or alignment in the friction bolt. Get Direct Support to fix it—they have the tool for the job.



TIP— tilt the sight up its side for an easier look at the setting. And, remember, you're not to put the sight back all the way forward so that it clears the receiver on the rail.

SHOT TIPS

Keep 'Em Pinned—If the correct pin holding down E-brake mount cap screws gets bent or lost or bent so that you can't get it back, replace it pronto—either with the same-type pin (PNW 1345-266-83-00) or any piece of wire. (A paper clip's too thick, by the way, but stainless wire should be easy to bend by.) Even one leg of a bent pin's better than no pin at all. The E screws will work loose when firing if you don't pin 'em.



Trigger Extension—Keep a watchful eye on it. Make sure it works smoothly, without binding. Especially, make sure it doesn't get bent so that it puts pressure on the rear lever. You can check this like we talked the weapon. Set the safety on B (FBI), then press the rear lever with your finger. It should move easily.

Loose 'Em Not—Just like you field-strip your weapons, do it over a tarp or blanket or something that'll catch any parts you drop. It's a good idea, also, to do this field-stripping in the presence of your buddy, if you can. Two pairs of eyes are better than one for checking the condition of parts—especially those in the firing pin area.



WAG A BENT WAGGY?



Probably not. But you could use the same idea when you're fore-brushing your saws. Right. Choke up on the clearing cut—hold it about 2 inches from the receiver and push it straight back by inch to three jolts all the way through the flash suppressor. Then pull it back all the way out—again in short jolts. Never pull the brush back all after it's gone through the flash suppressor. Do it the right way and you won't burn the rail.

Same idea goes when you're reaming patches through. Run it all the way through the flash suppressor before you start to pull back . . . no matter what size patches you're using—the size for the XM107E (PNM 1000-911-1200) or any large app that you have to cut into 4 equal spaces.



DOUBLE-PLAY COMBINATION

By the way, when was the last time you used a saw?—Max behind, good 'ol Speedy first—checked out your sawpost? Don't know? Can't remember? Then it's due right now for a physical. Get with it! Maxie's the best partner you'll ever have . . . Fill-in.

Here's a couple ways Maxie can clean-up trouble for you:

Any time you run into real trouble



with crud or carbon buildup when you're cleaning your rifle—especially in the bolt and locking recess area—get your sawpost to help you tackle it with P-C-111A carbon removing compound, PNM 0010-620-0010, 1 gal can.



KEEP YOUR CORNER GOAT

Some guys really spoil a play by crashing into the balls and making for 'em. Bumped heads and lost games result.



Some ground rules apply to the carrier and key arrows. If these 3 screws get checked off or loose, run the weapon in to DS. They've got to be replaced and ordered—a mere pop by for DS, but an impossible play for you.



WTF, CORNER. IT LOOKS JUST TO PO.

FOR AN EXPERT HERE...FOR REAL, BOY!



Check for all parts of the upper receiver assembly. If any part gets loose—like the ears around the rear sight—or any part comes loose or bent, if possible, don't you try to fix it—run you, either, Daniel. Turn the weapon in to DS.

And will one more thing, when you're field stripping your rifle you'll be careful not to drop the carrier and key assembly or bump 'em against anything hard. The carrier key heads go very easy—and these won't line up inside the weapon, but, if they do get bent, don't you or your someone try to straighten 'em. That's a dirty one too to handle. Let DS fix 'em.

You're bound to have a good reason if you stay on the ball with your DM.



PHOTOGRAPH BY JOHN

TELEPHONE SET WET?

You say another's working in on your TA-541PT or TA-543PT telephone set and looking out construction?

Sorry. You say that . . .

Your best bet's to have that wet weather on its own ground.

KEEP THE AIR LINES, AIR PIPING AND IN GOOD SHAPE.

TA-541PT
TA-543PT
PHONE 1
PHONE 2
PHONE 3
PHONE 4



TA-541-543-001



If needed an existing jacket is an open invitation for a wet weather only inside the telephone set.

TA-541-543-001

TA-541-543-001



TA-541-543-001



TA-541-543-001



If weather really has you working, tape a little jacket of other get inside the case.

TA-541-543-001



Space is limited, so keep it away from construction or it might work up the telephone and short out the phone set. M.L. 12-1414 eye obstructors are listed in C-5400-E. (Just fill in page 4.00 then 4.00.)

TA-541-543-001



... avoid the panel and having assembly jacket will go a long way in getting off water. If caught up the panel and having one.

When you have the telephone tied to a mast pole, or the like, be sure there's a sag in the WD-117T field wire coming from the leading post. Cover wiring sagged down at the telephone set makes for a rain dripping track that could lead to trouble.



HURRY UP! THAT
TRAIN MUST BE COMING
TO TRAFFIC BY GALSO!

BOOK, BEEP...

YOUR BE EPER



If Charlie dropped around and laid a bunch of mines between the mine field and the rear yard, and you're gun to find 'em!

You've got the right equipment with that standardized mine detector. But you'll have to handle it right on and off the job, if you depend on it to keep you in one piece.

Half of the matter is, that mine detector won't work right on the job if your between-hands can't do it right!

00-00-00 00

FIRST, keep the set in the case when it's not being used. Lay it down, even a few minutes, and somebody's foot will flatten it. If it's being carried in a 10-ton or other set of wheels, using the car gas double—obviously, just one connecting rod throws it on it or one of them over it, and there goes your detector on, wheel!



BE CAREFUL!

SECOND, be nobody here those necessary batteries in the container after use. When the set's taken apart to store, even overnight, the batteries come out.

When left in the case, they start working up-steam, then bubbling a little, then cooking some more, and then dripping chemicals into the case. They walk right in the case, and the handle connects.

Batteries are raised battery case and one carbon wire drawing on.



BE CAREFUL, WHEN SET IS IN!

WASH THE
MINE DETECTOR
SPECIALLY
BEFORE RECONNECTING
COUPLERS!



THIRD, take care of that wiring and cable. Keep it off it and make sure that cable will run the job. They are made for a hard right in the middle of a minefield.

Get your hands
and fingers clean
each time!

KEEP THE PARTY

Don't let your
guests leave!

When your Easter egg hunt is over and Charlie's gifts all gone, you need right away to check your traps over.

If there're mice from bumping into traps, check two things.

FIRST, the rubber bumper around the search head has to be on right. This is the only way. Just any rubber won't do unless special non-toxic adhesive. Clamp it to top of trap bumper in place with a wire guy line until the glue sets. Sleep.



USE THE
PROPER GLUE

SECOND, paint up sides and traps marks and don't worry if it won't stick on the search head. For that you'll use non-toxic paint. The stuff you'll use on a couch or furniture is not, and using it on the detector eye would put the rat out, for sure. Before you paint, take a rag and wipe off all dirt, grease, and moisture.

Then you set up inside the box while the paint and glue dry. Check the modules in your master-transmitter (TM 3-6889-202-11, page 29). Make sure the pins are all straight and the boards of the case clean.

If you don't see the replacement right when applying a module, it bumps



THE BUMPING
MODULE? —
NOT THE
ONE

into the case top and rubs the wrong-panel wall. In use the butt of your hand to run 'em home. That whammy is insurance against moisture leaking into the case top.

When a pin's gone or bent as you run's straight it may, a replacement is the only cure. These modules prong out fairly. If you never touch any of anything before in your life, do be careful of those pin ends.

Another life-saver move is keeping that headlet always protected from wheels and hooves. Moisture inside is bad, dropping it is worse, and somebody who thumps it around is no Charlie's side, not yours.



USE THE BUMP
OF IT

TO HELP YOUR GEAR... HERE ARE SOME REPUTED FIRM'S

ITEM	PHONE NUMBER
Starting kit, like P-111 and P-112	FM 442-742-807
Starting kit, like M-40	FM 442-742-807
Battery, dry, reserve cell, M-1224/2 or equal, Part No. 12240240	FM 402-92-240
Wing burner, burner, standard	FM 442-742-807
Gallon kerosene, standard (see general string)	FM 442-742-807
Insulation, egg, 1/2 in. 100 lb roll	FM 1074-442-1074
Oil, motor, 16, 1 qt	
(Every cylinder engine type includes K-2774-Band/2774-B in stock)	FM rate 442-128-1-1 Part No. 11-2774-B-1
Oil, motor, vegetable base, S-2, 1 gallon	FM 874-742-874

That tape is for emergency repairs only. Cracked or broken wires you have to replace. Otherwise mechanics'll make you.



But whatever you see, remember your ears will play tricks on you with this stuff. That 1000-cycle tone means what's called "audio-tyranny," sets your ear's hair-wiring loops right too much that except the hair tone, even when you take the headset off.

Some people's ears give out on 'em in 12 minutes. Nobody, but nobody can use 'em over 30 minutes and be safe. When that hair gets hypnotized, you could walk right up on a mine too big for 1 Charlie to carry.

The ear's simplest rule says with another option for every 10 to 15 minutes — no more.

CHARLIE'S AMMO

When you capture or find a cache of enemy ammo, hold up before you blow it up. Ring up your unit's Explosive Ordnance Disposal (EOD) guys. Let them take a look at it for its intelligence value. They'll dispose of it for you.



A **CRUISE** IS A GOOD WAY TO see a lot of beautiful places and scenery. They are usually very nice places. You can see the best of the country. You can see the best of the country. You can see the best of the country.

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HANDS OFF



Do you use handi "PC" (computer accessories) hand cranking, huh? Well, better keep away from them. Some are real mean . . . such as one made just like a regular GI hand grenade. You operate the handle which you think is a safety device and POW! You bought it.

**JOE'S
DOPE**

**THAT'S
OIL,
BUDDY!**

SQUEAK



WELL, SURE!

THAT'S ALL I CAN
SEEK TO
DO FOR YOU?

FOR THE
MONEY, I'D
BE GLAD TO
DO IT.

WELL, THE HOUSE OF
DOPE ISN'T IN
MIND BY A LONG
WAY. BUT
SURELY, YOU
CAN GET
THE
MONEY
FOR IT.

WELL, BUT I
WANT TO
SEEK TO
DO FOR YOU
IN YOUR
MONEY.

WELL, SURE!

WELL, SURE!

WELL, SURE!

WELL, SURE!

WELL, IT'S NOT
A SECRET... I'M SURE
IT IS. BUT I'M SAYS
SOMEONE'S OPERATING
BEHIND US!



STOP!
STOP!
STOP!



WARRIOR
BROT!



WARRIOR,
PLenty PLenty
BY AN OLD MAN
NAMED



WARRIOR NAMED
WARRIOR NAMED
WARRIOR NAMED



WARRIOR NAMED
WARRIOR NAMED



WARRIOR NAMED
WARRIOR NAMED
WARRIOR NAMED



WARRIOR NAMED
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WARRIOR NAMED

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WARRIOR NAMED
WARRIOR NAMED
WARRIOR NAMED



WELL, IT'S NOT
A SECRET... I'M SURE
IT IS. BUT I'M SAYS
SOMEONE'S OPERATING
BEHIND US!



STOP!
STOP!
STOP!



WARRIOR
BROT!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!

WARRIOR,
WARRIOR,
WARRIOR!



WARRIOR,
WARRIOR,
WARRIOR!





WELL, YOU'VE GOT TO
CALL THAT BROTHER THE
"FOOTBALL" THEORY!



ALL RIGHT, BUT YOU'VE GOT TO
CONSIDER THE FACT THAT I DON'T
KNOW THE NAME OF THE...



WELL, YOU'VE GOT TO
CALL THAT BROTHER THE
"FOOTBALL" THEORY!

ALL RIGHT?



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WELL, YOU'VE GOT TO
CALL THAT BROTHER THE
"FOOTBALL" THEORY!



ALL RIGHT, BUT YOU'VE GOT TO
CONSIDER THE FACT THAT I DON'T
KNOW THE NAME OF THE...



Dope Sheet



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



KNOW ANY
GOOD MACHINES
WE CAN USE
TO HEAT THESE
CONTAINERS?

WE'LL
INSPECT ALL USED
CONTAINERS FOR
CONTAMINATION.

CLEAN ALL
CAPS BEFORE
REPLACING THEM.

ALWAYS USE
CLEAN ROPS
TO SCOOP OUT
MATERIAL.

USE ALL LEAK
EQUIPMENT CORAL.
DO NOT WORK FOR ALL
FITTING, TEST.

COVER ALL LEAK
CONTAINERS.

PROTECT ALL
MATERIAL THAT MUST
BE CLEANED AND MADE
READY TO BE
USED.

OVERALL, THE
MATERIALS CONTAINERS
SHOULD BE KEPT
CLEAN, COVERED
AND PROTECTED.

WELL, THAT'S
GREAT! LET'S
GET BACK TO BASE
FOR A GOOD
REST. THANKS
EVERYONE FOR
YOUR HELP AND
EFFORTS. WE'LL
KEEP YOU
POST-OPERATION
CHECKS.

THANKS
EVERYONE.

WE'LL
KEEP YOU
POST-OPERATION
CHECKS.

SHIP REPARABLES SHIP-SHAPE



NOTE: THIS
WAS
ABOUT ALL
THOSE
REPARABLE
AIRCRAFT
PARTS THEY
SHIP FROM
OBERLIN
LEHT

LET
ME
KNOW
HOW
THEY
WASH UP AT
OBERLIN DEPOT
THEY ARE
NOT
REPARABLE
ANY LONGER!

MAKE
"BOOMERANGS"
WORK FOR YOU!

Anytime you ship parts be sure they're cleaned, preserved and packed right or they'll go to put in a waste.

Take a carburetor, for example. Fuel left in the chambers will oxidize (mix with air) to form a corrosive residue that runs away the metal . . . you take a \$444 carburetor just sitting there.

But be sure you drain the carburetor and squirt some engine oil (EIL-L-0002) into the fuel passages, according to the prop in TM 55-405-1 (14-Sep-58) on Aircraft engines. SB 18-100 (28-Sep-56) on preservation and packing materials has a good listing of all supplies needed by DE units to do the job.

Pack accessories such as starters, governors, carburetors, fuel pumps and instruments in sturdy containers with plenty of padding on all sides including top and bottom.



PACK
THEM
WITH CARE
ON
PAPER

You'll find the word on using the preservation and packaging supplies in TM 55-200 (16 Dec 56).

One more point before you close the lid on any shipment . . . put in all the necessary paperwork.



KEEP THE GRASS

As the dirt and grass created by clouds of dust on a long job, use a brush to clean all places where dirt might stop your work.

In particular, clean around the top of the 3-cylinder engine control cylinder assembly. There is also a rubber hose, P/N 1486-203, 2004 in TM 51-1530-210-149



1 (see 47) that covers these assemblies to help you in your battle against the contamination. While, MFGO 51-1530-210-20/12 119 keep 600 from the brush on your 19 Model.

He's used to show up in bearings, which is the reason why your maintenance office may increase the frequency of tube jobs.

USE HARDER BEARINGS

How about those 1000 ball race delivered longer bearings, P/N 204-840-613, that run out of grease after a couple thousand hours ... with no grease left to plug a gun (see you)?

No more. You might clean off your copy of TM 716-214-1/1 119 Dec 500 and focus on page 64, para 65. By using a little know-how you can break a modified No. 10- or No. 18 hypodermic needle in the grease gun adapter and give those bearings the needle.

Another way to take the bearings is to use a hypodermic syringe according to the pump in para 7-100, page 7-11 of TM 11-1130-240-20.

If you have the new longer bearings, P/N 204-840-623-1, these tubes are sealed with Alfa-Medison 1455 lubricant and can't be lubed.

ALSO TRYING BEARING

Getting the contamination off the bearings can be a bit of a chore, especially on oscillating bearings such as the 1000 ball race mounted bearings.

GET THE OLD GREASE OUT



The rail nose only makes about a 15-degree angle during operation, which means a lot of grease is there is not being used. It can build up and harden like a rock. Then each time you purge the cavity with new grease the old grease won't budge as your grip bars legs get short-changed. You know what that means—shorter bearing life . . . maybe a broken bearing which doesn't make for a healthy stevedore!



FIXE THE BORN OFF BLANDE

How do you purge the bearing cavity? Well, how about disconnecting the pitch change links on the rear Periodic and rotating the rail your blades 300-degree 2 or 4 times for a real purge job? That's sure, man!



For any good purge job remember to make with the grease gun until you see or feel the old, dirty grease coming out.

Like, for example, be sure you make the larger one on the ovalplate outer ring when you make with the grease gun. Then you know it's greased.

Remember to follow your tube-chains to the boxes, for example, "two alone only" at the rail nose area head will prevent excess MIL-G-10517 from going into the 80° gear box.

PROTECT YOUR EYE



It doesn't take long for an inch-wide machine to come up with solutions to dirt and water problems in an engine, tropical land. You may walked from the inside-out during the dry season and from the outside-in during the rainy season, which means your head is also taking it on the chin.

When it's pouring rain and dogs, get your feet under cover if you can. If you don't have cover, be sure all coverings are closed to help keep water from getting into critical bird parts. Use your all-weather protective covers at the tail pipe, forward cow, glass tube, nose section, forward cabin, aft cabin, main rotor blades, stabilizer bar, rotor assembly, tail rotor blades and tail rotor hub.



Course, when you're operating in wet weather you just grin and bear it. Now, here's a tip on keeping the main generator dry on your T-53 engine.



If break covers, P/N 30048-2044, is locked together with the opening at the top of the generator, slip the cover 180 degrees so that it's at the bottom. This way water won't leak into the generator and short out the works.

REAR FACTS

During the dry season, with those clouds of dust, be sure you've got a good thing going for you—blines!

Here's the number game for equipping your new kid for your Hoop E model T-53 engine air inlet screen.



Screen Mesh Kit, P/N 29-08-014, P/N 29-08-001
for

Screen P/N 29-08-014, P/N 29-08-001

Screen Mesh Kit, P/N 29-08-014, P/N 29-08-001
for

Screen P/N 29-08-014, P/N 29-08-001



Kit
Screen
Mesh Kit



Deergrass, mud and water, followed by a clear rain should do nicely for cleaning the screen mesh and air inlet filters. How often you make with the equipment will depend on the dust kicked up in your area of operation. They should be cleaned at least every 100-200.

You'll find the filter cleaning procedure your D Model in page 5-51 of TM 11-21.20-2.09-20. Remember, this does not compressed air to speed up the drying because it'll damage the Mesh. Let 'em air dry.

You may have the screen mesh on your Hoop E Model, or an air-inlet filter on your D Model to protect your engine from FOD, but they both have one point in common. They collect dirt that has to be cleaned off so part of the engine air intake is not blocked off.



CHANGE CLEAN OR
AIR FILTER
ELEMENTS

WASH-SEE, YOU NEED
ALL THE GUY AT HOUR
COMMAND TO FIGHT THE
ELEMENTS IN RETURN.
THAT'S WHAT IT TAKE TO
BE A HOT WORKING.



So you're a hot pilot now and can school that Huey of yours around with the best of 'em? Right?

Well, you want to play it close to the wire and fly by the operator's manual. Experience, know-up bird parts and special inspections will keep that valuable bird stabilized from the fence.

HOT HOT PLUGS

One of the big maintenance problems is caused by hot starts.

No, when you crank 'er over for start you aren't the exhaust gas temperature gauge. If you get an engine or transmission indication with a rapid rise in RGT avoid the hot start by shutting down the engine rightoff and check for the reason.



KEEP YOUR ENGINE IN THE GREEN



The main reason for putting your Huey during runs for wind is to provide a greater flow of air into the T-51 engine and to prevent the wind from blowing hot exhaust gases back into the tail pipe, causing a rise in RGT and a hot start.

Hot starts can also be caused by an obstruction—rags, paper, grass—in the air intake . . . your walk-around check is mighty important.

Other causes of hot starts are a low battery before you press the master trigger and the voltage drops below 14 volts stop the motor and leave the battery discharged or ruptured, starting hot exhaust valve fails to shut off, or the fuel control is faulty. By-the-book starting procedures are a must.

During your start or maintenance the maximum allowable RGT is 760 degrees C. If you go beyond this temp you start a hot end inspection is needed.

If the RGT goes above 628 degrees C for more than 3 minutes on the T10-L-1, L-2 or L-3H engine you've got a hot start that has to be recorded in the

DD Form 1496(1). After three of these starts a hot end inspection is needed.

But if you record an RGT of 690 degrees C for more than 3 minutes one time on the T10-L-1 or L-3H engine, the following gear the big book.



SAFE HUEY IN HANDS

When you see your chopper down in strange places you've got your hands full looking for level ground, double-check trees and man-made obstructions wherever Charlie left him with.

Well, you want to leave yourself room to maneuver, so when you lower don't back up because you can't see behind you. . . . sure all those blades got chopped up that way! Instead, make your bird and land on where you know the right path is clear.



Check-ups on keeping your bird out of the maintenance shop? Your operator's job is loaded with them.

Remember—there's no oil prices and there's no oil prices. But there's no oil field prices . . . they never read the book!



IT'S YOUR BABY!

Like me, they recognize our yard the way we farm under a big, healthy man, so we can feel their ripple—or lift—our rugged, powerful truck.

As tough and modern as it is, your truck will depend on you, the driver. It's as helpful as a baby against steep driving and maintenance habits.

**NOT GETTING YOUR
COMMUNICATION BY THE HORN?
GET OUT OF A HARDY FARM
ON PA-BUTT AND SEND IT TO THE
FARM CENTER.**

GROUND MOBILITY

If you do right by your truck, it'll care to do the best to help you accomplish your mission, to get out there and back and to give you a few headaches. But your operator and maintenance habits will just naturally backfire—giving you trouble where you didn't have any before and making big problems out of little ones.

Here's the things you can do to keep your truck running—and the damn's back down on you without warning.

Make the best use with and without the engine running, but for one thing, you have to be sure of your own mind to keep it safe.



Wash your fuel filter every day, if best.



A rough-running engine may be caused as something as simple as a clogged air cleaner. Whether you've got the old-type-or-dry-type, your filter has just one important duty—no keep dirt out. But air has to get thru. Your engine can't run without air. This filter needs cleaning or replacing more often in dusty operations.



Inspect valves and fuel-injector lines—look for leaks, deposits about valves, indication of loose valve bearings, loose mounting fittings, any cracked parts like the steering valve handle.



Adjustments—spray any loose spray shafts, any loose air dry tube joints or body gas-line (bleed) connections then 2 drops in 2 strokes, and put any loose seals or cracked parts that will cause a leak.



SPECIFIC MIST... Fuel

Keeping fuel right up to the nozzle can slow on the spot where most air resistance. Clean the hose at gas nozzle and around the filter opening before refueling. Look for breaks or clogged holes in the main fuel service—clean it or replace it.



OIL

Check coolant level at least once daily. Start the day with your oil up to the FULL mark. In heavy operations, check more often and add oil if it drops below the ADD mark. Keep an eye on your oil pressure gauge—a sudden drop means a quick stop to see what's wrong.



COOLANT AND OIL ... IF IT
DROPS, CHECK IMMEDIATELY!
ADD ... ADD ... ADD ...

TIRES

Check your tires in your daily round. Punctures and air loss need to be corrected in the morning or by noon. A tire that is completely flat by afternoon



CHANGING WATER

Even with the pressure cap on your radiator, tropical heat and operating heat storage in engines is a lot of your coolant. Add water (the amount you use fuel, like water, until it's low). Take the cap off slowly so you don't get a scalded of hot water.



Open the cap, hose and any other parts out of the cooling fan. Sometimes heat has collected since the last time it was used by water or fuel.

Run on a lot of water until in your coolant cells for drinking and flushing the cooling system and refilling the 'n' cool before pouring in fresh water. Add corrosion inhibitor (PSC 4842-711-0071, but directly in line in the water or it'll plug your radiator). Use 4 ounces of inhibitor in every 12 quarts of water. Give your cooling system this treatment at least every 4 months and in any use need any more.



A real head case of cooling system consultation may call for use of
dialing required FOR 404-476-1411
TR 082-011 1821-041 tells you what to use and how.



LEAD

The same heat that makes water out of your radiator works at sapping your batteries. Add water again, the closest you can get if the electrolyte's down on the plates.

Specific gravity (SGR) of tropical electrolyte must be between 1.288 and 1.305, like it says in TM 94149-300-01 (Jul 80), the Bible on lead-acid storage batteries. Any higher than 1.325 will make for one much less and cook the waffer out of your battery.

NEVER MIXING
SULFURIC ACID...
POUR IT INTO
WATER! AND WEAR
PROTECTION!

Your standard electrolyte SGR is 1.280 — too strong. But you can make tropical electrolyte by diluting 1 gallon of that 1.280 electrolyte (EIN 6518-10A-511-1) with 1 quart of distilled water.

In case you've found weight tablets and 11.875 specific gravity, instead of electrolyte (1.288 SGR), you can come up with tropical electrolyte (1.325 specific gravity maximum) by mixing 11 parts of distilled water with 5 parts acid.

Do the mixing in an acid-proof container, like glass or hard rubber.

When your battery's filled up with tropical electrolyte, pour a 1-in diameter white spot on top of the battery near the positive post (that's the larger post). Then, anyone checking the specific gravity will know it's supposed to be between 1.288 and 1.325.

Maintain tablets on 2 other big sections of your battery, to keep 'em as clean and dry as possible. Use baking soda (EIN 6830-204-001-8) in water and a brush for a good scrubbing and then lots of fresh water for rinsing. Clean the hold-downs and other nearby metal parts too and keep 'em painted. Match batteries — no more than 2% Specific Gravity points or R.I. with difference.

GLA is good enough for coating the battery connections, but rubber grease (Cleaning Compound, EIN 8830-208-007-9) is even better for handling-off corrosion and blocking moisture.

Tight connections are a must — the battery's got enough applied to already without trying to feed juice thru loose connections.



SPOTS ARE GOOD





OPERATION

All the good maintenance in Vietnam won't do much good if you don't operate your rig right. Here are the main points to watch:



Gear shift — First gear comes first because you're looking up when you take off. Don't put in a higher gear and you'll have a short run in top gear.

HEAVY, HEAVY SUSPENSION LIMITS!

Steer better — If your truck's got a suspension system angle (skewed or straight ahead), your driver's got a big job and needs all the gear you can feed it. To steer far ahead of having the steering better when you pass it — pass fast! All the time, a light truck or a slight setup will have an the wheel slow to a breaker — about a half-rotate — if it isn't steered right away.

Instruments — Every gauge and indicator is mighty important, telling you whether anything's off or giving you a warning if something's wrong. Don't use a good measure before you take off and then worry for minutes while you're rolling.

Air brakes — The air lines on trucks, a real innovation in an emergency. In, if your truck has air, or air over hydraulic brakes, and the distribution system before taking off, so you know you're got air. This air has a sticky mixture to it, remember — your air tanks have to be drained at least once a day. You'll be surprised at how much water can build up in these tanks.

DRIVING

A real pro knows that clutch pedal is not footrest. After he shifts gears, he puts his foot back on the floor. Kicking the clutch pedal will burn out clutch linings in nothing flat. Got the clutch pedal free around your TM with that 'if you see, you're sure leader' for clutch trouble, yell for your mechanic if it needs adjusting.

IT'S A CLUTCH NOT A FOOT REST.

LET UP ON THE CLUTCH E-A-S-Y AND STABILITY—SO YOU DON'T BRAG UP THE DRIVE TRAIN!

READ YOUR...

...METER FOR PROPER DRIFTING SPEED!

IF YOU WANT SEE BURNING SPOTS ON DIRT ...

...!

Oversticking at too high speed can heat your engine parts. In a modified engine truck, Pistonrings, brought in the injection pump will get its place from the deck — and that's a *shut-behind-the-car* for your injection pump.



It's no secret to a good driver to control this, that he should wait until his truck has stopped moving before he shifts from first to reverse or reverse to first — but, believe it or not, some drivers butcher their trucks this way.

Just as bad as shifting from first to reverse for the other way with the clutch out. If you're stuck and can't get out by rocking your truck, wait until the transmission's gears stop spinning and then change gears. With 4-wheel drive or double-sprung, you can get out of some places with a slow, steady pull.

That's not to get too hard on other people. Cracking at an angle puts a strain on the truck and even some special equipment. Don't crack and change the frame and put too things apart.

THESE ARE PROPER WAY!



Even rubber parts and waterproofed canvas can stand only so much battering by heat and moisture. Dues covers and leeches rot, leeching in the dirt and moisture they're supposed to keep out. Insulation cracks and less moisture is to shoot out wires. Mildew is like cancer to canvas and other fabrics. So you clean and repair and replace—as needed.



Trailers need a lot of the same attention trucks get—tires, wiring, lube, paint and leeches. Trailers with air-over-hydraulic brake systems have an air line filter that needs regular cleaning. Open trailers with floor drains should be parked with the drains open so the rain out. Those without drains are parked with the tailgate and doors so water'll run out.



HOLD IT — REPORT IT

Except in a real emergency, stick to your TM, your Maintenance Allowance Chart and your local SER. Small problems can become nightmares if you try to fix or adjust something you don't know anything about.

Look high, low, in, under and around for trouble. Then, if the repair or adjustment needed is not your job, make sure you report it!

Nobody is more familiar with a truck's special behavior than the guy who drives that truck. Although regularly scheduled maintenance services will catch most troubles early, operation in tropical conditions puts a big job on the driver to notice and report problems.

Even if you're not assigned to the same truck regularly, it's your baby while you're the operator. Make sure it's in top shape for the next guy—you'd expect him to do the same for you.



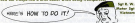


Dear Editor,

Charlie's devious trick of dropping a rubber-headed band grenade with its pin pulled into our feed traps was finally stopped. As you probably know, this type of delayed action bomb blows up some time later after the feed attracts the rabbit and lets the grenade heads fly off.

Our "invention" was made with 2 pieces of 1/2-in. angle iron and a padlock. We put angle iron on the gun cap and got track strip like this.

Place our traps and a little water when being transported.



Sept. 8, '61
 Walter Egan
 Williams



Old Note—The savings on just one blown track would pay for a whole lot of better trap baits!

STAY AWAY

A big bang brings crowds. Just make sure you don't join the crowd when there's been a VC-made explosion in your area. Charlie has the friendly habit of setting up a second charge to go off about the time all the curious knuckle-heads gather to see what happened on the first explosion. Get it? Stay away and you won't.



PHONE 800 347

Before...



FILTER FRESH-UP WORKS LIKE CRAZY!

AFTER



Your HE444 Transo gets sudden surge drags, chokin' up and reeking enough to not taking care as reeking!

The thing is, your HE444 has to get working hydraulic master control circuit and leak breaks-making filter come in 30 working hours after new location

blowing in the dirt's thick and predatory, you'll need new cleaning and more too often.

The right word is in your TM 1-1414-204-12 (Dep 413, pages 120 and 126, Fig. 4). But you don't juggle that allowing access on the brake relief valve. That's done for your replacement or repairs only. See check — it's your work.

CRUISE TROUBLE:

If your rig is just simply choking up on jacking, either the fuel filter or the air cleaner element/canister clogged up.



THE 2-2410-100-12 TALKS TO YOU ABOUT BRACHING THESE FILTERS.

or major overhaul, and every 1,000 hours after that. But if you're here working where there's lot of dust

A quick look at that air restriction indicates under the instrument panel every working can help. It's easy to



forget, but if it seems out-of-sorts your face. Unless you've kept a good schedule on that air cleaner case, you can't be surprised when you change break-making leaks.

The other big player in this drama could be your fuel filter. They're twins, and after a wash-out on No. 1 and no changes change on page 2, you'll need one more check.

What you're looking for here is any fuel-line leaks, with shared joint anything too.

If you should get into heavy trouble and reach a frame on that rig, there is

also, and don't expect your work shop to work in either frame world — except very minor — an one organization.

The another thing is, that frame could be of special engineering need. Wonderful weight-cases, but it also special work on world, and special hardware. It's no job for amateurs.

That next night is T-1, and it has to be hidden, like you looking to get too, and using special low-hydrogen tools that cut 30,000 PSI strength or more.

THE 2410-100-12

One other type trouble you could have is work making your air cylinder. A source job, 1410-1-14 10,200, 1011 (the 413 can help you. Use the list, 1410-1-14 10,200-1012. And if you've found some guys say to switch the air cylinder and air lines, etc — that makes up-to-the Engineer type approach. Besides, the guide place is the 1410-1-14 a better job.

YOUR BAKER 4000 FORKlift...

I-3-3 FOR YOUR

MHE

So where to start? Let's say you look at...

ELECTRICAL SYSTEM

BATTERIES— Easy to check. Fill electrolyte level or diluting, correct, water and covering plates, pins cleaned, dead cells, change or replace them.



SWITCHES— Loose, missing or broken keys or labels, oil.

DISTRIBUTOR— Cap cracked, mount loose, switches clean, brush, check timing.



SPARK PLUGS— Broken, dirty, distorted, cracked, gapped, or worn.



HEADLAMP— Broken, don't work, loose, cracked or damaged, wired.



WHEELS/TIRES— Check, adjust, check at all.

Distribution, you know, have to be fixed before opening doorways and suggest repair programs you get involved at scheduled service periods.

KEEP YOUR LOAD BALANCED!

Tough responsibility with a big job is your Baker 4000 Forklift. Like any heavy MHE, it's work horse if you're on the ball for load things that could cause big trouble later. You must hold the you might call Container PM, or Running PM. As a lumber carrier, it's up.

Running PM means every time you work, stop, or just stand by, you check something. This way you cover the whole rig to ensure those days and you know 'way ahead before small delays grow into big breakdowns.

For it, a sharp eye is one of the best PM tools in the kit. Like when you just walk up to go to work, you could look things over. To help you know what the CMHE's will look about, techniques matched to picture in the PM 150-08 (from 605, the CMHE Handbook, see in bold type).

CAGE — Not working, glasses cracked, needles broken.



GENERATOR — Not changing, voltage up, water level, coils, cracked, wiring.



STARTER — Loose or dirty connections, faulty operation.



COIL — Wires loose, coil cracked, points wet.



DON'T FORGET TO Wipe THAT DISTRIBUTOR CAP IN THE MORNINGS!

In damp, humid places you'll want to wipe out the distributor cap—it collects moisture while parked over night and won't let you start.

COILING SYSTEM



WATER PUMP — Water below water leg, hoses cracked, clamps loose or missing leg, drain cock broken.



WETS — Frayed, cracked, badly worn, missing, deflection over 1/4 inch.



WATER PUMP — Loose, impeller stuck, shaft wobbly.

WATER PUMP — Blades bent or missing, vanes or guard, pulley slipped or broken.



NOW, LET'S
GO ON THE ROAD!



SAFETY BARS — Cracked, bent, broken pins, missing.

WHEELS — Cracked, bent, main cylinder bowed or galled.

KEEP FUEL
CLEAR...IT'LL
HELP KEEP
YOU GOING.

SAFETY BACK SEAT — Loose, missing, worn or gone.

FORKS — Bent, broken, cracked, edges stripped, badly out of line.

WHEELS AND TIRES



TIRES — Too tight, badly out, less than first two-year. (This one you need to watch — that means here's how often you need to check.)



TIRE CYLINDERS — Missing, bent broken, charge low or lost.



LOADS — Badly, too big, unstable, built or broken pins.

LINK POINTS — Missing, missing, broken or stripped.

BEST CHECK
for hydraulic
systems. Look for
two sets of
lines and
fluid openings.

SPINDLES

CYLINDERS — Leaking,
rusty, sluggish or
stalled.



HOSES —
Lines
leaking,
kinky,
bent,
stalled
rolls.



VALVES — Leaky, lock-
ing, sticks damaged.



TIRES — Leaky, mount loose, ball un-
balanced, tire bent, fluid level low.



ADD NOW... ON WITH THE
REPAIRING MANUAL,



HOUSING — Not working.

OIL PRESSURE — Not up to
between 75 to 95 PSI.



ONE PUMP — Judding,
boom, spring break,
pin out.



TIRES — Road gone,
rubber cut through,
punctured, flat, low
pressure.

WHEELS — Loose hub,
tire badly bent.





Get the Latest Pops!



SEAT BELT — Straps, seat 'n' the plug, well.

WINDSHIELD — Broken, won't look, won't hold.



CRACKING CRACK — Be liked, not almost gone, things really bad.

LOVE HIM



WIND SHIELD — Not as likely even, slight rudge replacement, also not really help or broken, nothing cracked.



TRANSDUCER — Looks, low oil level.

CRACKS — Not gone, springs broken, cracked.

BUILT CRACK — Looking at and go on.

REMEMBER! MAKE THE CHECKS WHILE THE CAR IS RUNNING. A SITTING MACHINE! DON'T TELL YOU BACK... NOW, FLY THIS PAGE FOR A GOOD WORK-A-DAY TOP.

11



NOW

Concave Rodd's BRIEFS



Get Air Filter

Oldies is a way of staying inside your Olds Ony (D-16, B, F, G) engine cooling and heating systems work... especially good reason why you want to filter it out of the carburetor induction warm air mode. Check with direct support to see if they have the bits to put on the other side induction air filter as called for in OMD 23-1 210-293-00-14 (29 Nov 64) ... named.

A Natural Bloom

Your M7 field protection mask is not supposed to have a shiny, black face block. So you needn't fret about the powdery stuff (crystalline bloom) you find on the rubber surface. The bloom comes from a built-in preservative used in the rubber. Inspectors agree the bloom is not a defect. On 1-10-64 (40 64) to 23-20-26 set the record straight on the bloom.

Get Your M200 Parts

The new index of Modification Work Orders is DA Form 210-5. To get your copy on preprint distribution, send a DA Form 73-4 to the Army Publications Center, Safford, Fla. It says in DA Circular 210-29 (7 Nov 67).

FLASH! ATTENTION! NOTE!

105-MM GUNNERS: NEED!

Hold it there, you gunners on 105-MM Towed M108 and Self-Propelled M109 Howitzers!

DON'T — DON'T NEED — DON'T WANT TO USE THE LATEST TOOL TO GET A BOUND UNLESS IT'S BEEN TESTED ACCORDING TO THE TESTING PROCEDURES.

What's been tested to get your mechanics to get hold a 7/8-in plug (made out of 2-in cast) called bar stock reduced to 1.613 inches (80), leaving 1/8-in shoulder in the cylindrical and hexagon — opposite the release clearance. This will let the hole straighten the primer just right.

This fix will go fit on M109 comes out to take care of it.

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

WHERE **NORMAL** CONDITIONS ARE **UNUSUAL**...

PREVENTIVE **M**AINTENANCE MUST KEEP PACE.

So, the **USUAL** routine chores must become an **UNUSUAL** program of care and constant checking. **USUAL** things like lubes, seals, paint, coolant, cleanliness, tight connections and careful handling become the **UNUSUAL**! So . . .

GIVE YOUR EQUIPMENT UNUSUAL CARE!!

SEE THE "UNUSUAL CONDITIONS"
SECTION IN YOUR OPERATOR'S MANUAL

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**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

