

PS

THE
PREVENTIVE
MAINTENANCE
MONTHLY

Issue 89
1956 Series

...and lastly of splitting wheel bands
being fifth echelon maintenance
duty shall be performed only by
those charged with same...





Spirit of '76...

Times have changed a lot since the men built it. The tools their foremen took with them to build with them—and you have in 1976—could be their ghosts.

Equipment has changed, but one mighty important thing they did, and you still do, is the same today as it was in 1914. In fact, it's a bigger job now. That's maintaining your equipment.

When the men of 76 had their mud-sucking, mangle-loading, wrenching machines, and wages by transportation, you have the best that can be produced of self-operating weapons, tanks, trucks—you could add lots of things to the list.

And that's where the job gets bigger—maintaining all this equipment so it'll operate and keep operating when the line is down and the ships are down. That's where you come in—to keep your rigs, dump trucks, you or whatever you've got it to-top shape. You do it with lubing, cleaning and the best of looking over and operating.

With the right kind of maintenance you and your equipment'll be ready to carry on the tradition of 76.



"G-A-A-A-S-S-S!!"

A machine as vital to life for your equipment as the standard tools of mining, industrial or domestic work for your laboratory.

If you're mining a mine, or will soon have your feet and hands in the mud, what you do next depends on which machine is your ally.



It's not one of it if you're afraid of its size, your machine.

It's not one of it if you're afraid of its noise, your machine. It's not one of it if you're afraid of its power, your machine. It's not one of it if you're afraid of its price, your machine.

It's not one of it if you're afraid of its size, your machine. It's not one of it if you're afraid of its noise, your machine. It's not one of it if you're afraid of its power, your machine. It's not one of it if you're afraid of its price, your machine.



The main thing is that—keep your head and go on with your machine. General works are intended to keep you from doing your job. The quality of the work you do is your advantage and each you with your power down. Don't let him.

And besides, in the case of vehicles, going on your way is one of the best ways in the world to decompress your machine. The main of the gas the truck or tank will dispose the vapors of gas and will help evaporate liquids. But keep your truck on.

If your vehicle was splashed with liquid, you can make a short stop for enough and steady low-rev-hold decontamination as soon as you're inside the contaminated area. If your situation permits.



WASH INSIDE YOUR SUIT.



WASH YOUR SUIT AND GEAR, FROM THE INSIDE OUT.



WASH YOUR GEAR FROM THE INSIDE OUT OF THE SUIT.

THEY DO THE SAME FOR THE OUTSIDE...



BE CAREFUL WHERE YOU GO TO GET YOUR SUIT OFF.



WASH YOUR SUIT AND GEAR IN PUBLIC AREAS. IF YOU'RE UNABLE TO DO THIS, IT'S IMPORTANT TO REMOVE THE SUIT AND GEAR FROM YOUR AREA IMMEDIATELY. YOU CAN REMOVE SUITS FROM PUBLIC AREAS BY DRIVING THEM INTO TRUCKS.

Be sure the guys getting clean know they have been in a gas attack, so accounts they'll have to take some precautions in unloading and may have to decontaminate the containers before opening them. Naturally, what is done to your load will depend on what the load is, and what the situation is right then. Contaminated ammunition can still be used if the enemy is right on top of you. If there's time, you'll clean it up first. Let the doctor and the chemical officer decide about the rest.





Combat vehicle crews'll have to go right on fighting, and'll have to wait for orders from their commanders as to when they can break off combat and decontaminate their vehicles.

When you've delivered your loads and returned to your unit area, you don't drive into the blowdown area or the drop area with a contaminated vehicle. Stop outside your area, or in the appointed place if there is one, and let your CP or medic sergeant know that your vehicle has been ground. They'll tell you where to take it for neutral

vehicle decontamination, and they'll also tell you where to go to get rid of your contaminated clothing and be checked over yourself.

It may be that your vehicle won't be needed for 24 hours or more, in which case the natural ventilation may very well be enough to decontaminate it without any other action. BUT—you never put a truck which has been, or may have been, anywhere near chemical, biological or radiation contamination back in service without checking it carefully.

CHECK YOUR VEHICLES WITH THESE:

FOR CHEMICAL



CHEMICAL AND BIOLOGICAL DETECTOR KIT

FOR CHEMICALS



PROBE

WIND COUPLER



Whenever it will occur that a chemical agent has hit, or is likely to hit any of its vehicles, the M1 crew will start making plans for decontaminating them as soon as they can be returned to the area. However, they'll continue to protect away from the drops and the blowdown, and if possible open windows from these areas. You don't want to bring in any contamination for the usual blow-off.

HOW TO DECONTAMINATE

There are lots of ways to decontaminate vehicles and equipment. Any one, or any combination may be used, according to where you are and what you have handy. Once hit by a chemical attack, you have to do some fast improvising of cleaning equipment. Remember that decontamination, especially of vehicles, is mostly cleaning.

THE SLAPY WASH
FORWARD WASHES,
REVERSE WASHES OR
FOAM WASH



IF YOU HAVE A SPECIAL
HIGH PRESSURE HOSE,
WASH FORWARD AND
REVERSE OR WASH
OR FOAM WASH



IF YOU HAVE SOAP, WATER
AND BRUSHES, WASH WITH
SOAP WATER OR MAKE
SOAPING SOAP LATHER

IF YOU
HAVE
SOAP
OR
WATER



IF THERE'S SOAP OR WATER
TO BE HAD, AND YOU'VE GOT THE TIME
AND THE GEAR, THE SOAP WATER
METHOD IS THE BEST (SOAK WASHES
THAT YOU CAN GET A WASH)



TO DO THIS, YOU'VE GOT
TO HAVE FIRST A PUMP
EQUIPPED WITH CLEANING
GEL OR SOAPING
GEL, OR SOAPING
GEL, AND YOU'VE GOT

(Remember: Decontaminating a vehicle is the only time you use gasoline for cleaning, like it tells you in TM 3-226, para 3B-72, and be careful about it, take precautions against fire and use it in a ventilated area.)



1. THE BIRD
THE BIRD-GUANO
INCUBATOR
SHOULD BE
IN A SHADY
PLACE.

2. THE BIRD IS
THE INCUBATOR
LID, WITH THE BIRD
AND THE INCUBATOR
SHOULD BE KEPT IN
A SHADY PLACE
AND NOT COVERED.

3. BIRD IS
NOT SHADY
PLACE IN
A SHADY PLACE.

4. BIRD IS
NOT SHADY
PLACE IN
A SHADY PLACE
AND NOT COVERED.

5. THE BIRD
IS NOT SHADY
PLACE IN
A SHADY PLACE
AND NOT COVERED.

6. BIRD IS NOT
SHADY PLACE
AND NOT COVERED.

7. BIRD IS NOT
SHADY PLACE
AND NOT COVERED.

8. BIRD IS NOT
SHADY PLACE
AND NOT COVERED.

9. BIRD IS NOT
SHADY PLACE
AND NOT COVERED.

10. BIRD IS NOT
SHADY PLACE
AND NOT COVERED.

When you've got her down as you can with the net, you're ready to use the D.A.S.C.

THEN RINSE IT OFF

APPLY DANC AFTER YOUR
SHOWER. WASH YOUR
BODY WITH HOT SOAP AND
WATER.



THE LASH OFF REMOVAL
AND TREATMENT REMOVAL
MAY BE APPLIED TO THE
FACE.



FOR A HEAVY, TIGHTEN
OR BRUSHING REMOVE THE
DANC FROM YOUR HAIR.



WASH THE DANC OFF ALL
OVER YOUR BODY WITH
HOT SOAP AND WATER.



WASH THE DANC OFF ALL
OVER YOUR BODY WITH
HOT SOAP AND WATER.



WASH THE DANC OFF ALL
OVER YOUR BODY WITH
HOT SOAP AND WATER.



Although DANC is called non-comedogenic, you've got to remember that it has some waxy oils in it. So use it in moderation.

WASH YOUR HAIR WITH SOAP AND WATER
AFTER EACH USE WITH YOUR DANC ON IT.



WASH YOUR HAIR WITH SOAP AND WATER
AFTER EACH USE WITH YOUR DANC ON IT.





Here are a few ideas which may help you. In the first place, there are men in your unit who are trained in decontamination. They'll supervise the whole job. Let them make the decisions as to what and how the work is to be done.

BE SURE YOU TELL THE DECONTAMINATORS—



If a lot of vehicles from one unit get contaminated at the same time, naturally it'll pay to set the decontaminating up on an assembly-line basis, with a crew at each station doing one phase.



Incidentally, this method of decontamination takes care of Biological Weapons as well as chemicals. In the first place, if you don't get caught in the first heavy spray (that's a suitable word for spray) of a biological attack, you haven't got much to worry about anyhow. On top of that, the washing, and particularly the hot soap wash will take care of any lingering germs.

Radiation? It's quite too simple. If your vehicle is close enough under an air burst to receive any indirect radiation, it'll be damaged anyhow; you won't have to decontaminate it. As for near ground bursts, the trained men will check them out with the click beam before you enter them, and hang up signs in the danger areas.

The same thing goes for radioactive fall-out. Just avoid the posted areas, and if you think your truck is "hot," get a policeman to check it.



Crossie Rod's

1937-1938-1939



Test sets—A and B

Both wonderful! Here you can get Special Test Sets A and B! Wonder no more, Cause here's the basic of them, just like it says in the Chevrolet No. 724-B.

Set A: One per licensed battery or company headquarters of auto store batteries only, and licensed headquarters, when it has a service company.



Set B: One per franchise and regional headquarters (except educational or religious, home service company), service company, authorized battery or company and similar headquarters performing maintenance work for other sets.

All sets should have either an A

or B set, but not both. Churches and unlicensed Set, 4th or 5th Edition sets don't get A or B sets because the sets are displaced in the higher edition sets. However, a set has to be authorized a mechanic to get set A or B.

Operative ready

Keeping these 40 sets means here from from run on your M42 vehicle used to be a big job. Worry no more—a set for makes your job a lot easier and will help keep these hours don't dry.

All you've gotta do is you'll have no more run. It's just your 3114.00 drill out of mouth hole and put four holes in the bottom of the boxes, one in each corner. Cause you gotta remove the boxes and run 'em over to drill 'em. Your troubles are over.



A technical booklet is on the way telling you all about this.

Here's that undercenter

Some of you have been asking about using undercenter on your heavy carriers. Well, you can if the Ordnance Officer will let you. Ask for—

| Special Permits, using 90A, 17A, 17B | | |
|--------------------------------------|------------------|-----------|
| Approved Date Number | Exp. Date Number | Qty. Iss. |
| 60475-1024 | 60-2019-104 | 1 lot |
| 60475-1010 | 60-2019-104 | 1 lot |
| 60-2019-101 | 60-2019-104 | 10 lots |



Lower the boom

Before you move your M4 medium recovery vehicle, always be sure the boom is lowered into correct position and the travel-lock inserted.

You see, whenever that boom is hoisted around by traveling without locking it down, it acts like a big pump handle, and builds up some pretty high pressure in the boom. There are some extra safety valves in the boom-control 4-way valve to prevent things from boom-

ing up, but nevertheless, the boomerang doesn't do it any good.

Whenever you're raising or lowering the boom, be sure to hold your control-valve open until you're sure you've popped the main adjustment relief-valve. The valve'll change and the engine'll speed up when you pop the valve. Only then can you be sure you have the boom either fully up or fully down.



And for protection, don't attempt to make a lift from the boom until it's all the way up and the boom supports are fully set tight. If you do, you run your life to build up excess pressure in the lines, and they may carry away.

No torque feet

Learn word on installing these aircraft-type quick plugs to your tank wagon's engine is that you don't have to torque 'em, just take care to have each plug snug—not too tight, not too loose—just snug. A change in position does it on the way telling you that you don't need to torque 'em any more.

The thing to use is this new plug, part number for all 4N-1700 and

AC26-005 engine. It takes you out with the engine in.

DO NOT PULL STRAPS UNTIL YOU ARE



Take care to avoid side pressure—keeping the waist in line with the plug as you lean forward. These belt-and-shoulder strap you.



"I have choices"

Keepin' those unscrupulous auto-billies and those in long supply around as you can assemble and fall over 'em with those nice 12's is just plain silly.



If you want to do yourself a big favor and keep the stock market boys happy you'll want 'em to do the "reporting order" will know they rate. This way they won't be ordering new cars when it's not necessary. Besides, if you don't, maybe the guy who needs 'em will be borrowing your vehicle, and that's no good.

Many of these unscrupulous auto-billies can be found and put back into service real fast—we let's get on the ball and run 'em in prison.

Light tank edition

You can with the M41, M41A1 and other vehicles of the light tank family can still get free copies of PE Magazine from No. 14 Building Edition, but write to PE Magazine, Eastern Branch, Metuchen, N. J. Tell how many you need, and they'll be sent as fast as the mail goes.



Hold The Heat On Heat—

It's important to inspect your engine's cooling system.



No doubt about it—your engine's cooling system's got a mean-sized job. The close tolerances of your engine should be held within three degrees of operating temperature for best results.

In the liquid-cooled engine, the thermostat controls the heat's lower limit, while the upper limit depends on its radiator, oil and water pumps. Depending on the engine, these water pumps may circulate from 4,000 to 10,000

gallons of coolant an hour—enough to fill an average-size swimming pool in just a couple of hours.

Anything that'll interrupt the flow of coolant can make the engine over-heat. If that happens for only a little while, you're headed for trouble. And one cause for overheating is a bad radiator or heater hose. Just one partly clogged or leaking hose can slow down or stop the coolant's flow.

This shouldn't happen to you. Check the hose closely, 'cause often it may seem OK, but it actually rots away on the inside or it about to crack. Look for these possible signs:



If it feels real soft, it's probably rotting out. This can fill the cooling system with small particles of rubber which can clog and over-heat the engine.

REMOVE HOSE OR DISCONNECTORS AND CHECK FOR
 DAMAGE TO HOSE. REPAIR OR REPLACE AS NECESSARY. (SEE
 MANUAL)



ADD HOSE TO THE END, AND BE SURE HOSE IS OVER
 THE HOSE-TO-CONNECTOR JOINT



USE THE END
 OF THE HOSE
 TO REMOVE
 HOSE FROM
 END OF THE
 HOSE. HOLD
 IN PLACE WITH
 HOSE TIE
 WHILE HOSE
 IS BEING
 REMOVED.



USE HOSE
 TIE TO HOLD
 HOSE IN
 PLACE WHILE
 HOSE IS
 BEING
 REMOVED.

HOW TO PUT HOSE ON HUB

WHEN IT COMES TO HOSES, USE THE
 ONE CALLED FOR IN THE BOOK. NOT
 ONLY MAY THE SIZE BE WRONG
 FOR YOUR VEHICLE, BUT IT COULD BE
 CONSTRUCTED WITH THE SPECIAL RE-
 MANDS OF YOUR ENGINE AND PUMPS
 IN MIND. AND TRY TO GET A NEW

HOSE . . . OUR GEAR MAY HAVE ONE
 FOOT IN THE DRIVE.
 HOSE ARE SOME GOOD-TIPS ON AN
 INSTALLING A HOSE. IF YOU USE THE
 WRONG, NOT ONLY GET A BITTER IN
 INSTALLATION . . . IT CAN SAVE YOU
 TIME AND EFFORT TOO.

USE HOSE TIE TO HOLD HOSE IN PLACE WHILE
 HOSE IS BEING REMOVED.



USE HOSE TIE TO HOLD HOSE IN PLACE WHILE
 HOSE IS BEING REMOVED.



Half-Mort Toys
Batteries Can't Stand
Shelf Storage On—



YOU'LL LOSE Y'R

Also, they've never been charged, but

it's unfortunate, but once a lead-acid storage battery has been filled and charged, it's wasted on its service life, and you can't stop the process. Just try to put one away and charge it when you come back; you're got a box full of plums, but no honey.



This has caused lots of trouble and cost to the people who have to put vehicles in storage, limited storage, or ready-to-use. The National Guard is particularly bad, having an awful time, since they have to keep their fleet available for 90 days a year if need be.

There's no easy answer—and no easy way out of this problem. The only thing that will keep a battery in good condition during storage is frequent recharging, and running the vehicle 10 minutes once a week is **NOT** going to do it.

Here are some ideas on what you might do.

DIRECT CURRENT LINE

The ideal situation would be a truck park which had direct current wired all through it with an inverter, a diode, and a voltage-sensing combination on each vehicle. Both a camp would permit leaving the batteries in the vehicles, would let you keep them constantly charged, and the truck could be started and rolled on a motor's motor. But to



be safe, such a camp requires the constant attention of expert battery men. So it's not practical for most of you under present conditions.





CHARGE

USE A CHARGER

The most handy thing is a battery charger or device to charge more-powerful battery chargers. Stock No. 174-876674. Each one will accept as many small batteries for recharging, charge, and can maintain a charge for 200 with proper use.



This charger is not normally used as a DUM unit, but it is an excellent step into. However, your unit can get out if you show the load, and loss of voltage in storage will maintain the load.

Ask your Customer supply office how to go about getting one. Remember, this charger uses 220 volt, 1 phase, AC. Be sure you're getting this kind of power at your battery shop.



If you don't have enough vehicles to justify getting a big, more-powerful recharger, you can get one or more of the smaller units.

chargers. Stock No. 174-87404. It'll charge six 1.5-volt batteries at a time, or, the smaller one Stock No. 174-87405 will charge three at a time.

Of course, you can use the greatest device battery charger which comes in your second vehicle equipment. But if you have to use this charger to keep up a bunch of batteries in storage for very long, it'll be wearing when you go into the field, and you'll be buying. Besides, an electric charger is cheaper both to buy and to operate.

KEEP 'EM CHARGED

How often you need to charge your batteries will depend on two things: the temperature where they're stored, and how careful and clean you are about charging and filling them. Batteries will



charge themselves when stored, and the rate at which they do is determined largely by the temperature. The cooler, the longer the charge time.

The other thing which affects the average life of your battery is cleanliness. A battery with electrolyte spilled over the cell caps will have constant boiling like every cell the time, its storage on in a vehicle. In you gotta be just to clean and check what they've needed so when they're in your trucks.



Leaving a battery run down and leaving it down will do it no good at all. In you have to keep checking 'em and charging 'em. In the summer check 'em with a hydrometer so low than ever



every 10 days, and in the winter, if your temperature is not too hot, you can let 'em go as long as 30 days.



When you let the gravity of a battery go down to 1.200 in 80°F, that battery should be charged. When recharging, always vent the cells so gassing freely, and vent the specific gravity has stopped rising. A good idea is to check the batteries on charge once every hour, and to then go over to them hours after the fact to be gravity.]

You have to be careful not to let the temperature of the electrolyte rise above 120 degrees during charging; 1,200 can



be regarded as fully charged. If, in this charging and checking, you find a battery with more than 20 gravity points difference between the cells after charging, that battery should be tested in the replacement. It's defective.

TYPE 140 84

Now what if you happen to get battery damaged? That's tough, but it may happen. Almost the only thing you can do in such a case is to send your battery back to your supplying Organization. You don't even let's just stay 'em—they'll eventually deteriorate.



Some people have taken to the batteries from several vehicles on remote sites, and tossed them out to other vehicles instead of new batteries. Then they drive a dry-charged battery to them for the second vehicle.

It takes about 15 hours to be charged to get the dry-charged battery ready to use when needed. If your vehicles are

one or something detached, this is your enemy.

NOTE: In extreme emergency, dry-chloride batteries can be connected without charging, but it is a doubtful matter at best.

WIND-UP TIME

One other question always comes up where people have vehicles to tow. That is the need for a battery in the vehicle, or connected to it, when making the monthly run-up of the towed vehicle. The problem generally stems from a shortage of manpower to install and remove the battery.



Well, here's the answer. A generator (running on the motor), or motor to light a load on the ignition system of a vehicle, is in charge of giving its commutator and brushes. It may revolve the commutator and slip rings. With a load on the generator such as the battery provides, the slight wiring which does not take place on the commutator prevents this.

This usually means, to say the least, wiring is required, but it's easy. The theory is that the little wire (where a gas battery will) runs from the brushes and commu-



tor. This gas acts as a lubricant between the brush and the commutator. Though all the carbon is always touching the copper to take all your current, but the film of gas does make the brushes last much longer. The air also keep the commutator clean by burning off the fine carbon dust.



So it is best to have a battery connected to the system whenever the engine's running. This can be done by making up a few battery runs with bus wires, insulators and connecting them up to the motor to hook on while running down up.

But, if you absolutely **can't** get the batteries, the next, **best** time to do this, you **can** run the truck without a battery.



As you know, some people cannot have quick changes with which they

continually change new batteries they have for sale. Recent experience proves that it is better for a battery to be allowed to discharge, and then get re-charged by approved slow-charging or constant-voltage methods than it is to keep a trickle-charger on it all the time.

It seems that while the trickle-charger will keep the gasses up, it permits the plates to harden, and does not necessarily affect more than a small portion of the total plate area in the battery. Strange as it seems, a trickle-charged battery can be discharged over most of its plates, and recharged in a small portion of them at the same time.



Like with people, proper exercise is essential to good health.

www.tractorbattery.com



**JOE
DYDE**

SOMETIMES IT'S
T.S.™ FOR TANKS

4 5 6 7 8 9 10 11 12



T.S.™ TROUBLE SHOOTING

WOW! YOU'RE THE CREW! "What's that? YOU... pilot, and it's... engine... engine work... engine work..."

FIRST "What's that? engine work... engine work... engine work..."

WOW! YOU'RE THE CREW!

THEY "What's that? engine work... engine work... engine work..."

THEY "What's that? engine work... engine work... engine work..."

THEY "What's that? engine work... engine work... engine work..."

THEY "What's that? engine work... engine work... engine work..."

JOE'S

Dope Sheet

*T.S.
....BUDDY!



TROUBLE SHOOTING

WE HAVE THE WORLD'S BEST EQ

All the best army sergeants we know
Soy **TS** to their tank, driver, too...
When your tank, doesn't tank,
Use your head, not your back,
Trouble Shooting will help make it go.



EQUIPMENT... Take care of it

IF YOU GET STUCK AT THE BUSINESS, AND FUEL IS NOT REACHING THE CARBUETORS...

DO THIS

Check fuel lines...



TEST PUMPS...

FOR VALVES AND SPRINGS

IF THE FUEL PUMPS STOPWORK...

IMPROVE THE FUEL PUMP INPUT LINE...

IF FUEL IS THE LOWEST AT THE FUEL PUMP COYLER, you have to check the CARBUETOR INPUTS. Check the FUEL PUMP TO-CARBUETOR LINE FOR CRACKS AND SLANGING...



YOU ARE IN FUEL IN DELIVERY AT THE COYLER, PUT SOME OF THE FUEL PUMPS...

...LIT UP, CHECKING THE FUEL AND SPRINGS, AT THE PUMP COYLER, YOU SHOULD BE THE FUEL PUMPS LINE...





SEE - HAW

Dear Half-Mast,

Some of our drivers who have been doing night driving have asked how they can get directional signal lights for the vehicles they actually need them.

Can you give us the answer?

Cpl. C. B. Q.

Dear Corporal C. B. Q.,

Looks like your directional signal lights for commercial-type vehicles will have to be secured by local purchase program funds—and that's where the rub comes in.

First of all, they'll be for commercial-type vehicles only. And you can't get any until you get the word from the commanding general of your camp or command. AR 715 110-10 gives the general dope.

Now, for tactical-type vehicles, you're up a tree. You won't be able to use commercial directional lights since hooking them up would ruin your waterproof electrical system.

There'll soon be MWO's covering directional signals for both tactical and commercial vehicles, but for now you'll have to use your crazy horn signals. Which are OK for daytime operation, but for night driving you need to be

mighty careful. So, why not wait till the road is clear before making turns? Tap your brake pedal to flash your headlights



to warn the ones behind you to slow down so you can turn.

Half-Mast

PUT 'EM TOGETHER

Dear Half-Mast,

Could you give me the publication which states that vehicle storage batteries are to be date stamped when put in service?

WOLFG N. O. O.

Dear Mr. N. O. O.,

SS 5-75 (15 April 61), paragraphs 4, 5 and 6, is what you are looking for. But you'd better bring it up to date with change No. 1 CH Det 1-65 which says 2EM and 2TW batteries will have the service date stamped into the battery case on cases adjacent to the negative

1 - I received post as shown in figure 1. A metal stamp, dimensions size 1.50 in or 3/16 in., will be used for this purpose.



Half-Mast

SB-1000

Dear Half-Mast,

My SB 10-1 says SB-1000 is available in seven-top cases, both in the green and yellow cases. Yet we can get nothing but the metal case, also, the metal number listed in the SB for the green six (with) with the metal number in the SB, K-1.

Is there is or is there isn't any SB in seven-top case that'll enable us to show left over all safely?

SAC, L. J.

Dear Sgt. L. J.,

Forget what it says in the SB. It missed the fact we don't need all. Word has it that seven-top case will be used in the future but there's none in supply now.

Like it says in PB 24, the thing made is in reputation a precautionary all-Ming can from SB, 1-141. It's Ord Stock No. F41-741 214. Use it to keep your left over all clean.

Half-Mast

WHAT FOR REASON?

Dear Half-Mast,

The latest Ord 7 SB, G-363 arrived here a couple day and we were shocked to learn that the check, amount type for 20-000 guns, is not listed. It's most interesting. Kindly help us figure "Bingo"

J. R. E. G.

Dear Lt. R. E. G.,

There are supply manuals now will show you if you don't want 'em. If you have the latest Ord 7 SB, G-363 (Aug 54 15-6) you'll find the check, amount type, 1 Federal Stock No. 1141505) listed on page 40. When ordering the check use Ord Stock No. 10412-1141505. You shouldn't have any trouble standing up a few to replace your old ones.

Half-Mast

SCHEMATIC

Dear Half-Mast,

What's wrong with the schematic in these M148 manuals? You can't shift 'em much a rider's case.

Whoever recommended that thing didn't know his shift from gear apples.

Ally H. D. C.

Dear Sgt. H. D. C.,

What now - steady, Stey? There's nothing wrong with that new clutch in the M148. It's your old friend from the M48) tank, and you know it gave good service there.

Of course, nobody doubts that it takes a driver to handle one of 'em. A 15-000

tractor's not a child's toy, so keep it like one of us.

There's one night to driving this machine which may give your boys some trouble until they know how it works. You've got a drive-shaft-broke which is applied when you shove the clutch pedal all the way down. That stops the drive-shaft and the transmission-input-gears and lets you shift into low or reverse when the tractor's standing still.

Now you're moving, you don't shove the clutch pedal quite all the way down, and if it sticks you double-throw. If the clutch is adjusted right, you won't have any trouble.

Here's your linkage adjustment. You pull the pin from the clutch end and adjust the clevis until you have 1-1/2 in. free-throw.

The clutch lever-adjustment is measured with the clutch assembly installed on the flywheel. The distance from the top of the pressure-plate-cover to the drive-bolt-head must be 1-1/8 inches, and all of 'em must be the same or within 1/16 inch.

Also, you check the cone drive-plate-screws. These should be torqued clockwise until they loosen lightly, and then back 'em off four notches.

Thereal, and believe it, when the clutch is adjusted right, all you have to worry about is getting the driver checked-out. The tractor will do just

DISCOVER WITH!

Dear Half-Meat,

"What is the purpose of the groove above the top compression ring on the top piston?"

Cpl. A. W. K.

Dear Cpl. A. W. K.,

That groove is called a "lean dam". As it fills up with carbon it keeps some of the heat of combustion away from the low compression ring. This increases



the life of the low ring. At the same time, by breaking the weight side of the piston, this groove tends to reduce the tendency to scuffing.

Half-Meat

Half-Meat

CAGED SLICER.



Dear *Play-It-Safe*,

I like our M&E member's strange-sounding laundry list. Ever since Ed Cavaler (65, 1994), revealed M&E (744, 76), and did away with the safety shield, he could be dumb enough to rest his arm on the beam (and when the beam's up, that's just a tickle) or to take it away when it goes lowered. (Never taking your hand; do right hand now? Does your left is doing, What do you suggest we do?

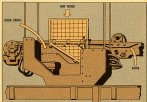
SFC H. B. W.

(The Cross-Operator)

Dear SFC H. B. W.,

Like the barmaid said, "Keep your hand to yourself." There's a new M&E

on its way with a better design. This new shield is a hinged affair that'll swing up and lock in place when the beam's in use and down when the beam is retracted. This is to keep the shield from sticking out like a sore thumb when it's not needed. Speak to your Ordnance support unit about getting yours put on.



ARMAMENT

Spreads up to Make a Hit With Your Team ...

FIRST-ROUND



1. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY. THE MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



2. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



3. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



4. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



5. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



6. **THE** TURRET'S MAIN BODY IS MOUNTED ON THE TURRET'S MAIN BODY AND THE TURRET'S MAIN BODY.



KNOCK-OUT

Is what you'll get, when your M48 tanks fire-control set-up is on-the-ball...



THE JOB OF RUNNING THE SYSTEM IS DONE BY THE...



COMMANDER



GUNNER



LOADER

ONE...TWO...THREE

Once the crew and system are set for action, this is how the team usually works. First the commander announces the type of ammunition to be used. The commander then calls out the target and gets its distance with the range-finder. In ranging-on with the range-finder, that instrument automatically sends the range data to the computer.

When the gunner sees the type of ammo being used, he manually "sets-in" the information into the computer. Having all the necessary data, the computer figures out the super-elevation and sends this data via the ballistic drive into the lines of sight of both the gunner's periscope and the commander's range-finder. When the gunner pushes the reset button or the commander flips his computer-control switch,

At the same time the gunner aligns the gun tube and places the periscope aiming cross on the target. Then she's ready to fire.

WITH THE M48'S NEW WEAPONS CONTROL SYSTEM, THE M48 IS THE MOST ADVANCED TANK EVER BUILT BY MAN.

A simple, step-by-step
checklist of things
to do before you
start your
fire-control
work.

GET READY

BEFORE LEAVING
THE READY POSITION,
BE SURE YOU
HAVE IN THE CONTROLS
THE NUMBER OF THE
MILES TO BE SET.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BE SURE
THE
MILES
ARE SET
CORRECTLY.

BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.

BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.



BEFORE
STARTING
FIRE, BE SURE
THE
MILES
ARE SET
CORRECTLY.

If you find any of your fire-control units are out of whack . . . out-of-tolerance . . . and speaking of that, if any part of the fire-control system isn't working right—don't throw up your hands. It may need only a little repair job to give you what you want. Tell Ordnance about it.

THE NEW THE
CYCLOPS
REPLACES THE
EYE. NUMBER
ONE. A LOT OF
THE NEW THE
CYCLOPS
REPLACES THE
EYE. NUMBER
ONE. A LOT OF
THE NEW THE
CYCLOPS
REPLACES THE
EYE. NUMBER
ONE. A LOT OF

GET SET



BE SURE YOU'RE USING THE BEST LENS FOR THE JOB. THE CYCLOPS HAS SEVERAL LENSES TO CHOOSE FROM. THE BEST ONE DEPENDS ON THE TYPE OF TARGET YOU'RE SHOOTING. ALWAYS USE THE BEST LENS FOR THE JOB.



THE NEW THE CYCLOPS HAS SEVERAL LENSES TO CHOOSE FROM. THE BEST ONE DEPENDS ON THE TYPE OF TARGET YOU'RE SHOOTING. ALWAYS USE THE BEST LENS FOR THE JOB.

STANDARD SYSTEM



THE NEW THE CYCLOPS HAS SEVERAL LENSES TO CHOOSE FROM. THE BEST ONE DEPENDS ON THE TYPE OF TARGET YOU'RE SHOOTING. ALWAYS USE THE BEST LENS FOR THE JOB.

THE NEW THE CYCLOPS HAS SEVERAL LENSES TO CHOOSE FROM. THE BEST ONE DEPENDS ON THE TYPE OF TARGET YOU'RE SHOOTING. ALWAYS USE THE BEST LENS FOR THE JOB.



STANDARD SYSTEM
STC 4.4

THAT INTERNAL CORRECTION SETTING...

THEY WANTED TO
HAVE PROTECTION
FROM THE SUN AND
WIND AND RAIN
AND THE OTHER
THINGS.

AT THE START TO GET THROUGH THE HARD PART
THEY MADE THE CHIMNEY TO KEEP THE WIND,
WINDS WOULD BE IN CONTACT THE SUN SO
THEY COULD GET IN THE WINDY OF THE
THE WINDY AND WINDY OF IT WIND.



IN THE END THE SUN A CHIMNEY TO PROTECT THEM
BY KEEPING THEM IN CONTACT WITH THE WIND.



BY THE END THEY WERE IN CONTACT WITH
THE WIND.



THEY WERE
CONSIDERING
BY THE END
THEY WERE
IN CONTACT WITH
THE WIND.



THEY WERE
IN CONTACT WITH
THE WIND.

THEY WERE
CONSIDERING
BY THE END
THEY WERE
IN CONTACT WITH
THE WIND.

THEY WERE
CONSIDERING
BY THE END
THEY WERE
IN CONTACT WITH
THE WIND.



THE COMPUTER



Using the control console, the man
communicates with the computer.
The man must see that the data
has been correctly interpreted and
that it will be accurate and the
programming.

The computer
stores the
data and
calculates.

To use the computer, the
operator must first
communicate with it.

The computer stores the
data and calculates the
results. The operator must
see that the data is correct and
that the computer is working
properly. The operator must
also see that the data is
correct and that the computer
is working properly. The
operator must see that the
data is correct and that the
computer is working properly.

ON YOUR MARK... BORESIGHT

1 THE NEW YORK
ON WHEELS BEARING
DOWN THE ROAD,
RESEMBLING A
MOUNTAIN RANGE,
WAS THE FIRST
TRUCK EVER MADE.



2 THE FIRST
WHEEL OF THE 1
WAS MADE FROM
WOOD. TODAY'S
WHEELS ARE
MADE OF METAL,
AND THEY CAN
WEAR IN 100 MILES.



3 IN 1871, THE
FIRST TRUCK WAS
MADE OF IRON. IT
HAD 12 WHEELS
AND A STEAM
ENGINE.



4 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.

5 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



6 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



7 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



8 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.

9 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



10 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



11 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



12 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.

13 THE FIRST
TRUCK WAS
MADE OF IRON.
IT HAD 12 WHEELS
AND A STEAM
ENGINE.



ING... ZEROING...

AFTER YOU'VE
REMOVED OBSTRUCTIONS
AND ADJUSTED
ACCURACY SET
SCREW THIS:

1. WITH THE SCREW KEY, SCREW THE SCREW DOWN THE SCREW TIGHTEN DOWN TO SET THE SCREW KEY TO SET THE SCREW.



2. SET SCREW KEY
DOWN TO SET TO SET

WITH A SCREW KEY
A SCREW TO SET
TO SET



1. WITH THE SCREW KEY, SCREW THE SCREW DOWN THE SCREW TIGHTEN DOWN TO SET THE SCREW KEY TO SET THE SCREW.



2. SET SCREW KEY
DOWN TO SET TO SET



3. WITH THE SCREW KEY, SCREW THE SCREW DOWN THE SCREW TIGHTEN DOWN TO SET THE SCREW KEY TO SET THE SCREW.



4. WITH THE SCREW KEY, SCREW THE SCREW DOWN THE SCREW TIGHTEN DOWN TO SET THE SCREW KEY TO SET THE SCREW.

WITH A SCREW KEY, SCREW THE SCREW DOWN THE SCREW TIGHTEN DOWN TO SET THE SCREW KEY TO SET THE SCREW.



ENGINEERS



HEROES REPAIR PARTS

Dear Sgt. Dwyer:

What's the part number for the alternator on a Mercedes engine Model JXL 422B? The engine's used on our general purpose, 12-ton, mobile shop trailer (Caterpillar engine model, Serial #11, Serial No. 5810795-008-000.)

It's tough to get part or find part numbers for this engine since we have no TM or Eng 7 for it. The manufacturer's manuals we have don't help much as far as ordering repair parts is



concerned. Can you give us up the right spare parts catalogs and TMs for the JXL 422B and also for the Cater trailer?

Sgt. R. J. W.

Dear Sgt. J. M.:

If your engine's thermostat is manually operated, the item you need is Code 847, Eng Part No. 4716.

If it's automatic, ask for Automatic Radiator Thermostat "Radiator" (Engine) Code 857, Eng Part No.

CG71-4. You can get 'em when your regular Engineer supply channels (from the Engineer Spare Parts Supply and Tech Control Office, Columbus 16, Ohio).

The TM and Eng 7 and 8 for the Cater Shop-Kit #1 are in the file. So's a TM for Mercedes J1 and J2L series engines which will cover your JXL 422B engine. (This TM'll give you maintenance help, but it won't carry info on standardized basic parts.) Keep an eye on "The Knowledge" section in PI for the release date of these publications.

The manufacturer's manual can be used in place of the TM and/or Eng 7 and 8. You can ask for copies of: Cater Manufacturing Company Form #R1091 MEM "Loading and Parking List" and the Cater instruction manual for the Shop, Mobile, General Purpose, 12-ton Shop-trailer assembly, Ser No. 1, Cater Type MED-Norcan engine; then manufacturer's manuals like in copy in par 31c(2) of SR 711-15-1 (2) Jan 54) "Tech Control." For your maintenance help, request EC's 5-9126-1, 2, 3, and TB 3-9126-1 through your publication channels.

Sgt. Dwyer

SHIFTY AXLE



Dear Sgt. Dozer:

The electric gear-shift motors for the two-speed axles on our M41, M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M108, M109, M110, M111, M112, M113, M114, M115, M116, M117, M118, M119, M120, M121, M122, M123, M124, M125, M126, M127, M128, M129, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144, M145, M146, M147, M148, M149, M150, M151, M152, M153, M154, M155, M156, M157, M158, M159, M160, M161, M162, M163, M164, M165, M166, M167, M168, M169, M170, M171, M172, M173, M174, M175, M176, M177, M178, M179, M180, M181, M182, M183, M184, M185, M186, M187, M188, M189, M190, M191, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211, M212, M213, M214, M215, M216, M217, M218, M219, M220, M221, M222, M223, M224, M225, M226, M227, M228, M229, M230, M231, M232, M233, M234, M235, M236, M237, M238, M239, M240, M241, M242, M243, M244, M245, M246, M247, M248, M249, M250, M251, M252, M253, M254, M255, M256, M257, M258, M259, M260, M261, M262, M263, M264, M265, M266, M267, M268, M269, M270, M271, M272, M273, M274, M275, M276, M277, M278, M279, M280, M281, M282, M283, M284, M285, M286, M287, M288, M289, M290, M291, M292, M293, M294, M295, M296, M297, M298, M299, M300, M301, M302, M303, M304, M305, M306, M307, M308, M309, M310, M311, M312, M313, M314, M315, M316, M317, M318, M319, M320, M321, M322, M323, M324, M325, M326, M327, M328, M329, M330, M331, M332, M333, M334, M335, M336, M337, M338, M339, M340, M341, M342, M343, M344, M345, M346, M347, M348, M349, M350, M351, M352, M353, M354, M355, M356, M357, M358, M359, M360, M361, M362, M363, M364, M365, M366, M367, M368, M369, M370, M371, M372, M373, M374, M375, M376, M377, M378, M379, M380, M381, M382, M383, M384, M385, M386, M387, M388, M389, M390, M391, M392, M393, M394, M395, M396, M397, M398, M399, M400, M401, M402, M403, M404, M405, M406, M407, M408, M409, M410, M411, M412, M413, M414, M415, M416, M417, M418, M419, M420, M421, M422, M423, M424, M425, M426, M427, M428, M429, M430, M431, M432, M433, M434, M435, M436, M437, M438, M439, M440, M441, M442, M443, M444, M445, M446, M447, M448, M449, M450, M451, M452, M453, M454, M455, M456, M457, M458, M459, M460, M461, M462, M463, M464, M465, M466, M467, M468, M469, M470, M471, M472, M473, M474, M475, M476, M477, M478, M479, M480, M481, M482, M483, M484, M485, M486, M487, M488, M489, M490, M491, M492, M493, M494, M495, M496, M497, M498, M499, M500, M501, M502, M503, M504, M505, M506, M507, M508, M509, M510, M511, M512, M513, M514, M515, M516, M517, M518, M519, M520, M521, M522, M523, M524, M525, M526, M527, M528, M529, M530, M531, M532, M533, M534, M535, M536, M537, M538, M539, M540, M541, M542, M543, M544, M545, M546, M547, M548, M549, M550, M551, M552, M553, M554, M555, M556, M557, M558, M559, M560, M561, M562, M563, M564, M565, M566, M567, M568, M569, M570, M571, M572, M573, M574, M575, M576, M577, M578, M579, M580, M581, M582, M583, M584, M585, M586, M587, M588, M589, M590, M591, M592, M593, M594, M595, M596, M597, M598, M599, M600, M601, M602, M603, M604, M605, M606, M607, M608, M609, M610, M611, M612, M613, M614, M615, M616, M617, M618, M619, M620, M621, M622, M623, M624, M625, M626, M627, M628, M629, M630, M631, M632, M633, M634, M635, M636, M637, M638, M639, M640, M641, M642, M643, M644, M645, M646, M647, M648, M649, M650, M651, M652, M653, M654, M655, M656, M657, M658, M659, M660, M661, M662, M663, M664, M665, M666, M667, M668, M669, M670, M671, M672, M673, M674, M675, M676, M677, M678, M679, M680, M681, M682, M683, M684, M685, M686, M687, M688, M689, M690, M691, M692, M693, M694, M695, M696, M697, M698, M699, M700, M701, M702, M703, M704, M705, M706, M707, M708, M709, M710, M711, M712, M713, M714, M715, M716, M717, M718, M719, M720, M721, M722, M723, M724, M725, M726, M727, M728, M729, M730, M731, M732, M733, M734, M735, M736, M737, M738, M739, M740, M741, M742, M743, M744, M745, M746, M747, M748, M749, M750, M751, M752, M753, M754, M755, M756, M757, M758, M759, M760, M761, M762, M763, M764, M765, M766, M767, M768, M769, M770, M771, M772, M773, M774, M775, M776, M777, M778, M779, M780, M781, M782, M783, M784, M785, M786, M787, M788, M789, M790, M791, M792, M793, M794, M795, M796, M797, M798, M799, M800, M801, M802, M803, M804, M805, M806, M807, M808, M809, M810, M811, M812, M813, M814, M815, M816, M817, M818, M819, M820, M821, M822, M823, M824, M825, M826, M827, M828, M829, M830, M831, M832, M833, M834, M835, M836, M837, M838, M839, M840, M841, M842, M843, M844, M845, M846, M847, M848, M849, M850, M851, M852, M853, M854, M855, M856, M857, M858, M859, M860, M861, M862, M863, M864, M865, M866, M867, M868, M869, M870, M871, M872, M873, M874, M875, M876, M877, M878, M879, M880, M881, M882, M883, M884, M885, M886, M887, M888, M889, M890, M891, M892, M893, M894, M895, M896, M897, M898, M899, M900, M901, M902, M903, M904, M905, M906, M907, M908, M909, M910, M911, M912, M913, M914, M915, M916, M917, M918, M919, M920, M921, M922, M923, M924, M925, M926, M927, M928, M929, M930, M931, M932, M933, M934, M935, M936, M937, M938, M939, M940, M941, M942, M943, M944, M945, M946, M947, M948, M949, M950, M951, M952, M953, M954, M955, M956, M957, M958, M959, M960, M961, M962, M963, M964, M965, M966, M967, M968, M969, M970, M971, M972, M973, M974, M975, M976, M977, M978, M979, M980, M981, M982, M983, M984, M985, M986, M987, M988, M989, M990, M991, M992, M993, M994, M995, M996, M997, M998, M999, M1000.

The motors seem to be water-proof. For one we checked that water standing on it. And one of the motors worked out completely on a track with just 1/2 inch of water.

Do you think the rest was caused by contamination due to lack of maintenance while these tracks were in storage, or aren't the motors as water-proof as they might be? After all, they're located near the differential where they get splashed.

L. F.

Dear Mr. C. F.:

These motors are meant to be water-proof. Under normal operating and storage conditions, however, water has gotten by the two over-pressure electric systems.



This vehicle has been cleaned up in recent production of these assemblies. You can make these units waterproof by applying petroleum or a similar compound.



On the track that gave you trouble at 140 miles, had you drained the tank and put in a fresh supply before sending it out on its rounds.



Make sure the shift assembly is screwed tight to the differential axle so water won't seep between the shift housing and its rubber diaphragm.



Also, the rubber diaphragm must have its spring retainer in place and fit tight against the shift fork on axle ball-charge, won't get through from the axle-haul assembly on the shift assembly.



Check your equipment's manual. The Eaton Manufacturing Co.'s, Inc., Box 4-57 12-50, will give you all about these electric shift assemblies.

Sgt. Dozer



Help Your Engine—

Manufacturers don't do anything better on a hot summer day than to crank out the trade and rip-a-tail gags.

Sure, that's true, but what about your engine that's working right now, and maybe longer, under a boiling sun? It can't plug down in a lawn chair and guzzle a gallon or two. It's depending on you to keep its cooling system well watered.



There are several things you can do to make life easy for your engine. One of the basic jobs is making sure your engine has enough water in the cooling system. It does get dirty, too.

And be sure the water's clean. After all, you wouldn't drink dirty water,



or would a dealer, so why bother it in your engine? Both water or auto water is best.

If you want to keep your motor from going having a bad case of indigestion, don't pour in cold water when the en-

gine's hot. If you have to do it, make sure the engine's cooling.



Your radiator and hose connections are also mighty important. It's a good idea to check 'em over every 50 hours for leaks and loose connections. If the cooling system in the closed type, make sure the radiator cap's on right. Don't change the pressure in a charge-bottle in the base of a clogged overflow pipe can also give you trouble. Better look 'em over.



Another thing you'll want to check is the thermostat. Take 'em out, check 'em, and put 'em new ones if necessary. For the check, put a few inches of water, heat it up, and drop the thermostat and a thermometer in. The ther-



BEAT THE HEAT



minutes, generally start to open at 145°F, and are wide open at about 190°.

On the outside of the radiator core, you want to be sure and clean off any dirt or scale regularly. And the space between the fan ducts is cleaned every 50 hours with a low pressure air or water hose. Exhale from the engine side out. While you're at it, might as well straighten any bent fins.



And remember, there are belts to read vibrations, too. Just to make sure there

is no easy slippage, give the belts tension checks (see your TM for amounts) every 50 hours.



Also, make like a Don't Run and In-use condition for water pump leaks. The packing type might need the packing gland tightened or new packing installed, while the packless type could need the sealing parts replaced.

If you'll take care to do these things, your engine's cooling system'll take care not to give you any trouble.

'WHEN' ALONE

Dear Sgt. Davis,

We have in many cases for the Sub's like air compressor at our AAF site that we had to find an easy way to get it from place to place.

We found some metal wheels to use.



type, so we used them to make the compressor a mobile piece of equipment like it does in the picture. Place an air supply just the air compressor from place to place.

Cpl G. E. F.

Dear Cpl D. E. F.,

That's another way of making a mobile out of a machine. A darned good idea. And remember, any kind of salvaged wheel—wood, rubber, and even metal—will do the trick.

Sgt. Dwyer

A WACE PARTS NUMBER



Somebody slipped a cog on EMG 7 and 8-803. Top, the part number for the commutator and bearing on the John Deere tillage electric generator was left out. The bearing applies to the engine battery-charging generator main shaft. Here's the part number for the two bearings for the rotor shaft:

Drive and bearing—511-2048112

Commutator and bearing—511-

116-1466

Change 2 on EMG 7 and 8-803 will include the clips on the commutator and bearing as well as the engine base nuts. The base nuts was also left out. It carries a part number of 547-41F 1446.

And while on the subject, don't forget that the EMG 7 and 8 Supply Manual should be used to determine part requirements when you can't find the straight pump in the TM's.



PIPE WORK

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONCRETE PIPE

CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE. CONCRETE PIPE, 18" DIA. TO 48" DIA. 12' LENGTHS. 100' STOCK. DELIVERED TO YOUR SITE.

CONTRIBUTIONS



SEAL SAVERS

Dear Editor,

When we know we're not going to need our trucks for a couple of months we put them in limited storage. By blocking them up we can start them up, with them in gear and spin their

wheels way in top shape and are ready to roll when needed.

Maryland National Guard
Baker de Green, Maryland

(Ed Note—Good idea!)

ENOUGH ROPE

Dear Editor,

Lifting and towing a vehicle by its front bumper is tricky for the birds. If you try it, expect to find that bumper—hey, you can't take the weight. And when it bends, you can bet it'll pull the frame together in front, too.



wheels for a few minutes at a slow speed.

We've run test failures almost to



nothing by this trick of completely isolating the power train. That way the



besides hitching the bowline to the steel vehicle's front-end, you've got to rely on the lifting hook to take 'er off the ground. You can do this by clamping a wire rope across the hook, and

picking the truck up by the ropes. That way you'll raise the vehicle and not the devil.

W. Frank J. Daugherty
AFD 30, San Francisco

(Old News-Good news could be used to fix all wheelbarrows. But not



a spreader bar to spread the ropes. But, you'll bend the ropes and damage.)

NO JOIN GAME

Dear Editor,

To keep from skidding the pulley off the leg braces of our suspension by these QMS systems, etc., we wrap the braces with several pieces of canvas, rubber floor



covering or something. Then we can step up on 'em without slipping the



pins. We just step off the covers, cause inspection time.

M. A. Elbertson
Ft Belvoir, Va.

(Old News-Good idea. But how about opening a piece of old rubber floor and slipping it over the braces at the points where you want ropes? If put on right, it wouldn't have to be removed for inspection.)

Connie Todd's BRIEFS



Complaints, official

When you've got a complaint about your equipment—it's not made right, it doesn't work right, or it breaks down—make it official—like it says in SA 700-67-5, send in a Form 408 (LBR—Unsatisfactory Equipment Report) to the Chief of Ordnance for Ordnance equipment, and to the Chief of Engineers for Engineer equipment, both at Washington 25, D.C. They're mighty anxious to find out what's wrong with their equipment so's it can be fixed up right quick.

It for job

Get an MTI commercial-duty vehicle with less than enough equipment for using the industrial perspective—and wondering what great! Its patient and wonder no more. MWD 6280-WT is one with a couple of like to work all MTI's with a complete MFD scope set-up. Your Ordnance gear'll have the dogs.

Why burn 'em out?

Always turn off the switches on your T401 range-finder when you remove or replace a lamp. Else, you'll burn out the resistor. Make sure about with some thing like "Warning—turn off range-finder switches before removing lamp" and place it so you'll see it. The new range-finders already have 'em. An MTC is also on its way to take care of the situation.

Your shaft flexible?

The flexible drive shaft on your M44 (T154) compensating sight is your well-proved twin 40-mm M41, may be getting a little stiff in the joints. So fish a speck of grease on the retaining rings at each end coupling. Don't use lubricant the shaft. It's already where covered.



Man—when you tell about the past experiences you had had right, you don't spare the details, do you?

PS doesn't want you to spare them, either—especially when you write in about a piece of equipment.

By giving the complete calling name of all parts and pieces of major items, you can help Sgt. Roll-Max and Sgt. Door find the answer to your problem in a hurry.

Just address it to Sgt. Roll-Max or Sgt. Door in care of PS Magazine, Fort Benning, Marietta, Ga. 30066.