

PS
★

THE
PREVENTIVE
MAINTENANCE
MONTHLY

Issue 31

1955 Series



GENERAL ORDER
No. 11

Upon the completion of the study and through the Staff Commission of my staff to report the status of their Command's supply system.

The status and progress of the study will be reported to the Staff Commission and the Command. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command.

It is the policy of the Command to report the status of the study to the Staff Commission. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command.

The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command.

Approved: **W. C. HARRIS**
Commanding General, U. S.

October 1, 1961

YESTERDAY

The status of the study of General Supply under the Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command. The Staff Commission will report the status of the study to the Command.



Some Light On Working Your Truck's Switch To ...

SEE AND SIGNAL



So it isn't a see-also operation—just the light switch on your truck's dashboard's got reasons. Not only does the one unit control all lights, but it also provides insurance against accidents.

That switch is the mechanical lock switch at the lower left. Unless you flip that lever to unlock it, you shouldn't be able to move the main switch at the top to **NO DRIVE**, **STOP LIGHT**, or **SERVICE DRIVE**.

He'll raise lights unless you want 'em in a real emergency. Specially when there're emergency lanes waiting for you and your cargo. Forbidding out the wrong lights then—even for a second—can alter your future.

Handle with care—and know what does what. Or you may break the lock lever, cancelling out your and your job's insurance.



Everything's off. Riding around this way even your stop light won't go on when you step on the brake.



Unlock mechanical switch. Hold up this switch to flip main switch to 80 drive stop light, or service drive.

80 DRIVE

STOP LIGHT

SERVICE DRIVE



80 marker lights up the 80 stop light, 80 marker lights and 80 tail light.



Picture that each tail light has two pairs of "cat's eyes." When you're driving behind another vehicle in the club, and each tail light appears to have only one pair of light in each tail light—you're at least 100 feet away. If you see two pairs of light in each tail light—you're 50 to 100 feet away. But if you can see each of the four cat's eyes in each light, you're driving less than 50 feet away—you're too close for safety.

The 80 marker lights in front and 80 stop light at the rear, each have one pair of cat's eyes. Again, if you can see each eye, you know you're less than 50 feet away.)

FRONT



REAR



80 MARKER LIGHTS
 80 STOP LIGHT
 80 STOP LIGHT



THE POSITION FOR 80-DRIVING

80 TAIL LIGHT DIRECTLY ON

DO WHEN BRAKE ARE APPLIED



STOP LIGHT
 80 STOP LIGHT



DRIVING POSITION

STOP LIGHT WILL GO ON WHEN YOU STEP ON BRAKE





DRIVE WITH YOUR LIGHTS ON

FOR ORDINARY NIGHT DRIVING SERVICE TAG LIGHT ON

ON WHEN SERVICE ARE OFF

TURN ON LIGHTS WITH YOUR SERVICE TAG LIGHT FOR TRUCKS

SEE TRUCKS COME AND GO WITH SERVICE TAG LIGHTS

THE DAY RANGE LIGHTS WILL ALSO COME ON

REAR SERVICE TAG LIGHT ON

REAR SERVICE TAG LIGHT ON

Red lights on dash's instrument panel are on. Bright or dim. Main switch must be in any position but off.

RIGHT **LEFT**

CAREFUL**THEY'LL****BURN**

TANK BATTERY REMOVAL

When taking batteries out of your M41, M47 and M48 tanks, you've gotta be mighty careful. It ain't an easy job what you're taking the batteries out, you're not a kid with all the goodies in the neighborhood.

First, let your generator all wind up. Then remove the battery cover, making sure you don't ground the frame by the battery terminals or by grounded part of the cables.

Next, disconnect the ground cable from the battery terminal. After that, take off the positive cable, remove the cable connecting the two batteries, and take up the battery.

Follow the process and you'll prevent those sparks of the engine compartment, especially that'll get gasoline and create fire or even bomb.

The last thing you've gotta watch out for is that you get your cable shorted or it will have an sparking trouble. Follow process of M41, M47, M48. It's important to take battery cover, and give you a nice look at tank to prevent those sparks.

TRUCK BATTERY REMOVAL

Believe it or not, there's a right and a wrong way to take out your truck batteries. Doing it wrong, particularly with the batteries under the frame like in the M41 and M48 tanks, could result in some heavy explosions.

You see, there's always some hydrogen gas floating around your batteries, and it only takes a little spark to set it off. Which spark you can cause very easily while unbolting the terminals.

So here's the safe way to take the batteries out of any vehicle:



As you can see, by doing it this way you never create a fire hazard. If you hit your wrench against a grounded part of the truck while unbolting the ground cables, no sweat—they're grounded anyway. Then, since the wrenches are all off, you get no spark when you take off the ground cable from the battery post. And after that, if you hit your wrench against the truck while taking off the positive cables, the battery is not grounded, so still no spark.

It's simple—just take 'em out by the numbers and you'll have no trouble.

SOMETHING TO SHOOT AT



A grease gun's a straight shooter. But unless its target's straight ahead, it'll never make bull's-eyes.

That's why some guys aren't liking the work on their 1000-personnel-sticker prop-41414's on grease-gun legs. The grease fittings on both shafts are hard to get at. The one on the left shaft's blocked

by the alternative and body panels. (Fig. 1). And a body panel runs interference for the right shaft's fitting, too. (Fig. 2).

But, no need to give up. Instead, we change the straight grease fittings for 45° angle jobs. Headed grease wags, they're bull's-eyes for a grease job.



WANNA SEE IF YOU'RE A **GOOD** DRIVER,

If there's a doubt in your mind as to which you are, go down the list and mark the columns and you know your status.

If you've got all your check marks in the "Always" column, you're on your way to a Good Driver's Award. But if you've got several check marks in the "Sometimes" column, besides, you've got one foot in a driver's hole. And if you have a couple in the "Never" column—full stop, you aren't a really good one.



1. Look over what's before writing the letter right, not without when.

Never

Sometimes

Always

2. Make use of the oil and water on an open book and the letter for enough when when the letter.

3. Keep vehicle clean and lubricated.

4. Wash up again before leaving the car.

5. Make that all the important road signs, the light, open the door, necessary road signs.

6. With your car to keep vehicle clean to the spot.

7. Keep "license" off the table except when driving your car.

8. Renewed all documents regularly the car.

9. Give your report when leaving or stopping.

A GOOF-OFF? OR WHAT???



10. Know operational rules of the highway. This includes traffic signs, traffic police, railroad police, etc.

Know	Remember	Always
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



11. Know the following traffic signs:

1. 2. 3. 4.
 (If you see these signs and you're not sure, see next page.)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



12. When driving keep eyes on the right mirror.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



13. Keep speed within speed limits.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



14. Drive close to the center.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



15. Keep up what is the shape.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



16. Remember "Identification" instructions.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

17. Know the vehicle like it's his own.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------



Naturally You've

GOT AN EYE FOR A SHAPE?

Ever know-it's the shape of a road sign.

If you just catch a quick flash of a road sign across the corner of your eye, you can still get a good idea of what's coming if you know the standard shapes and what they mean. You know how it is—shape tells most of the story.

Here's the rule—if you're driving around different kinds have different signs.



Square or rectangular signs are information, such as speed limits, no parking zones, maximum bridge weights and so on. **Read and heed!**

Any diamond shaped sign always means **Slow Down**. That's the case which have the arrows telling you about curves, sharp turns, winding road and other dangerous conditions ahead. Clap your hands when you see them.

The octagonal sign is only used for **Stop** signs. They aren't hidden—do it.

A round sign with an **X** inside it means a closed crossing. Down, old



and explosive trucks and so on will **stop** when he sees and able to stop if necessary.

A yellow stop is being used in some places to indicate wheel crossings. Watch for this one, it's new.

And there's another new one which may save us lots of grief. Stop? like an upside-down triangle with the top chopped off, it says **Yield Right of Way**. This sign is being used to replace **Stop** signs on lots of main roads and busy roads. It means you don't have to come to a dead stop, but you give way.



Connie Rodd's "SHORT & SWEET Q&A"



Tappet Issue

When your truck's tappet valves go tapping-up, it's time for an adjustment. Cages like your own silver-cream. Thing's wrong when it's off-beat. But

with a vehicle, you're the mechanic — not the doctor.

Let's there's no silver-cream-thing. Here are the clearance these valves need. The rulebook is used only to get the engine running—like in school.

		Hot Valve		Cold Valve	
		Intake	Exhaust	Intake	Exhaust
	1/8" gap tank, 90° valve	1.01	1.15	1.01	1.01
	1/8" gap tank, 90° valve	1.05	1.15	1.01	1.01
	3/16" gap tank, 90° valve	1.01	1.15	1.01	1.01
	90° valve	1.01	1.15	1.01	1.01
	1.000 tank,				
	90° valve (exhaust) 1.000	1.01	1.15	1.01	1.01
	90° valve (exhaust) 1.000	1.01	1.15	1.01	1.01

Pressurized gas

Let's get them gas tank-covers the hot sun. And you can't always do that. So to be sure, better backcheck and measure that gas cap back on the first month.

If you don't, pressure may build up in the tank because of a bad relief valve. This could force fuel from the tank into the engine crankcase. The oil is diluted

by the fuel and thicker, you're gas trouble. Or even if it doesn't get into the crankcase, it'll say "Whoosh" and shows you with gas next time you take off the cap.

So when the vehicle is to be parked or used for any length of time, loosen the cap 1/4 turn.



Wetter for a collar?

If some of the 244 and 3000 trailer chassis wire books and bus their collars, don't get hot under pressure. Just install a new wire and cut the length of lengthwise now before it's inserted in the coil shield, so the wire works smoothly.

And if you can't get a collar-maker your own, get a 1/4-inch by 1/4-inch bolt and nut. Take a back saw and cut the bolt lengthwise far enough to thread the wire as in Fig. 1. Tighten the nut and you've got the wire locked in place.



When you do your wiring, use a size and have the nut screwed all the way on the bolt—back it off after you finish wiring and it'll clamp the strands of any future bus bars.

Remember now, that grade one your hand should be done instead of jokers' you will save you troubles like this.

A new device

A nut is like a screw. It's used to help do a job. Not that that's bad, but if you can do without one, why not? Like on the MPA recovery vehicle's Intra-auxiliary winch's yoke, Folio says.

It takes a wrench to tighten the nuts on the yoke. But add a couple bars to the yoke-hole and you can do it by hand, with the wrench slipping in the slot box.

Get two pieces of 1/2" round stock, 6" long, and weld one across the yoke hole's head and the other on the side of its nut (Fig. 2). With them on, you've



got a handy connection. It sure grip and you'll make short work of a small job.

The same steel could also be used on the main-line winch.

And talking of that auxiliary winch, remember it's for light loads only. If you're out to push something like a 1-ton truck, use the main winch. While it's good for helping the main line bring home its prey, the auxiliary winch's too thin to tackle anything but the light jobs all by itself.

Careful with the cables

The heavy cables on your MPA's and MPA's, that is. A slew of these cables were checked recently, and almost half of them had checked as burned cables.

Since these heavy cables carry the full charge of your 24-volt batteries, a short circuit's no joke. Even if the charge's blown up the batteries, you'll

get plenty fireworks. Not to mention feeding yourself about.

Here's the trouble-as you know, the heavy box on the base slides out from under the cabs. So, to let you slide it out without taking off the heavy cabs, you have lots of slack in the cables.

This slack is what causes the trouble when you get ready sliding the heavy box back in. Sometimes it runs back through the hole in the frame and gets down over the hot exhaust pipe.



Sometimes it gets bunched up behind the battery and gets wedged between them and the frame. And sometimes the spare shield on the heavy box separates the cable against the frame. No matter what happens, the results are bad.

In what do you do about it? First of all, you always fix darn careful to hold your cables up-and-over your battery when you push the box back in (Fig. 12).



The real cheap operation are drawing a Clip (Old Stock No. H104-0120726) 3/16 in. 1 1/4 in. hole and fastening cables No. 82 and 84, 4 to the frame,

right inside the hole they run through. You've got no drilling, just put your clip on the hole that already holds the air-line clip (Fig. 13).



Keep 'em moving

Tom DeLancey, that is.

It sometimes happens that you open the shop in the morning and find that you have a half-dozen idle jobs sitting there, and not one of 'em vehicles you have to get ready to go to DeLancey.

Naturally, it's a big temptation to get on the simple wall or over and get the vehicles back into service the same day. Preparation of the real sick ones for DeLancey can wait; you won't see 'em back for several days anyhow.

Only trouble is that if it worked easy to do the same thing the next day, and the next, and so on, in one day comes a sudden movement order, and you're caught. Your cripple ain't back, because DeLancey never had it, and at the same time you can't get a new one for it for the same reason. Makes everyone most unhappy.

Before any of 'em is to take 'em in the color they come into the shop. Get your big jobs right on into DeLancey as soon as you can and keep your shop clear for the work in your own shops.

Hold your load

Head of a 15-ton balanced load getting away the other day. Bumped up a few of government property and just missed the man guiding it. Could have been real messy.



Trouble was, the main-winch safety-brake on the MLC tank-recovery vehicle making the lift wasn't adjusted right. This brake's in there so your load won't drop when you disengage the main clutch to stop lifting.

When it's set right it will hold any load within the capacity of the winch, and you have to shift to **LOWER** and power the load down. But when it goes too loose, Rats, but the devil!

Figure 33, page 57, TM 9-734 gives you the whole word on this adjustment. If you haven't got the manual, you take off the lubrication cover, back off the top jam-nut and adjust the top-adjusting-nut until the length of the spring is just 1-0116 inches. Then lock it with the jam-nut and replace the cover. Use your head—and you might save it.



For that rising day



Fuel-tank filler-cap

Does your car start sputtering from the fuel system of your light truck (M41, M41A1 or M42) can give you the burning splutters or vaporization of the fuel line. And that ain't good.

The best way of heading it off is by making sure the left-hand fuel-tank filler-cap isn't doing you dirty. That cap's gotta be just right. If you want things on the up and up.

First thing to do is check the position of the collar assembly (Fig. 1). If it's 1/8 inch (give or take 1/16 inch) above the top edge of the fuel tank you're sitting pretty. Keep the dirt and other crud away from it and your fuel will be OK. If the collar is too low, well... see your Ordnance office right away.



By the heavy use of shims or gaskets between the collar and the fuel-tank assembly (Fig. 1) you can ensure that filler cap up to the right spot. But keep this in mind: You've got to head gaskets on both sides of each shim addition in order to prevent leakage. Ask Ordnance to give you Ord Stock No. G211-7128076. You'll have to make up your own shims.

Glass—handle with care

In the line of health or no surrounding maneuvers, you gotta hold your Jeep's

windshield down and cover it up. Otherwise you want to glass or crash or no foot light. The only trouble is, there's no windshield cover in the Jeep's OVM.

Some men wrap fabric in the tarpaulin top. Which may be OK, but then you can't see the engine-room's hold-down strap or hook to hold down the windshield. There's no hook in the strap to hold it through.

And if you wrap your windshield with the tarpaulin's open-end in front, it'll blow up like a balloon. That's like the engine-room flying up in your face. You'll break your neck trying to see around it.



Other guys use their ponchos as a cover—with the neck hole in front can't see to put the straps through. But, see everybody's got no cover poncho.

The best combination seems to be the tarpaulin cap and a rope tying the windshield down to the bumper springs. Crisscross the rope from the rings, loop it around the covered windshield and you're good to go.

Incidentally, the tilted windshield's no place to stack your pack and equipment. Our good boys—think, besides which it cuts down your vision.

Be sure that you cover up and tie down your windshield. Or you're not warrier, they'll be calling Chief Ghar-In-The-Face.



On your hand starting handle...
Be in the house when it comes to...

HAND STARTING LIL JOE



Your Mill light works are rigged out with a pullable eye hand-starter for the auxiliary generator engine.

It's mounted behind the right engine access-door. And a mighty handy gadget it is to have around, when y'find your batteries too weak for normal starting. Here's how to use it:



Let your choice control like this:

Engine Temperature	First try control	If not start, get to
Full below $+27^{\circ}\text{F}$	off/on/off	17 sec
Cool normal	off/on/on	off/on/off
Hot	off/on/off	off/on/off

Just hold in continuous force with both or one hand (left or right) on hand starting handle. Continuous off/on/on/off, etc. You need to check it out to the engine.



At full engine temperature, hold on handle continuously off/on/off, etc. ... or hold it on longer than 10 sec. or less (10 sec. hold time) ... or on/off.



You have tested both with right and left hand. Now it's off/on/off and on/off/on/off time. ... Now you can start the engine with one hand.



NOTE: At temperatures below $+27^{\circ}\text{F}$, always run the hand-started engine for about five minutes before trying to start.



NEW POWER

Takes Care of It,
With No

Flashes—it's here! The new power-boosting lights for ignition wiring. It's available under Red Book No. 17-1, 12944-500.

It'll replace the most tube type (Red Book No. 47-4, 14400) in Organizational Ford Van No. 1 and 2 versions.



This light is a universal light which will use 8, 11, and 12-volt systems. You just set the voltage switch for the right voltage for the vehicle you are wiring. But if you should make a mistake, there is a circuit breaker in the box which protects the strands.

While the power supply for this light is a guaranteed base, all you have to take under the hood is a flash tube about the same size as the message lights you used to have. But, the blue-white light which pops out is many times brighter than the old ones ever was.

The top of this, since the power is coming from the vehicle battery, use the spark plug, the new light won't make the engine miss.

How does it work? Well, the power supply is adjusted so that it always lights the tube all the time. Then, when the secondary current comes up the lead from the spark plug to the external coil

or coil which is wrapped around the light tube, it opens the battery just enough to make the power current stop instant. It's easy like the little pull on the keyboard that fires a 1000 flash tube.

With this mode you remove your flashing marks even in bright sunlight. It's still smart to wear the vehicle around to shade the engine, however.

And there's a lens on this light to keep the flash focused where you need it. To get around generators or water pumps, there is a flash mirror which



TIMING LIGHT

12 and 24 Volt
Fast or Worry



align on to the head of the light. And you don't have to point the mark any more. If you can see it when the engine isn't running, you can see it when it is.

Since the new light is fast enough to snap the marks as fast as 3000-RPM, it will give you a quick go, no-go, test on the automatic spark, too. You see your time with the engine idling and then see it up. The moving timing mark should appear to shift in relation to the fixed mark, showing you that the automatic spark advance is working. If it

does not, you need your distributor to the shop for a complete check, on the distributor setup.

And on tanks, you can check the synchronization of the magnets in a jiffy. Take any cylinder for which a timing mark is provided, and check end on the mag from the F plug. With the one firing right on the mark, check the F plug in the same cylinder. It too should be right on the mark. If it is not, see it on it is. (Remember your Generalval V12 has 4 magnets.)

It is important that both plugs in a cylinder fire at the same instant, or the one that fires first will fire the charge later weakly—and your engine won't have the power it should.

The design of the automatic distributor on these engines is designed to be more effective when the charge is lighted from both plugs at the same time. Having one fire ahead of the other gives much the same result as having the ignition retarded a bit.

It is also possible to use this light to time magneto-driven engines in vehicles which have no battery, such as unlight tractors, by adding any four 12 volt battery to the vehicle to power the light. Hook the light to the battery, and run a lead from the battery negative post to the vehicle frame to complete the light-circuit circuit.

To use this new light with the water-pump ignition system, you need the spark-plug adapter from the Adapter Kit (Ford Stock No. 17-A-1130), which you probably have and which is authorized for dual-coil dual-ignition setups. The power leads can be hooked up to battery cables.



FOR FURTHER INFORMATION ON THE ADVANCE LIGHTING SYSTEMS, CONTACT THE ADVANCE LIGHTING SYSTEMS DIVISION, GENERAL MOTORS CORPORATION, 300 N. ZEEB ROAD, WARREN, MICHIGAN 48090.

GRIND YOUR NIBS



There are a couple of idiosyncrasy nibs bothering your M100 that've just got to go. You'll find them on the transmission shaft's control levers. But you've got to be careful when you're doing it. Use THE M100-13 with you.

When you're starting to plug up a hill and begin to lose speed, you can make a low shift from HIGH range to LOW range and keep on rolling. But, with these nibs in the way it's possible that you won't make the shift fast enough and even rolling back a bit before you complete the shift.

When a Korval shift is made with the axles, shafts and transfer rolling backwards, they get jammed in the opposite direction and the axles'll break the transmission engagement.



HERE'S WHAT YOUR MECHANIC CAN DO

<p>1 TO GET BEST TYPE YOU SHOULD USE CORRECT TYPE AND SIZE.</p>	
<p>2 MAKE SURE THERE IS NO OILING ON THE TYPE AND GALLEYS.</p>	
<p>3 KEEP THE AXLES AND SHAFTS IN CORRECT RANGE AND MAKE SURE THEY HAVE THE OIL.</p>	
<p>4 THE TYPE BAR IS NOT TO BE OILED ON THE TOP.</p>	
<p>5 MAKE THE OIL CORRECT WITH A TYP.</p>	
<p>6 THE OIL IS NOT TO BE OILED ON THE CORRECT SIDE OF THE OILING AND CORRECT THE OILING.</p>	
<p>7 THE OIL IS NOT TO BE OILED ON THE CORRECT SIDE OF THE OILING AND CORRECT THE OILING.</p>	
<p>MAKE SURE THE OILING IS NOT OILED ON THE CORRECT SIDE OF THE OILING AND CORRECT THE OILING.</p>	

You'll do your own work if that M100 rolls back a bit before you downshift and get going forward on a hill.

You can shift the lever but you can't shift the letters.

JOE DOPE

HOW TO MASTER A COOLING SYSTEM







DRILL AIR PASSAGE, BUNG SCREENS, HOLES AND GET BLOCKED-TURN UP SIDE AIR

... **DRINK** ...
 ... **DRINK WITH AIR** ...
 ... **OR WATER** ...
 ... **TAKE IT HARD,** ...
 ... **HEAT DAMAGE** ...
 ... **SADNESS** ...



ENGINE OIL, RIVES UP TO SUPPLY IN
WELL, POSITION OF WORKING PARTS, OVER
WORK AND OIL,
HEAT, THE COOL
PURGE GET BUNG,
HEAT TO THE WATER
AND TEST IT BOLD.



HOLES THAT LOOK GOOD ON THE OUTSIDE MAY BE SPOT TO BELONGING IN

HEAT AND WATER
SMALL, HARDEN,
CRACK AND ROT IF
CLIMBS CAN
ROCKLE IN,
RUBBER PLAY
ROCK CAN
COLD SPIN.

IF IT LOOKS SUSPICIOUS—TAKE IT OFF FOR INSPECTION

JOE'S

Dope Sheet



WE HAVE THE WORLD'S BEST EQ

The driver who hegs to the facts
Will watch how his temp. gage reads
If it shoots up too high
He won't sit there and fry
He digs out the cause and he acts.



EQUIPMENT... Take care of it

YOU ... THE VEHICLE DRIVER ... CAN PLAY PRIVATE-EYE AND

SEARCH FOR AN OCCASIONAL TRAFFIC VIOLATOR CAN BE CAPTURED BY THE SERVICE BEFORE THEY GET TO WORK AND CAUSE SERIOUS TRAFFIC PROBLEMS.

LEADERSHIP OUTSIDE THE SYSTEM

VIOLATION	TYPE	CLASSIFICATION	REMARKS
1. Running red light	Major	1	
2. Running yellow light	Minor	2	
3. Running green light	Minor	2	
4. Running red light	Major	1	
5. Running yellow light	Minor	2	
6. Running green light	Minor	2	
7. Running red light	Major	1	
8. Running yellow light	Minor	2	
9. Running green light	Minor	2	
10. Running red light	Major	1	
11. Running yellow light	Minor	2	
12. Running green light	Minor	2	
13. Running red light	Major	1	
14. Running yellow light	Minor	2	
15. Running green light	Minor	2	
16. Running red light	Major	1	
17. Running yellow light	Minor	2	
18. Running green light	Minor	2	
19. Running red light	Major	1	
20. Running yellow light	Minor	2	
21. Running green light	Minor	2	
22. Running red light	Major	1	
23. Running yellow light	Minor	2	
24. Running green light	Minor	2	
25. Running red light	Major	1	
26. Running yellow light	Minor	2	
27. Running green light	Minor	2	
28. Running red light	Major	1	
29. Running yellow light	Minor	2	
30. Running green light	Minor	2	

FOUR CIRCULATION

VIOLATION	TYPE	CLASSIFICATION	REMARKS
1. Running red light	Major	1	
2. Running yellow light	Minor	2	
3. Running green light	Minor	2	
4. Running red light	Major	1	
5. Running yellow light	Minor	2	
6. Running green light	Minor	2	
7. Running red light	Major	1	
8. Running yellow light	Minor	2	
9. Running green light	Minor	2	
10. Running red light	Major	1	
11. Running yellow light	Minor	2	
12. Running green light	Minor	2	
13. Running red light	Major	1	
14. Running yellow light	Minor	2	
15. Running green light	Minor	2	
16. Running red light	Major	1	
17. Running yellow light	Minor	2	
18. Running green light	Minor	2	
19. Running red light	Major	1	
20. Running yellow light	Minor	2	
21. Running green light	Minor	2	
22. Running red light	Major	1	
23. Running yellow light	Minor	2	
24. Running green light	Minor	2	
25. Running red light	Major	1	
26. Running yellow light	Minor	2	
27. Running green light	Minor	2	
28. Running red light	Major	1	
29. Running yellow light	Minor	2	
30. Running green light	Minor	2	

ENFORCEMENT

VIOLATION	TYPE	CLASSIFICATION	REMARKS
1. Running red light	Major	1	
2. Running yellow light	Minor	2	
3. Running green light	Minor	2	
4. Running red light	Major	1	
5. Running yellow light	Minor	2	
6. Running green light	Minor	2	
7. Running red light	Major	1	
8. Running yellow light	Minor	2	
9. Running green light	Minor	2	
10. Running red light	Major	1	
11. Running yellow light	Minor	2	
12. Running green light	Minor	2	
13. Running red light	Major	1	
14. Running yellow light	Minor	2	
15. Running green light	Minor	2	
16. Running red light	Major	1	
17. Running yellow light	Minor	2	
18. Running green light	Minor	2	
19. Running red light	Major	1	
20. Running yellow light	Minor	2	
21. Running green light	Minor	2	
22. Running red light	Major	1	
23. Running yellow light	Minor	2	
24. Running green light	Minor	2	
25. Running red light	Major	1	
26. Running yellow light	Minor	2	
27. Running green light	Minor	2	
28. Running red light	Major	1	
29. Running yellow light	Minor	2	
30. Running green light	Minor	2	

LEAD FOUR SYSTEM

VIOLATION	TYPE	CLASSIFICATION	REMARKS
1. Running red light	Major	1	
2. Running yellow light	Minor	2	
3. Running green light	Minor	2	
4. Running red light	Major	1	
5. Running yellow light	Minor	2	
6. Running green light	Minor	2	
7. Running red light	Major	1	
8. Running yellow light	Minor	2	
9. Running green light	Minor	2	
10. Running red light	Major	1	
11. Running yellow light	Minor	2	
12. Running green light	Minor	2	
13. Running red light	Major	1	
14. Running yellow light	Minor	2	
15. Running green light	Minor	2	
16. Running red light	Major	1	
17. Running yellow light	Minor	2	
18. Running green light	Minor	2	
19. Running red light	Major	1	
20. Running yellow light	Minor	2	
21. Running green light	Minor	2	
22. Running red light	Major	1	
23. Running yellow light	Minor	2	
24. Running green light	Minor	2	
25. Running red light	Major	1	
26. Running yellow light	Minor	2	
27. Running green light	Minor	2	
28. Running red light	Major	1	
29. Running yellow light	Minor	2	
30. Running green light	Minor	2	

HELP YOUR UNIT MECHANIC.



OVERFLOW LOSS

TYPE OF LOSS	CAUSE	REMEDY	PREVENTION
WATER	Water level too high	Adjust float valve	Check float valve regularly
SEWER	Blocked sewer line	Call plumber	Use drain cleaner
TOILET	Blocked toilet	Use plunger	Use drain cleaner
WATER	Leaking pipe	Call plumber	Check pipes regularly
WATER	Leaking toilet	Call plumber	Check toilet regularly
WATER	Leaking faucet	Call plumber	Check faucet regularly

CREEDION

TYPE OF LOSS	CAUSE	REMEDY	PREVENTION
WATER	Water level too high	Adjust float valve	Check float valve regularly
SEWER	Blocked sewer line	Call plumber	Use drain cleaner
TOILET	Blocked toilet	Use plunger	Use drain cleaner
WATER	Leaking pipe	Call plumber	Check pipes regularly
WATER	Leaking toilet	Call plumber	Check toilet regularly
WATER	Leaking faucet	Call plumber	Check faucet regularly

CONVERTING

TYPE OF LOSS	CAUSE	REMEDY	PREVENTION
WATER	Water level too high	Adjust float valve	Check float valve regularly
SEWER	Blocked sewer line	Call plumber	Use drain cleaner
TOILET	Blocked toilet	Use plunger	Use drain cleaner
WATER	Leaking pipe	Call plumber	Check pipes regularly
WATER	Leaking toilet	Call plumber	Check toilet regularly
WATER	Leaking faucet	Call plumber	Check faucet regularly

ENGINE OPERATES THAT EXCEEDS POWER THAN NORMAL WATER TEMPERATURE

TYPE OF LOSS	CAUSE	REMEDY	PREVENTION
WATER	Water level too high	Adjust float valve	Check float valve regularly
SEWER	Blocked sewer line	Call plumber	Use drain cleaner
TOILET	Blocked toilet	Use plunger	Use drain cleaner
WATER	Leaking pipe	Call plumber	Check pipes regularly
WATER	Leaking toilet	Call plumber	Check toilet regularly
WATER	Leaking faucet	Call plumber	Check faucet regularly

THE GUYS
WANT
JAN TO
TALK
HIM?

SLIP
IN
TWO!



AFTER A HARD
FIGHT LET YOUR
BROTHERS SEE A
LITTLE FIGHTING
THAT NORMAL FOR
A SOLDIER...

WELL CORPUS
CORPORAL,
THE TRUCKS
CARRYING
AM' THE
SOLDIERS IN
A HURRY!

ARE A GOOD
LOOKING SP-5
TOM KEEPS SA
MOLLY... AND
A GOOD
CAREER IN
A BRANCH...



...BUT A
GOOD NORMAL
HE SHOULD GO
TO MARSHALL!

PART OF
A BROTHER

ONE!



GOING TO
MARSHALL!

SLIP
IN!



THAT'S RIGHT
LET THE
HELP FOLLOW
LET'S GO!

ARRANGING
OPPORTUNITY
FOR YOU...



WOULDN'T
YOU GO
WITH US
TO COLLEGE
ABOUT THIS?

IT ABOUT THE
MONEY I'M
WORKING
FOR...





PHONE ANTIFREEZE

Dear Half-Mast,

It says on the case of airplane ground anti-freeze, "Warning, do not store in temperatures lower than zero degrees Fahrenheit." It's hasn't enough inside storage-space to do anything else but. What does one do when it outside the?

Sgt. R. E. G.



Dear Sergeant R. E. G.

Unfazed with worry, the staff'll freeze at 0°F. While that won't ruin the anti-freeze, it'll have to be thawed out before you'll be able to pour it out of the can. It's just a matter of convenience.

Half-Mast

REG. FOOT

Dear Half-Mast,

We're having trouble with the dual telephone box on our 1948 truck.

First, it doesn't seem to be adequately secured. Gets loose—and sometimes breaks right off the vehicle.

Also, there's quite a lot of random noise occurs inside the box. And this random dampens it might enough on the telephone equipment.

Wondering if you might have some data on this phone box situation.

A. C. F. C.

Dear A. C. F. C.,

Seems as how the device that's supposed to hold that box on the hull have proved to be a little light for the job. Stronger (alloyed) screws are on the way.

Meanwhile, your box has'nt see that those you've got up kept right. That'll cut down on the shock treatment they get when riding in the rough, and they'll be less likely to show. Make sure they get a good going over at every 1000 miles.

That combination problem seems about the same as bothered earlier medium tanks. Maybe you've seen MWO Ord G-1-W's 134 (July 54) which handles the situation on the M4 and M4C. Calls for a couple 3/16-in. dia. holes drilled in the hull, inside and near the bottom of the box.

Some dual wheels'll help much on the M48, though. Wheelie bar attached to the sloping section of the hull, the lowest gear is its outside edge.

Don't even fix it up sleep-by drilling a couple of 3/8-in. holes in the lowest edge of the low track, like's shown in Fig. 1. An MFGD similar to G1-W118 will cover it.



Watch! You're working through UIC's on the subject. Right! They're a bona help in leveling out these troubles.

Half-Mast

LEAF TRACK ANTENNAS

Dear Half-Mast,

We agree on having trouble with water leaks around our M10 PCO's road antenna automatic drive assemblies. Where you got anything on this?

SFC D. E. W.

Dear SFC D. E. W.,

Seven spots on the track antenna's automatic drive assemblies that can let in water (Fig. 2) will give the slip-ring a fit if they're not needed.



One way you'll make the upper optical unit. Take the optical unit off the turntable and connect the "U" ring gear (Fig. 3) in place with common Oiled Bush No. M-C-1507/30). This means was originally put in your organizational equipment as Compound WECD-7082. When the "U" ring's been removed with common, put the optical unit back in place. Be careful not to get too much on the optical unit.



The optical unit, in place on top the trailer, only makes the trailer 12 feet 1 inch high. If road clearance, during a road march, are high enough, leave the unit on top the trailer. Once you've done a good contact job you don't want to break the seal-water leaks.

The low houses, respectively, and seal hole on the roof of the trailer under the antenna all could be water-proofed. Remove the square nuts and seal bolts

out (Fig. 1) with a square wrench and wrench and put Dow Corning DC-4



compound (Dow Chem. Co. DC-4004-700) under them. Don't open the component—against the square nut and nut—after it's sealed.

On the outside of the receptacle seal butt you use the Dow Corning DC-4 compound. Pull the plug out of the receptacle and spread plenty of the compound all over the receptacle (Fig. 2).



Don't be afraid of the messiness of the compound over and in the receptacle pin holes—that's what you're supposed to do. Put the plug back in the receptacle and tighten it down—you're all set for that instance.

Clean the receptacles and put compound on them every six months, whether you think they need it or not. Be on the safe side.

Half-Meet

INERT FLUX SHORTAGE

Dear Half-Meet,

What's the price of to get some M147 inert flux for checking the wire-cutter on some 50-man work-

gang? They're listed in the 1,192,10-11 (Cartridge, shell M147) software M147, but supply says they just can't get 'em. We're using the second and last one and you know that's just not right. Most of our rounds have been out the maximum number of times and we're expecting something to blow wide open any minute.

What ya' say, Jags, are these cartridges still being made and if so, why can't we get 'em?

Sgt. J. J. B.

Dear Sgt. J. J. B.,

Well, I know just what you mean. Trying to keep a supply of inert flux on hand has driven many a good work man to madness. Using five rounds and flux is just taking for granted, and that trouble can be expensive and dangerous.

The dummy cartridges and flux are standard, and they are being made. Keep knocking down the stock of your supply unit and tell them to take a little hell on up the line. Maybe you can think some more somewhere.

Half-Meet

KNOCK-KNOCK

When you've got a problem, just knock on Sgt. Half-Meet's door. He'll make you more than welcome. Just tell him all about your maintenance problem—use a card or letter. Send it to Sgt. Half-Meet, c/o PS Magazine, 200 New Arsenal, Mattitikon, N. J. He'll not only answer you, but maybe see it in his column.

ARMAMENT

TOPS

Headspacing .30-cal ground robot Browning machine gun —

The whole is machine gunner rates to the end . . . may well tell the tale of his

The gunner who has a healthy respect for headspace adjustment should also be trained to keep his "30-cal robot" for all the work with any a magazine in either.

But was to a guy who plays rough with headspacing. You can chalk him up right now as a likely candidate for

the boys of the Medical Corps. Cause he's gonna find himself stuck with a sick gun more any time. And it can happen when he needs steady fire power in the nearest way.

For all intents and purposes, all that happens there is something to that correct headspace adjustment. For the baby

Take The Time In This Order

1. Check the magazine for any signs of wear or damage. If it is worn or damaged, it should be replaced.



2. Check the bolt for any signs of wear or damage. If it is worn or damaged, it should be replaced.



3. Check the headspace for any signs of wear or damage. If it is worn or damaged, it should be replaced.



There's a lot to learn headspace adjustment can do to a good machine gun.

When there isn't enough headspace (head-
space) the bolt can't go all the way
into its recess in the bolt. This can result in

Worn
to
the



Worn
to
the
to
the
to
the



Worn
to
the
to
the
to
the



If there is very very little
headspace the bolt can't go
the end of the barrel can be
seen in the rear of the bolt.
way. The bolt won't go all
the way forward, and pull-
ing the trigger won't release
the firing pin.

R TAPS

handoperated drill . . . or better!

means getting the right angle between the forward part of the belt and the rearward of the barrel.

A few slight turns in the proper direction is all it takes to set handoperated or an automatic 28-cal machine gun.



TURN THIS SCREW BACK BY ONE TURN TO INCREASE RANGE AND SPEED AT 100 YDS. AND ONE FORWARD AT 200 YDS.

TURN THIS LEVER FORWARD UNTIL THE POINT OF IMPACT OF THE BULLET FALLS WITHIN THE TARGET ZONE.

THIS WAS MADE TO GIVE THE BARREL THE BEST POSITION FOR SHOOTING. THE SHOOTING POINT WILL BE EXACTLY THE SAME WITH A NEW BARREL INSTALLED.

When closed it sets the handoperated mechanism dead's play between the belt and the barrel. The belt starts its powerful initial recoil to the rear by itself the moment it locks to the barrel extension. The pressure for an auto handoperated

BARREL EXTENSION



BARREL TO GUN



BARREL TO GUN AND BELT



TAKE GUN PROTECTION

You may be following page 10 to the letter but still missing a mighty important lube job on those 70-mm and 90-mm-rail guns. The area between the rear follower and the breech ring will get rusty and pitted if it isn't greased.



With the gun out of battery six or eight inches, apply a light coat of GUN grease—MIL-G-10524—in the way around the exposed gun tube surface between the breech ring and the rear follower of the rear assembly. This area doesn't get any lubrication from the recoil cylinder.

When the gun returns to battery the recoil follower rail will wipe away excess grease and leave it pitted up around the rail. Leave it there; it'll protect your pipe.

Clean and grease this surface at least every 50 days.

DRAIN THE PERMO LOCK

Moisture in the firing-lock assembly (Part Stock No. DR54-700150) of those M16 70-mm AAA gun mounts is strictly no go. Remove the drain plug weekly to check for dampness. If there's

moisture in there, take off the cover plate and dry the assembly. If it's damp, send the rail for Orlonase.

MORALE MOUNT MIB-UP

Could be your M16A1 starter mount's barrel for corrosion and you don't know it.

The driving mechanisms on some of those 81-mm mounts are missing out on lubrication because the oil reservoirs are filled up with grease. The grease was packed into the assembly at the time of manufacture. You can repair until you're blue in the kidney but the oil just won't get through to the right spots. So, you end up with a rusty, sticky tube.

If it's not raining night, call Orlonase and have 'em give your microscope the once-over—and if necessary, get a LER (Orlon 400) in to the Chief of Orlonase.

TOO MUCH BANGING?

If your multi-arm is coughing when it should be spitting, and causing you up on the war zone, there may be some relief in sight.

M19-90 gives you the approximate number of rounds your piece is expected to fire before it needs a major overhaul. It didn't say so exactly, but M19-90a also includes T/O&M and/or field training as well as in-shipment training centers.



A revised M19-90 will be out soon giving you the dips.

Here's a few more —

HANDY TIPS FOR YOUR

Here are a few handy tips that passed up, that could make life a little easier for you driving around the U.S.A. this year.

Get Off the Rollers — They're six pairs of support rollers in your suspension system, drive onto them and your suspension will groan.

Each pair of these roller bearings are 1/2" from one axle being . . . When you drive these your quarterly grease job you've got to check them by hand to make sure both rollers have their share of grease.



Before you start your big rig around, make sure the antenna safety switch is off. It would also be good to use a gas rope on each end of the exhaust with a couple of more latching on each rope to steady the rollers. If someone in the operations truck would want that rollers going around, or a gust of wind started in, you could have a large or two w-ply safe.

Start your truck by taking off one of the drive handhubs covers on top of the drive. Turn the drive cable until the hub's over one of the six pairs of rollers. Put your hand in the big hole and use one of your fingers to feel

the hole into in the variable casing. When you get your middle finger into the hole, feel the upper roller while grease is being shot through the neck lining. Now's you feel grease coming from the roller's side's enough. To check the lower roller, get your hand below the variable neck—and do the same kind of greasing by feel.

Remember the big safety switch and the gas rope to the rollers.

100% reliable. Baker Heavy-duty of the 60000 lb. have built a 4 quart seal house to store the made for their gear in the heavy-duty. The thing that they are real proud of is that their seal studs are big enough to have a nice seal with on the wall, with hooks and seal surfaces. Also, the screws can walk in to pick up what they need. They don't have to crawl into a tunnel about as a one-old pop-dog (fig 11).



AAA SITES



ARMY'S NEW METHOD— The boys at Baker Battery also have built a little shelter over their position box. Keep off the rain and the sunlight, neither one of which helps the box any (Fig. 7).



ARMY CONTROL CASES— These little boxes have another idea: you keep your leader control visible day and fare of enemies, they have got a sight through holes out of some tubes and mounted it under the attacking hole for the enemy to see (Fig. 8).



ARMY'S NEW METHOD— Any of you who have been chased should do so by the rotating side shield while working your leveling jacks will up-

position this shield that Able Battery has rigged up. It swings back the shield, swinging in total it forward while you're in behind it, and when you're out, it swings out of the way (Figs 4 and 10).



ARMY'S NEW METHOD— Make out of those LBC's if you find anything that's not working like it should, or like you're working in various parts make out LBC's (Oh from 100) and send them in so that they can be corrected.





TAKE A LIGHT TOUCH

Turning the focusing knob on the top of your M11 PG's M14 marking package (Fig 8) takes only a light touch.



Under the knob is a pin and nut (Fig 9) which act as stops. Turning



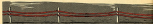
it with your hand or knowing it beyond its travel limit will shear off the pin and nut—and put you out of the picture. Take it easy.

HIGH AIR-PIPER

You've got a fiberglass clear filter at the base of your M11's suspension assembly drive shaft (Fig 10) and it needs to be looked at often.



When the suspension's completely assembled the filter can't be seen. As a result, it's not checked and replaced. The filter cleans the cooling air to the drive motor and when it becomes dirty and clogged—in its. You need to replace it. Only it under the knob via. PG2-1142/115.



TRICKS



A LITTLE GREASE

When you're giving your MXZ cables its periodic lubing according to 10-9-07, give the suspension/wire parts of the system a check for possible wear and spots. Clean any spots you find and take to keep corrosion from starting.

Another good idea is to use the lubes already on both the suspension and track systems that's out in the open with heavy grease. GAA (Gul) Grease No. 1-62423-5R, or Grease 54 (Dell Grease No. 1-62411-1R) will do the trick.

And hit the outside shoe hangers with a few drops of oil to keep the hangers from rusting and gum.

SMOOTH CURVES ARE BEST

Steering on the MXZ multi-cable-car cables and gas cable systems will work, especially at steep bends, when they're out in the wide open spaces (Fig. 5).

When you're setting up your MXZ system, smooth all the steep bends in



the cables into smooth curves (Fig. 6). Smooth curves not only look better but give longer, lasting satisfaction.



When you find a cable that's hooked down to the end insertion, be sure and report it to your Deliance support unit for repair or replacement.





How do you M11-FC's crew board me about the 13 drain plugs located around the bottom of the M24's spare parts tank? You might have to scrape off the splash accumulating at the bottom. You can't get in to look underneath the van where the drains run down the side.

You ought to open these plugs once a month for at least an hour. This'll eliminate condensation between the walls of the van.



You've also got drain plugs on the underside of the M112 operational van—two under each corner.



While you're checkin' for plugs on these M24's, take a gander at the tanks running vertically on the sides of the van. If there's a trace of any corrosion running out of the bottom of the tanks, get a UTR in on that van right away. That debris'll get priority treatment.

ENGINEERS



How does she stand when leveling the wild blues?

SPRING TIME CHANGE-OVER



Usually, you've been faithful to your Engineer equipment all winter long, but now's no time to take anything for granted. Be you didn't make a thing on the daily, weekly, monthly and bi-monthly checks... not on purpose anyway. Nobody would.

But you're now something did slip by overlooked, spring-time change-over's a good time to give your plant a thorough going over. Give it the works. This includes lubrication, lights, fuel, tires, hoses, cables, cable connections, nuts and bolts. Check and take care of everything you're responsible for and report other problems to the shop.



And it's not a bit too early to start getting the seasonal change-over chores written off the books, or reach for those TMs and M's.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER HOT
Check and oil all bearings.

TO KEEP 'ER COOL—Cleaning the cooling system is one of the biggest jobs, and it should be done now's all danger of freezing weather's past. Of course, the work does for taking out the old hoses usually comes as you break things up, so you won't make any changes by draining it on your own. But regardless of when you drain it, when the anti-freeze comes out, the entire cooling system is ready for a complete cleaning job. So, put your equipment on level ground and proceed like it's in your manual under "Cooling System."

NOW—THE LUBE. The lubeing change-over may be less involved, but it's by no means less important. So grab your equipment's LO and follow it to the letter. You may only have to drain, flush and refill with the same grade of oil—or you may have to drain, flush and go to heavier grade lube. The LO's guide you. Or consult an dealer lube point you stick with GAA all year long... if GAA's what you're using. If you're using CG, look to the LO for the change grade you're to put in. Then you clean the lube pan as usual and put in fresh GAA or CG.

CLEANING, CARE AND TIGHTENING

Take the hoses, a bucket of water and soap, solvent or steam, and clean your equipment inside and out like it says in the TM. You'll be equal with heavy operation this summer when hot weather sets in.

SEASONAL ATTACHMENTS

If you're got tractors or trawlers with snow-removal or road and choker spreading attachments, take off the seasonal equipment and be sure the mounting pins, bolts, brackets and push pins stay with the snow plow, blade or spreader they belong to.

All attachments have to get inspected, repaired, cleaned, painted and lubed before they're stored for the summer. Also, remember to tag each piece with its proper maintenance. Tell what before-storage maintenance you gave it and what type of vehicle the attachment's for.

SEASONAL EQUIPMENT

Seasonal equipment like the Battery Lite-Gas, T-112-600, 4x4 snow plow, or truck-

mounted road distributor gets a final mechanical inspection after the last job of the season. All needed repairs are taken care of, and the equipment gets cleaned, lubed and painted before it's ready for summer storage.



FINAL OIL CHANGES AND MAINTENANCE ARE NEARLY UPON YOU. (SEE PAGE 42.)



YOUR SEASONAL EQUIPMENT, WHEN IN STORAGE, SHOULD BE KEPT IN A DRY, WARM PLACE. (SEE PAGE 42.)

Once seasonal items are tagged for limited storage, they're inspected and maintained like it says in BR 710-004-20-128 Dtc 150 "Limited (Temporary) Storage of Corps of Engineer Materiel" and TM 1-8715 "Preparation of Engineer Equipment for Storage" is also handy to have around when you're getting your equipment ready for storage.

OPEN-AND-SHUT CASE



Man, does it sound boring until you see to cool the MVA van or AAA van can give you lots of wonder-ol you operate 'em right.

You can get into trouble right at the moment we mean when you start. You see, on the Ready-Power kind, you gotta open the condenser valve, then the liquid valve, before starting. If you don't, you're headed for a fit of temper and possible trouble. You have to open those valves to allow your liquid refrigerant to circulate in the cooling system.

The valves are located just above the liquid receiver (Fig. 1). To open 'em, you just turn 'em as far as they'll go in a counter-clockwise motion—just wew 'em out.

If those valves aren't open, the van won't run. When that liquid valve's closed, the pressure builds up inside and automatically runs off the engine. If you didn't know what's wrong you might keep pressing the master battery, trying to turn the engine over. First thing you

know, you've got a dead battery—all because the valves weren't open.

That's not all, either. There's always a chance that the safety switch won't turn the engine off when the valve is closed. As a result, the pressure'll continue to build up and eventually blow the seals on the refrigerant seal itself. Then you've got real trouble and a big repair job.

To make it an open-and-shut case, be sure you close the valves when you stop the van. But you close 'em in reverse order. First the liquid valve and then the condenser valve. Remember . . . be sure you close the valves *before* turning off the ignition.

If you've got a Boco model, you only have one valve to worry about. That's the liquid valve and it's located on the control panel.

And on the Typhoon model, you don't have to worry about either one of the valves. It's all automatic.



CONTRIBUTIONS

See Universal-Joint Oil-Seal Puller



AN EASY

Dear Editor:

We've had a line covering the universal-joint oil-seal kit, Cat Stock No. G743-750780 or new Cat Stock No. 1103-2000010 from the front-end assembly of our M54 and M55 trucks. The seal is behind a retainer and the universal-joint spacer. These three items are included in the housing or sub-assembly kit, Cat Stock No. G743-750780.

We now have a puller that takes the assembly out with ease and doesn't damage it.





OUT



TOP IMAGE SHOWS THE WORKING OF THE TOOL IN THE FIRST POSITION OF USE. NUMBER ONE SHOWS ANOTHER VIEW.



DRIVE THE TOOL AND THE HEAD INTO THE BRUSH AS SHOWN IN A SECOND POSITION BY THE WORKER.

NUMBER ONE
IS SHOWN IN
THE SECOND POSITION
TO DRIVE THE
PIN INTO



"We used the heavier hammer because the lighter hammer on the picture Card Stock No. 41-P-2017 wouldn't handle the assembly."

CNO R. E. Flayer

Albion Pressing Board, Maryland

Ed/Note—Good deal, but when putting that assembly back in, use a 2-lb ball-peen hammer and a brass slip. Drive the tool side end in first and tool is fully in the housing. If it isn't seated, it will rub against the side slip on the left-hand side of the universal joint and cause heat. This heat causes the side slip to rub dull which could cause tool or bearing failure.

GAS-PIPS DRAWING TOOL



Dear Fellow,

Though I'd read along the lines for a week I looked up to help along those tricky gas-cylinder lock screws with valve assemblies on the M.I. files. It's quick and easy to make and does a damn good job. It can even be made smaller than the one here but I took the easy way out—I found it's easier to bend a big piece of metal than a small one.



By turning the bits you can hold open the valve assembly for cleaning and inspection.

W.C. B. Albright

London, Mass., New Mexico



(Ed Note—Wow, now you're really making up with that gas pipe! That's the best tool yet for handling that valve assembly. Like you say, maybe it could be made smaller, if you had a machine shop handy.)



Connie Todd's BIRTHDAY

Dirty systems

A leaky hydraulic system on your M40 wrecker can be traced at times to dirty fluid or dirt in the oil. If things aren't working right better not wait for the seasonal oil change. Drain, flush and refill the hydraulic system and reassemble with Oil or Oil-8 as prescribed by the IO. It'll add life to the pump, valves and rams and give you a crane that's a top performer.

M41 tension rollers

Your late model M48 tank's tow cables roller wheels come as "non-removing rollers" on the M41 between the drive sprocket and rear road wheel. They're not yet covered by the IO, but you'll find a grease fitting on the hub, hub. Make sure you get the OAN to see at each "C" service.

Lubrication info

One of these days the M41 3P tank driver's vehicle may sport a red, 88 machine gun instead of the red, 36. But not because you can quit looking. Now Win Lubrication Order 90-9-7118 (30 March 24) was included to warn you do get that red, 88.

No pretest plating

If you get a new grade on your tank's F20 performance, forget about connecting it yourself. Turn your performance in for a new one. M40 Cmd F20-W18 gave the job also resulting in the depot people —no job matter—on it. In "less-matter".

Check your faye rollers

Ask your Ordnance support if M40 Cmd F20-W1 has been applied to your M12 and M20 faye rollers. If so—they're not to be used. M40 Cmd F20-W1 is being cancelled. It'll be superseded by M40 Cmd F20-W2. Your Ordnance going will let you know when they'll be you up with the new M40. Any rollers not modified by W1 can be used and won't need the "W2 modification.

Split gullet

Check your Jeep's filter neck where it's soldered to the fuel tank. The vehicle's vibrations sometimes crack the solder. With a split gullet your fuel system'll suck in air making your power-actuated system malfunction, and also leak gas into your Jeep's body, which is a fire hazard.



SOME OF THIS...



AND THE RIGHT AMOUNT
OF THAT...



IN THE RIGHT PLACES AND IN
ACCORDANCE WITH YOUR TM AND
LO WILL PREVENT THIS...

