

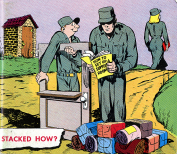
PS

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

**88-65 TANK FLATBUSH
Pages 2-22**

Issue 38

1955 Series



STACKED HOW?



FOR A SMOOTHER RIDE ON YOUR M48

M48 BELL SHOWN

Getter round, round, and let's look over some of the things that've been happening to the M48 machine track since the last began rolling off the assembly line.

Yours there's been a plastic roller bearing changes and a few bearing sizes for through riding and use in the field. So there's work of new supply and maintenance staff that you'll be interested in.

Why not just start at the bottom suspension system, say, and work our way up? OK?



Roller-wheel hubs have two different types of roller plugs. The earlier type plug has a 5/16-in. 4-flm screw, which will mount successfully you're carefully careful in removing it. If you get damaged, please order the later type plug, which has an internal hex head and uses a standard OVM roller wrench. It's Osh-Koht No. H200-0444019.

To help maintain bearings, see to remove the bearings plug and use this

roller hub for checking the oil level. Fill the hub then the side plug will roll over the roller hub. (Side roller hubs must be above the level hub).

The later model hub has a hole on each side. This is so that you'll always operate filling-area, hub!

Hub seals and O-rings should be replaced when you find excessive leakage around the hub. But remember there shouldn't be any leakage at all around



the hub, since the seal depends on slight overlap for correct sealing.

When installing the O-ring, always use a new seal—then lubricate the seal with liquid hand soap or similar soap and then roll the seal up the spindle and into the groove. Take it easy! Don't shift or pinch the O-ring—your's to remove it.

Hub nuts have a tendency to back off unless kept tight tight. Keep 'em tight as possible. When the manufacturer

is installed to the hub, the nut should be tightened—then re-tightened after the track runs three miles.

When replacing a cracked nut, check the lower quadrants well to the inside surface of the machine bar bearing-for signs of wear or dirt. If you find any, better replace the lower quadrant with a double lip seal. Osh-Koht No. 0114-0070001.

Keep in mind that the spring loaded lip must be lower belowward the bearing.

TRACE WEDGE BOLTS

As any good track jockey knows, track and suspension wedge bolts should be kept tight. But you must correctly fit.

Here's right to right—and here's right to use right! Good question.



USE THE WEDGE BOLTS TO TIGHTEN THE TRACK AND SUSPENSION WEDGE BOLTS TO MAKE IT THE WAY A TRACK SHOULD BE. USE THE WEDGE BOLTS TO TIGHTEN THE TRACK AND SUSPENSION WEDGE BOLTS TO MAKE IT THE WAY A TRACK SHOULD BE.



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Down in the '49's

LIFT-OUT

Lifting your M88 tank power-pack while the team sling means you have no disconnect the governor linkage in present loading in when you hook up to the necessary control linkage.

You can have fun of last trying to see what governor linkage when you replace the engine.

If you'll make your tank longer back, like shown below, one of 150- or 175-inch coil-wound and stack, you'll be able to hook it into the new tubes in the necessary rear lifting plate without removing the governor linkage, and can lift the engine without having anything.



WASHTIME FOR TANKS AND ALL

You've gotta give a tank extra attention when it's getting and moving linkage. If it's an early 48, the rear control shaft on both the steering and shifting linkage are equipped with a square drive that merely fits over a square shaft when they drive on the vehicle base.

But on the later 49's the linkage rods don't come apart at this point. Both shaft-connections at the bearing mounting brackets mounted high on the transmission. Overlook this and you'll rip something up.

Here's how to disconnect the linkage on the later jobs.



1.

REAR CONTROL SHAFT

REMOVE THE REAR CONTROL SHAFT FROM THE HOUSING.



2.

USE THIS METHOD TO REMOVE THE REAR CONTROL SHAFT FROM THE HOUSING.

The early models with the motor-drive setup come apart way enough. But getting 'em back together is something else again. You had it over to see lifting up the drive and working on the tank base grapping with a few lines of power plant.

To save time and temper, detach the linkage from the transmission and replace it after the power pack's installed.

engine room

You'll note that on this early-type bearing carrier to be removed as easy. In this take the mounting brackets off the transmission.



REMOVE THE REAR CONTROL SHAFT FROM THE HOUSING AND COVER FROM THE HOUSING.

USE THIS METHOD TO REMOVE THE REAR CONTROL SHAFT FROM THE HOUSING AND COVER FROM THE HOUSING.

TRANSMISSIBLE AND GEARBOX

In case you should ever have to make an emergency transmission replacement on the M88 for the T401-based tank.

Before buying another tank base tank, make sure it's got these holes in the end-drive supporting-rib mounting-flange. That's got to be in the factory set in certain the use on these two tanks. So whether it's a model CD-400-4, -4A or -4B, check for these holes in the flange. Or you may end up in the tank woods.

The emergency use of one of the earlier jobs (without the holes), your tank base support unit might make a last-minute on end-connection. They'll fit you up, one way or another. A Modification Work Center covering this subject is on the works.

The tank base with non-4-cylinder suspension is installed in all other tanks also using the CD-400 series-wide as models in all.



SKIRTING WOE WITH LITTLE JOE



Hydrostatic lock can come from a badly maintained or broken rear-end sweep just like cylinders. Or, less often getting in through the exhaust system. (Easy with that walk job.)

You flip the switch to START, and suddenly the piston slams up against a "block" of fluid that won't give. Not something like oil.

To avoid damage, shut the hydrostatic lock before you start your trouble if it has not been used for a few days. You do this by turning it over once with the manual starter (Fig. 11). If you're not. Can you don't have a hand

Continued, you'll meet a hydrostatic lock problem like those in Detroit. But if you gotta make emergency use of it? You first—reverse the lock by raising outside spark plug and hand-cranking 'em till the cylinder's clear of fluid.

Always "hot out" a brand new LTV Joe—or one that's been from storage before you start in. Chances are there'll be enough gas pressure all in the cylinder to start a lock. If so, heat it out the same way.

Piston seizure can happen if your hydrostatic displacement pump and too much gas into the cylinder to dilute the oil so much it won't lubricate the cylinder. Watch for these danger signs—oil level too high, bubbles in



starter, and 're over with a tank of three-four ounces—ON-OFF movement of the starter (generator) switch (Fig. 13). If she's locked, you'll find it



the signs of sealing gaps (Fig. 14). If they show up, let God—nature know about it.

Water may collect in your generator housing. If it's an early model with no drains provided. You can fix this up in about 15 minutes by drilling 1/8-inch hole in the bottom of the generator housing—in the lowest point, of course (Fig. 15).



Oil inside with handles can get jammed out of place enough so the oil can run out of the cylinder. You can get



the oil out (Fig. 16) back No. 1156. Actually that's about the best I could do. But unless you still you've got me, always make sure that handle's moved right to CLOSED.

Too oil inside may be from the drain-off valve and the drain hole can be another source of pain in your case. It either gets clogged with rust and hole or debris, or the opening on top fails to engage the quick-disconnect valve—drain valve. In either case the oil runs into the tank and you've got a hydrostatic lock in a half minute.

Best way to test this one is to have a man understand to see whether the drain or flow as much as you want the handle to DRAG. If not, make a wire up through the drain hole till it touches any sludge that's clogging the cap. Then try again.

Often, if the drain valve closes the opening in top of the cap, there's no much you can do but let it gather and then clean out the tank. (And make sure it gets vented the next time LTV Joe or the power pack is pulled.) Or if not, there's no way to get it this little the dirty when LTV Joe and the power pack are in place.

If and when the fuel gets used for a drain run, get rid of all the gunk by opening the fuel-line drain valve, removing the main engine filter and drain-line screen.

M48

SPECIAL TOOLS



Here's the latest word on special tools you'll need for regular and maintenance on the M48: Tool Set, Organizational Maintenance (Fuel Filter), Special, Set A, Basic, 41-T-5448-500; Tool Set, Organizational Maintenance (Fuel Filter), Special, Set B, Basic, 41-T-5448-502.

Part Name	Part No.	Price	Qty.	Notes
TOOL SET, ORGANIZATIONAL MAINTENANCE (FUEL FILTER), SPECIAL, SET A, BASIC, 41-T-5448-500	41-T-5448-500	100.00	1	
TOOL SET, ORGANIZATIONAL MAINTENANCE (FUEL FILTER), SPECIAL, SET B, BASIC, 41-T-5448-502	41-T-5448-502	100.00	1	
TOOL SET, ORGANIZATIONAL MAINTENANCE (FUEL FILTER), SPECIAL, SET A, BASIC, 41-T-5448-500	41-T-5448-500	100.00	1	
TOOL SET, ORGANIZATIONAL MAINTENANCE (FUEL FILTER), SPECIAL, SET B, BASIC, 41-T-5448-502	41-T-5448-502	100.00	1	
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Any changes required here will be made in the publications provided for each vehicle.

FIRE-CONTROL DOPE?



Even getting all the dope you've wanted since your M&E took a fire-control course? Here's a random sample of publications now available through regular channels.

ENR FIRE May 25, Tech, 10 pages, 70¢ (48¢)

ENR FIRE May 15, Features section, 80

ENR FIRE May 25, See other fire-fight entries
ENR BUILDING May 25, Features, 61, 62, 63, 64, 65, 66, 67, 68 and 69

ENR FIRE May 25, News section, 74-87

ENR FIRE May 25, News, page 74

ENR FIRE May 15, Features section, 61-67, 71

ENR FIRE (Special), Features, 60-69

ENR FIRE 2004 May 25, Tech, News, page 74

ENR FIRE 2004 May 25, Features section, 61

ENR FIRE 2004 May 25, Light, Instrument, Fall report
ENR FIRE 2004, Fall Special, Features, 61-6, 67-69, 71-4, 75-67 and 67

ENR FIRE 2004 May 25, News, Features, 60-69
ENR FIRE 2004, Fall 14 May 25, Features, 6-16 and 17-21

ENR FIRE 2004, Fall 17 May 25, Features, 60

ENR FIRE 2004 May 25, News, News, 67

ENR FIRE 2004 May 25, Features section, 60-70

ENR FIRE 2004 May 25, News, page 74

ENR FIRE 2004 May 25, News, page 74-87

ENR FIRE 2004 May 25, Tech, 10 pages, 70

ENR FIRE 2004 May 25, Features section, 61

ENR FIRE 2004 May 25, Light, Instrument, Fall report

ENR FIRE 2004, Fall 14 May 25, Features, 61-6, 67-69, 71-4, 75-67 and 67

ENR FIRE 2004, Fall 14 May 25, Features, 60-69
ENR FIRE 2004, Fall 14 May 25, Features, 70-4 and 70-67

ENR FIRE 2004, Fall 17 May 25, Features, 60

ENR FIRE 2004, Fall 14 May 25, News, 67-74

ENR FIRE 2004 May 25, Features section, 61-67, 71

ENR FIRE 2004 May 25, News, page 74

ENR FIRE 2004 May 25, News, page 74-87

ENR FIRE 2004 May 25, Tech, 10 pages, 70

ENR FIRE 2004 May 25, Tech, 10 pages, 70

HERE ARE SOME TO WATCH FOR:

ENR FIRE (Special), Features, 61, 62, 63, 64, 65, 66, 67, 68, 69 and 70

ENR FIRE (Special), page 74

ENR FIRE, Features, 70-4

ENR FIRE, News, Features, 61-67, 71, 72, 73 and 74

ENR FIRE, Tech, News, page 74

ENR FIRE 2004, Fall 1, News, page 74-87

ENR FIRE 2004, Fall 1, News, section, 74-87

ENR FIRE 2004, News, Features, 70-4

ENR FIRE 2004, News, page 74-87

ENR FIRE 2004, Fall 1, News, page 74-87

ENR FIRE 2004, News, Features, 70-4

that all the changes at—

TANK ENGINE HYDROSTATIC LOCK

Hydrostatic lock can be a pain in the crampigan for certain vintage street-raced engine tanks.



Here's what's happening to AR-1700 and 400-000 power plants: A vehicle's left standing with a full fuel tank. Rising temperatures cause the gasoline to expand. Then, when the pressure on the fuel-tank filler cap reaches 0.5 PSI, or more, it'll force the cap to open and let the excess fuel drain out. But sometimes the cap fails to open—because of a faulty rubber gasket seal leaking in the cap seating, for example.



IF GASOLINE FUEL EXPANDS IN A TIGHT SPACE, PRESSURE MUST HAVE SOMEWHERE TO GO, AND THE FILLER ASSEMBLY

NEEDS TO ALLOW FUEL AND AIRWAYS THROUGH. ONE OPTION WOULD BE TO GET A REMEDIATED GASKET

THE BEST WAY FOR YOU TO STAY IS WITHOUT THE ONE FOR REMEDIATED GASKET

STAY
SAFE IN THE
COMBINATION
CHAMBER

A POWERFUL ENGINE
WILL BE IN THE FUTURE
IN THE COMBINATION
CHAMBER. IT WILL
BE IN THE FUTURE
CHAMBER.



RECOMMENDED FUEL

Questions in how to keep this from happening to you. There's no sure way—and you'll need to bring a specialist on the subject. Just to name that the

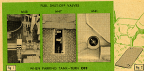
Fuel shut-off valves are closed when you're not operating the vehicle (Fig. 1). And before starting "fuel test" your engine for hydraulic leaks.

Keep in mind—we're talking about the shut-off valves—not the fuel shut-off switch or dagger on your instrument panel.

Most TM's call for closing the valves when the tank's to be left unattended for any extended period of time. That includes such to your overnight stops. A

few more minutes maybe—but a small price to pay for making your night's assembly. Right?

On the M-7 you'll want to take special care with handling of the fuel shut-off valves—especially on the fuel head (Fig. 2). Be sure it fastens tight and snug about each time you get in the valve handles. Otherwise, you'll get exhaust leaks from the pressure leakers in the lower compartments—and you'll get to sleep without benefit of "Taps."



LIGHT TAKE EDITION

Your youth fan will get copies of that special issue of PS Magazine which tells all about the M-7 racing truck. All you need do is drop a card to PS Magazine at Adventure Parking Ground, Maryland, and tell how many copies of the special light take issue you need. They'll be straight to you.

You can get copies of other hard covers of PS the same way. Of course, you get distribution of new issues through your regular subscription shipment.

SAVE A CABLE

EVER WANT TO HAVE A CABLE TO USE THAT WON'T BREAK WITH BENT AND WHIPPED ENDS? HERE'S HOW TO GET IT: DON'T TAKE THE BENT ENDS OFF THE CABLE. INSTEAD, THE CABLE SHOULD BE CUT AT THE POINT WHERE BENT ENDS MEET. OTHERWISE, THE ENDS OF THE CABLE WILL BREAK UP.

IN THIS SECTION, WE'VE A COLLECTED THE MOST FREQUENTLY ASKED QUESTIONS FROM YOU. DON'T WORRY IF YOU DON'T KNOW THE ANSWERS. THESE QUESTIONS FROM OUR READERS, INCLUDING A FEW ANSWERS, ARE INCLUDED TO HELP YOU WITH YOUR OWN QUESTIONS.

Q: HOW TO CUT



THINK YOUR CABLE IS TOO THIN FOR CUTTING WITH SIDE CUTTERS? DON'T WORRY. YOU CAN USE SIDE CUTTERS TO CUT THE CABLE AT THE POINT WHERE THE BENT ENDS MEET.

ALL OF THE INFORMATION WE'VE GIVEN YOU IS BASED ON THE ASSUMPTION THAT THE CABLES MADE BY US ARE MADE OF STEEL.



WHY DOES MY CABLE GET SO HARD IN THE MIDDLE OF THE CABLE? THE ANSWER IS: IT'S NOT THE CABLE. IT'S THE WIRE. THE WIRE IS MADE OF STEEL AND IT'S HARDER THAN THE CABLE.



A CABLE MADE OF STEEL IS MADE OF WIRE. THE WIRE IS MADE OF STEEL AND IT'S HARDER THAN THE CABLE. THE WIRE IS MADE OF STEEL AND IT'S HARDER THAN THE CABLE.

1. LOOK UP THE



IF YOU WANT TO HAVE A CABLE TO USE THAT WON'T BREAK WITH BENT AND WHIPPED ENDS? HERE'S HOW TO GET IT: DON'T TAKE THE BENT ENDS OFF THE CABLE. INSTEAD, THE CABLE SHOULD BE CUT AT THE POINT WHERE BENT ENDS MEET.

2. LOOK UP THE

WHY DOES MY CABLE GET SO HARD IN THE MIDDLE OF THE CABLE? THE ANSWER IS: IT'S NOT THE CABLE. IT'S THE WIRE. THE WIRE IS MADE OF STEEL AND IT'S HARDER THAN THE CABLE.



THOSE OTHER WHIPPED ENDS SHOULD BE KEPT UP BY THE NEXT PERSON USING.

Connie Roda's "SHORT 'N' SWEET TIPS"



Don't oil out

Your crank engine'll really 'belch out' with its crankcase ventilating system all heated up. Which can be one of the reasons engines go on the block early.

TR God 470 says to clean this system, the ventilating valve and all the connecting lines once every six months. But nothing says you can't do it more often, particularly on older engines. And be sure the hose connection to crankcase blow-back on the Jeep is correctly aligned and not kinked or squashed shut.

Hydraulic fluid's up oil

Oil may be OK in most hydraulic machines, but when it comes to the hydraulic brake system of your truck — no stop.

The truth is that hydraulic oil is a mineral oil, the kind that comes out of the ground. And mineral oil is bad on rubber — makes it swell. If you put it in your brake system, it'll swell the cups in the master cylinder to hell, you'll lose brake mechanism as all.

That's why you're always warned to keep your greasy hands off those caps. Even a greasy fingerprint can wreck

your braking system, or at least make it tougher to work.

When it comes to your vehicle's braking system, stick to Fluid, hydraulic brake, Del Stock No. 71-F-308715. Unlike oil, this is a mixture of organic stuff like alcohol, glycol and some oil. Which doesn't affect rubber.

To make sure the next guy doesn't haul the works, write this in big letters on every can of hydraulic oil:

DO NOT USE
IN HYDRAULIC BRAKE
SYSTEMS

And to drive the next home, hang up this sign in your shop:

Do Not Use Oil Hydraulic Oil in
Hydraulic Brake Systems & Lines

You'll save yourself a lot of work, Uncle Sam a lot of money and give yourself or your buddy a brake. And that's an oil.

Battery short?

Is that battery on your M17 coming up short? If so, chances are the left battery-to-main-power-line fuse cable insulation is being cut by the sharp edge of the fuel tank. The same problem popped up on the M41's and M44A1's, but MTR's Del 1-244-7911 found that



in a hurry, it stopped the trouble by removing the cable. Why not do the same thing for your M17.

Tight nuts

Like so many other nuts on the local, heavy-hold-downs would/they put with lock washers. And with batteries bouncing around, you'll probably find yourself with broken connecting cables.

Make sure your UH-60's track's hold-down wing-nut have washers, and if they haven't—put 'em there. And be sure those wing-nuts are on tight. Otherwise they'll fly away.



And while you're at it, check the jumper cable between the batteries on day tanks from tanks, engines and fuel installations can be the beginning of an end. Tighten yours up and you'll fly right. There's a TB on the way about this.

Trailer hinges

Take care of those storage-bin hinges on your UH-60's trailers, because after that bin is gone you won't get another. TB 1-871A-1 says it's to be removed and wrapped after it's served its time—and no replacements are being provided.



Take the hinges on every C service (1000 miles) jump you're making. Instead by change the hinges out of ready stock, try welding on a set of attached hardware hinges. That'll give the old bin a new lease on life.

Blow-hard

The hot blast from the exhaust of an M10 sweeper can burn the paint off your equipment. And if it gets in the cab, it can make you feel like James cooking a steaks.

But add the right extension on its pipe and it'll blow right, sure as shootin'. Fumes that could wear and bludge

the point on nearby parts or don't block them the cab must hole away.

The M3's swing extension is a 1/2-in pipe, 12 inches long. Curve it so that it faces downward (Fig. 1). And at the



back end weld a flange with bolts/bushes that match those in the rail pipe's flange. Then bolt the flanges together.

The removable flange makes it easy to take off the extension, so you can use your feeding equipment—should you want to get welding.

Use this equipment for M3's extension point by taking her:

- | | |
|--------------------------|-----------------------------|
| 1 in. pipe/flange | for the bottom flange |
| 1 in. pipe/flange | for the lower flange flange |
| 1 in. nut and the washer | for a 1/2 in. nut and the |
| 1 in. nut and the washer | for the extension for |

But make sure you don't throw a curve at your drive shaft that extension or the wheel will strike out. The best one-day and crack the rubber and make



them as bolts in that work's dough-ness. Be keep it pointed away from the rubber always.

Lube-coat against rust

Relaxing too long can make you rusty.

That's what happens to the 1-1/2-in M3's roller's hand-brake cable and its housing, if it's not used for a long time. When you start out again, the rust makes the cable stick where it enters the housing—won't let the brake release. Uh-huh, you do something quick, you'll hear the brake linkage.



By simply lubing the cable when you park the trailer, you'll change its future. Not only will it help the cable, but the lube'll spread into the housing and help there, too. Should the housing rust too much, it's time for a change.

With lube on the cable, you won't be draggin' your wagon. It'll roll nicely along. But you gotta be careful not to over-lube. Too much oil might get on your tires. And that's not good, either.

Do your action better?

Seems like the colder the weather, the more chances there is that you'll freeze up the engine in your Chevy (4MT) amphibious cargo carrier. And it's likely to be your own fault.



WASH THE CARBURETOR AND CHOCKS AS YOU GO.

It works like this:

WHEN IT'S COLD, FROSTBUILT UP ON THE CARBURETOR AND CHOCKS, AND THE FUEL SYSTEM THE CARBURETOR CHOCKS AND CHOKES IN THE FUEL SYSTEM STOPPING IT'S SUPPLY OF FUEL AND THE FUEL SYSTEM WILL STOPWORKING. CARBURETOR CHOCKS SHOULD BE WASHED WITH A WASHING LIQUID EVERY 10-15 MINUTES.



WASH THE FUEL FILTER AND FUEL SYSTEM AS YOU GO.

WASH THE CARBURETOR AND CHOCKS WITH A WASHING LIQUID EVERY 10-15 MINUTES. IT WON'T LAST IF IT'S WASHED IN THE WASHING LIQUID EVERY 10-15 MINUTES. THAT'S WHY YOU SHOULD WASH THE CARBURETOR AND CHOCKS WITH A WASHING LIQUID.

When it comes to maintenance...

That's too much, not too little.



For the results you want, you give like with just the right amount—and you'll feel that in your life also.

Washing out your equipment to fill or over-charge is making you, but like when you don't like enough.

You make all in a machine makes the place of air that's needed for ventilation. And it'll give you a good job to look in the engine's fuel.

Washing out your tank to fill out, and the like'll come over your tank, start filling and less.

Let it be your daily things and you're willing to make it one more the whole to get things done.

If you like when there's not your two more grams to use in a filling, then you can't do it to use from the part being taken. That's why all the total part in it won't collect around the filling.

There's one more danger in washing that washing. If the engine of your job too low, there's not enough air to clean and cool the engine like it should.

If there's not enough like between a filling and period you'll get the machine to be, and not the right like level in all your hours and minutes.

So then, there's one more thing to do to make, 'cause you're get your like when and your 'll be told you.



BELT THEM AROUND

Check your car belt's condition. With its belly whirling from pulley to pulley, it gets lots of wear. The best way to test them this year is to tighten it like your TBI says. But wait a tick. So keep your eye on it, and what you see there signpost's time for a change. If your vehicle's got double belts, change 'em both at the same time.

TRACKED BELT

DRIVE LIKE THIS FOR "WALK" TURNS, it can wear hard without any warning.



DRIVE BELT AND TIGHTEN

WALK ... it may look a little weird, but you'll learn after the car has a hard time on the highway's stiff ride. A belt can't take the pulley whirling away in this way, too.



WALKING ... CHECK THE BELT'S TIGHTNESS BY PRESSING THE BELT FINGER, INDEX, MIDDLE AND RING TO THE PULLEY AND UP.



WALKING BELT ... THE EDGE OF THE BELT'S FINGERING BEARS TO THE AIR BEARING ON THE CARB FOR A BENCH-TUNGING BELT. USE IT TO PULL, AND COMPLETE BELT.



WALKING BELT ... THE THE THE THE, AND, WALKING BELT'S BELT BEARING BEARING THE BELTING AND PULLEY BELTING BEARING UP WITH A LOW BELTING, THE'S BELTING THE BELT ... BELTING BELT BELT THE BELT BELT IN THE BELT BELTING BELT BELT THE BELT BELTING THE BELTING OF THE BELTING THE BELT BELTING.

JOE DOPE

HEADSPACE

on the modified
.50-cal Browning
M2 machine gun



WHEN IT'S FORCED IN ALL THE WAY, THE BARREL KICKS OUTTA THE BARREL EXTENSION & BY!



1 UNLOAD THE BARREL. YIPPO! (YIPPO!) & RELEASE THE RETRACTOR HANDLE SO THE BARREL GOES INTO BATTERY...



IF THE GUN ACE SMOOSHES THE LEO BACK IN ITS HOLE AND UNLOCKS THE BARREL, ONE MORE CLICK. THE SHOCK IS ENOUGH APPROXIMATE FOR A GUN THAT'S IN GOOD ORDER.

CLICK



...IT DEARRIES... WHEN YOU FINISH TAPPING BACK- OFF CLICKS, THE BARREL OF THE BARREL SHOULD EXTEND THROUGH THE BARREL EXTENSION!



IN SPILL MESSAGES, CASES ABOUT THE CLASH- LIVES, LIVES- LIVES, LIVES- LIVES, OR OTHER ACQUAINTANCE.



YOU PELLAS SHOULD PUT UP A FINGER ABOUT IT, HOTTAY! WHO'S A GUNNER? (YIPPO- YIPPO?)

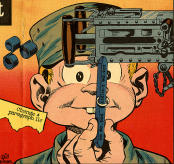
WE'LL ALWAYS HAVE...



JOE'S

Dope Sheet

Setting headspace by ear is old hat
Or by pre-cutting marks, this or that
Modern headspace adjusting
Will keep you from busting!
A weapon that'll go right to bat.



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



THE END OF THE LINE







SAFETY ON GUN ... YOU CAN RELY ON THE GAGE—WHY THE FO-CROCK WAGER!

A DICAL LABEL BELONGS ON THE RECEIVER FORWARD OF YOUR GUN ... BE BOUND BY STRANGERS ABOUT THIS NEW METHOD OF WEAPON ADJUSTMENT.

- 1 A COAT OF CLEAR LACQUER TO HELP THE DICAL STICK ... LET IT DRY.
- 2 THEN APPLY DICAL.
- 3 ANOTHER COAT OF LACQUER ON TOP



GET HALF-WAST MEANINGS

1997

277



MY HYDRAULIC OIL OUI

Dear Half-Wast,

You said in PE 10, that if we couldn't get Spec 2-THE hydraulic oil for our RT-4 Backhoe Loader JG's, we can OE 18 in temperatures down to -30° F. Trouble is that you didn't say whether the two oils would mix.

The RT-4 hydraulic oil tank holds about 80 gallons of oil. When we get the vehicle, they had the Spec 2-THE oil in the hydraulic system. When the oil level went down, they ran, and we tried to get the 2-THE—we did. We don't want to drain all of that oil and put 80 gallons of OE 18 in (we've got 3 rolls, tho.) if we can go ahead and add OE 18. What's the answer?

Sgt S. R. P.

Dear Sgt S. R. P.,

One thing is certain—you don't mix OE 18 and the 2-THE.

Here's how to solve your problem: Completely drain the 2-THE from one of your machines. Careful, tho'—when you drain it, use a "cone" you'll use this oil for the other four vehicles.

Make sure you don't get dirt in the oil when you're draining it. Put it in clean, tight containers for storage. Take

the vehicle you drained and fill it with OE 18.

When you use up all the stored 2-THE, drain another one and fill 'er with OE 18. Go right down the line like this until all the 2-THE's used. You've got it made. It's a good idea to mark which vehicle has which in it.



CROSS YOUR BRIDGE

Dear Half-Wast,

The bridge markings on my M101 marker say "16". Shouldn't it read "14(2)?"

Sgt W. E. McM.

Dear Sgt W. E. McM.,

The reason you see only a "16" on your M101 is that fully equipped, it should be able to cross a bridge that can hold 16 tons. The "14(2)" would mean it's a vehicle that weighs 14 tons and, plus its payload of 2 tons, OE for a bridge that can take 16 tons.

But neither a war or other marker, the marker doesn't carry—in some, tho, the only measurement you need is the "16", then you add the total weight of its

bricks, and even your bridges (that can take it) when you come to them.

Half-Hearted

IN THE GROOVE

Dear Flat-Mat,

Now that the cable is kept from coming out from between the sheaves on the DPF crawler's rear-wheel section, we'd simply have to do a dummy job we have that as an added benefit.

Cpl D. D. B.

Dear Cpl D. D. B.,

To keep your cable between the sheaves on the rear-wheel section, and not slipping-hopping about, you've got to get the sheaves adjusted right. And to do that, first lay a 1/8-in diameter rod between the sheaves (Fig. 1).



Then adjust the sheave rod and so the six-cylinder attachment to the bumper rocket-rod, so that when you put the rear-wheel section into its ON position, you'll just close the sheaves on the rod (Fig. 2). That way, there'll be no less than 1/8-in space between the two sheaves in the engaged or SQUEEZE position. Which allows no more than 1/8-in play on the 1/8-in cable.



Now shift the rear-wheel section into the OFF position (Fig. 3) and measure the gap between the sheaves. That should be between 3/16-in and 1/8-in (Fig. 4). The cable will then slide freely between the sheaves when you put it out.



And always leave the rear-wheel section disengaged when putting in cable and OFF when getting it out.

Sometimes the sheaves can get a little too close or run far from the roller (Fig. 5). This could get enough side-play in the rope to pull it from the sheaves. To fix this, simply move the sheave unit in the holding brackets, and give the rope the vertical pull it needs (Fig. 6). If you can't move them enough, you'll have to make the bracket's holes longer. A round file is all you need for that job.



After you've done all that, you shouldn't have any trouble. For more tips see **TM 9-8009 (Rev. 1-61)**.

Half-Mast

OIL COLOR

Dear *Half-Mast*,

Can you tell whether the oil in your crankcase needs a change by checking the color of it on the dipstick? Some say you can. Some say you can't. How about it?

FWC D. J. R.

Dear **FWC D. J. R.**,

Nope. You can't go by looks. Only way you can tell when to change engine oil is by watching the vehicle mileage and oil lubrication chart for your particular vehicle. Of course, you're got different types of operation that will help determine oil change, too.

The oil you're using is a detergent type which does a washing job inside the engine. Before you know it, new and clean oil will look black.

When oil turns dark it's doing a good job of picking up and carrying dirt, carbon or wear products.

On the other hand, if the oil stays light in color or clear you can make a bet—that it's leaving the dirt or carbon on the inside of the engine instead of picking it up and carrying it to the crankcase.

Nope. You can't depend on your looks. Think in the morning, take coffee and driving conditions for the when to change oil.

Half-Mast

RUSSY BRASS-CYLINDERS

Dear *Half-Mast*,

Here in Puerto Rico we have found a lot of rusted crank shafts, and almost all are caused by rusty brake-cylinders. In all our mechanical inspections we find them rusted on both sides by rust.

Can you tell me what causes this?

Cpt J. M.

Dear **Cpt J. M.**,

Your trouble seems to be caused by salt air and dampness, and you're plenty of luck in your locality.

Your best bet would be to get Del-maco to inspect your cylinders more often than six months. Have them thoroughly cleaned (your master cylinder, too), and any rust removed by polishing with crocus cloth.

You can look for cracked or wet cylinder bores, and if you find any you'll better get them replaced. Also have the brake shoes checked to make sure they don't have delaminated parts, trim those sharp edges and rusty wheel-brands. Smooth off the sharp edges with a file.

Washing your vehicle by driving it into a shallow stream is a sure way of taking the rust. You'd get rust in those brake cylinders for sure.

Half-Mast

ARMAMENT



ARMED AND DANGEROUS

Walls, cars and more non-regimentated metal kind, wing nuts, and people (do note that here the wing nuts on their dining chairs's M1 wing legs indicate what they claim their).

Before we'll be out, remember that wing nuts have to be in the form of you want to keep down out of the center national pass M1 winged that's used with your M1 dining table.

And you'll not have to tie a string around your finger to remember if you do this.



Use the wing nut to secure the receiver to the rifle. Do not use the wing nut to secure the receiver to the rifle. Do not use the wing nut to secure the receiver to the rifle.

Now get out your white paper and pencil and draw the three dead centers of clamp and hinge (Fig. 1).



These little white nuts will tell you to line up those nuts before the legs are pushed together.

4.1 (5) THE M16'S MOUNT

You can't be too careful with this plastic-looking clamp screw (Fig. 2).



When disassembling the M16 machine-gun mount, if you screw the handle out

on the left-looking block (Fig. 3) will slip off inside the receiver socket.



Remember to hold some of the handle on enough so to you remove the plastic from the receiver socket without breaking the hole (do not break the handle).

HOW TO USE

When the same operating mode M16 rifle receiver is being used in and combined situation when there's still plenty of clip left in the old piece.

After without the new rifle out in the real assembly use will prove to need until they're rejected for wear on the points of other cases—see before they're rejected a rifle out. Hang on as long as it's chosen to do the job.

THE GOOD

OK, in your the oldest quarter looks in the most's camp. Smooth, fast, accurate delivery. Wants is that. You may be too good. That accurate machine can help you some trouble if you don't have your mind on your business.



You have to make sure this round comes out before you feed in the next one. You don't in the tube can be as dangerous as you seem up your sleeve and a hole in your skin. That's just one with it, man.

Just one of the... ..

THE BAD

There's no one asking for the M16's changing from M16, but look No. 1000 71 10000, 'cause you can't get it. This is the main line, but the eye looks don't need for during your photo.

This first number's being deleted from supply. Now's the time to make a second one as you'll not make something you can't get.





YOUR STRETCHER MUST BE BUILT STURDY ENOUGH TO HOLD AN INJURED SOLDIER. THE BEST WAY TO MAKE IT IS TO USE THE LIFTING RINGS AT EACH END WITH THE STRAPS ATTACHED AND THE HOLES IN THE END-CAPS AND THE HOOKS AT THE OTHER ENDS. IF YOU HAVE A WAY TO MAKE THE STRAPS AND HOLES EASIER TO USE, YOU SHOULD TRY TO DO SO.

3 REPLACE THE STRAP AND BOLTS.



WHEN REPLACING BOLTS FOR STRENGTH OR FOR USE BY SLIDING IT DOWN THE STRAP.

6

ONE OF THE MOST IMPORTANT PARTS OF YOUR SET IS MADE WITH THE MOST STURDY MATERIAL OF ALL THE MATERIALS USED IN THE MAKE-UP OF THE STRETCHER. IT'S THE STRAP THAT HOLDS THE INJURED SOLDIER AND THAT CAN BE USED TO HOLD THE END OF THE STRETCHER WHEN IT IS BEING CARRIED BY THE PORTER. CHECK THE STRAP FOR WEAR AND TEAR.

1 PLACE THE END BOLTS OVER A STRAPPING STRAP AND MAKE SURE IT IS TIGHTENED. START BY TIGHTENING WITH A SCREWDRIVER.



USE SCREWDRIVER
NUMBER 7

4 THE BOLTER HEAD SHOULD STICK OUT FROM THE END-CAP.



7

ONE OF THE MOST IMPORTANT PARTS... IS MADE WITH THE MOST STURDY MATERIAL.



2 PLACE THE BOLTS IN THE END-CAP END OF THE STRETCHER-HEADS.



5 MAKE SURE BOLTS ARE IN PLACE AND STRAPS ARE TIGHT. IF STRAPS ARE LOOSE, AND BOLT IS TIGHTENED TO MAKE STRAP FIT.



8 CHECK TIGHTENED STRAP. STRAP SHOULD BE TIGHT. THE STRAP SHOULD BE TIGHT IN ORDER TO HOLD THE INJURED SOLDIER IN PLACE BY THE STRAP.



9 THE HANDLE AND SPRING COILS SHOULD BE THE SAME LENGTH AS THE SPRING COILS. HOLD IN THE BACK END OF THE HANDLE, THE LEFT END OF THE SPRING COILS OR THE COILS IN THE SLOT IN THE HANDLE. MAKE THE SPRING COILS EXACTLY THE SAME LENGTH AS THE HANDLE BY CUTTING THE SPRING COILS APPROPRIATELY AND BY SPRING COILS IN PLACE BY THE TIME YOUR SPRING COILS ARE COMPLETE TO MATCH WITH THE HANDLE OF THE HANDLE.



10 ATTACHED HANDLE AND SPRING AND COILS SHOULD BE PLACED IN THE HANDLE.



11 THE HANDLE SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.



12 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.



13 THE HANDLE COILS AND SPRING COILS SHOULD BE PLACED IN THE HANDLE.



14 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE OF THE HANDLE.



15 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE.



16 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.



17 THE HANDLE COILS AND SPRING COILS SHOULD BE PLACED IN THE HANDLE.



18 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.



19 THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.



THE HANDLE COILS SHOULD BE PLACED IN THE HANDLE WITH THE HANDLE COILS AND THE SPRING COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE. MAKE THE HANDLE COILS IN PLACE.

YOU DON'T HAVE TO BE A SECOND GUESSER



When spring has sprung, correct identification by number is the chain. And the masses and grams of guys trying to keep their identification straight are about as loud as the chains for chains that follow the first person down.

Usually at least one good identifying clue, the size size, has been stamped on the inside link of the chain. But this gets scratched, torn, worn, rusty and otherwise hard to make out. Identifying chains can become largely a matter of second-guessing.

Here's a chain that can be a little help in deciding just which of which. When identification's lost, just make some quick measurements of the length of the cross-chain (Fig. 1), cross-helical, also the number of cross-chains—then check the chart for the corresponding size size and/or stock number.

In most cases, just this cross-chain data will identify the item for you. However, now and then you may have to check the side chain dimensions too.

Of course, the measurements won't be made on used chains because of stretching and breaking. But they'll be close enough to leave you guessing by a long shot.



Std. Prod. No.	Evo. No.	SIDE CHAINS		CROSS CHAINS		
		Length in./mm	No. of links	No. per 10 yds	Link length	No. of links
TYPE 15 TRUCK, SINGLE						
801-100001	10001	46.7"	18	4	11.67"	8
801-100004	10004	70.4"	28	11	11.67"	8
801-100005	10005	86.7"	34	11	11.67"	10
801-100006	10006	76.2"	30	11	11.67"	10
801-100007	10007	46.7"	18	11	11.67"	10
801-100008	10008	86.7"	34	11	11.67"	11
801-100009	10009	46.7"	18	11	11.67"	11
801-100010	10010	76.2"	30	11	11.67"	11
801-100011	10011	76.2"	30	11	11.67"	11

		SIDE CHAIRS		CROSS CHAIRS		
Mod.	Trade No.	Height Ht. 19 in.	No. of Seats	No. per Type	Width Length	No. of Seats
MS-4-01-0000	4.00x16	11.0"	21	1	11.0"	13
MS-4-01-0001	7.00x19	11.0"	24	12	11.0"	13
MS-4-01-0002	10.00x22	10.0"	28	14	11.0"	13
MS-4-01-0003	10.00x27	10.0"	37	19	11.0"	13
MS-4-01-0004	10.00x29	11.0"	41	21	11.0"	13
MS-4-01-0005	11.00x29	11.0"	47	24	11.0"	14
MS-4-01-0006	12.00x29	10.0"	52	26	11.0"	14
MS-4-01-0007	12.00x34	11.0"	47	24	11.0"	15
MS-4-01-0008	14.00x34	11.0"	57	29	11.0"	17
MS-4-01-0009	14.00x39	11.0"	62	31	11.0"	17
TYPE F (SPRINGER CAR)						
MS-4-01-0010	4.00x16	11.0"	21	1	11.0"	13
MS-4-01-0011	4.00x19	11.0"	24	12	11.0"	13
MS-4-01-0012	4.00x22	11.0"	28	14	11.0"	13
MS-4-01-0013	4.00x27	11.0"	37	19	11.0"	13
MS-4-01-0014	4.00x29	11.0"	41	21	11.0"	13
MS-4-01-0015	7.00x19	11.0"	24	12	11.0"	13
MS-4-01-0016	7.00x22	11.0"	28	14	11.0"	13
MS-4-01-0017	7.00x27	11.0"	37	19	11.0"	13
MS-4-01-0018	7.00x29	11.0"	41	21	11.0"	13
MS-4-01-0019	7.00x34	11.0"	47	24	11.0"	14
MS-4-01-0020	7.00x39	11.0"	52	26	11.0"	14
TYPE AC (ASSEMBLER)						
MS-4-01-0021	4.00x16	11.0"	21	11	11.0"	13
MS-4-01-0022	4.00x19	11.0"	24	12	11.0"	13
MS-4-01-0023	4.00x22	11.0"	28	14	11.0"	13
MS-4-01-0024	4.00x27	11.0"	37	19	11.0"	13
TYPE B3 (TRUCK, BENCH)						
MS-4-01-0025	4.00x22	11.0"	33	16	11.0"	14
MS-4-01-0026	7.00x29	11.0"	48	24	11.0"	16
MS-4-01-0027	7.00x34	11.0"	53	26	11.0"	16
MS-4-01-0028	7.00x39	11.0"	58	29	11.0"	16
MS-4-01-0029	10.00x29	11.0"	53	26	11.0"	17
MS-4-01-0030	10.00x34	11.0"	58	29	11.0"	17
MS-4-01-0031	10.00x39	11.0"	63	31	11.0"	17
MS-4-01-0032	10.00x44	11.0"	68	34	11.0"	17
MS-4-01-0033	10.00x49	11.0"	73	37	11.0"	17
MS-4-01-0034	14.00x34	11.0"	73	37	11.0"	17
MS-4-01-0035	14.00x39	11.0"	78	39	11.0"	17
MS-4-01-0036	14.00x44	11.0"	83	41	11.0"	17
MS-4-01-0037	14.00x49	11.0"	88	44	11.0"	17
MS-4-01-0038	14.00x54	11.0"	93	47	11.0"	17

IT'S IN THE NUMBERS



There'll be no more hassles' around looking for numbers of automotive (G-Group) technical manuals if you grab a pencil and jot them down. With these exceptions which give us of titles: TM 9-7000-110-000-000-000 (How 844); TM 9-7001-110-000-000-000 (How 844); TM 9-7417-1-10-000-000 (How 844); TM 9-7417-1-10-000-000 (How 844).

TM #	Title	TM #	Title
9-7000-110-000-000-000	How 844	9-7001-110-000-000-000	How 844
9-7001-110-000-000-000	How 844	9-7417-1-10-000-000-000	How 844
9-7417-1-10-000-000-000	How 844		
9-7000-110-000-000-000	How 844		
9-7001-110-000-000-000	How 844		
9-7417-1-10-000-000-000	How 844		

As other numbers are assigned, they'll be listed in PS Magazine.

Just to keep the record straight, operator's manuals (1st and 2nd editions) have even numbers and maintenance manuals (higher editions) have odd numbers.

The new numbers will progressively take over all new manuals and revisions of old manuals will pick up the new numbers when published.

WAAAA, OOOO NUMBER!!

The listings in PS starting with issue No. 21 and 22 215-20-20 (see 24), with its Change 2 (14 Sept 64) will keep you packed tight up to the minute on your SHS listings. To stay there, every month add to your list from "The Scoop" section of PS.



ENGINEERS



DEPT. STEEL CLINIC



DEPT. CONDUITS

Dear Sgt. Dwyer:

I've been looking for some authority that'll allow me to steal the cost on the price of heavy Engineer equipment used in use. Our outfit is extremely needed and I think it would help if the men were aware of the cost of the items, about or even they operate. If it's OK to put the price on the equipment, please tell me what I can use for authority and where I can find the price of the various pieces of Engineer equipment.

W. C.

Dear W. C.,

Your unit's outfit's doing us right good if you want steal the cost on your

equipment. There's nothing that keeps you from doing just that—providing, of course, your unit commander approves. It falls right in line with the Army's Cost Commitment Program.

And for those prices on Engineer equipment, you find 'em in *Equipment of the Army Supply Manual*, Eng 5-1.

Sgt. Dwyer

DEPT. TROUSE

Dear Sgt. Dwyer,

What's the deal on CG 1-1448 covering the 2 1/2-ton pack-type trailer that transports a triangulation system? I've seen two identical copies of the CG, one dated 4 September 1951 and another dated 25 November 1951. They look exactly the same. What's the story?

Cpl J. W.

Dear Cpl J. W.,

You're really a sharpie to catch that one. I've seen 'em both too. There's nothing on the one dated 25 November to indicate that it supersedes or replaces the one dated 4 September, but since it's



the beam, that's the one to use. You can regulate use of the beam area and bring yourself right up to date.

Sgt. Oyster

BOOKS TO READ

Dear Sgt. Oyster,

Recently had an inspector lower the beam on my "beam not painted over driver" beam-type yellow.



As far as we're concerned this idea is a proven safety feature, especially when working near power lines. He says it's unworkable pointing.

The yellow area extends only five feet down from the driver. It helps some operators judge distance a lot better since the yellow light doesn't cut sharp and clear when the beam's aimed to line with trees, buildings or wires. An OGD-painted beam at these naturally blind's still dark objects which can result in dangerous confusion when judging distances around the beam.

It's not that a regulation that says we can't carry out this sort of safety device. Can you point us anything that'll cover us?

Sgt. W. R. C.

Dear Sgt. W. R. C.,

Your OGD and your good safety ideas can get together on your suggestion and have it standardized into a good safety reg-

ulation. And then, when the inspector complains, tell him we use AEC 881-18 (Mar 53), para 3.

Sgt. Oyster

to Preventive Maintenance ...

Keep Your's Clean ...

Is Every One's Clean ...

Keep maintenance good, like a good hunting job, never gets out-dated.

Knowledgeable ideas that are widely "old stuff" to you, might land a head in your team-mates handling Engine's equipment up north of the bookshelves in other Troop camps.

How's about checking that stuff here and sending it to Sgt. Oyster to be our part of doing.

Write it To:

SGT. OYSTER

c/o P. O. MAGAZINE,

AMERICAN PROGRESS GROUND, A2.

MORE WATER

You can increase the amount of water you've stored if you're using a 34-F300 German Buggy pump. You see, this pump is a three-jet submersed not 2-inch.

Just get a larger suction hose—anything between 2 and 4 inches—and a discharge hose to match. Then change the pipe volume on the pump to match the hose you're getting use. Hook 'em up and you're ready to roll.

And you don't hafta worry about the hoses in the engine. They can handle the increase—up to 4 inches.



2010, the average homebuyer spent 10 percent more on their home than in 2009. The average home price in 2010 was \$208,000, up from \$190,000 in 2009.

Home prices are expected to continue to rise in 2011, with the average home price reaching \$215,000. This is due to a combination of factors, including a strong economy, low interest rates, and a growing housing market.

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It's a wise operator who regularly checks the heater tubes and manifold connections on his diesel engine for leaks. It's easy to find an air leak there. And if it's repaired right away, the engine'll get many hours of added life.

Exhaust gases from the gasoline, kerosene or diesel engine run through a thin tube inside the diesel engine tube manifold and give off heat. This lowers the air temperature around and makes starting easier and easier. But this action of the exhaust has to be completely shut off from the diesel engine tube air, because any small leak or crack in the manifold connections could let through unfiltered air and cause wear to the cylinder liners, pistons or rings.

A gasket can't be used at both ends of the heater tube because of the expansion and contraction from the temperature changes. A bellows (Fig. 1) is used for expansion in some engines,

while other heater tubes have sleeve-type packings (Fig. 2) at one end. Either one provides a good seal.



Here's how you check the heater manifold for leaks:

Use the first pump or blower with both the exhaust valve closed and cold a leak will be found just the same when it is running warm.



If the exhaust valve closes the paper in, or blows it out, that's the sign of a leak in either the heater tube or seal. The direction depends on whether the diesel engine has a blower. Since a blower puts air in the manifold under pressure, the paper would be forced from the exhaust stack in case of a leak.

You ought to check this often. Takes just a minute. Once you find a leak, have it fixed quick. You'll be helping your diesel grow to a ripe old age.



CONTRIBUTIONS



BOOK MARKS

Dear Editor,

No need for guessing here for our 1942 week's book is excellent. Just turn right and cover down.

We raised the beam all the way and paint a vertical line on it where it meets the shipper's beam. From that line,

we mark off every foot of the beam with parallel white lines. And at each foot we paint the weight that can be lifted with each wheelbarrow as stated on the operator's Safe-Load Chart.

Alfred W. T. Williams
 Aberdeen Proving Ground, Maryland



GASOLINE CHECK-UP

Dear Editor,

We've got a string of M121 and M21, 2-1/2-ton trucks around here. It took two men a helluva long time to change their Hydra-Matic transmissions on winter or summer weight oil—until we started using our time-saving gas-olizer elsewhere.

To make it, we get a barrel of about 2-gal capacity and took a filter cap from a salvage transmission. Then we cut-

ted a 1/4-in. copper tubing down against the barrel's inside on dist. 2 (check each end of bar before use) and the



cap. After that, we drilled a hole in the cap big enough to hold the spout snugly, and soldered them together. That was it.

With the rig secured onto the transmission filter tube, the tube goes down smooth, with the displaced air going up the tube. And nobody has to hold the funnel while you pour.

Walter Paul L. Carlyle
Blissard National Guard

(Ed Note: Sounds good. If you're/are always down the spout when it goes into the cap, you substitute for the tap—if you've got.)

ORDER OUT-OF-ORDER

Dear Editor,

We've found that the photo of the M304's ignition and ignition cables, Fig. 77, page 153, in TM 5-8844 doesn't agree with the firing diagram on page 152 of the same TM.



The guy who put the labels on your "clipped" cap. Instead show the No. 1 cylinder cable going into the distributor and a second (the primary lead)



connecting. Connect both to the ignition for the truck, and the correct the cable connection 1-5-4-2 around counter-clockwise.

PFC Edward Petrus
APO 99, San Francisco

STATIC GROUND-SPRING

Dear Editor,

Here's a simple fix for weak ground spring trouble in the light tank family (such as M40, M42, M501, etc.) tank-topper roller.

As is, when you assemble the cap and spring to the roller, the spring has to be placed on the end of the spindle with the loop on the large end of the spring striking in one of the slots in the bearing adjusting nut.

At least, hold the case the spring won't hang straight in, when the cap's put on,

the pig-tail on the spring won't slide in the center of the radial portion of the cap like intended. This causes the spring to bind or break—until it can get wedged in the housing, with calamitous results.

For a particularly fool-proof method of getting the spring in the right place, take a No. 31 drill and pass both 1/16-in. deep in the center of the cap. The pig-tail on the spring can then be inserted



in the hole line and the loop guided into a slot on the adjoining case as the cap's put in place.

You've got to be careful! Don't drill the hole too deep and risk a hub-cap.

Robert C. Mills

W. Lewis, Washington

(Ed Note—If a bush is too small—couldn't leave enough clearance in the cap. Make it 1/32 inch, and you're OK. Four things are completely fool-proof: Don't use fit—and a hole can't—should deep these springs going in the right place.)

IT'S A BUMP

Dear Eds,

Those window regulator handles on the MG's (and others) may snap off now and then. When we can't get a quick replacement we do this:



But you get your glass on the move.

Pat Donald Finley

APG 261, San Francisco

Ed Note—This may be OK, if you're really daring for a window handle, but does your car in a LUR in the City of Deafness?



Conrad Roth's BRIEFS

Conversion (24" E-2) and brake kits

If you've been looking for those 24-inch conversion kits and electric brake-control kits for transport vehicles, just take a gander at IM 9-115. It gives the specs you need.

Wander last longer

It's easier towing if you use OE 18 tires to power Star truck's steering gear's hydraulic servos. Watch for the following specs in LD 9-8033—above +12" F, OE 18, -44" F to -18" E, OE 18, 0" to -50" E, OE5.

They gotta be right

If the words from your 105-mm handset aren't falling where you're calling, could be the synchronization are causing ya' up. They have to be just so—no before ya' can make with the target. TM's 9-2214 and 2119 tell ya' how to keep 'em going right.

Mail it—direct

Remember that you fill out your Unnecessary Equipment Report (UEE) Form 288, and mail it direct to Chief of Defense, ATTN: CDDA, Washington 25, D. C.—just like it says in IM 700-43-5.

It's been updated

When you adjust the clearance of the lock in the M52 air-declutching linkage, make it 1/4 inch. A little more never hurts. The clearance was set forth as 1/8 inch in IM 20 but should be changed to read "1/4 inch." This change will appear in the next revision of the change to IM 9-607.

Gotta soft grip?

If the plastic grip on your M11 keypost gets soft in the sunlight, better buy it in far another type handle. Some plastic grips are inflammable and don't hold up under heat. And remember, as keypost handles go, the vapor depressors.



HOW ADJUSTED ARE YOU?

THE RIGHT ADJUSTMENTS ON
YOUR EQUIPMENT WILL HELP
TO KEEP IT (AND YOU) GOING
THRU THICK AND THIN . . .



ADJUSTMENT IS A CINCH . . .

AND YOU DON'T NEED A HEAD DOCTOR

Just Think Through Your Equipment's Technical Manual
It's All There—Turns, Clicks, Matches, Inches.

SEE YOUR **TM** TODAY AND GET ADJUSTED

